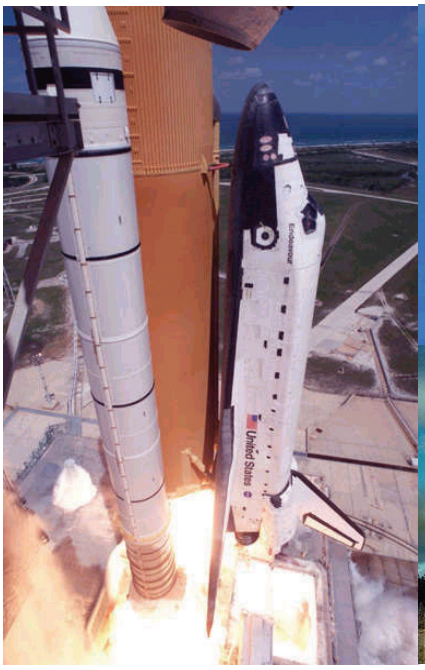
Nexyn Corporation

Product Catalog 2006

A world leading supplier of frequency sources.



Visit our website at: **www.nexyn.com**

Nexyn Corporation

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Tel: **(408) 982-9339** Fax: **(408) 982-9275**
e-mail: **sales@nexyn.com**

Last updated: 06/01/2006

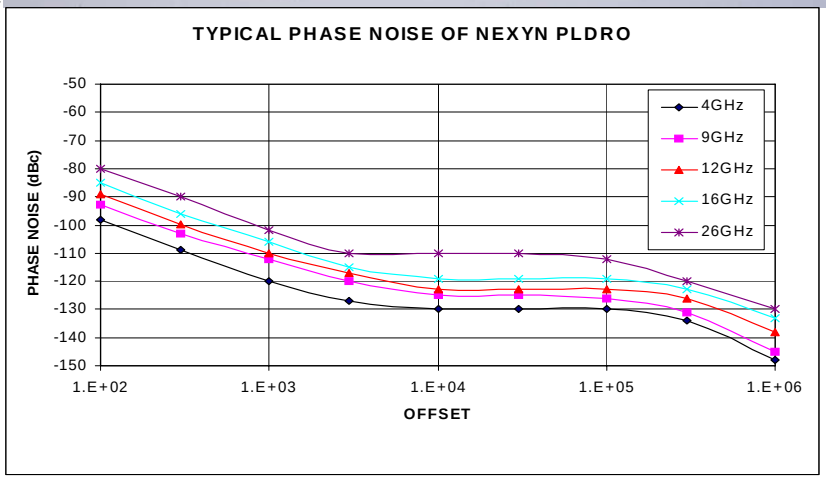
Experience the Nexyn Innovation

Since its founding in 1998, Nexyn Corporation has become a world leading supplier of frequency sources to the space, military, and commercial microwave community. We have earned a reputation for providing technically superior products at competitive prices with the highest regard to customer service and quality.

We offer in low-cost and high performance commercial and military signal sources for digital radios, fiber optics, test equipment and any other application where low phase noise and high stability is critical . Our oscillator product line which ranges from 50 MHz to 30 GHz have the lowest phase noise available. We offer operating temperature ranges as wide as -60deg C to +105 deg C with an output power up to +25 dBm. Our products are designed to withstand harsh environmental conditions such as wide temperature ranges and intense shock and vibration. We have proven ourselves dependable on countless space, military, and commercial projects. Guaranteed performance and on-time delivery make Nexyn's Phase Locked DRO's the smart choice.

Nexyn Corporation welcomes any custom design requests and can provide the necessary expertise, experience, and fast turnaround to meet your special requirements.

Free Running and Phase Locked Signal Sources



Quiet and precise!

- **Reliable and Rugged Design**
- **Extremely Low Microphonics**
- **Ultra Low Phase Noise**
- **5-500 MHz External Reference**
- **Frequency: 300 MHz to 23 GHz**
- **Power output: +15dBm**
- **Spurious: < -80 dBc**
- **0 to +60 C typical**
- **Int Ref Freq Stability as low as +/- 0.05 ppm**
- **Low Noise crystal reference**
- **Dual Loop Output Frequency to nearest KHz w/ Ext. 10 MHz Ref**

Phase Noise at 14 GHz (Typical)

100 Hz	**- 88 dBc/Hz**
1 KHz	**-109 dBc/Hz**
10 KHz	**-119 dBc/Hz**
100 KHz	**-120 dBc/Hz**
1 MHz	**-135 dBc/Hz**

Excellent Technical Support. Guaranteed Performance and Competitive Pricing. Consult Factory for Other Frequencies and Options.

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Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA
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Nexyn Corporation Product Guide

NXPLOS	Phase locked Oscillator
P	Performance Based (Only Associated with Low Frequency units.)
C	Cost Based (Only Associated with Low Frequency units.)
I	Internal Reference
DL	Dual Loop
NXOS	Free Running DRO
NXOS-CR	Low Frequency Free Running CRO (Only Associated with Low Frequency units.)
NXOS-XO	Crystal Oscillator
NXOS-PLXO	Phase Locked Crystal Oscillator
AT	AT Cut Crystal used. (All Crystal used will be SC cut unless otherwise specified.)
MXO	Multiplied Crystal Oscillator
NXS	Synthesizer

Nexyn model: **NXPLOS-P** (Performance Emphasis) or **NXPLOS-C** (Cost emphasis) spec sheet

Low Frequency - Phase Locked *Coaxial* Resonator Oscillator

Applications: PLCROs have the best combination of ultra low phase noise and excellent frequency accuracy when phase locked to a clean stable external crystal reference. High Performance units are available use a harmonic sampler for very low phase noise while lower cost units with moderate phase noise use a PLL IC to lock to the external reference.

Nexyn model: **NXPLOS** spec sheet

Phase Locked *Dielectric* Resonator Oscillator

Applications: PLDROs have the best combination of ultra low phase noise and excellent frequency accuracy when phase locked to a clean stable external crystal reference. PLDROs are ideal choice for commercial and military communication and radar applications, and where low cost, excellent phase noise is essential for system performance requirements. Nexyn PLDROs are available with a harmonic sampler based approach for the ultimate in performance. For cases where the system is cost sensitive and a crystal reference >10MHz is unavailable, Nexyn offers PLDROs capable of locking directly to the system 5 or 10MHz reference For either type of PLDRO, the phase noise insside the loop bandwidth varies roughly as 20*LOG(N) +3dB.

Nexyn model: **NXPLOS-I** spec sheet. **(NXPLOS-P-I** Perfomance based model also available**)**

Internal Reference Phase Locked *Coaxial* Resonator Oscillator

Applications: IR-PLCROs have the best combination of ultra low phase noise and excellent frequency accuracy and stability. Nexyn offers stability of <+/-5ppm standard, with as low as +/-1ppm over military temperature range available. A variety of housing sizes are available besides our standard.

Internal Reference Phase Locked *Dielectric* Resonator Oscillator

Applications: IR-PLDROs have the best combination of ultra low phase noise and excellent frequency accuracy and stability in a stand-alone unit. Nexyn offers stability of <+/-5ppm standard, with as low as +/-1ppm over military temperature range available. A variety of housing sizes are available besides our standard.

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Nexyn model: **NXPLOS-DL** spec sheet

Phase Locked *Coaxial* Resonator Oscillator w/ Dual Loop (A combination of PLCRO and PLXO)

Applications: DL-PLCROs offer ultra low phase noise capability while having ability to lock to an external precision low frequency reference. Units are available which convert to IR-PLCRO when external reference not present

Phase Locked *Dielectric* Resonator Oscillator w/ Dual Loop (A combination of PLDRO and PLXO)

Applications: Dual Loop PLDROs offer ultra low phase noise capability while having ability to lock to an external precision low frequency reference. Dual Loop PLDROs are the ideal choice for high data rate digital communication systems and miltary and commercial radars. Nexyn units exhibit extremely low microphonics and ultra low phase hits. Very low phase jitter is observed in fiber optic applications with Nexyn DLPLDROs.

Nexyn model: **NXOS** spec sheet

Free Running *Coaxial* Resonator Oscillator

Series CRO coaxial resonator oscillators are free running units available from 500 MHz to 3 GHz. Designed for use in both digital and analog equipment, CROs find application in commercial systems requiring high stability and low phase-noise in a small package. All models incorporate low phase-noise transistors and metalized high Q coaxial resonators. In addition, units can be protected from variations and transients in the DC power supply by a voltage regulator.

Free Running *Dielectric* Resonator Oscillator

Applications: Small size and cost effective, temperature stable with excellent phase noise commercial and low microphonics. Frequency is field adjustable mechanically. These units are ideal for and military communication and radar applications, and where low cost, excellent phase noise and moderate frequency stability are acceptable for system performance requirements.

Nexyn model: **NXOS-XO** spec sheet

Free Running Crystal Oscillator (with SC cut crystal unless otherwise specified)

Applications: High stability, very low phase noise crystal reference source. To be used as "Add On Reference Module" to all phase locked sources requiring an external reference. Mounting hole patterns are compatible with industry standard PLDRO footprint.

Nexyn model: **NXOS-XOAT** spec sheet

Free Running Crystal Oscillator with AT cut crystal.

Nexyn model: **NXOS-MXOS** spec sheet

Free Running Multiplied Crystal Oscillator

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Nexyn model: **NXOS-PLXO** spec sheet

Phase Locked Crystal Oscillator

Applications: High stability, very low phase noise, phase locked crystal reference source. External Reference Frequency can be anywhere from 0.1 MHz to 100 MHz. To be used as "Add On Reference Module" to all phase locked sources requiring an external reference as an intermediate reference source phase locked to a lower frequency standards having high stability. Mounting hole patterns are compatible with industry standard PLDRO footprint.

Nexyn model: **NXOS-PLXOAT** spec sheet

Phase Locked Crystal Oscillator with AT cut crystal.

Nexyn model: **NXOS-PLMXOS** spec sheet

Phase Locked Multiplied Crystal Oscillator

Nexyn model: **NXS** spec sheet

Synthesizer

Nexyn offers custom designed microwave synthesizers. Current designs have a tuning bandwidths as large as 15% in a frequency range from 2 to 14 GHz. Our synthesizers offer switching speeds as low as 100 microseconds with step sizes as small as 100KHz. Nexyn units are in use in both shipboard and airborne applications, as well as some commercial applications. Please contact factory with specific requirements.

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Specifications

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Typical Specifications for PLCRO in 0.5 to 3.2 GHz range				
Available Models	**NXPLOS-P**	**NXPLOS-C**	**NXPLOS-P-I**	**NXPLOS-P-DL**
Any fixed frequency (GHz) in the range of	0.5 to 3			
Frequency Stability (ppm, over temp)	N/A (1)	N/A (1)	+/- 5 std,0.1 option (4)	N/A (1)
Frequency Accuracy (ppm)	0	0.1 (3)	0.1	0.1 (3)
Output Power in dBm (over temp)	> +13 standard, up to +23 dBm avail			
Power variation in dB (over temp)	< 2.0			
Pulling (1.5:1 VSWR)	Will not break lock			
Harmonics in dBc (typ)	< - 20 standard, -40 option			
Discrete Spurious in dBc	< - 80, levels to -100 dBc option			
External Reference Frequency (standard)	50,100 MHz	5,10 MHz	N/A	5,10 MHz
External Reference Input Power (2)	0+/- 3 dBm	10+/- 3 dBm	N/A	0+/- 3 dBm
Phase Lock Alarm (also TTL, CMOS levels)	Open Collector (locked=open, unlocked=ground)-			
Operating Temperature ranges	0 to 60^{o}C, -20 to 70^{o}C, -40 to 85^{o}C, -55 to 85^{o}C			
Power Supply (Vdc, +8V, 15V, 24V option)	+12			
DC Current Draw	250	80	400 (6)	400 (6)
RF Connector (2 places)	SMA Female (Field replaceable option available)			
DC Connectors	Solder pin			
Size: Length X Width Height (inches)	2.25 X 2.25X0.63	2.25 X 2.25X0.63	2.25 X 2.25X1.48	2.25 X 2.25X1.48
Outline (5)	DC200102 Rev 4C	DC200102 Rev 4C	DC200106 Rev 2I	DC200106 Rev 2H
Weight (in ounces):	4.5	4.5	8.0	8.0

(1) coherent to external reference
(2) Input power levels from -20 to +10 dBm +/- 3 dBm option
(3) Output frequency may be specified to nearest 100 Hz regardless of ext ref freq.
(4) as low as +/-0.05ppm stability over -40 to +85C available
(5) outline drawing quoted may vary depending on specs and price considerations
(6) Surge current to be 750 mA

NXPLOS-P = High Performance Single Loop PLCRO, ext ref ~ 100 MHz				
Phase Noise in dBc/Hz vs offset vs output freq	800 MHz	1200 MHz	2000 MHz	2800 MHz
100 Hz	-105	-100	-98	-96
1 KHz	-120	-117	-115	-115
10 KHz	-132	-130	-129	-125
100 KHz	-138	-135	-135	-132
1 MHz	-150	-150	-150	-150
Note: Guaranteed phase noise specs will be 5 dB worse than typical				
End User Phase Noise dependent on external reference phase noise for F offset < 100 kHz				

NXPLOS-C = Low Cost Single Loop PLCRO, 5 or 10 MHz external reference				
Phase Noise in dBc/Hz vs offset vs output freq	800 MHz	1200 MHz	2000 MHz	2800 MHz
10 KHz	-120	-115	-113	-108
100 KHz	-135	-135	-133	-128
1 MHz	-150	-150	-150	-150
Note: Guaranteed phase noise specs will be 5 dB worse than typical				
End User Phase Noise dependent on external reference phase noise for F offset < 2 kHz				

NXPLOS-P-I = High Performance Single Loop PLCRO with internal OCXO reference				
Phase Noise vs offset vs output freq (dBc/Hz)	800 MHz	1200 MHz	2000 MHz	2800 MHz
100 Hz	-103	-98	-95	-94
1 KHz	-120	-117	-116	-115
10 KHz	-132	-130	-129	-127
100 KHz	-138	-135	-135	-132
1 MHz	-150	-150	-150	-150
Note: Guaranteed phase noise specs will be 5 dB worse than typical				
Guaranteed Phase Noise @ 100, 1kHz may be worse by 10 dB unless user specifies ULN option				

NXPLOS-P-DL = High Performance Dual Loop -consists of PLCRO driven by PLXO w 5 to 10 MHz external reference				
Phase Noise in dBc/Hz vs offset vs output freq	800 MHz	1200 MHz	2000 MHz	2800 MHz
100 Hz	-103	-98	-95	-94
1 KHz	-120	-117	-116	-115
10 KHz	-132	-130	-129	-127
100 KHz	-138	-135	-135	-132
1 MHz	-150	-150	-150	-150
Note: Guaranteed phase noise specs will be 5 dB worse than typical				
Guaranteed Phase Noise @ 100, 1kHz may be worse by 10 dB unless user specifies ULN option				

Typical Specifications for PLDRO in 3 to 16.5 GHz range			
Available Models	**NXPLOS**	**NXPLOS-I**	**NXPLOS-DL**
Any fixed frequency (GHz) in the range of	3 to 16.5 GHz		
Frequency Stability (+/- ppm, over temp)	N/A (1)	5 std, 0.5, 0.1 (4)	N/A (1)
Frequency Accuracy (+/- ppm @ 25C)	0	0.1	0 std, 0.1 (3)
Output Power in dBm (over temp)	> +15 standard, up to +20 dBm avail		
Power variation in dB (over temp)	< 3		
Pulling (1.5:1 VSWR)	Will not break lock		
Harmonics in dBc (typ)	< - 20		
Discrete Spurious in dBc	< - 80, levels to -100 dBc avail.		
External Reference Frequency (standard)	50,100 MHz	N/A	5,10 MHz
External Reference Input Power (2)	0+/- 3 dBm	N/A	0+/- 3 dBm
Phase Lock Alarm (also TTL, CMOS levels)	Open Collector (locked=open, unlocked=ground)-		
Operating Temperature ranges	0 to 60^{o}C, -20 to 70^{o}C, -40 to 85^{o}C, -55 to 85^{o}C		
Power Supply (Vdc, +8V, 15V, 24V option)	+12		
DC Current Draw	270	400 (6)	400 (6)
RF Connector (2 places)	SMA Female (Field replaceable option available)		
DC Connectors	Solder pin		
Size: Length X Width Height (inches)	2.25 X 2.25X0.63	2.25 X 2.25X1.48	2.25 X 2.25X1.48
Outline Fout> 6 GHz (5)	DC200102 Rev 15	DC200106 Rev 2B	DC200106 Rev 2C
Outline Fout< 6 GHz (5)	DC200102 Rev 8	DC200106 Rev 2F	DC200106 Rev 2E
Weight (in ounces):	4.5	8.0	8.0

(1) coherent to external reference
(2) Input power levels from -20 to +10 dBm +/- 3 dBm option
(3) Output frequency may be specified to nearest 1000 Hz regardless of external reference frequency
(4) standard is +/-5 ppm, as low as +/-0.05 ppm stability over -40 to +85C available
(5) Standard outline is thicker by 0.125" below 6 GHz
(6) Surge current to be 750 mA

NXPLOS = Single Loop PLDRO, ext ref ~ 100 MHz								
Phase Noise in dBc/Hz vs offset vs output freq in GHz	3.90	5.20	6.80	9.20	10.50	12.00	14.00	16.00
100 Hz	-97	-96	-93	-91	-90	-88	-87	-86
1 KHz	-120	-119	-116	-114	-113	-111	-110	-109
10 KHz	-128	-125	-124	-121	-120	-117	-114	-113
100 KHz	-131	-128	-127	-125	-123	-122	-119	-117
1 MHz	-148	-147	-146	-144	-142	-138	-136	-135
Note: Guaranteed phase noise specs will be 5 dB worse than typical.								
End User Phase Noise dependent on external reference phase noise for F offset < 100 kHz								

NXPLOS-I = Single Loop PLDRO with internal OCXO w LN option								
Phase Noise in dBc/Hz vs offset vs output freq in GHz	3.90	5.20	6.80	9.20	10.50	12.00	14.00	16.00
100 Hz	-95	-93	-90	-88	-87	-85	-84	-83
1 KHz	-119	-116	-113	-111	-110	-108	-107	-106
10 KHz	-128	-125	-124	-121	-120	-117	-114	-112
100 KHz	-131	-128	-127	-125	-123	-122	-119	-116
1 MHz	-148	-147	-146	-144	-142	-138	-136	-135
Note: Guaranteed phase noise specs will be 5 dB worse than typical								
Guaranteed Phase Noise @ 100, 1kHz may be worse by 10 dB unless user specifies LN option								

NXPLOS-DL = Dual Loop consisting of PLDRO driven by PLXO with 10 MHz external reference w LN option								
Phase Noise in dBc/Hz vs offset vs output freq in GHz	3.90	5.20	6.80	9.20	10.50	12.00	14.00	16.00
100 Hz	-95	-93	-90	-88	-87	-85	-84	-83
1 KHz	-119	-116	-113	-111	-110	-108	-107	-106
10 KHz	-128	-125	-124	-121	-120	-117	-114	-112
100 KHz	-131	-128	-127	-125	-123	-122	-119	-116
1 MHz	-148	-147	-146	-144	-142	-138	-136	-135
Note: Guaranteed phase noise specs will be 5 dB worse than typical								
Guaranteed Phase Noise @ 100, 1kHz may be worse by 10 dB unless user specifies LN option								

Phase Noise specs for I and DL models assume use of 100 MHz crystal oscillator with phase of	
100 Hz	< - 127
1 KHz	< - 150
10 KHz	< - 165
100 KHz	< - 165

Typical Specifications for PLDRO in 16.5 to 30 GHz range			
Available Models	**NXPLOS**	**NXPLOS-I**	**NXPLOS-DL**
Any fixed frequency (GHz) in the range of	16.5 to 30 GHz		
Frequency Stability (+/- ppm, over temp)	N/A (1)	5 std, 0.5, 0.1 (4)	N/A (1)
Frequency Accuracy (+/- ppm)	0	0.1	0 std, 0.1 (3)
Output Power (dBm, over temp)	> +13 standard, up to +20 dBm option		
Power variation (dBm, over temp)	< 3		
Pulling (1.5:1 VSWR)	Will not break lock		
Harmonics (dBc)	< - 20		
Subharmonics dBc (N*Fout/2, N odd)	< - 20 standard, - 45 option		
Discrete Spurious in dBc	< - 70 standard, - 85 option		
External Reference Frequency (standard)	50,100 MHz (5)	N/A	5,10 MHz
External Reference Input Power (2)	0+/- 3 dBm	N/A	0+/- 3 dBm
Phase Lock Alarm (also TTL, CMOS levels)	Open Collector (locked=open, unlocked=ground)-		
Operating Temperature ranges	0 to 60^{o}C, -20 to 70^{o}C, -40 to 85^{o}C, -55 to 85^{o}C		
Power Supply (Vdc, +8V, 15V, 24V option)	+12		
DC Current Draw	350	550	550
RF Connector (2 places)	SMA Female (Field replaceable option available)		
DC Connectors	Solder pin		
Size: Length X Width Height (inches)	2.25" X 2.25" X 0.63"	2.25" X 2.25" X 1.48"	2.25" X 2.25" X 1.48"
Outline Drawing	DC200102 Rev 15	DC200106 Rev 2B	DC200106 Rev 2C
Weight (in ounces):	4.5	8.0	8.0

(1) coherent to external reference
(2) Input power levels from -20 to +10 dBm +/- 3 dBm option
(3) Output frequency may be specified to nearest 1000 Hz regardless of external reference frequency
(4) standard is +/-5 ppm, as low as +/-0.05 ppm stability over -40 to +85C available
(5) RF Output Frequency MUST be a multiple of twice the reference frequency

NXPLOS = Single Loop PLDRO, ext ref ~ 100 MHz					
Phase Noise in dBc/Hz vs offset vs output freq in GHz	18.00	20.00	22.00	24.00	26.00
100 Hz	-85	-84	-83	-82	-82
1 KHz	-107	-106	-105	-104	-104
10 KHz	-113	-113	-112	-110	-107
100 KHz	-115	-115	-114	-112	-110
1 MHz	-130	-130	-128	-127	-125
Note: Guaranteed phase noise specs will be 5 dB worse than typical					
End User Phase Noise dependent on external reference phase noise for F offset < 100 kHz					

NXPLOS-I = Single Loop PLDRO with internal OCXO					
Phase Noise in dBc/Hz vs offset vs output freq in GHz	18.00	20.00	22.00	24.00	26.00
100 Hz	-82	-81	-80	-79	-79
1 KHz	-104	-103	-102	-101	-101
10 KHz	-113	-113	-112	-110	-107
100 KHz	-115	-115	-114	-112	-110
1 MHz	-130	-130	-128	-127	-125
Note: Guaranteed phase noise specs will be 5 dB worse than typical					
Guaranteed Phase Noise @ 100, 1kHz may be worse by 10 dB unless user specifies LN option					

NXPLOS-DL = Dual Loop consisting of PLDRO driven by PLXO with 5 or 10 MHz external reference					
Phase Noise in dBc/Hz vs offset vs output freq in GHz	18.00	20.00	22.00	24.00	26.00
100 Hz	-82	-81	-80	-79	-79
1 KHz	-104	-103	-102	-101	-101
10 KHz	-113	-113	-112	-110	-107
100 KHz	-115	-115	-114	-112	-110
1 MHz	-130	-130	-128	-127	-125
Note: Guaranteed phase noise specs will be 5 dB worse than typical					
Guaranteed Phase Noise @ 100, 1kHz may be worse by 10 dB unless user specifies LN option					

Phase Noise specs for I and DL models assume use of 100 MHz crystal oscillator with phase of	
100 Hz	< - 127
1 KHz	< - 149
10 KHz	< - 165
100 KHz	< - 165

Typical Specifications for FRDRO in 0.5 to 30 GHz range				
Available Models	**NXOSCR**	**NXOS**		
Any fixed frequency (GHz) in the range of	500 to 3200 MHz	3 to 6.5 GHz	6 to 18 GHz	17 to 30 GHz
Mechanical Tuning BW (+/- XX)	N/A	10 std, 0.75% option	25 std, 1% option	25 std, 1% option
Frequency Stability (+/- ppm/C)	25	5 standard down to 1 option		
Frequency Accuracy (+/- MHz, 25C)	0.3	0.3	0.5	1.0
Output Power in dBm (over temp)	> +11 standard, up to +20 dBm option			
Power variation in dB (over temp)	< 2			
Power variation in dB (over tuning range)	N/A	< +/- 0.5		
Pushing (+/- kHz/V)	20			
Pulling (1.5:1 VSWR), +/- MHz	0.5	0.5	1.0	0.5
Harmonics in dBc	< - 20			
Subharmonics in dBc	N/A	N/A	N/A	-20 std, -45 option
Discrete Spurious in dBc	< - 80			
Phase Noise	See Tables			
Operating Temperature ranges	0 to 60^{o}C, -20 to 70^{o}C, -40 to 85^{o}C, -55 to 85^{o}C			
Power Supply (Vdc, +8V, 15V, 24V option)	+12			
DC Current Draw	70	60	60	200
RF Connector	SMA Female (Field replaceable option available)			SMA or K
DC Connector	Solder pin			
Size: Length X Width Height (inches)	1.00" x1.75" x 0.63"	1.00" x1.75" x 0.75"	1.00" x1.75" x 0.63"	2.25" X 2.25" X 0.63"
Outline drawing	DC200104 Rev 7	DC200104 Rev 7	DC200104 Rev 7	DC200102 Rev 15
Weight (in ounces):	2.0	2.0	2.0	4.5

(1) coherent to external reference
(2) Input power levels from -20 to +10 dBm possible
(3) Output frequency may be specified to nearest 1000 Hz regardless of ref freq
(4) standard is +/-5 ppm, as low as +/-0.05 ppm stability over -40 to +85C available
(5) Standard outline is thicker by 0.125" below 6 GHz

Free Running DRO (P/N **NXOSCR, NXOS**) Typical Phase Noise Data vs Frequency											
Phase Noise in dBc/Hz vs offset vs output freq in GHz	1	2	4	6.5	9	12	14	16	18	22	26
10 KHz	-128	-118	-107	-104	-102	-99	-97	-94	-90	-86	-84
100 KHz	-145	-135	-132	-130	-130	-124	-122	-119	-117	-115	-112
1 MHz	-160	-155	-155	-155	-153	-149	-149	-144	-138	-134	-130
Note: Guaranteed phase noise specs will be 5 dB worse than typical											

Typical Specifications for PLXO in 40 to 400 MHz range				
Available Models	**NXOS-PLXO-50.000**	**NXOS-PLXO-100.000**	**NXOS-PLXOAT**	**NXOS-PLMXO**
Fixed output Frequency (MHz)	50	100	40 to 125	200 or 400
Output Power in dBm (over temp)	> + 7 standard, up to +20 dBm option			> + 12
Power variation in dB (over temp)	< 2			
External Reference Frequency (MHz)	5 or 10			
Frequency Accuracy over Temp	coherent to external reference			
Harmonics in dBc	< - 20			
Subharmonics in dBc	N/A	N/A	N/A	-65 std, -90 option
Discrete Spurious in dBc	< - 80			
Phase Noise	See Table			
Operating Temperature ranges	0 to 60^{o}C, -20 to 70^{o}C, -40 to 85^{o}C, -55 to 85^{o}C			
Power Supply (Vdc, 15V, 24V option)	+12			
DC Current @25C (add 250 mA for surge)	180	180	180	300
RF Connector	SMA Female			
DC Connector	Solder pin			
Size: Length X Width Height (inches)	2.25" X 2.25" X 0.84"			
Outline drawing	DC200105 Rev 1B	DC200105 Rev 1B	DC200105 Rev 1B	DC200105 Rev 1F
Weight (in ounces):	4.5			

Typical Specifications for OCXO in 40 to 400 MHz range				
Available Models	**NXOS-XO-50.000**	**NXOS-XO-100.000**	**NXOS-XOAT**	**NXOS-MXO**
Fixed output Frequency (MHz)	50	100	40 to 125	200 or 400
Mechanical Tuning (> +/- X ppm)	4	4	8	4
Frequency Accuracy over Temp (< +/- ppm, see note 1)	1.0	1.0	5.0	1.0
Frequency Aging (+/- X ppm/yr after 1 mo.)	1	1	2	1
Output Power in dBm (over temp)	> + 7 standard, up to +20 dBm option			> + 12
Power variation in dB (over temp)	< 2			
Harmonics in dBc	< - 20			
Subharmonics in dBc	N/A	N/A	N/A	-65 std, -90 option
Discrete Spurious in dBc	< - 80			
Phase Noise	See Table			
Operating Temperature ranges	0 to 60^{o}C, -20 to 70^{o}C, -40 to 85^{o}C, -55 to 85^{o}C			
Power Supply (Vdc, 15V, 24V option)	+12			
DC Current @25C (add 250 mA for surge)	180	180	180	300
RF Connector	SMA Female			
DC Connector	Solder pin			
Size: Length X Width Height (inches)	2.25" X 2.25" X 0.84"			
Outline drawing	DC200105 Rev 1B	DC200105 Rev 1B	DC200105 Rev 1B	DC200105 Rev 1F
Weight (in ounces):	4.5			

Note 1: as low as +/- 0.05 ppm stability over -40 to +85C available

NXOS-XO, PLXO Typical Phase Noise Data vs Frequency					
Phase Noise in dBc/Hz vs offset vs model	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz
NXOS-XO-50.000-ST		-120	-150	-164	-165
NXOS-XO-50.000-LN		-125	-154	-164	-165
NXOS-XO-50.000-ULN	-105	-133	-158	-164	-165
NXOS-XO-100.000-ST		-118	-145	-164	-165
NXOS-XO-100.000-LN		-125	-152	-164	-165
NXOS-XO-100.000-ULN	-100	-130	-154	-165	-165
NXOS-ATXO-XXX.XXX		-120	-150	-165	-165
NXOS-MXO-200.000		-116	-146	-158	-158
NXOS-MXO-400.000		-110	-140	-152	-152
NXOS-PLXO-50.000-ST		-120	-150	-164	-165
NXOS-PLXO-50.000-LN		-125	-154	-164	-165
NXOS-PLXO-50.000-ULN	-105	-133	-158	-164	-165
NXOS-PLXO-100.000-ST		-118	-145	-164	-165
NXOS-PLXO-100.000-LN		-125	-152	-164	-165
NXOS-PLXO-100.000-ULN	-100	-130	-154	-165	-165
NXOS-PLXOAT-XXX.XXX		-120	-150	-165	-165
NXOS-PLMXO-200.000		-116	-146	-158	-158
NXOS-PLMXO-400.000		-110	-140	-152	-152

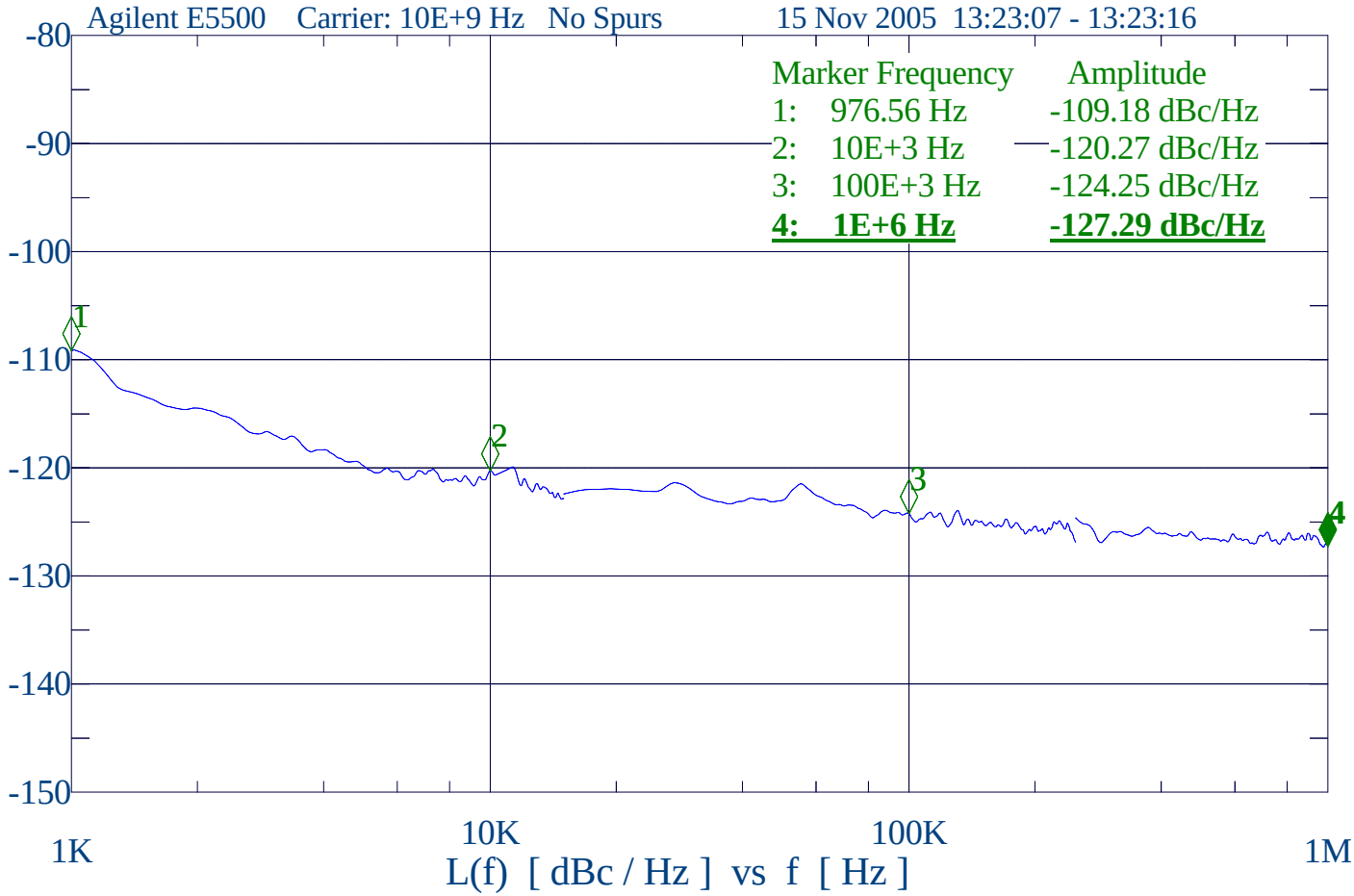
NXS Series Frequency Synthesizer - Sample Specifications (NXS-I-0850)

	Frequency Synthesizer
Frequency Range in GHz	8.5 to 9.6 GHz
Output Power in dBm (over temp)	> 20
Power Variation in dB (over temp)	< +/- 1.5
Frequency Step Size	100 KHz
Frequency Accuracy (over temp)	< +/- 1 ppm
Switching speed	< 1.5 msec
Turn-on time (DC in to RF lock)	500 msec
Harmonics in dBc (typ)	< -45 dBc
Spurious	< -80 dBc
Typical Phase Noise in dBc/Hz @ 10 Hz offset	< -53 dBc
@ 10KHz offset	< -100 dBc
@ 1MHz offset	< -120 dBc
Operating Temperature (base plate)	-40 to +70 deg C
Power Supply	TBD
Outline:	TBD
Phase noise plots (in GHz)	8.5 to 9.6 GHz

Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 Tel: 408-982-9339 Fax: 408-982-9275
Email: sales@nexyn.com Website: www.nexyn.com

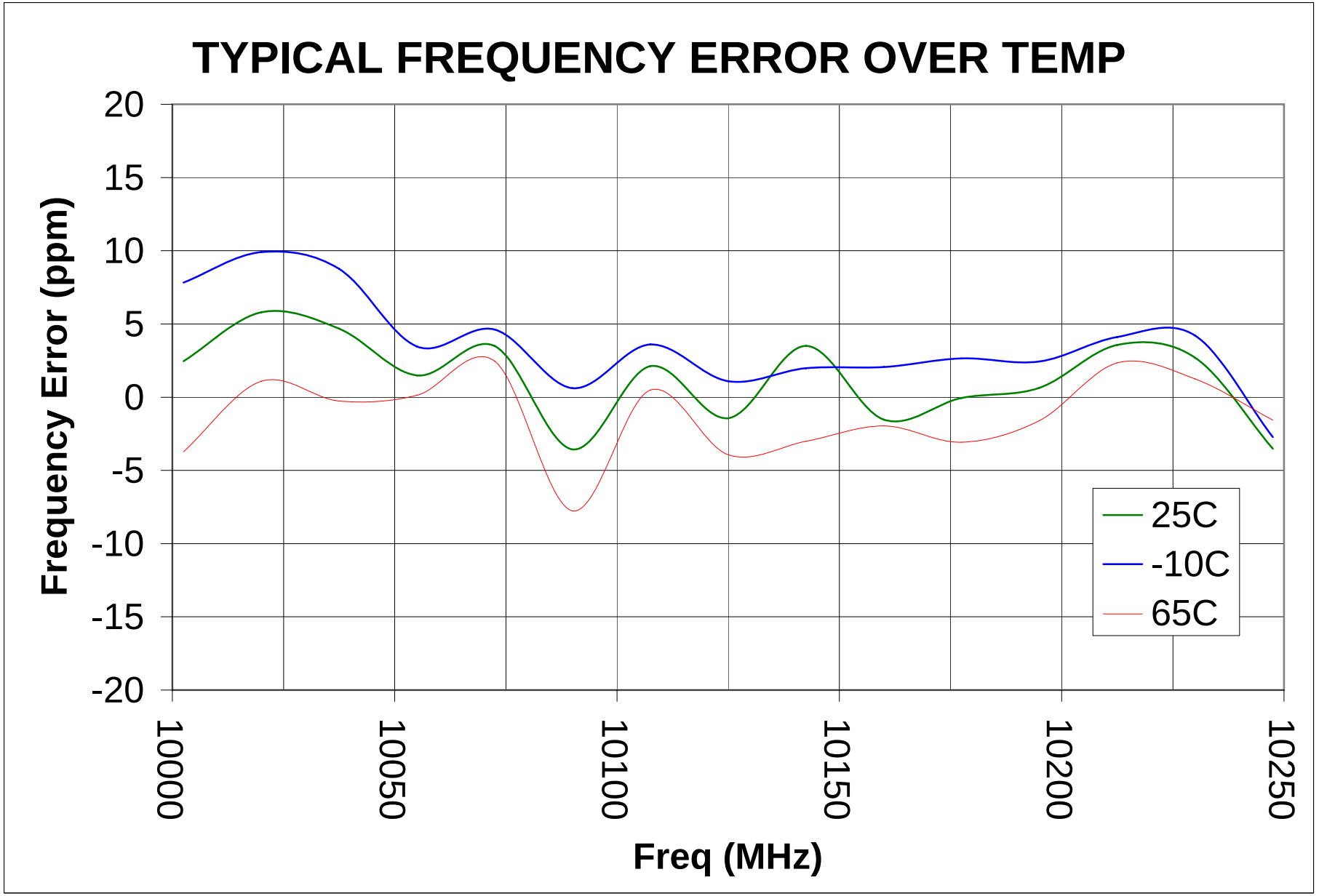
NEXYN NEW PRODUCT OFFERING		
15 CHANNEL SYNTHESIZER FOR 9.95-10.35 GHz BAND		
CHANNELS SET BY DIRECT MULTIPLICATION OF CRYSTAL OSCILLATOR ALLOWS FOR MANUAL CRYSTAL REPLACEMENT IN THE FIELD		
NEXYN P/N NXS-1020		
OUTPUT FREQUENCY RANGE	9.95 to 10.35	GHz
FREQUENCY ACCURACY vs F,T	< +/- 15	PPM
OUTPUT POWER OVER TEMP	> + 16	dBm
POWR VARIATION VS F,T	< +/- 1	dBm
HARMONICS	< - 60	dBc
SPURIOUS	< - 80	dBc
PHASE NOISE		
@ 1 kHz	< - 100	dBc
@ 10 kHz	< - 112	dBc
@ 100 kHz	< - 120	dBc
OUTPUT VSWR	< 1.5:1	
SWITCHING SPEED	< 3	msec
CHANNEL SELECTION	4 BIT BINARY TTL	
POWER SUPPLY VOLTAGE	20-28	V
POWER SUPPLY CURRENT	< 400	mA @ 28V
RF connector	SMA	
DC & chan sel connector	DB-9M	
TEMP RANGE	-10 to + 65	C
MTBF	>100000	HOURS

TYPICAL PHASE NOISE at 10 GHz

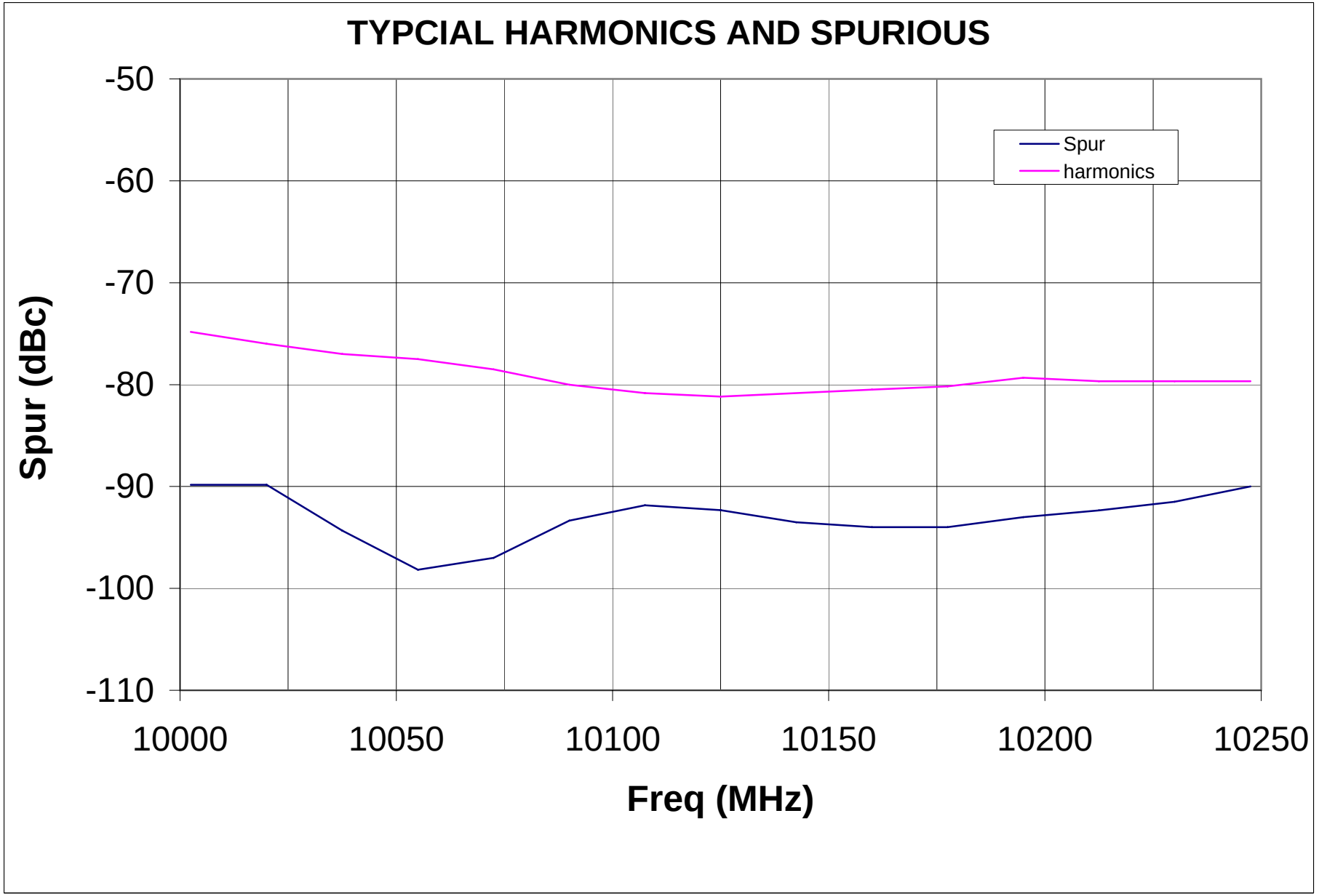


Outline Drawings

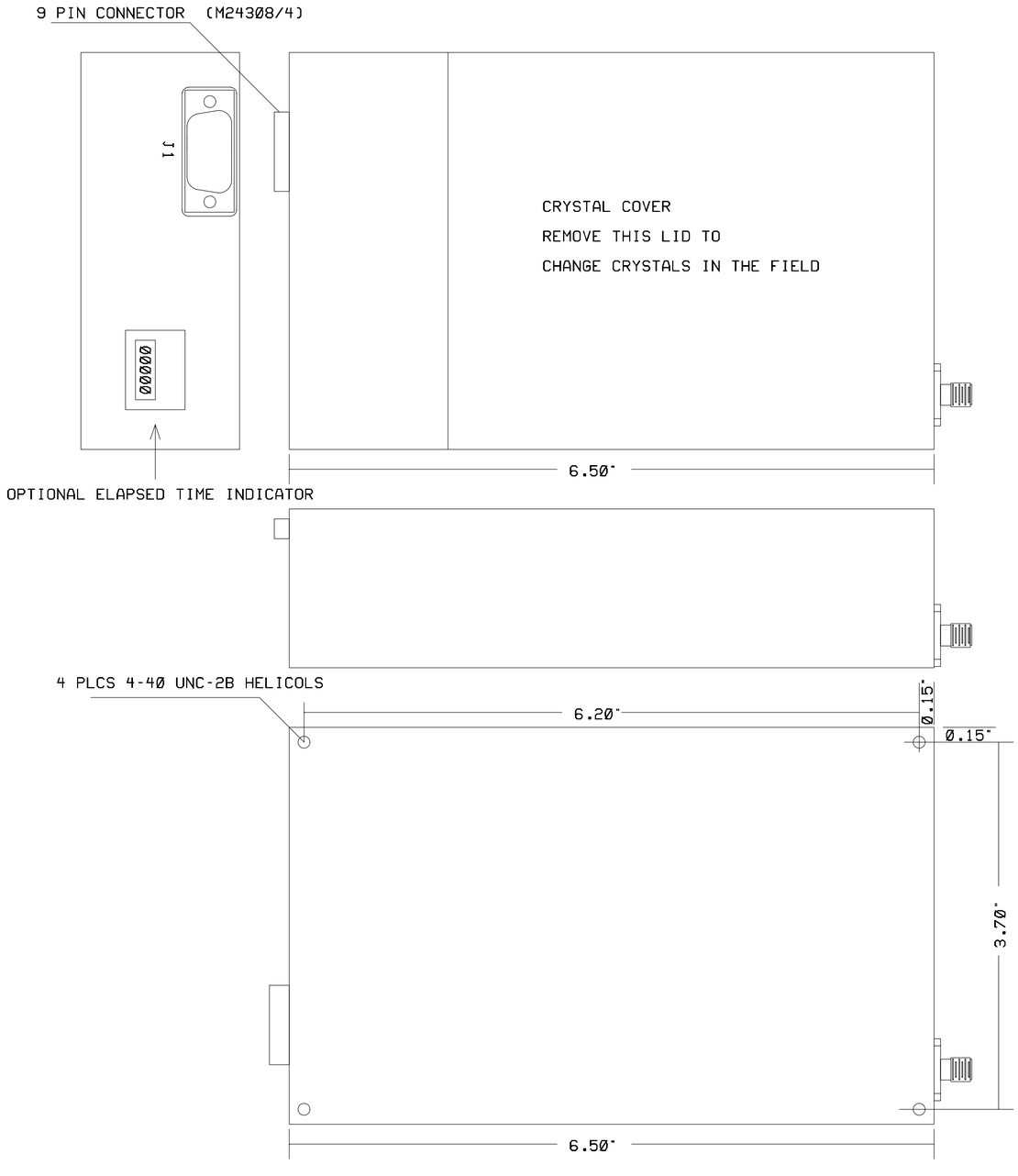
Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com

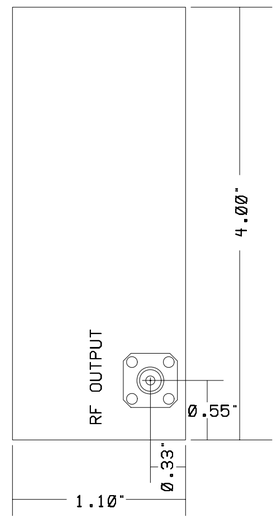

TYPICAL FREQUENCY ERROR OVER TEMP
Frequency Error (ppm)
20
15
10
5
0
-5
-10
-15
-20
10000
10050
10100
10150
10200
10250
Freq (MHz)
25C
-10C
65C

2/2/2006 7:10 PM



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED





ASSEMBLY NO.	PROPRIETARY	NEXYN CORPORATION SANTA CLARA, CA, USA http //www.nexyn.com
CHECKED BY _____ DATE _____	THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM	TITLE 10 GHz 15 Channel Syntheszier
APPROVED _____ DATE _____		SIZE C · DRAWN · ENGR · DRAWING NUMBER DC200320 · REV.
TOLERANCES X.X ~ 0.050" X.XX ~ 0.010" X.XXX ~ 0.005" ANGLES ~ 0.500$ UNLESS OTHERWISE NOTED	NEXT HIGHER ASSEMBLY	SCALE · DATE 02-FEB-06 · SHEET OF · SHEET · PART NO.

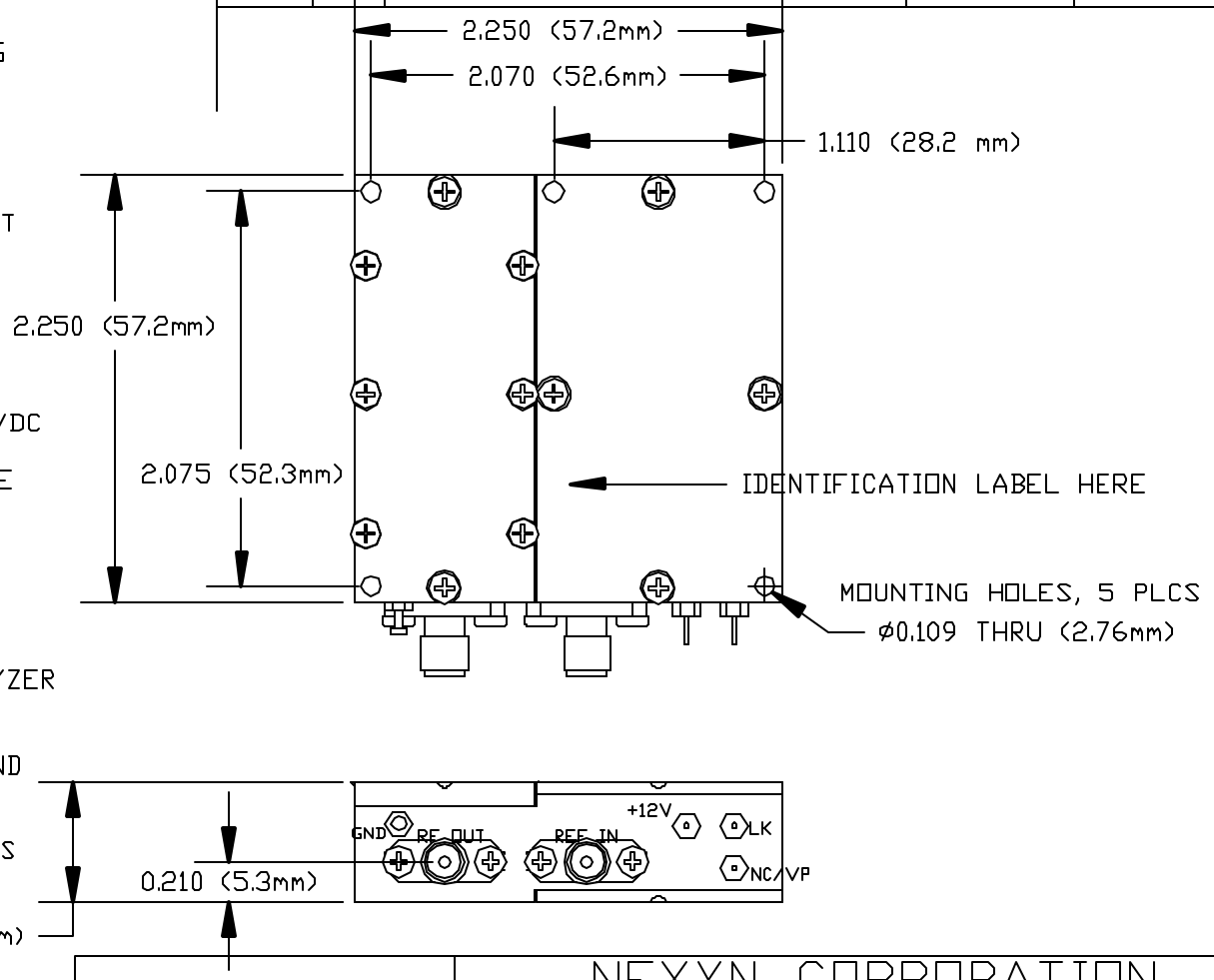
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT:
REF IN: REFERENCE FREQUENCY INPUT
+12V: BIAS VOLTAGE
LK: LOCK DETECT, <1.0VDC LOCKED, >4.5VDC UNLOCKED
NC/Vp: NORMALLY NOT CONNECTED, PHASE VOLTAGE OPTION, (1V-10V NORMAL OPERATION)

TURN ON PROCEDURES:
1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY +12VDC POWER TO +12V PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK FOR LOCK INDICATION
6) CONSULT FACTORY FOR ANY QUESTIONS

P.S. CRO BASED, NO FREQ ADJUSTMENT PROVISION



NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED CRO (<3.0 GHz)
(EXTERNAL REFERENCE)

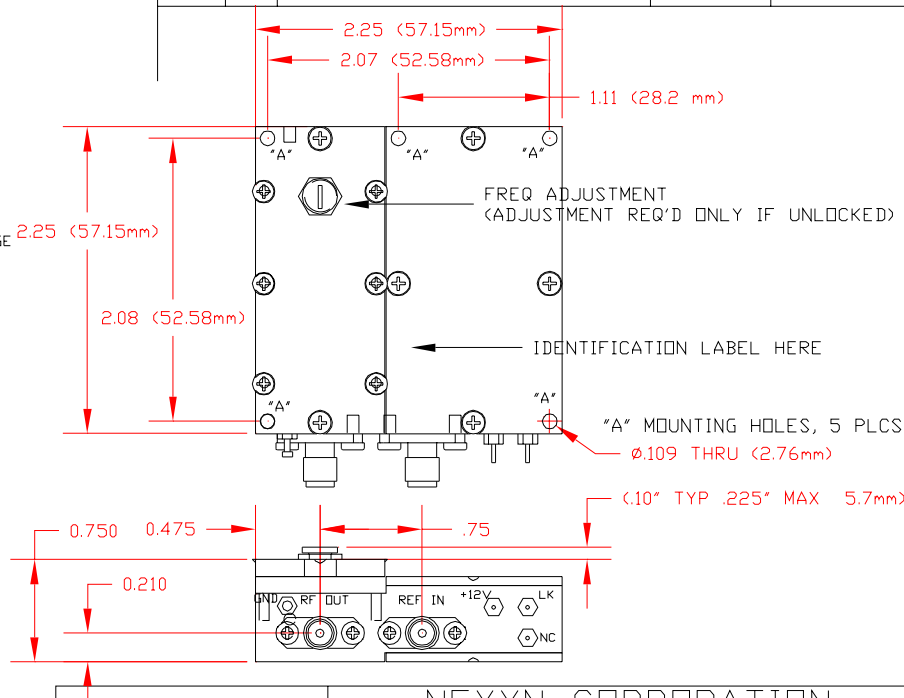
FILE#: DC200102_4C			
F. WONG	SIZE A	FSCM NO	DWG NO DC200102 REV 4C
	SCALE 1/1	02/08/02	SHEET 1 OF 1

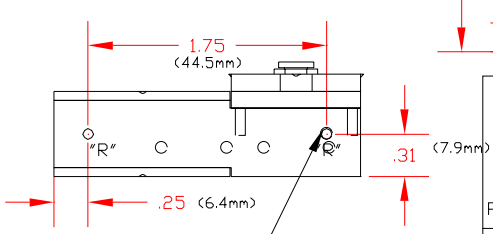
NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT:
REF IN: (100 MHZ NOMINAL INPUT), OTHER FREQUENCIES AVAIALBLE
+12V BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
N/C: NORMALLY NOT COLLECTED, VP FOR PHASE VOLTAGE OPTION

TURN ON PROCEDURES:
1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO Vb PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





"R" HOLES: UNC2-56 X .12" DP, 2 PLCS
ALTERNATE BACK MOUNTING

FILE#: DC200102_8

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO (3 - <9 GHz)
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	8

SCALE	1/1	12/06/01	SHEET	1 OF 1

NOTES:

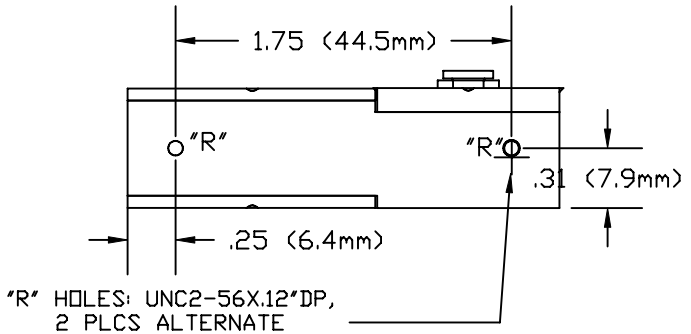
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) FIELD REPLACEABLE SMA CONNECTORS AVAILABLE UPON REQUEST, PIN DIA. TO BE .015"
8) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:

RF OUT:
REF IN: (100 MHZ NOMINAL INPUT)
Vb: BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
N/C: NORMALLY NOT COLLECTED, VP FOR PHASE VOLTAGE OPTION

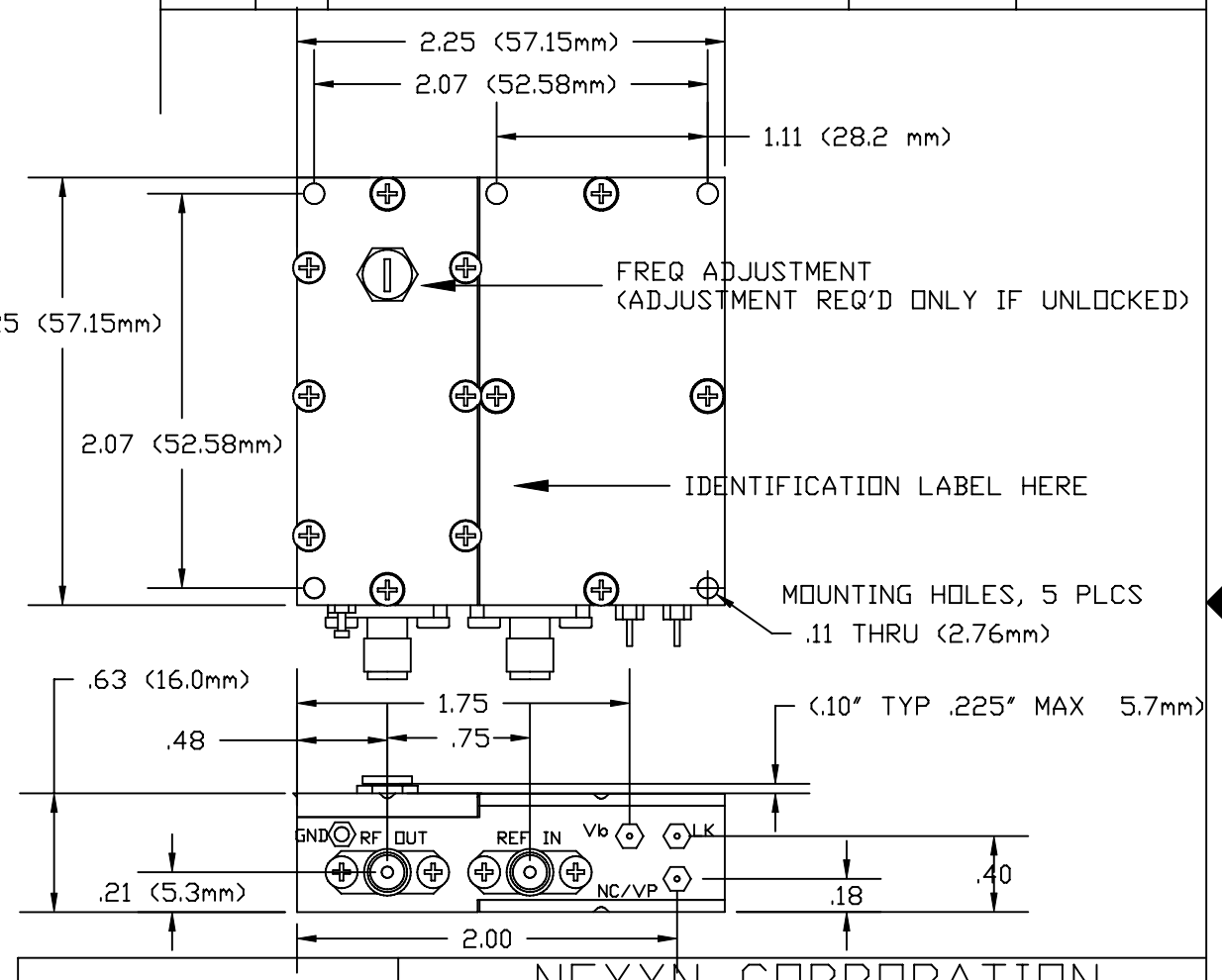
TURN ON PROCEDURES:

1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO Vb PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS



"R" HOLES: UNC2-56X.12"DP, 2 PLCS ALTERNATE BACK MOUNTING

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO
(EXTERNAL REFERENCE)

FILE#: DC200102_15

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	15

SCALE	1/1	01/29/03	SHEET	1 OF 1

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH

ANTISTATIC PROTECTION

5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT

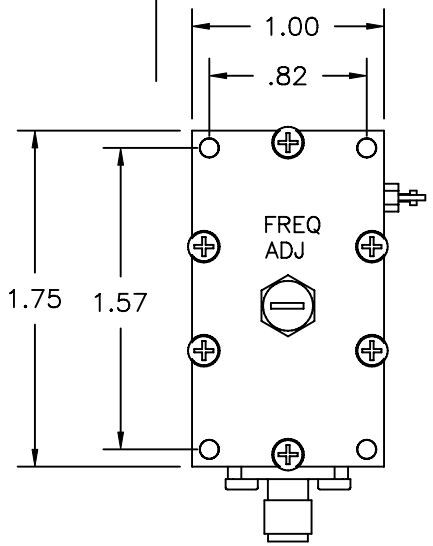
NOTICE

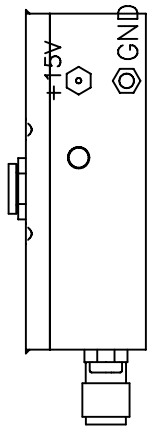
8. TUNING SCREW NOT USED FOR F < 3.0 GHz
9. THICKNESS = 0.63" FOR F < 3 GHz OR F > 6.5 GHz
   THICKNESS = 0.75" FOR 3.2 GHz < F < 6.5 GHz

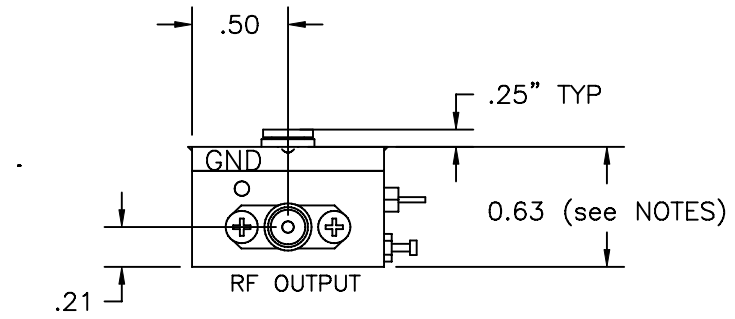
PIN FUNCTIONS:

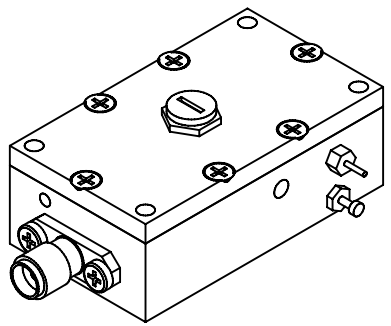
RF OUT : SIN OUTPUT, 50 OHM SOURCE IMPEDANCE
+15V (NOMINAL, OTHER VOLTAGE AVAILABLE)

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

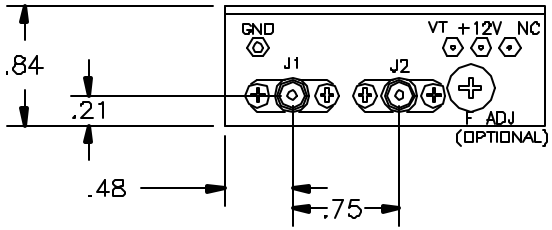


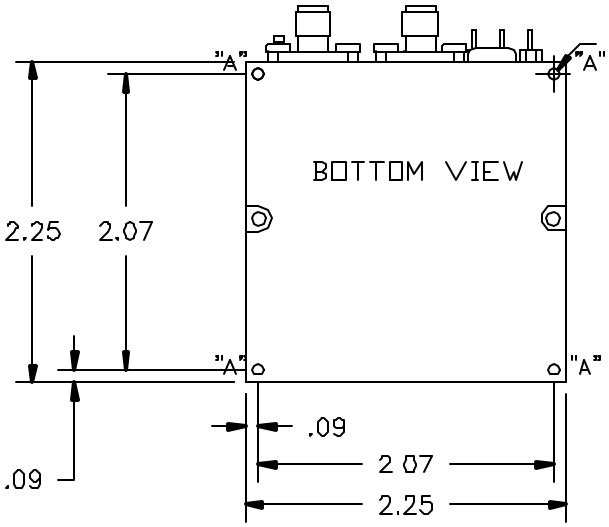


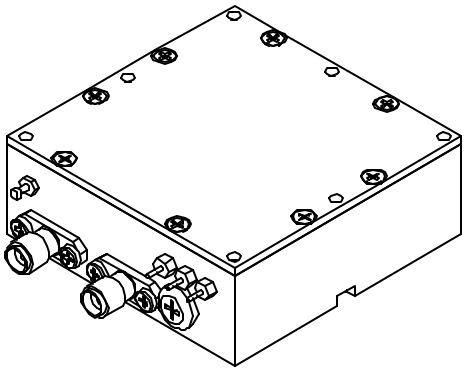




	NEXYN CORPORATION (SUNNYVALE, CA. USA)			
	FREE RUNNING DRO (MECHANICAL TUNED)			
F. WONG	SIZE A	FSCM NO.	DWG NO. DC200104	REV 7
	SCALE 1/1	1/4/2000	SHEET 1 OF 1	







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: +12V NOMINAL, OTHER VOLTAGES AVAILABLE
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQ MECHANICAL ADJUST FINE TUNE PORT
J1: XTAL REFERENCE FREQUENCY MONITOR OUTPUT
J2: XTAL REFERENCE FREQUENCY OUTPUT (100 MHz NOMINAL)

AVAILABLE FROM 50 MHz TO 400 MHz

TURN ON PROCEDURES:
1. CONNECT XTAL REF FREQUENCY OUTPUT J2 TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY XTAL FREQUENCY OUTPUT AND POWER LEVEL
4. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0-5V TO VT PIN)
5. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200105_1B

F. WONG

REVISED IN 7/01

NEXYN CORPORATION

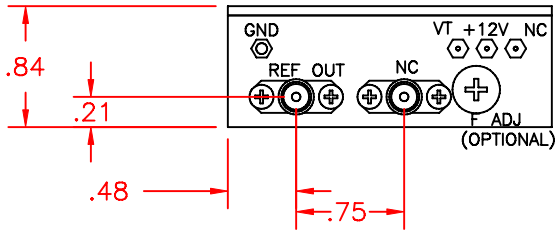
SANTA CLARA, CA. 95050

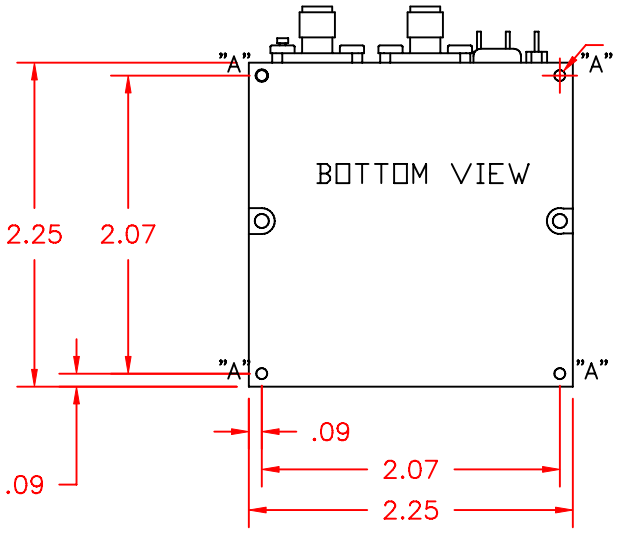
FREE RUNNING XTAL REFERENCE MODULE

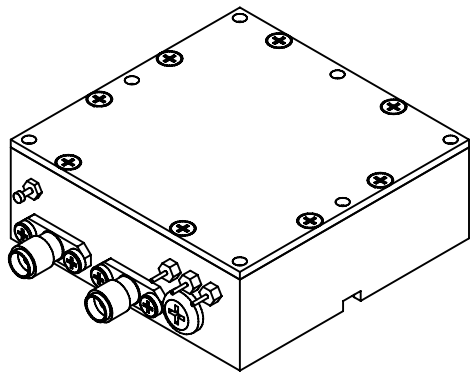
NXOS-XO SERIES

SIZE	FSCM NO	DWG NO	REV
A		DC200105	1B

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: +12V NOMINAL, OTHER VOLTAGES AVAILABLE
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQ MECHANICAL ADJUST FINE TUNE PORT
REF OUT: XTAL REFERENCE FREQUENCY OUTPUT (100 MHz NOMINAL) AVAILABLE FROM 50 MHz TO 400 MHz

TURN ON PROCEDURES:
1. CONNECT XTAL REF OUTPUT TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY XTAL FREQUENCY OUTPUT AND POWER LEVEL
4. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0-5V TO VT PIN)
5. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200105_1F

F. WONG

REVISED IN 09/02

NEXYN CORPORATION

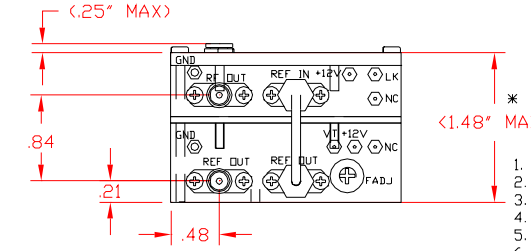
SANTA CLARA, CA. 95050

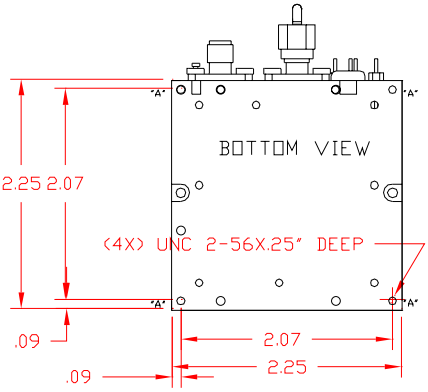
FREE RUNNING XTAL REFERENCE MODULE

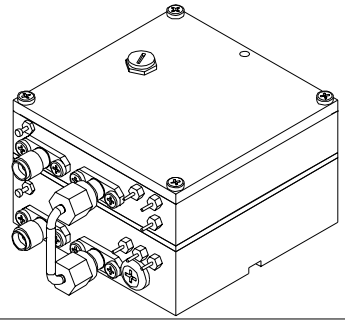
NXOS-XO SERIES

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1F

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE (SAMPLE OUTPUT)
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQUENCY MECHANICAL ADJUST FINE TUNE PORT

TURN ON PROCEDURES:
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +15V PIN
3. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
4. MONITOR LK FOR PHASE LOCKING, +5V LOCKED, <0.8V UNLOCKED
5. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0 - 5V TO VT PIN). ALLOW 5 TO 10 MINUTES WARM UP TIME.
6. CONSULT FACTORY FOR ANY QUESTIONS

P.S. * HEIGHT TO BE 1.61" UNDER 8 GHz

FILE# DC200106_2B

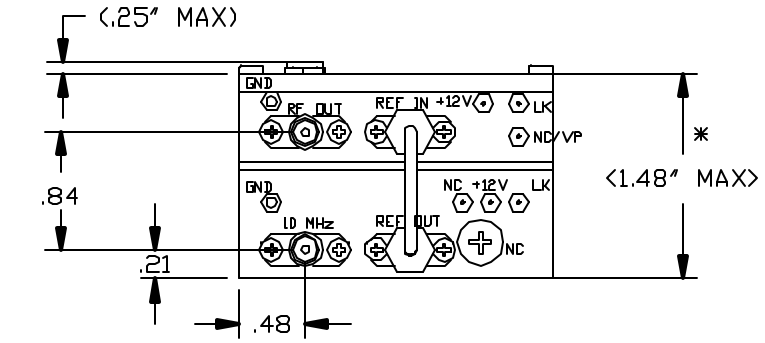
F. WONG

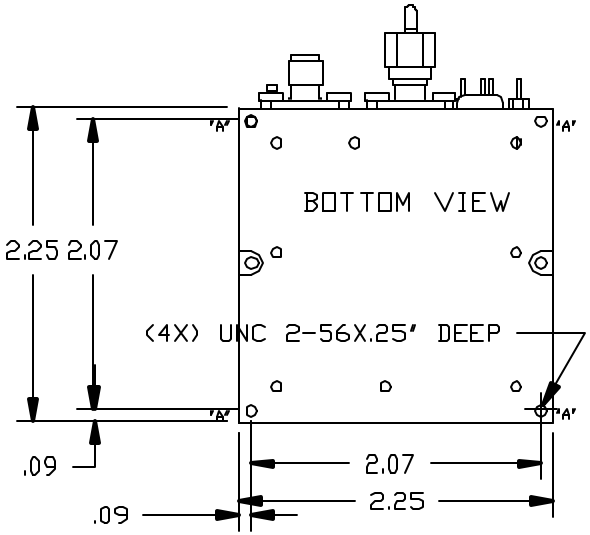
NEXYN CORPORATION
SANTA CLARA, CA. USA

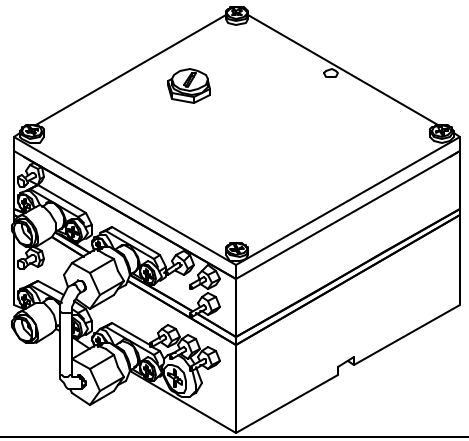
INTERNAL REFERENCE PHASE LOCKED DRO, NXPLOS-I SERIES

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2B

SCALE		SHEET
3/4	7/2/2001	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC/VP: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
10 MHz: EXTERNAL REFERENCE INPUT @ 0dBm +/- 3dB (OTHER REFERENCE FREQ AVAILABLE)
NC: NOT CONNECTED

TURN ON PROCEDURES:
1. CONNECT 10 MHz EXT REFERENCE
2. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
5. MONITOR LK FOR PHASE LOCKING, >+2.5V LOCKED, <0.8V UNLOCKED
   ALLOW 5 TO 10 MINUTES WARM UP TIME AFTER DC POWER ON.
6. CONSULT FACTORY FOR ANY QUESTIONS

P.S. * HEIGHT TO BE 1.61" BETWEEN 3 TO UNDER 9 GHz

FILE# DC200106_2C

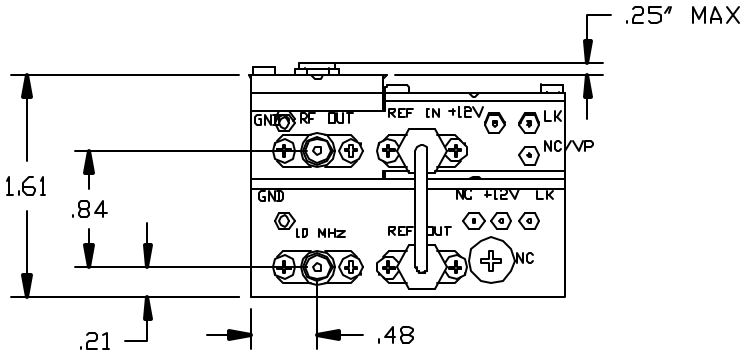
F. WONG

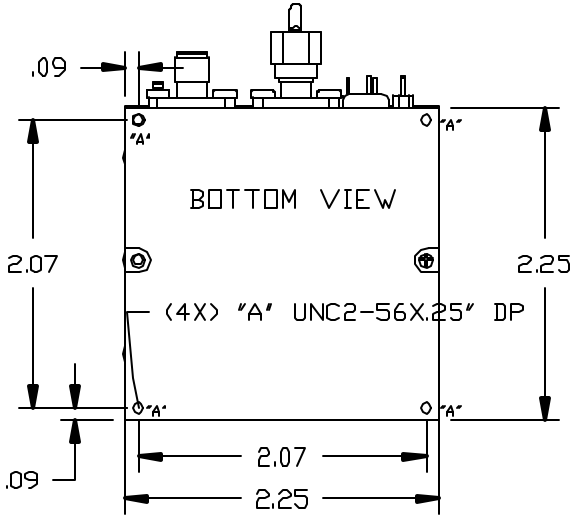
NEXYN CORPORATION
SANTA CLARA, CA. USA

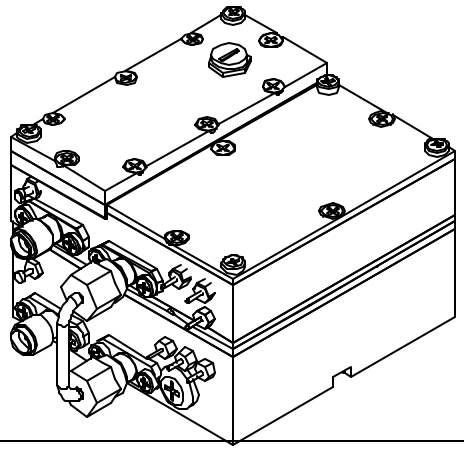
DUAL LOOP PHASE LOCKED DRO,
NXPLOS-IX SERIES

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2C

SCALE		SHEET
3/4	11/15/2001	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC/VP: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
10 MHz: EXTERNAL REFERENCE INPUT @ 0dBm +/- 3dB (OTHER REFERENCE FREQ AVAILABLE)
NC: NOT CONNECTED

TURN ON PROCEDURES:
1. CONNECT 10 MHz EXT REFERENCE
2. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
5. MONITOR LK FOR PHASE LOCKING, >+2.5V LOCKED, <0.8V UNLOCKED
   ALLOW 5 TO 10 MINUTES WARM UP TIME AFTER DC POWER ON.
6. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200106_2E

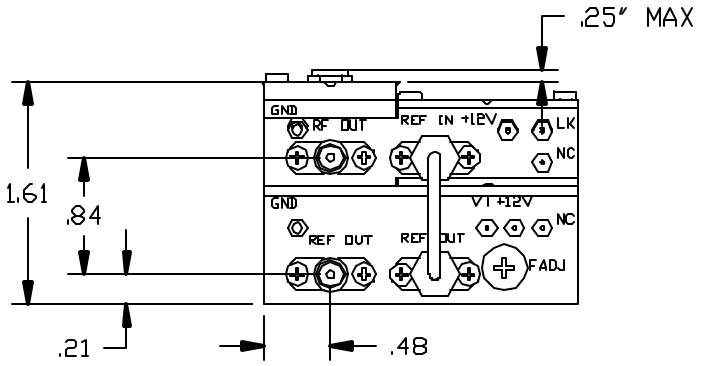
F. WONG

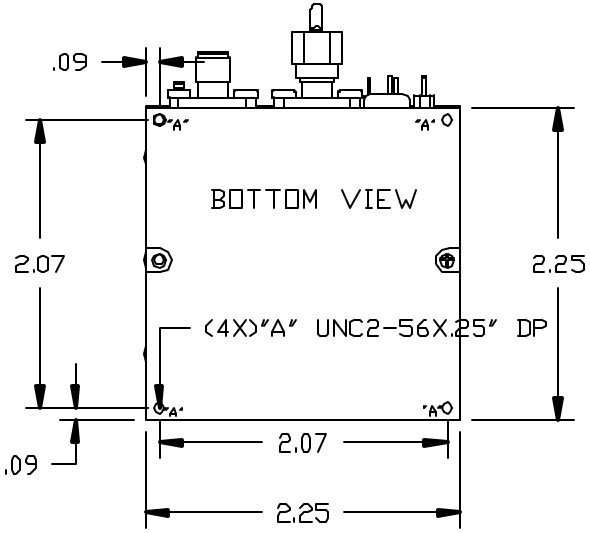
NEXYN CORPORATION
SANTA CLARA, CA. USA

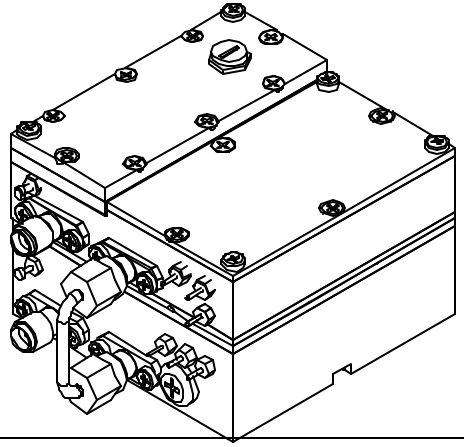
DUAL LOOP PHASE LOCKED DRO,
NXPLOS-IX SERIES
(3 TO <9 GHz)

SIZE	FSCM NO.	DWG NO	REV
A		DC200106	2E

SCALE		SHEET
3/4	12/06/2001	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE (SAMPLE OUTPUT)
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQUENCY MECHANICAL ADJUST FINE TUNE PORT

TURN ON PROCEDURES:
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
4. MONITOR LK FOR PHASE LOCKING, +5V LOCKED, <0.8V UNLOCKED
5. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0 – 5V TO VT PIN). ALLOW 5 TO 10 MINUTES WARM UP TIME AFTER DC POWER ON
6. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200106_2F

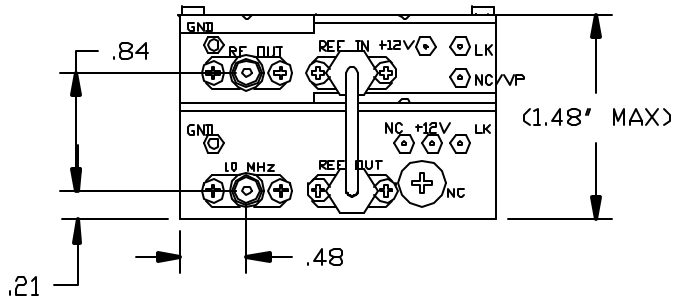
F. WONG

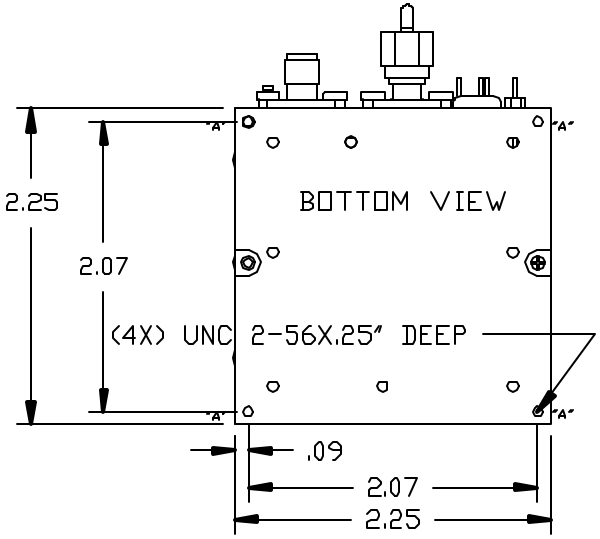
NEXYN CORPORATION
SANTA CLARA, CA. USA

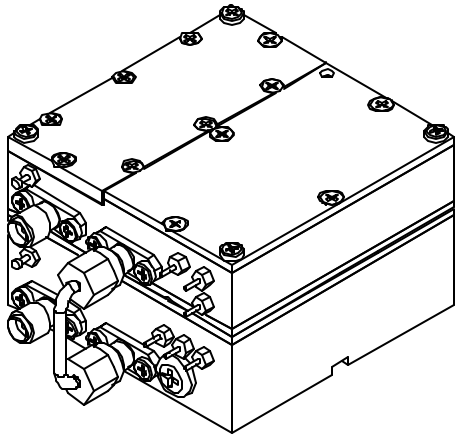
INTERNAL REFERENCE PHASE LOCKED DRO,
NXPLOS-I SERIES
(3 TO <9 GHz)

SIZE	FSCM NO.	DWG NO	REV
A		DC200106	2F

SCALE		SHEET
3/4	12/6/2001	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC/VP: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
10 MHz: EXTERNAL REFERENCE INPUT @ 0dBm +/- 3dB (OTHER REFERENCE FREQ AVAILABLE)
NC: NOT CONNECTED

TURN ON PROCEDURES:
1. CONNECT 10 MHz EXT REFERENCE
2. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
5. MONITOR LK FOR PHASE LOCKING, >+2.5V LOCKED, <0.8V UNLOCKED
   ALLOW 5 TO 10 MINUTES WARM UP TIME AFTER DC POWER ON.
6. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200106_2H

F. WONG

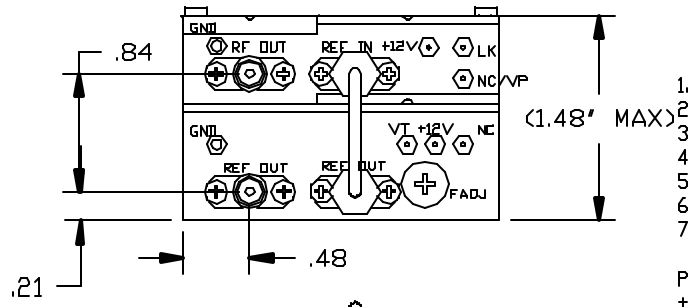
NEXYN CORPORATION

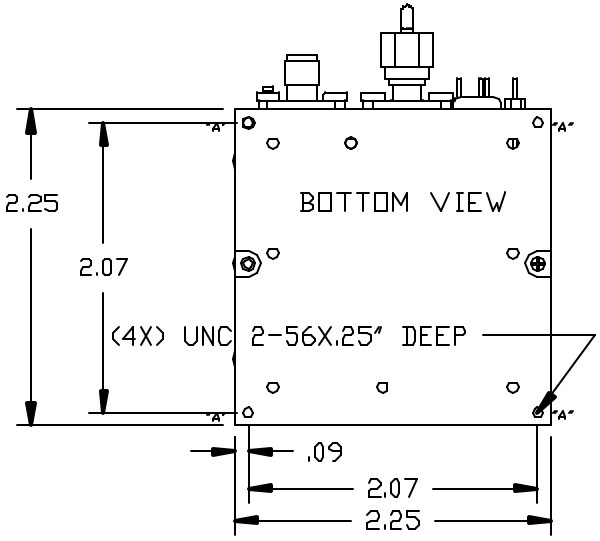
SANTA CLARA, CA. USA

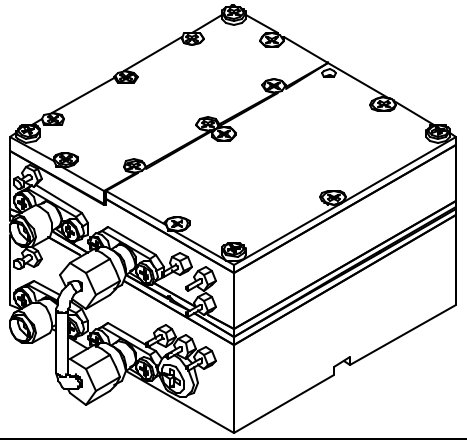
DUAL LOOP PHASE LOCKED DRO,
NXPLOS-IX SERIES (300 MHz-3 GHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2H

SCALE		SHEET
3/4	09/17/2002	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE (SAMPLE OUTPUT)
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQUENCY MECHANICAL ADJUST FINE TUNE PORT

TURN ON PROCEDURES:
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
4. MONITOR LK FOR PHASE LOCKING, +5V LOCKED, <0.8V UNLOCKED
5. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0 - 5V TO VT PIN). ALLOW 5 TO 10 MINUTES WARM UP TIME AFTER DC POWER ON
6. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200106_2I

F. WONG

NEXYN CORPORATION

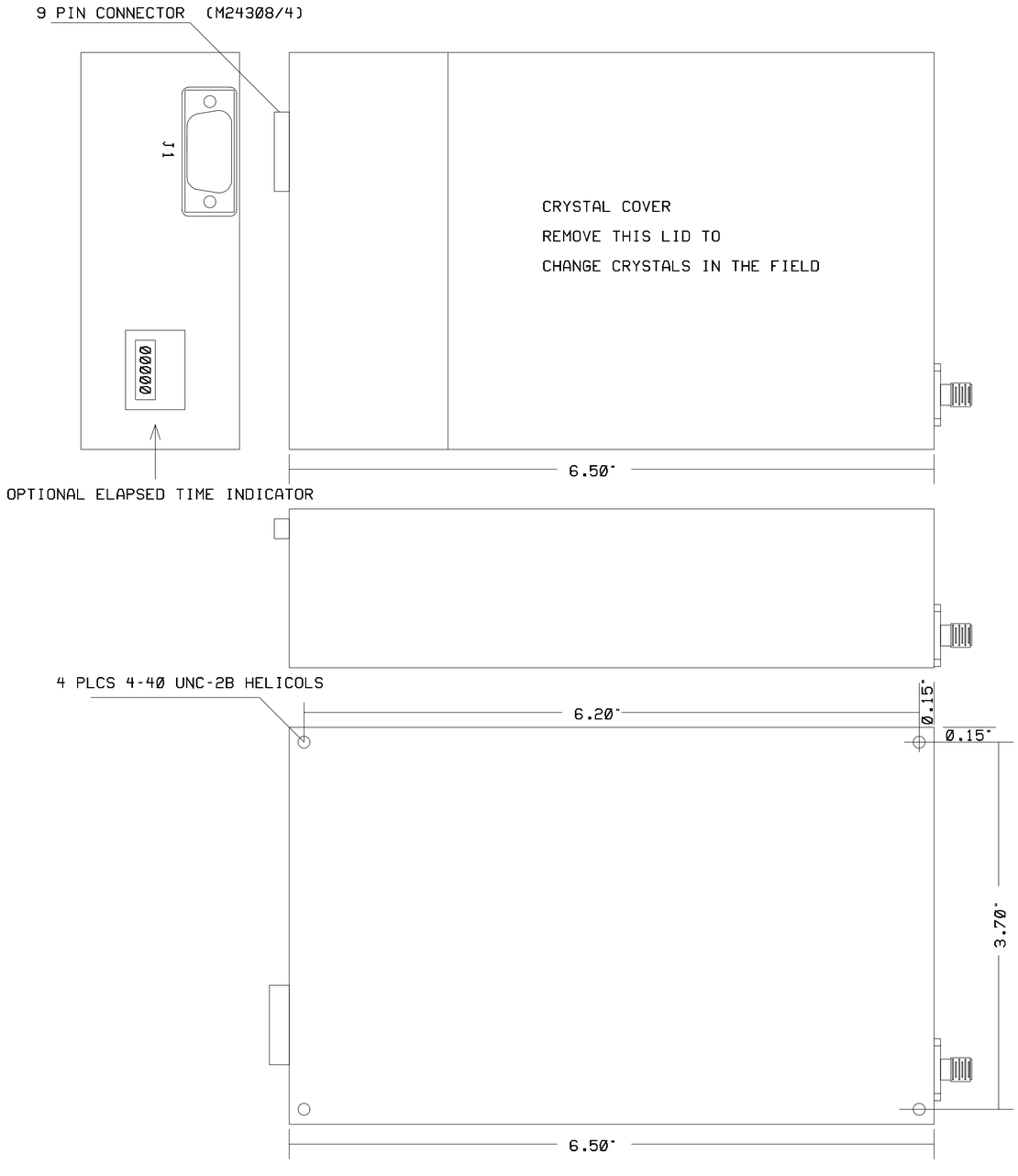
SANTA CLARA, CA. USA

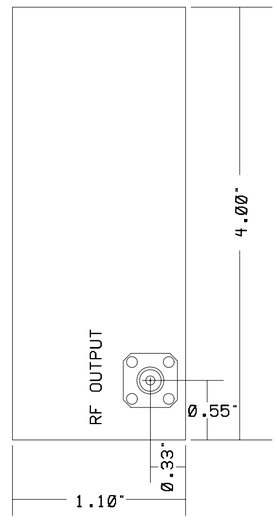
INTERNAL REFERENCE PHASE LOCKED DRO, NXPLOS-I SERIES (300 MHz-3 GHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2I

SCALE		SHEET
3/4	09/17/2002	1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED





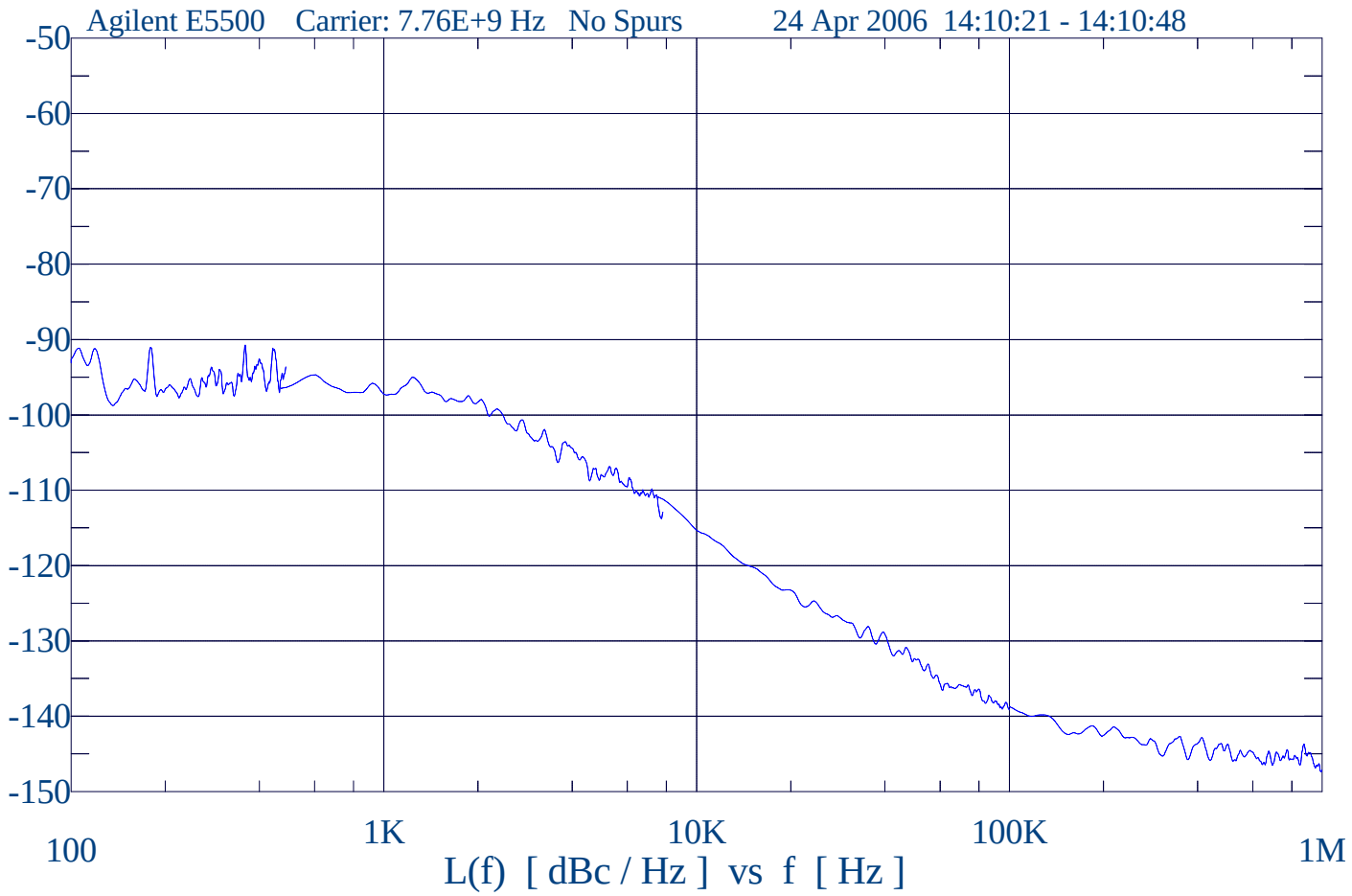
ASSEMBLY NO.	PROPRIETARY	NEXYN CORPORATION SANTA CLARA, CA, USA http //www.nexyn.com
CHECKED BY _____ DATE _____	THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM	TITLE 10 GHz 15 Channel Syntheszier
APPROVED _____ DATE _____		SIZE C · DRAWN · ENGR · DRAWING NUMBER DC200320 · REV.
TOLERANCES X.X ~ 0.050" X.XX ~ 0.010" X.XXX ~ 0.005" ANGLES ~ 0.500$ UNLESS OTHERWISE NOTED	NEXT HIGHER ASSEMBLY	SCALE · DATE 02-FEB-06 · SHEET OF · SHEET · PART NO.

Phase Noise Plots

Phase Locked DRO's

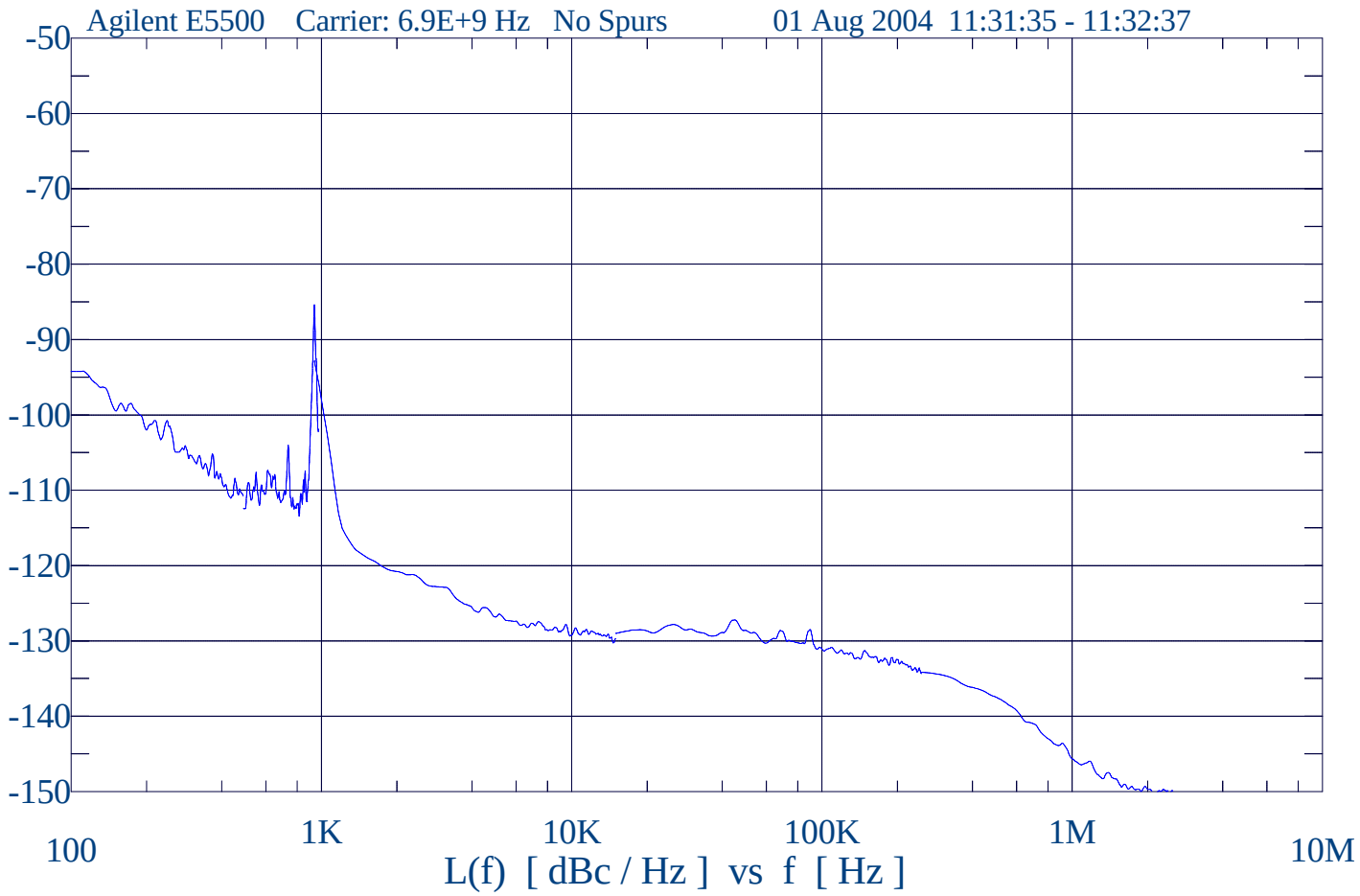
Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com

1.94 GHz PLCRO NXLFLC series w 20 MHz ref



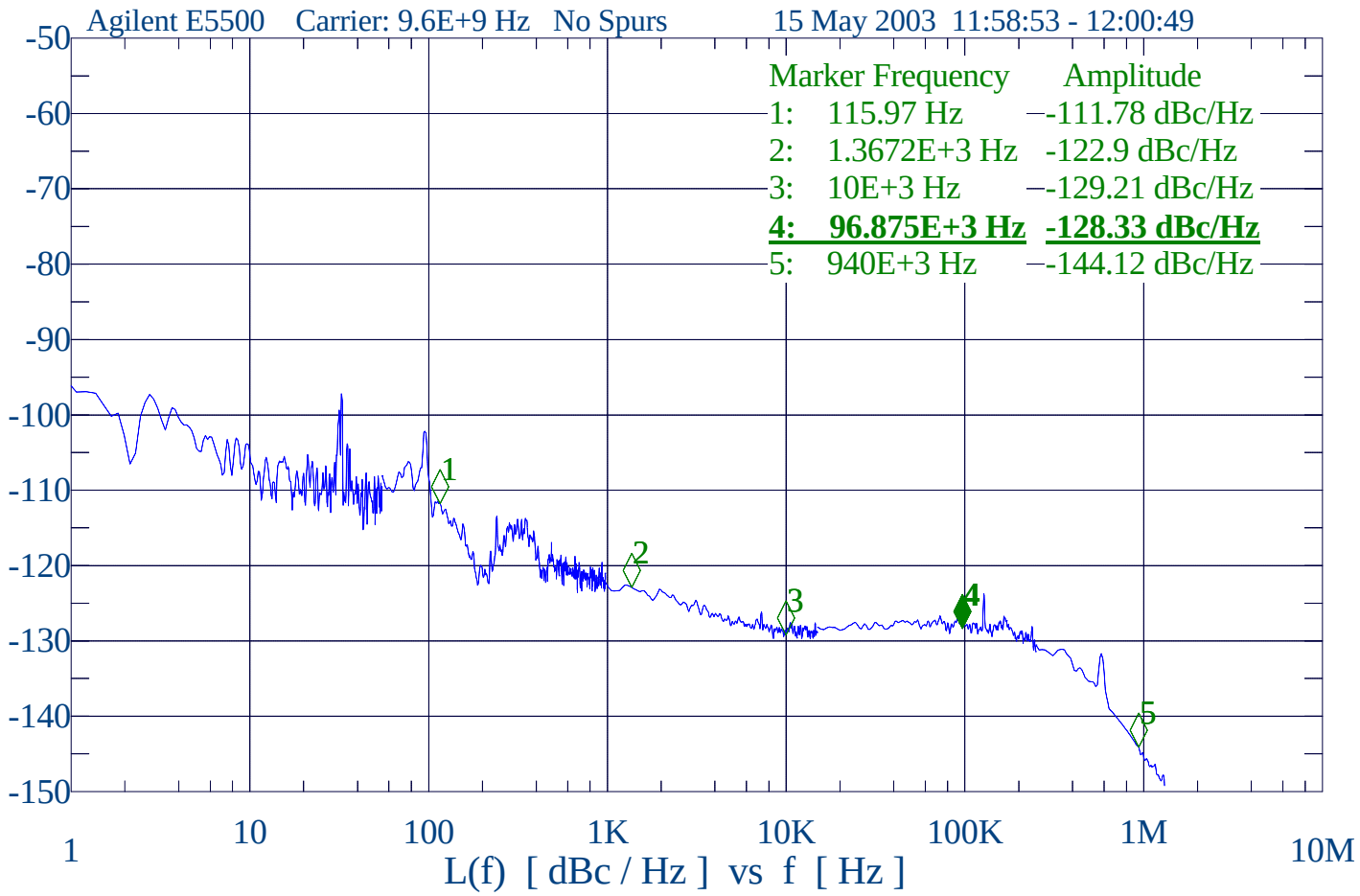
1.94 GHz PLCRO NXLFLC series w 20 MHz ref
Measurement time: 24 Apr 2006 14:10:21 - 14:10:48
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 16
Carrier Source frequency: 7.76E+9 Hz
Detector input frequency: 559.991798828E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 253E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 47.9E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.4954E+3 Hz
Peak Tune Range: 79.601E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: Agilent/HP 8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: Agilent/HP 70427A
LNA gain: 42 dB
Software Version: A.01.05

6.9GHz PLDRO SN1988



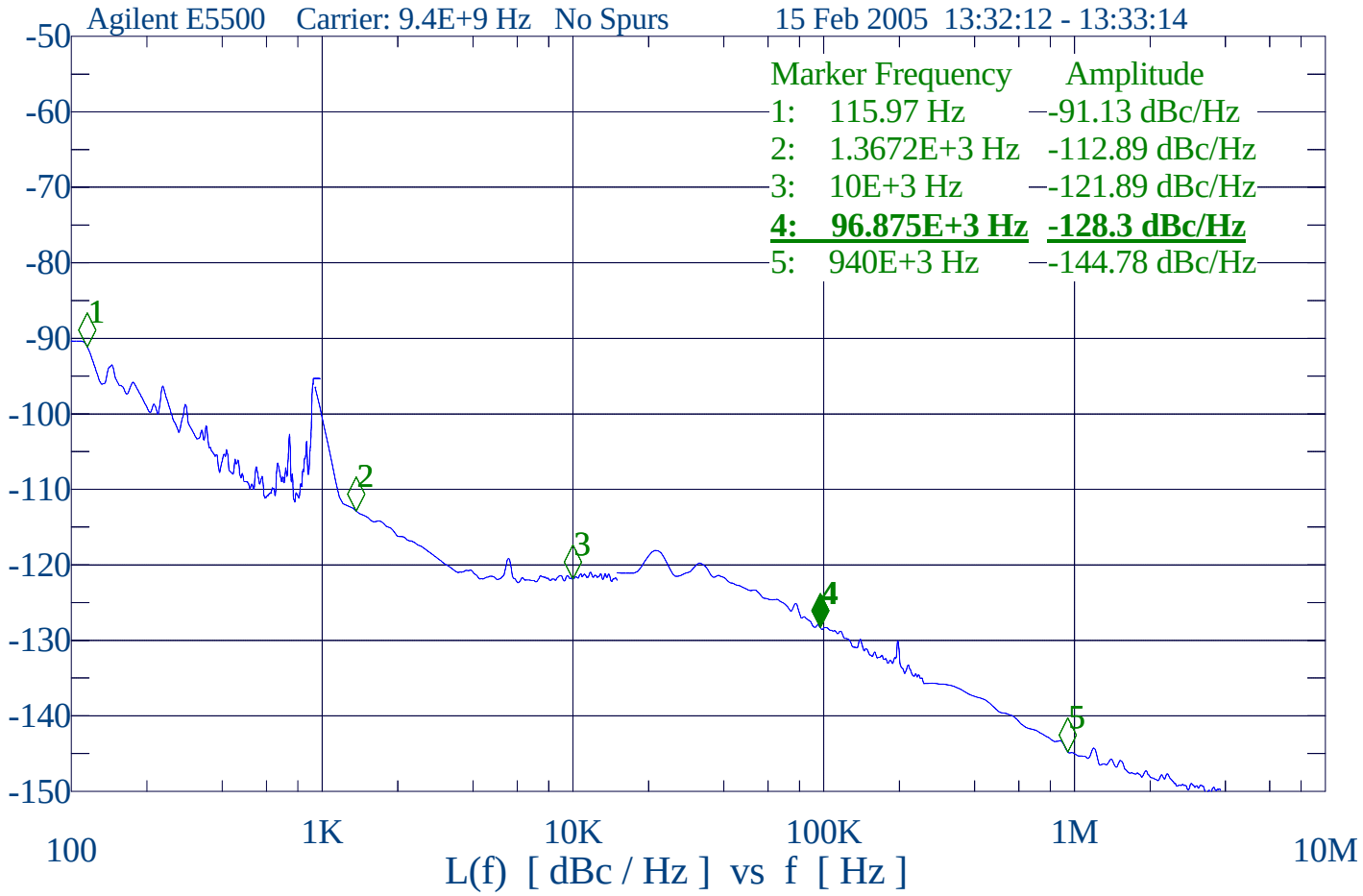
6.9GHz PLDRO SN1988
Measurement time: 01 Aug 2004 11:31:35 - 11:32:37
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 4E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 6.9E+9 Hz
Detector input frequency: 299.990203125E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 176.3E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.41E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.7854E+3 Hz
Peak Tune Range: 88.851E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

9.6GHz PLDRO Residual phase noise



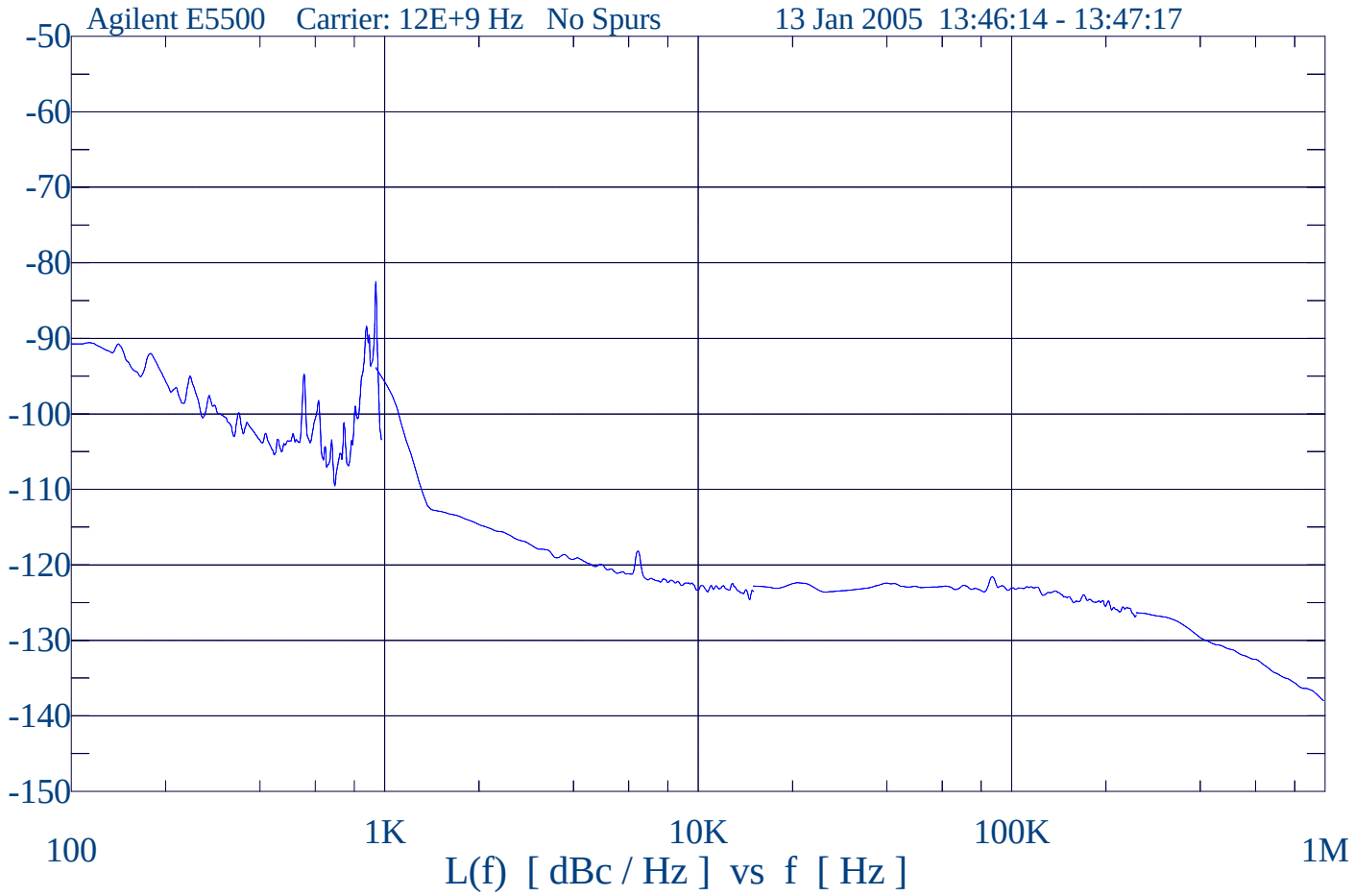
9.6GHz PLDRO Residual phase noise
Measurement time: 15 May 2003 11:58:53 - 12:00:49
Measurement type: Residual phase noise (without using a phase locked loop)
Start offset frequency: 1 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 9.6E+9 Hz
Detector input frequency: 9.6E+9 Hz
Detector: Test set microwave phase detector
Detector constant cal method: Derive from measured beatnote.
Detector constant: 250.5E-3 V/Rad
Quadrature was established by: adjusting phase shifter
Residual Source: (manual)
LNA gain: 56 dB
Software Version: A.01.05

9.345 GHz SN2033 PLDRO



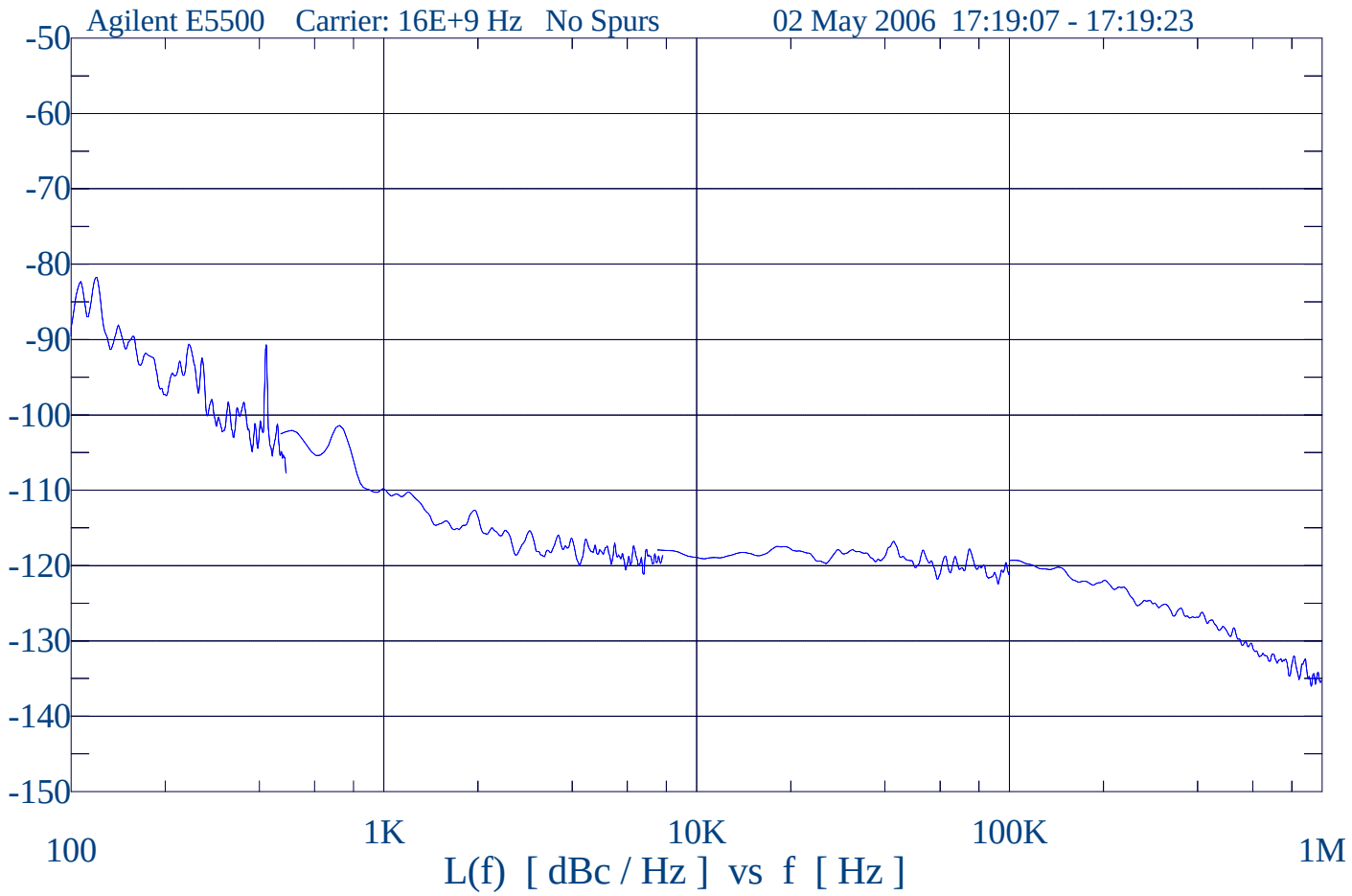
9.345 GHz SN2033 PLDRO
Measurement time: 15 Feb 2005 13:32:12 - 13:33:14
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 4E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 9.4E+9 Hz
Detector input frequency: 399.975507813E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 218.3E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.73E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.7582E+3 Hz
Peak Tune Range: 87.984E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

12 GHz PLDRO SN1770



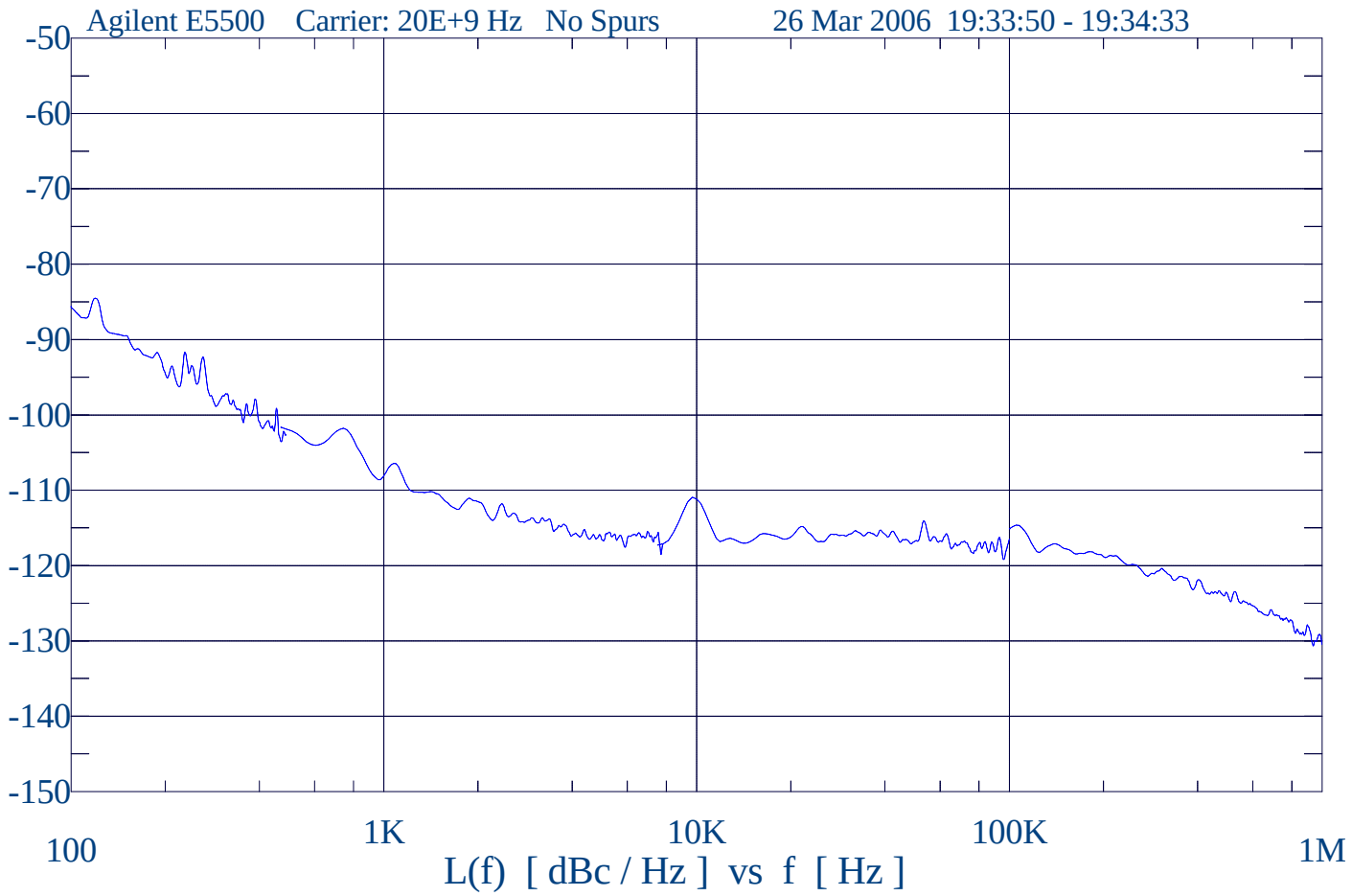
12 GHz PLDRO SN1770
Measurement time: 13 Jan 2005 13:46:14 - 13:47:17
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 12E+9 Hz
Detector input frequency: 600.023898438E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 212.3E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.71E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.6808E+3 Hz
Peak Tune Range: 85.515E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

16 GHz PLDRO SN3146



16 GHz PLDRO SN3146
Measurement time: 02 May 2006 17:19:07 - 17:19:23
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 16E+9 Hz
Detector input frequency: 399.972390625E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 198.7E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 47.92E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.4683E+3 Hz
Peak Tune Range: 78.737E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: Agilent/HP 8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: Agilent/HP 70427A
LNA gain: 42 dB
Software Version: A.01.05

20.0 GHz PLDRO SN3035



20.0 GHz PLDRO SN3035
Measurement time: 26 Mar 2006 19:33:50 - 19:34:33
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 32
Carrier Source frequency: 20E+9 Hz
Detector input frequency: 400.054921875E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 238.5E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 47.87E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.9602E+3 Hz
Peak Tune Range: 94.426E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: Agilent/HP 8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: Agilent/HP 70427A
LNA gain: 42 dB
Software Version: A.01.05

Phase Noise Plots

Phase Locked DRO's

Dual Loop & Internal Reference

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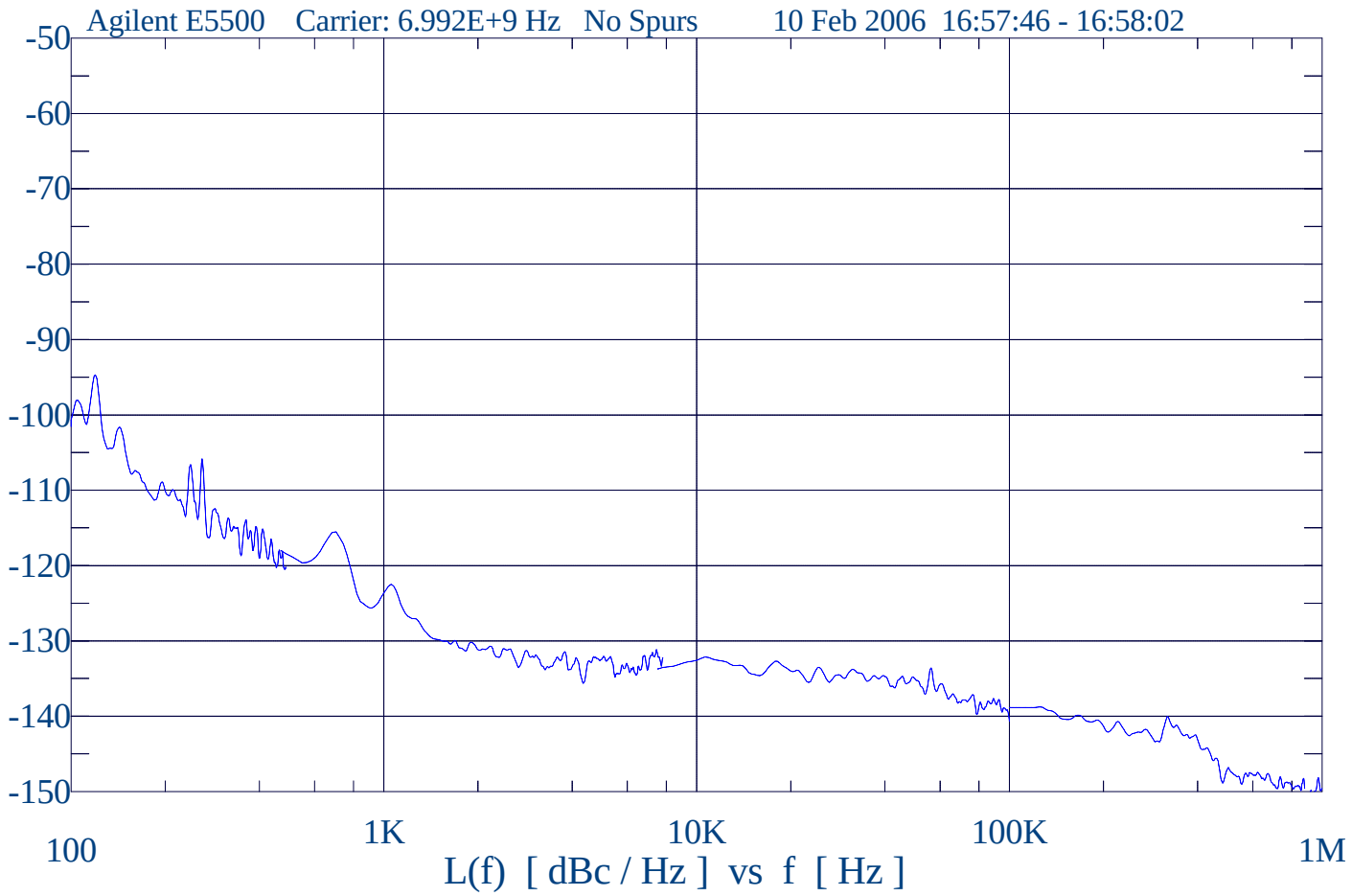
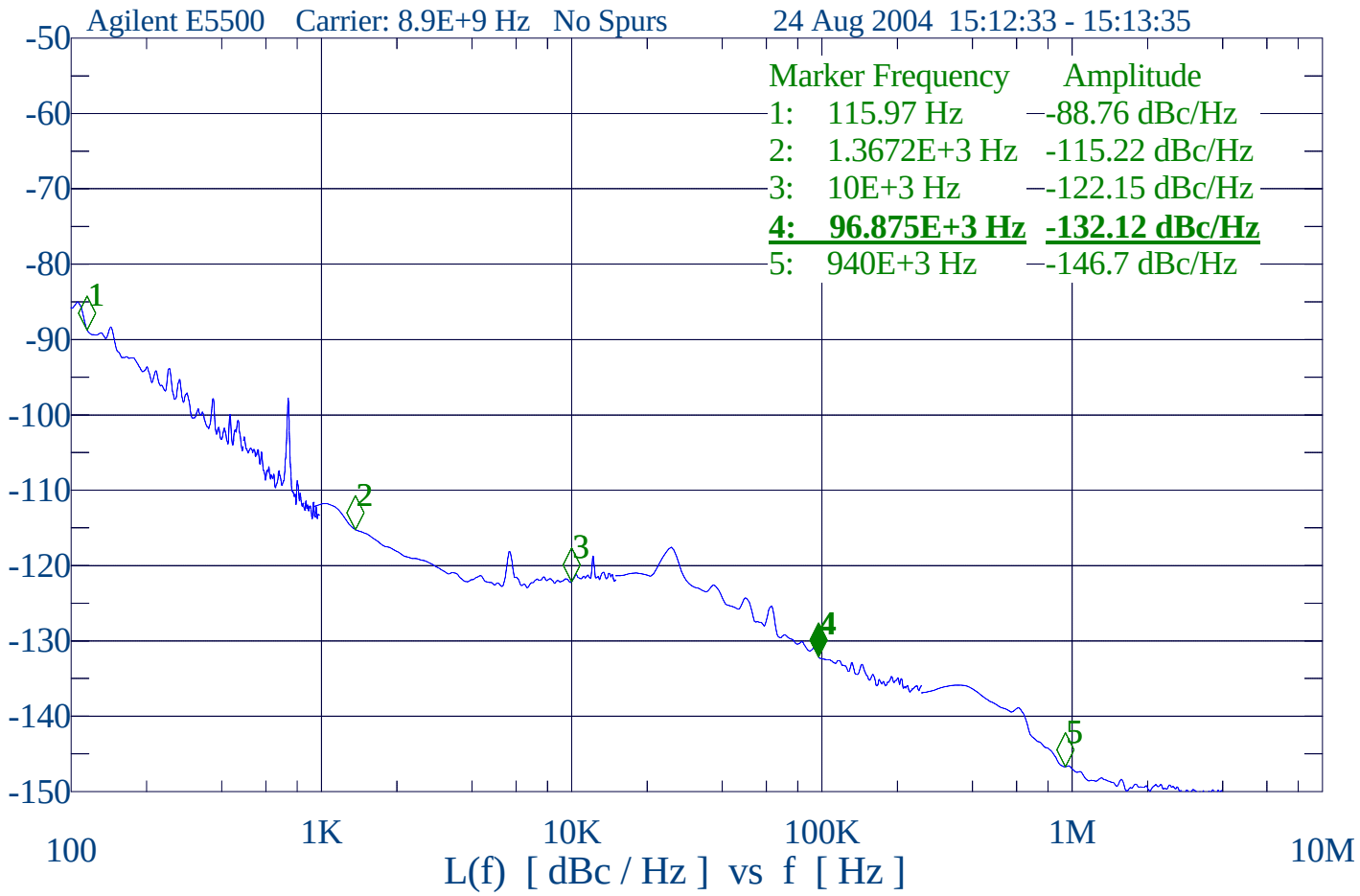
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com

1.748 GHz PLCRO SN2969 w PLXO SN2970



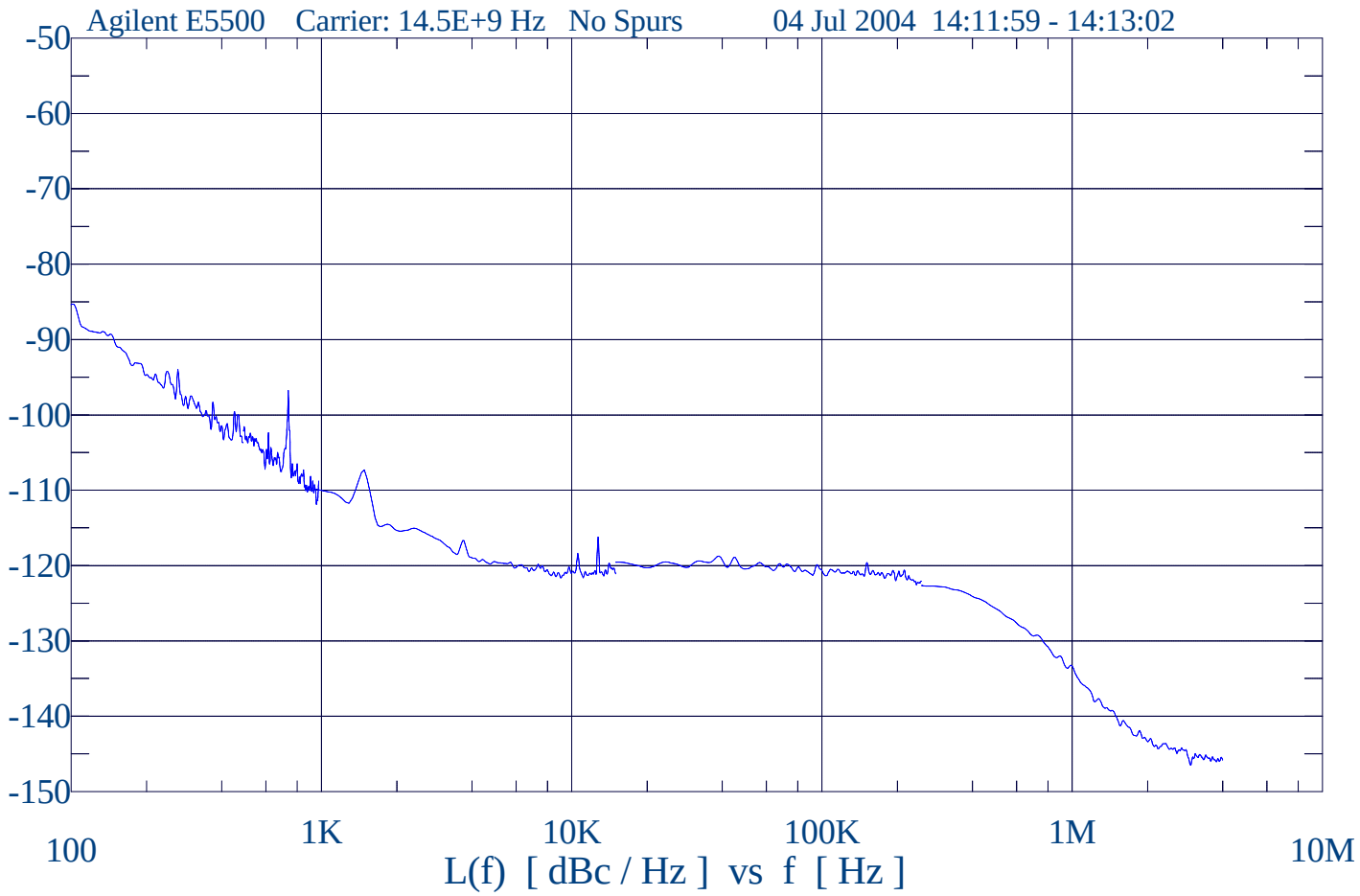
1.748 GHz PLCRO SN2969 w PLXO SN2970
Measurement time: 10 Feb 2006 16:57:46 - 16:58:02
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 6.992E+9 Hz
Detector input frequency: 392E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 284E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.48E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.8351E+3 Hz
Peak Tune Range: 90.436E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: Agilent/HP 8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: Agilent/HP 70427A
LNA gain: 42 dB
Software Version: A.01.05

8.9 GHz PLDRO SN2018 w PLXO SN1983



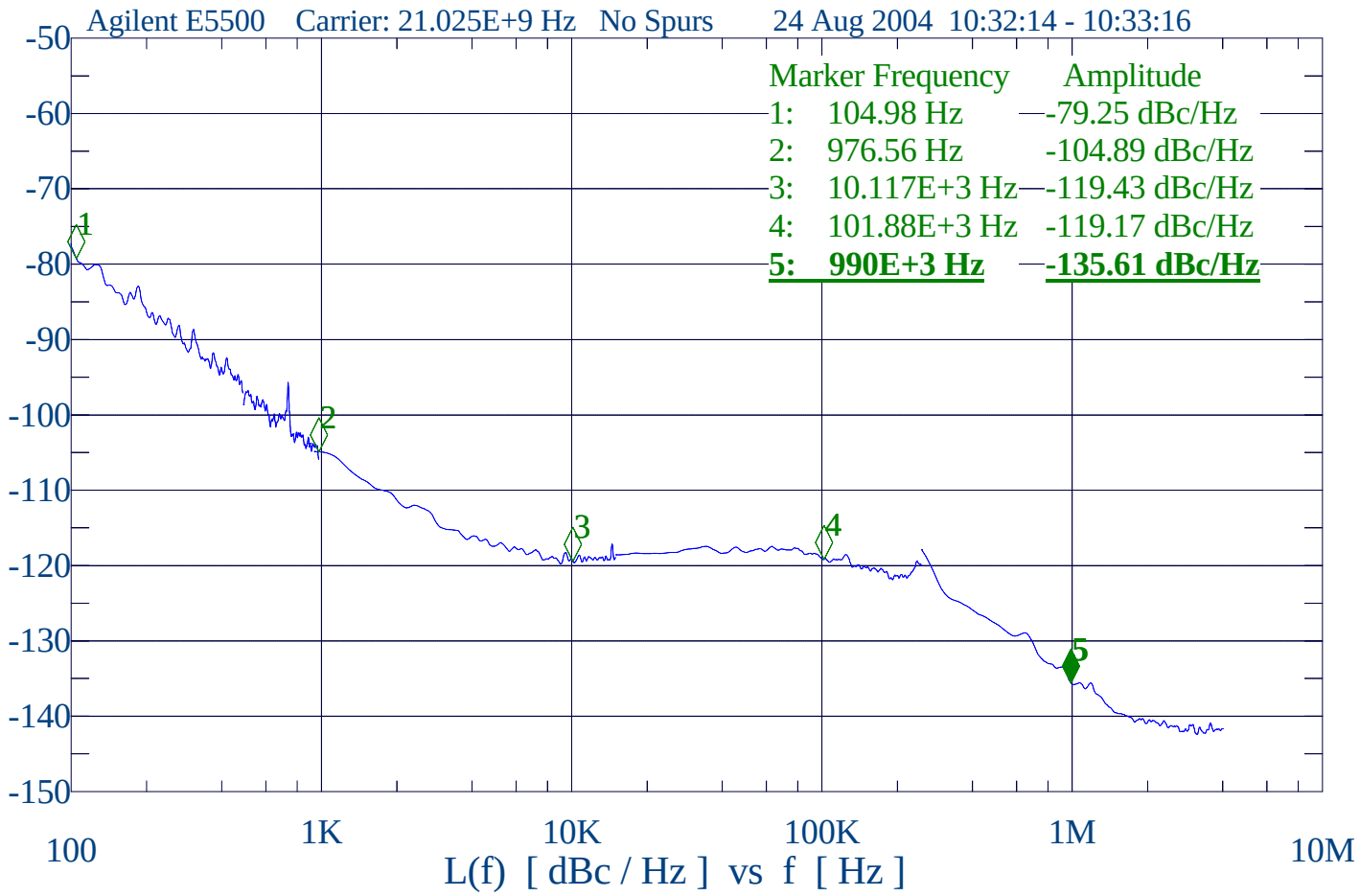
8.9 GHz PLDRO SN2018 w PLXO SN1983
Measurement time: 24 Aug 2004 15:12:33 - 15:13:35
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 8.9E+9 Hz
Detector input frequency: 499.993023438E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 147.5E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.44E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.935E+3 Hz
Peak Tune Range: 93.623E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

14.5GHz PLDRO SN1948 w PLXO SN 1482



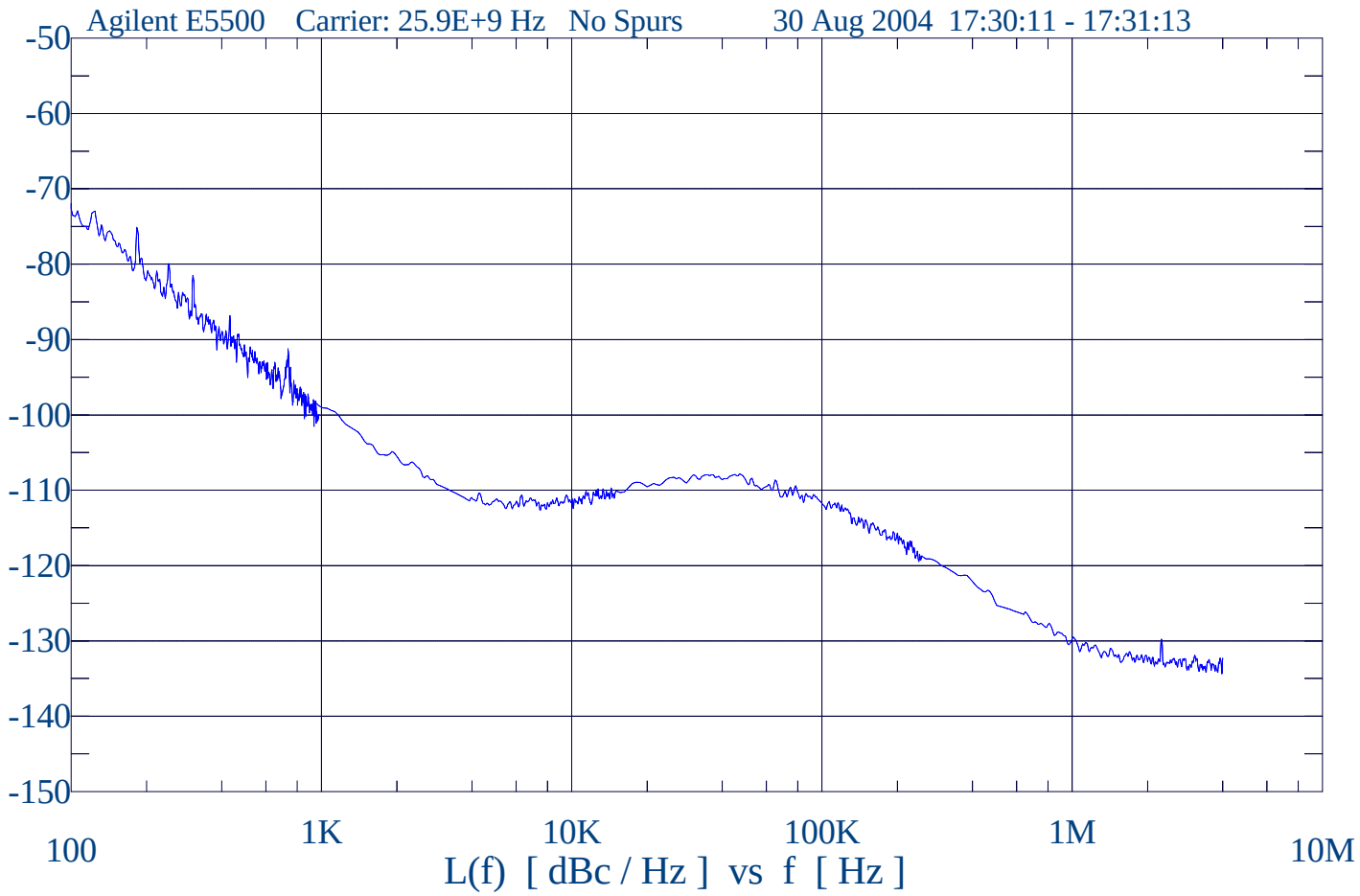
14.5GHz PLDRO SN1948 w PLXO SN 1482
Measurement time: 04 Jul 2004 14:11:59 - 14:13:02
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 14.5E+9 Hz
Detector input frequency: 500.026421875E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 10E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 156.9E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 9.67E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 1.2432E+3 Hz
Peak Tune Range: 15.793E+3 Hz
Assumed Pole: 29.5E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

21.025GHz PLDRO SN1967 w PLXO SN1968



21.025GHz PLDRO SN1967 w PLXO SN1968
Measurement time: 24 Aug 2004 10:32:14 - 10:33:16
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 21.025E+9 Hz
Detector input frequency: 575.036515625E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 228.8E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.41E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.8715E+3 Hz
Peak Tune Range: 91.597E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

25.9GHz PLDRO SN1969 w PLXO SN1970



25.9GHz PLDRO SN1969 w PLXO SN1970
Measurement time: 30 Aug 2004 17:30:11 - 17:31:13
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 25.9E+9 Hz
Detector input frequency: 699.977882813E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 168E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.43E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.6556E+3 Hz
Peak Tune Range: 84.712E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

Phase Noise Plots

Free Running DRO's

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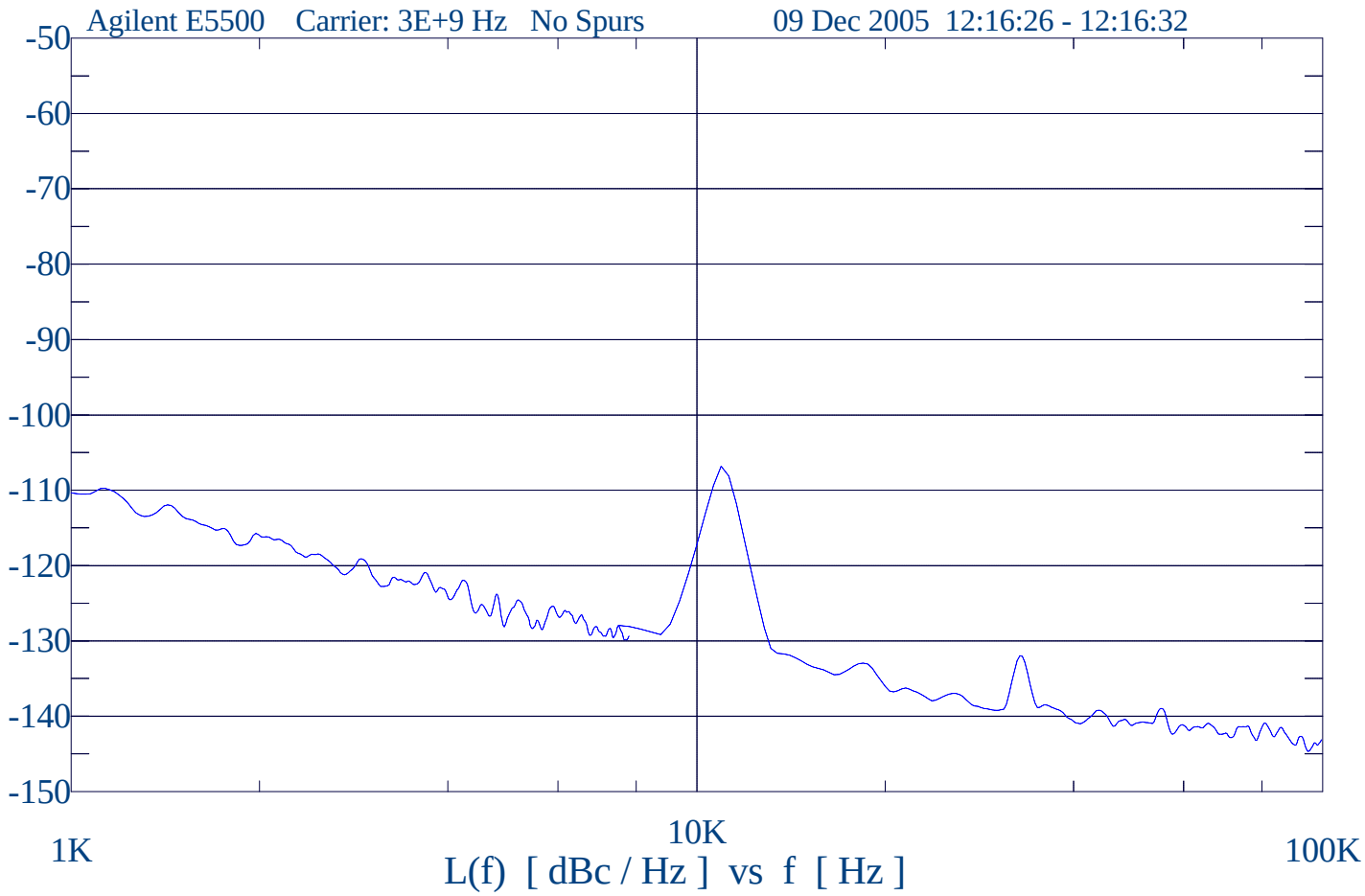
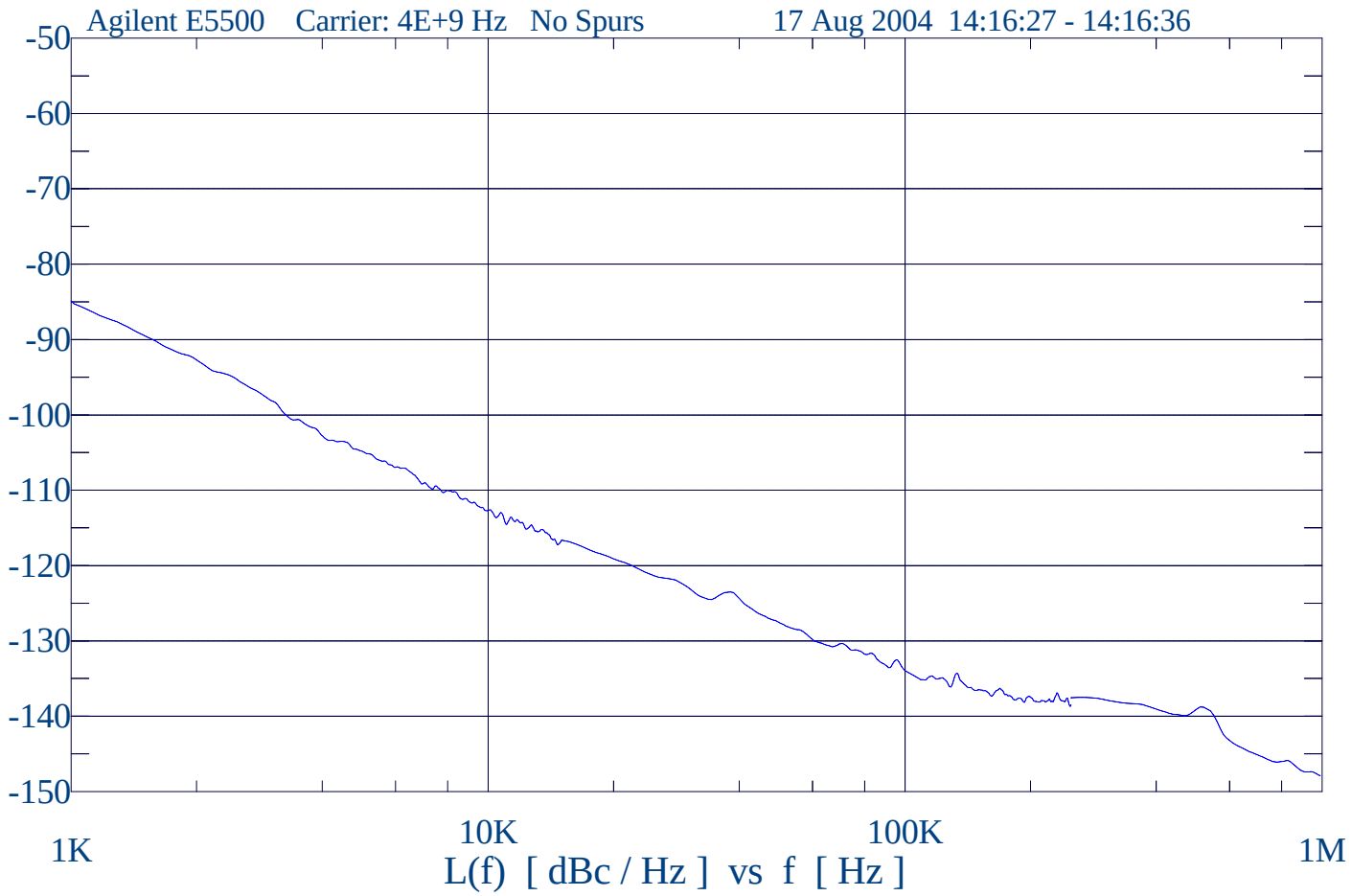
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com

750 MHz CRO SN2870



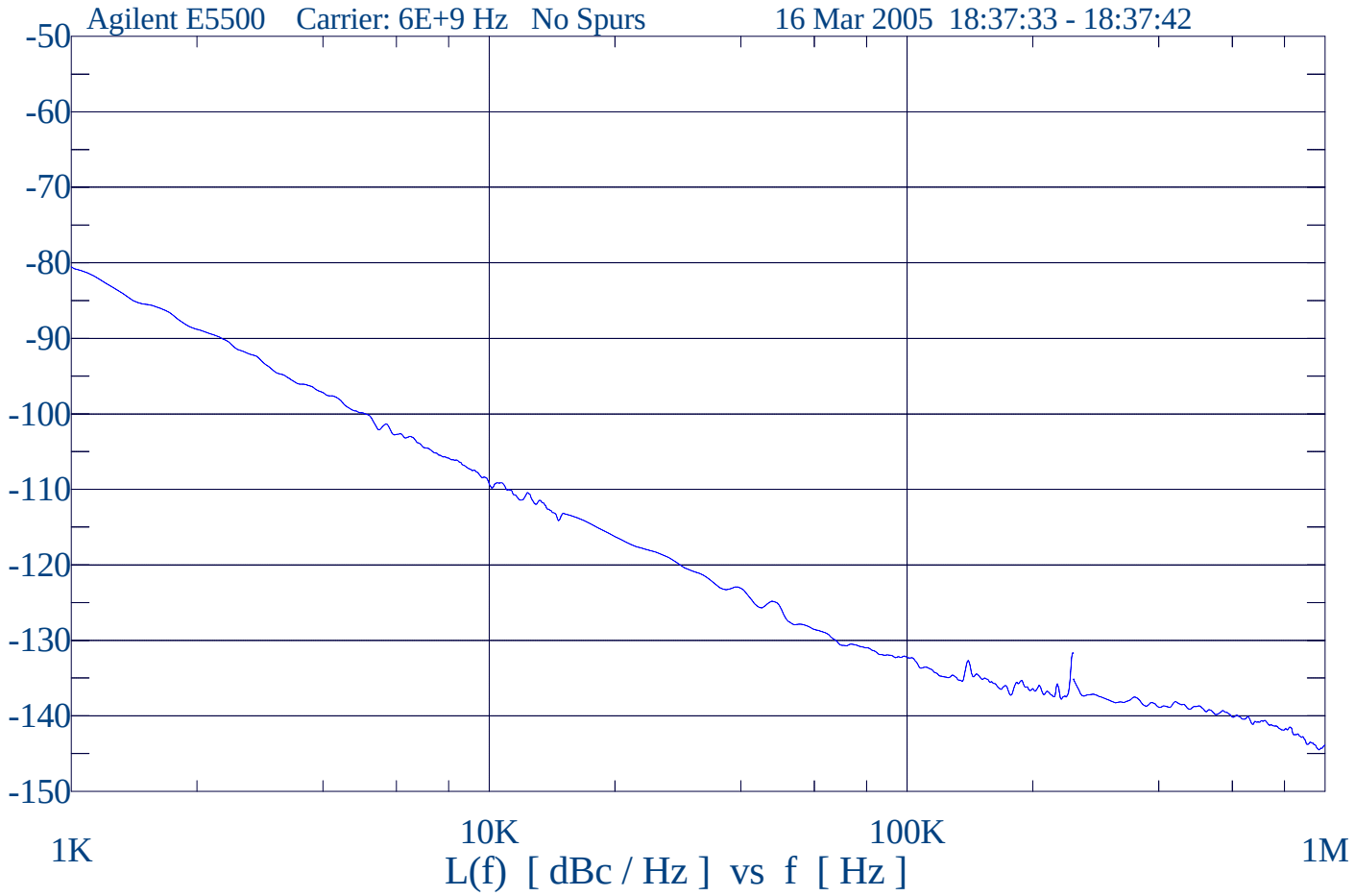
750 MHz CRO SN2870
Measurement time: 09 Dec 2005 12:16:26 - 12:16:32
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 1E+3 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 3E+9 Hz
Detector input frequency: 599.907375E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 127.2E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 47.82E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.4993E+3 Hz
Peak Tune Range: 79.724E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

4.0GHz FRDRO SN2002



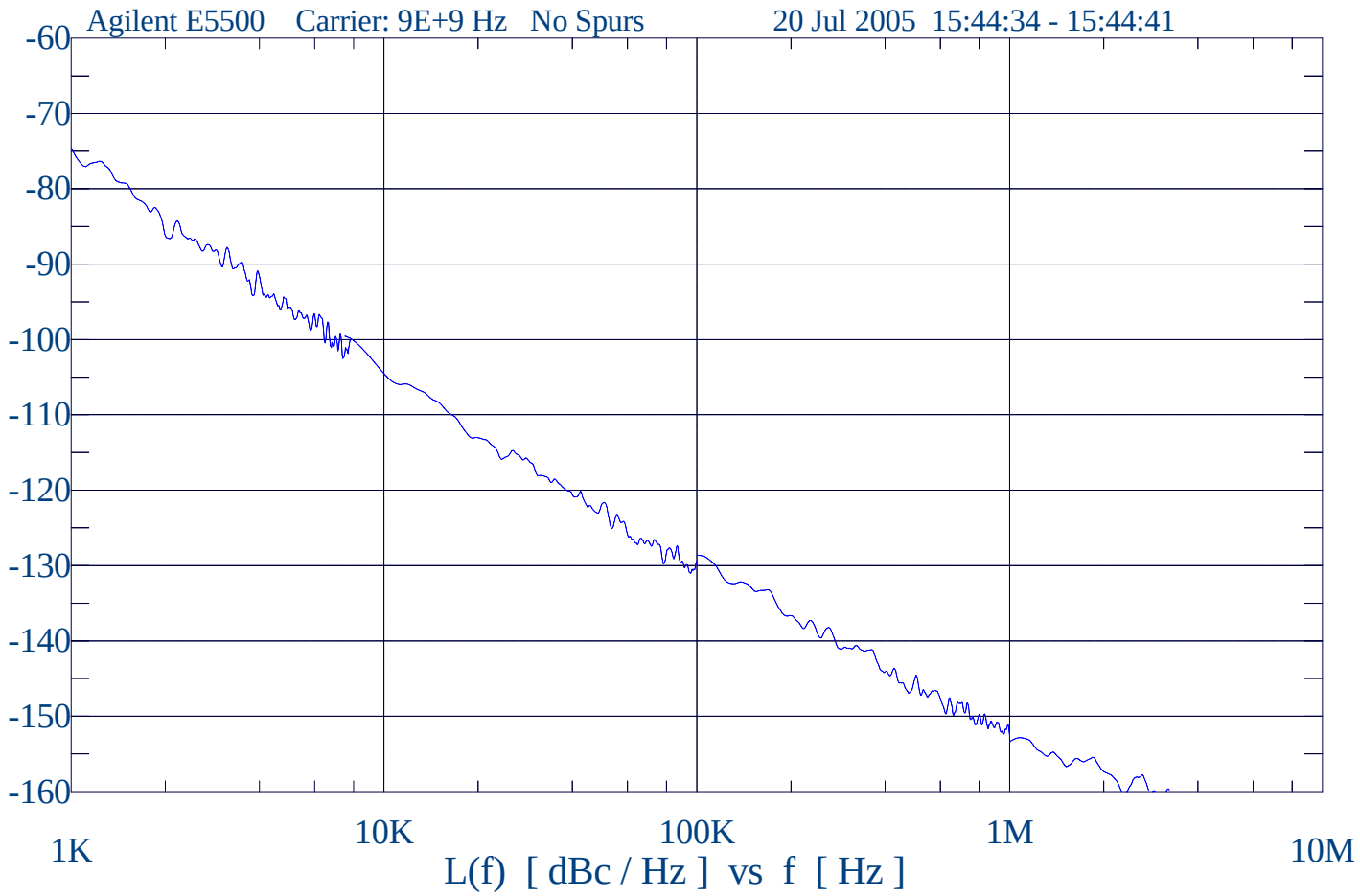
4.0GHz FRDRO SN2002
Measurement time: 17 Aug 2004 14:16:27 - 14:16:36
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 1E+3 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 4E+9 Hz
Detector input frequency: 400.08075E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 50E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 305.3E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 48.66E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.43E+3 Hz
Peak Tune Range: 77.514E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

6.0 GHz FRDRO SN2673



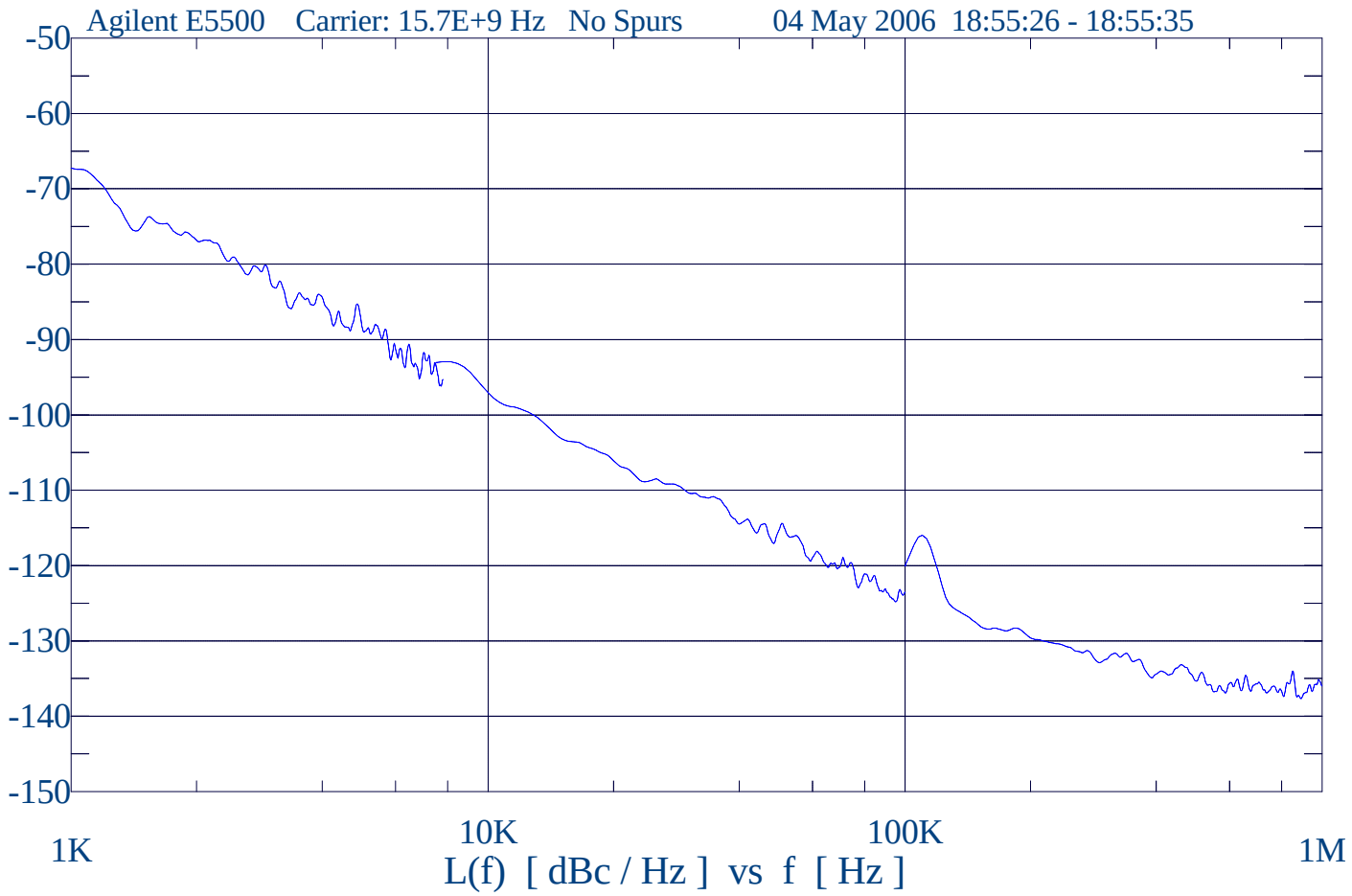
6.0 GHz FRDRO SN2673
Measurement time: 16 Mar 2005 18:37:33 - 18:37:42
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 1E+3 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 6E+9 Hz
Detector input frequency: 600.009871094E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 49E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 153.4E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 46.35E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.3208E+3 Hz
Peak Tune Range: 74.033E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

9.0 GHz VTDRO SN2781 FM disc



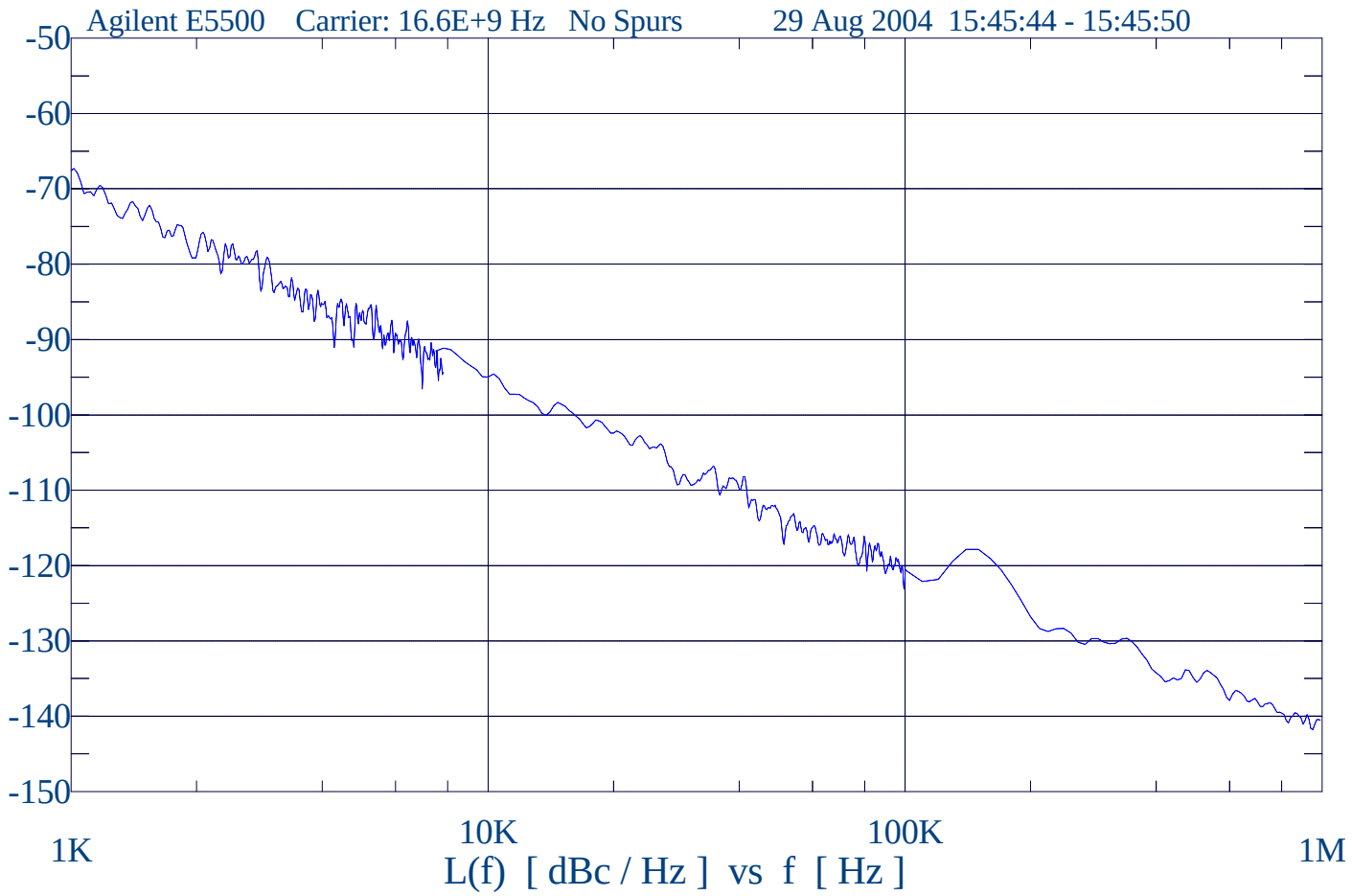
9.0 GHz VTDRO SN2781 FM disc
Measurement time: 20 Jul 2005 15:44:34 - 15:44:41
Measurement type: Absolute phase noise (using an FM discriminator)
Start offset frequency: 1E+3 Hz
Stop offset frequency: 4E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 9E+9 Hz
Detector input frequency: 9E+9 Hz
Detector: Test set microwave phase detector
Detector constant cal method: Use current.
Detector constant: 31.62E-9 V/Hz
Quadrature was established by: adjusting phase shifter
Carrier Source: (manual)
Calibration Source: (manual)
LNA gain: 56 dB
Software Version: A.01.05

15.7 GHz FRDRO SN3197



15.7 GHz FRDRO SN3197
Measurement time: 04 May 2006 18:55:26 - 18:55:35
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 1E+3 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 15.7E+9 Hz
Detector input frequency: 500.031765625E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 49E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 178.6E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 47.38E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.7624E+3 Hz
Peak Tune Range: 88.118E+3 Hz
Assumed Pole: 75E+3 Hz
Carrier Source: (manual)
Reference Source: Agilent/HP 8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: Agilent/HP 70427A
LNA gain: 42 dB
Software Version: A.01.05

16.6GHz FRDRO SN2020



16.6GHz FRDRO SN2020
Measurement time: 29 Aug 2004 15:45:44 - 15:45:50
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 1E+3 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 16.6E+9 Hz
Detector input frequency: 399.89075E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 99E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 218.2E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 95.89E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 2.1583E+3 Hz
Peak Tune Range: 173.02E+3 Hz
Assumed Pole: 150E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 28 dB
Software Version: A.01.05

Phase Noise Plots

Crystal Oscillators

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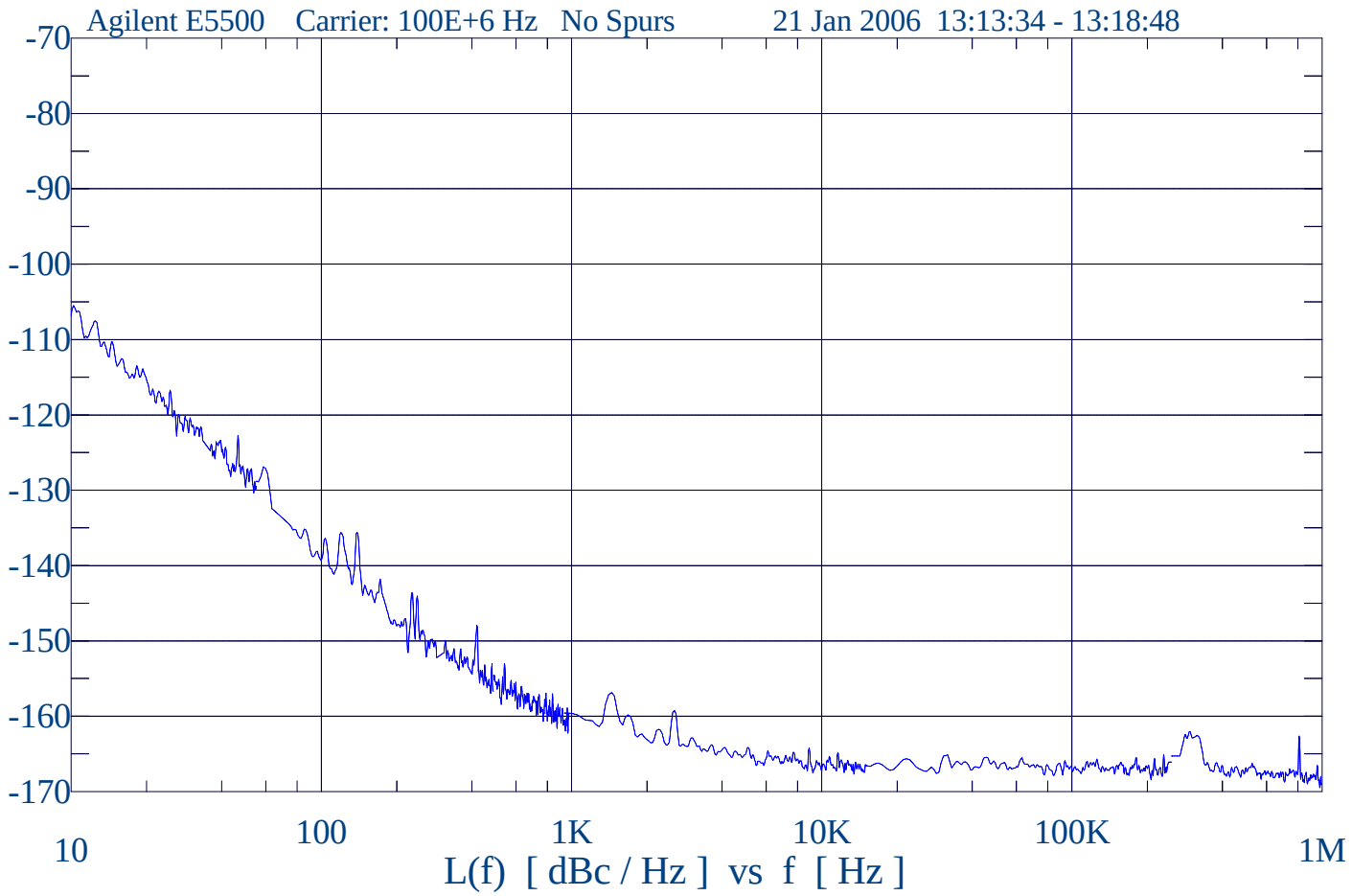
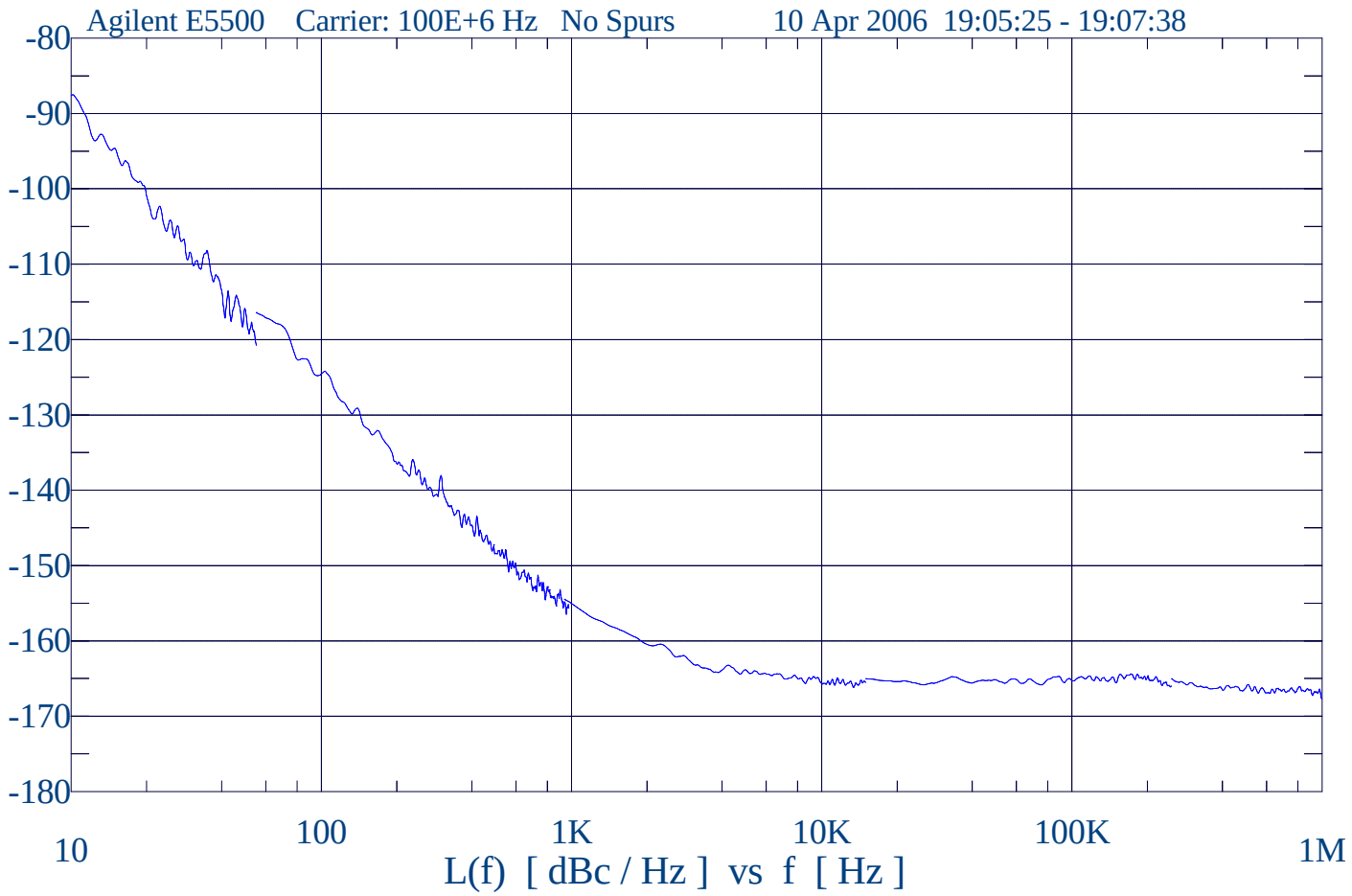
NXOS-XO-50.000-ULN



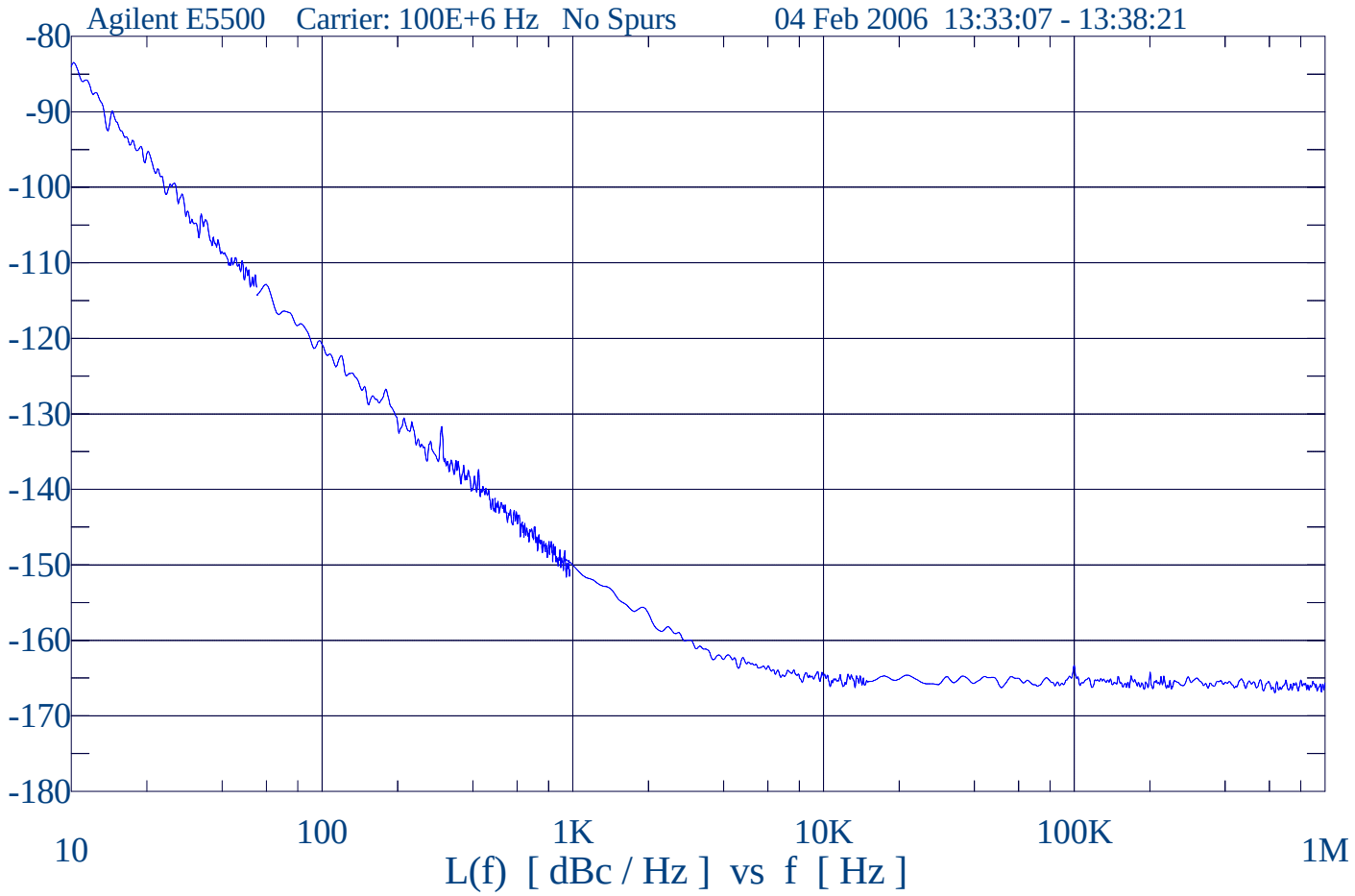
NXOS-XO-50.000-ULN
Measurement time: 21 Jan 2006 13:13:34 - 13:18:48
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 10 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 32
Carrier Source frequency: 100E+6 Hz
Detector input frequency: 100E+6 Hz
Detector: Test set RF phase detector
Nominal VCO tune constant: 200 Hz/Volt
VCO center voltage: -1.16 Volts
VCO tune range: 9 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 381E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 192.1 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 296.26 Hz
Peak Tune Range: 1.4959E+3 Hz
Assumed Pole: 11.25E+3 Hz
Carrier Source: (manual)
Reference Source: (manual)
Time Base: (none)
Downconverter: Agilent/HP 70427A ; VCO tuned using EFC.
LNA gain: 42 dB
Software Version: A.01.05

NXOS-XO-100.000-LN



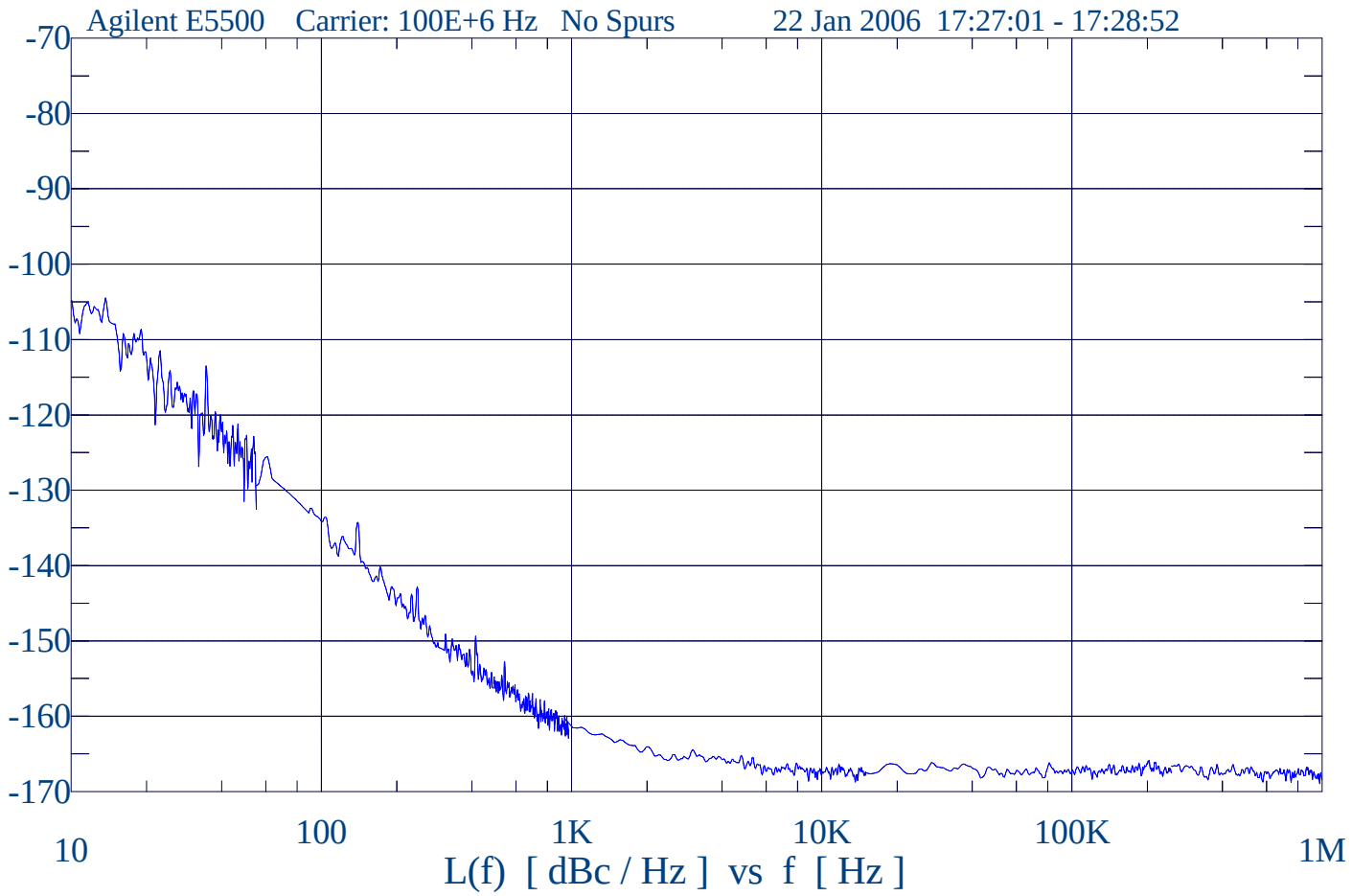
NXOS-XO-100.000-LN
Measurement time: 10 Apr 2006 19:05:25 - 19:07:38
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 10 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 8
Carrier Source frequency: 100E+6 Hz
Detector input frequency: 100E+6 Hz
Detector: Test set RF phase detector
Nominal VCO tune constant: 200 Hz/Volt
VCO center voltage: -781E-3 Volts
VCO tune range: 1 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 306.2E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 187 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 73.495 Hz
Peak Tune Range: 147.34 Hz
Assumed Pole: 4E+3 Hz
Carrier Source: (manual)
Reference Source: (manual)
Time Base: (none)
Downconverter: Agilent/HP 70427A ; VCO tuned using EFC.
LNA gain: 42 dB
Software Version: A.01.05

NXOS-PLXO-100.000-ST



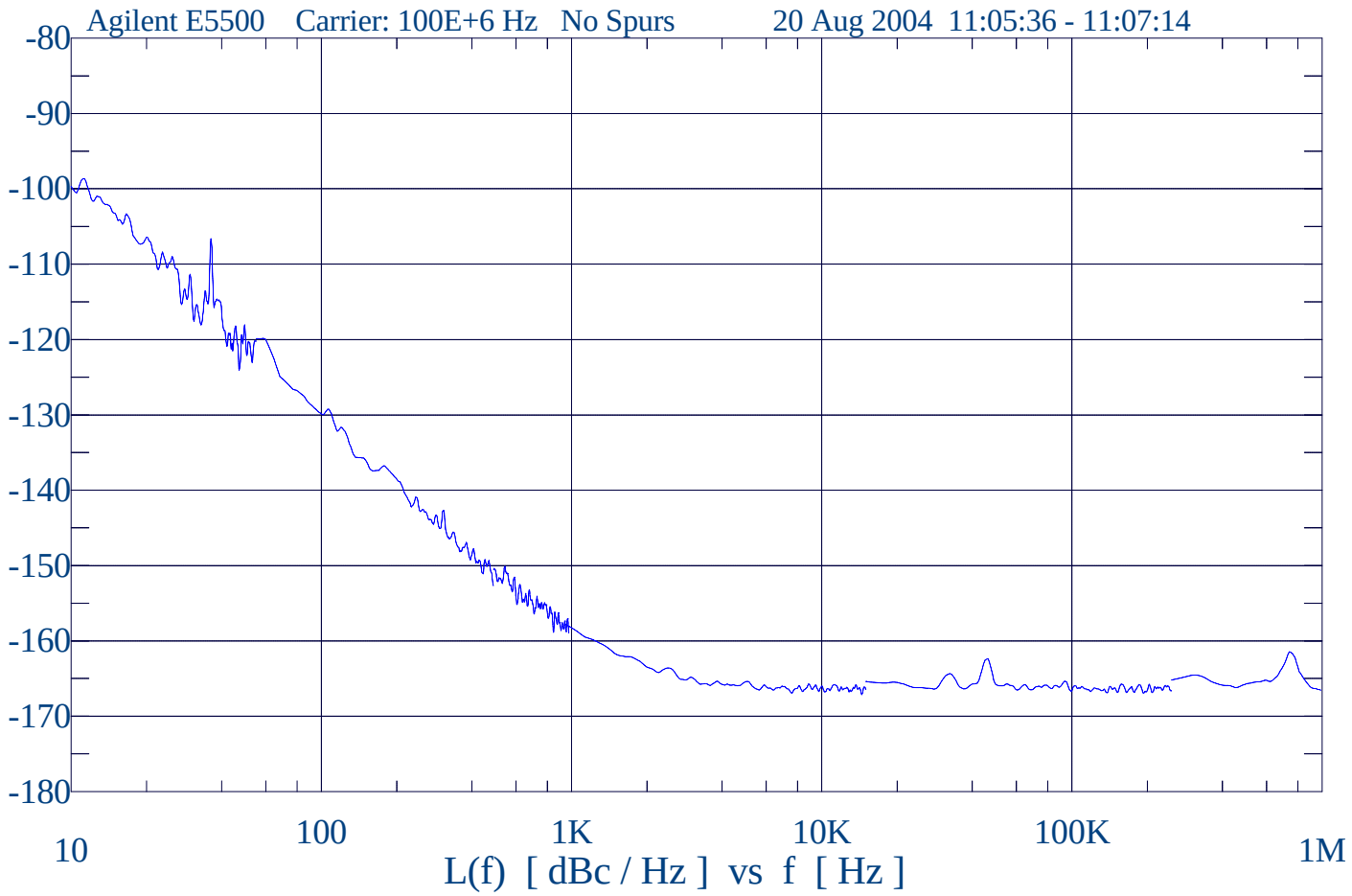
NXOS-PLXO-100.000-ST
Measurement time: 04 Feb 2006 13:33:07 - 13:38:21
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 10 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 32
Carrier Source frequency: 100E+6 Hz
Detector input frequency: 100E+6 Hz
Detector: Test set RF phase detector
Nominal VCO tune constant: 200 Hz/Volt
VCO center voltage: -850E-3 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 277.3E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 188.5 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 65.222 Hz
Peak Tune Range: 329.31 Hz
Assumed Pole: 11.25E+3 Hz
Carrier Source: (manual)
Reference Source: (manual)
Time Base: (none)
Downconverter: Agilent/HP 70427A ; VCO tuned using EFC.
LNA gain: 42 dB
Software Version: A.01.05

NXOS-PLXO-50.000-ULN



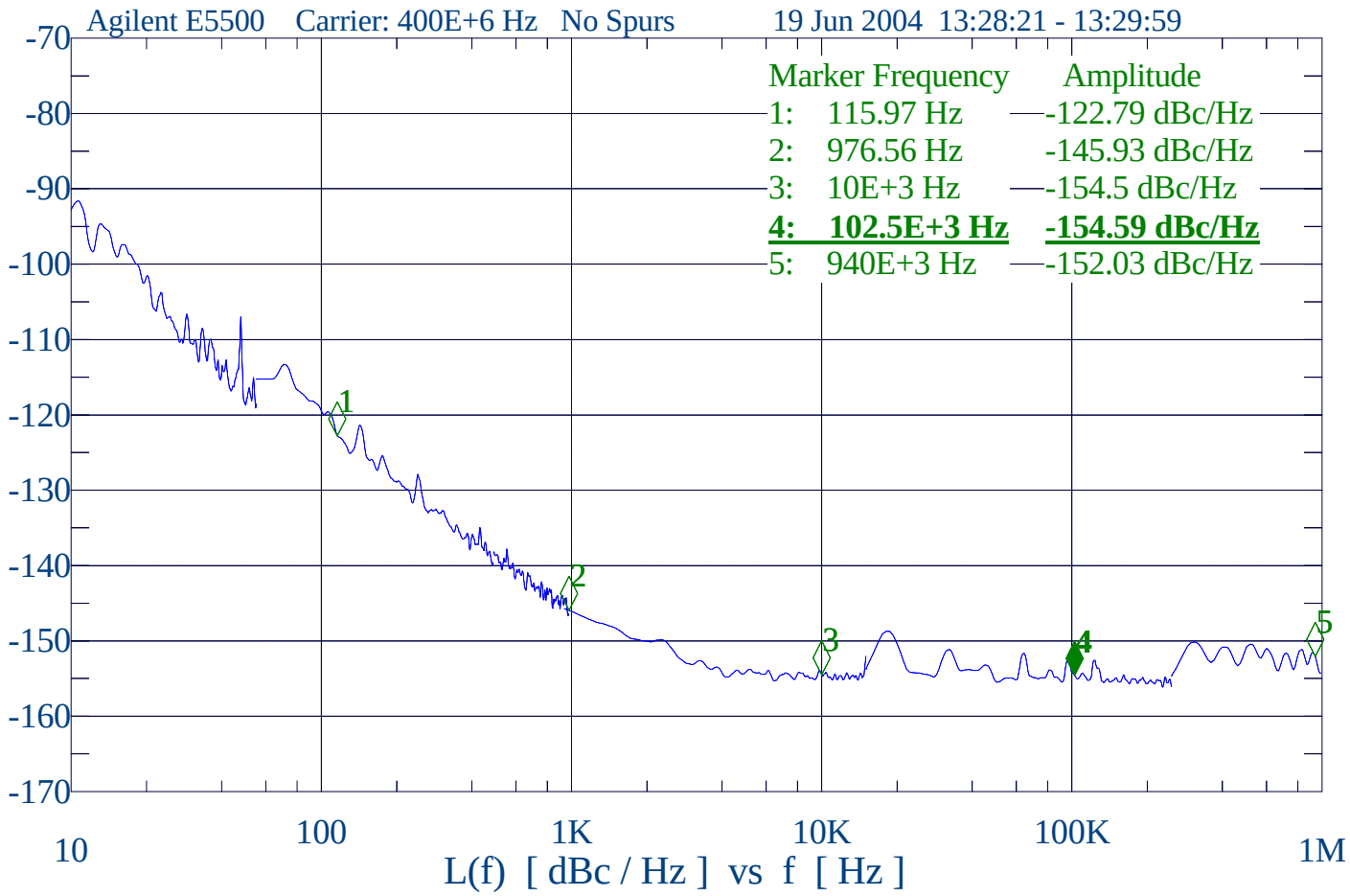
NXOS-PLXO-50.000-ULN
Measurement time: 22 Jan 2006 17:27:01 - 17:28:52
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 10 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 100E+6 Hz
Detector input frequency: 100E+6 Hz
Detector: Test set RF phase detector
Nominal VCO tune constant: 200 Hz/Volt
VCO center voltage: -1.05 Volts
VCO tune range: 9 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 287.5E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 190.6 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 279.4 Hz
Peak Tune Range: 1.4107E+3 Hz
Assumed Pole: 11.25E+3 Hz
Carrier Source: (manual)
Reference Source: (manual)
Time Base: (none)
Downconverter: Agilent/HP 70427A ; VCO tuned using EFC.
LNA gain: 42 dB
Software Version: A.01.05

NXOS-PLXO-100.000-ULN



NXOS-PLXO-100.000-ULN
Measurement time: 20 Aug 2004 11:05:36 - 11:07:14
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 10 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 100E+6 Hz
Detector input frequency: 100E+6 Hz
Detector: Test set RF phase detector
Nominal VCO tune constant: 200 Hz/Volt
VCO center voltage: -856E-3 Volts
VCO tune range: 1 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 245.7E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 190.9 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 76.036 Hz
Peak Tune Range: 152.43 Hz
Assumed Pole: 4E+3 Hz
Carrier Source: (manual)
Reference Source: (manual)
Time Base: (none)
Downconverter: HP-70427 ; VCO tuned using EFC.
LNA gain: 42 dB
Software Version: A.01.05

400MHz PLXO SN1939

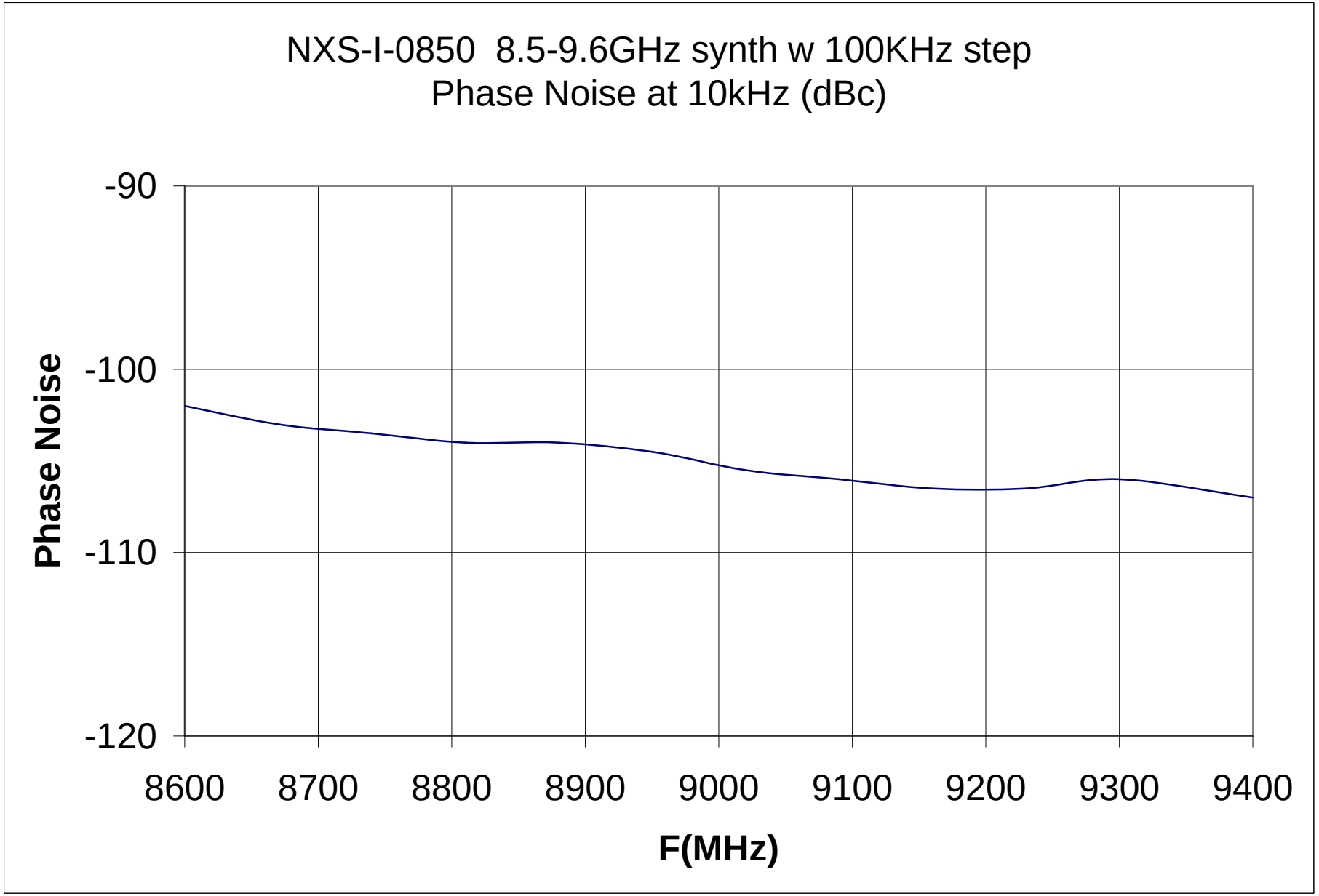


400MHz PLXO SN1939
Measurement time: 19 Jun 2004 13:28:21 - 13:29:59
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 10 Hz
Stop offset frequency: 1E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 400E+6 Hz
Detector input frequency: 400E+6 Hz
Detector: Test set RF phase detector
Nominal VCO tune constant: 800 Hz/Volt
VCO center voltage: -812E-3 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 261.1E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 764.7 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 257.97 Hz
Peak Tune Range: 1.3026E+3 Hz
Assumed Pole: 11.25E+3 Hz
Carrier Source: (manual)
Reference Source: (manual)
Time Base: (none)
Downconverter: HP-70427 ; VCO tuned using EFC.
LNA gain: 42 dB
Software Version: A.01.05

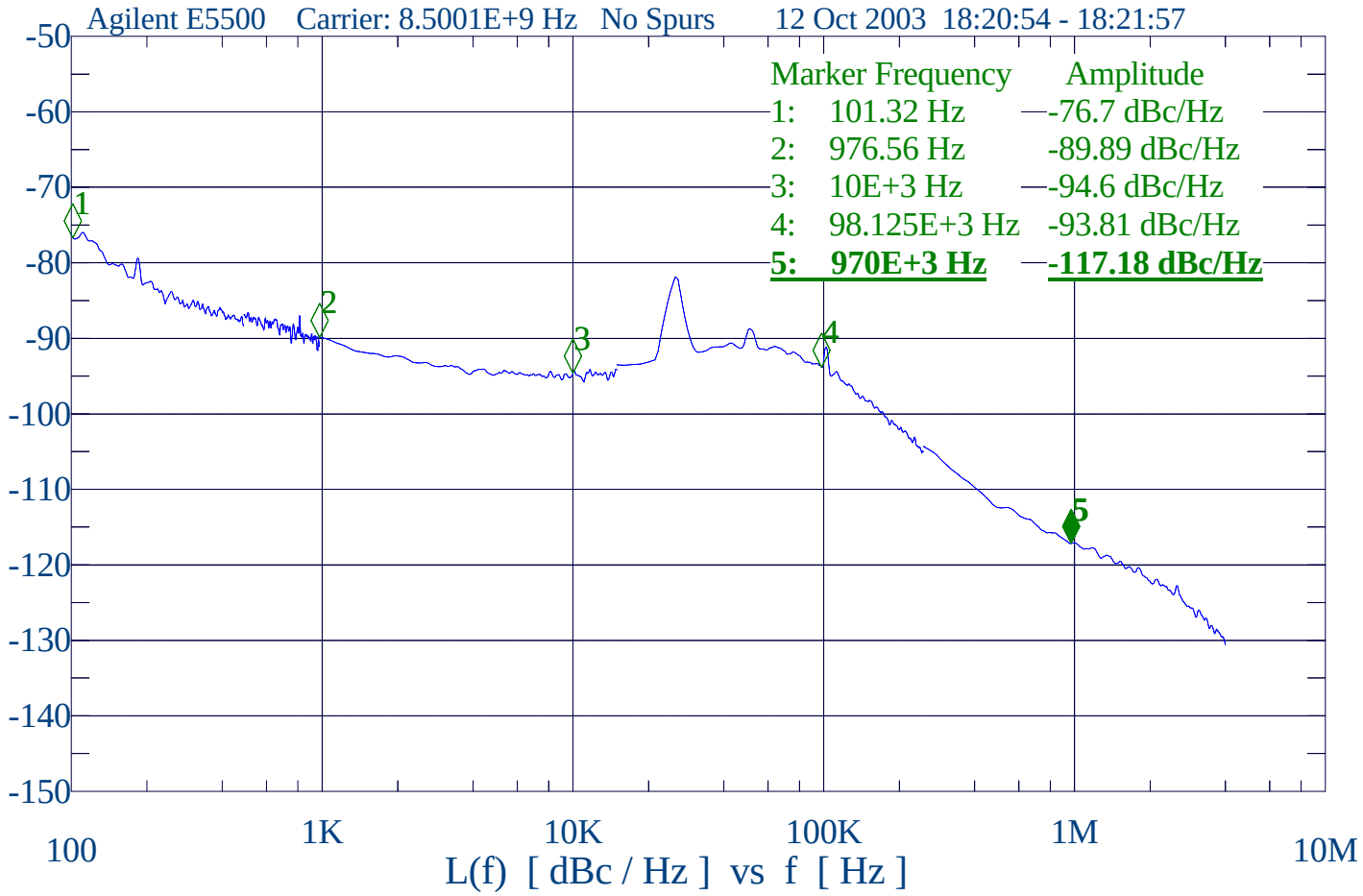
Phase Noise Plots

Synthesizers

Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com

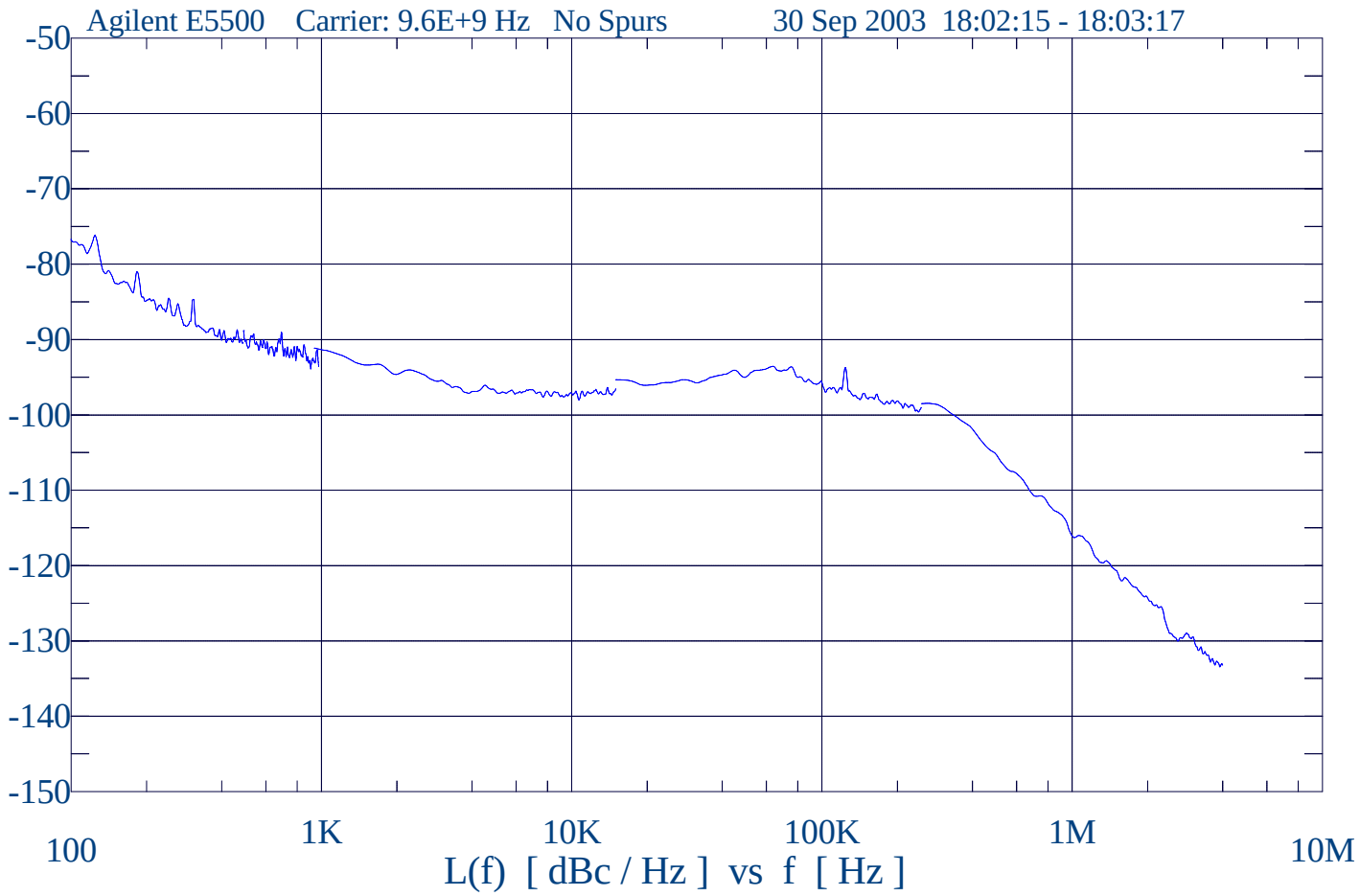

NXS-I-0850 8.5-9.6GHz synth w 100KHz step
Phase Noise at 10kHz (dBc)
Phase Noise
-90
-100
-110
-120
8600
8700
8800
8900
9000
9100
9200
9300
9400
F(MHz)

8.5001GHz synth output SN974



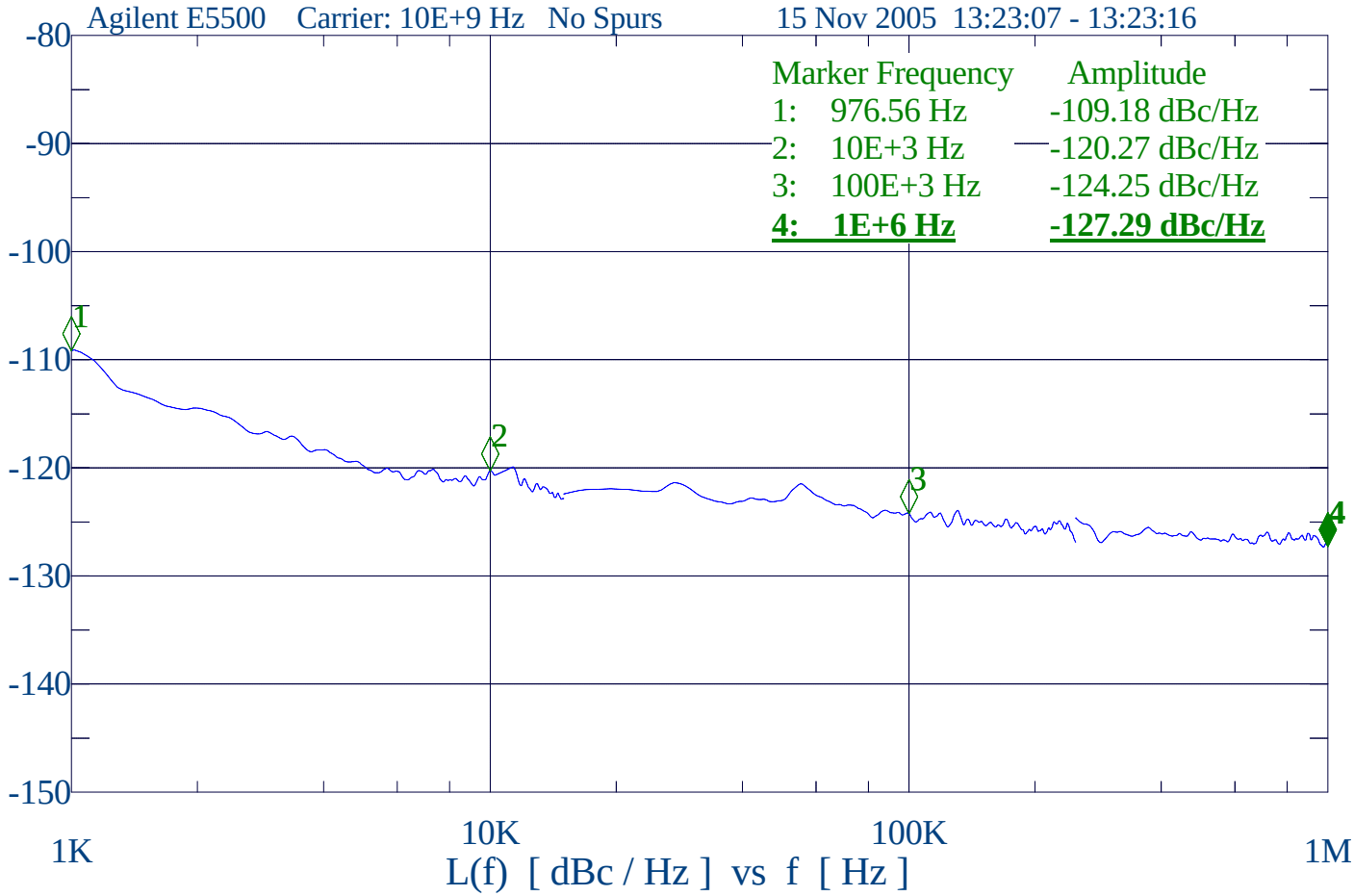
8.5001GHz synth output SN974
Measurement time: 12 Oct 2003 18:20:54 - 18:21:57
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 8.5001E+9 Hz
Detector input frequency: 499.926570313E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 10E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 232.3E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 9.665E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 1.4619E+3 Hz
Peak Tune Range: 18.57E+3 Hz
Assumed Pole: 29.5E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

9.6000GHz Synthesizer SN974 NXS-0850



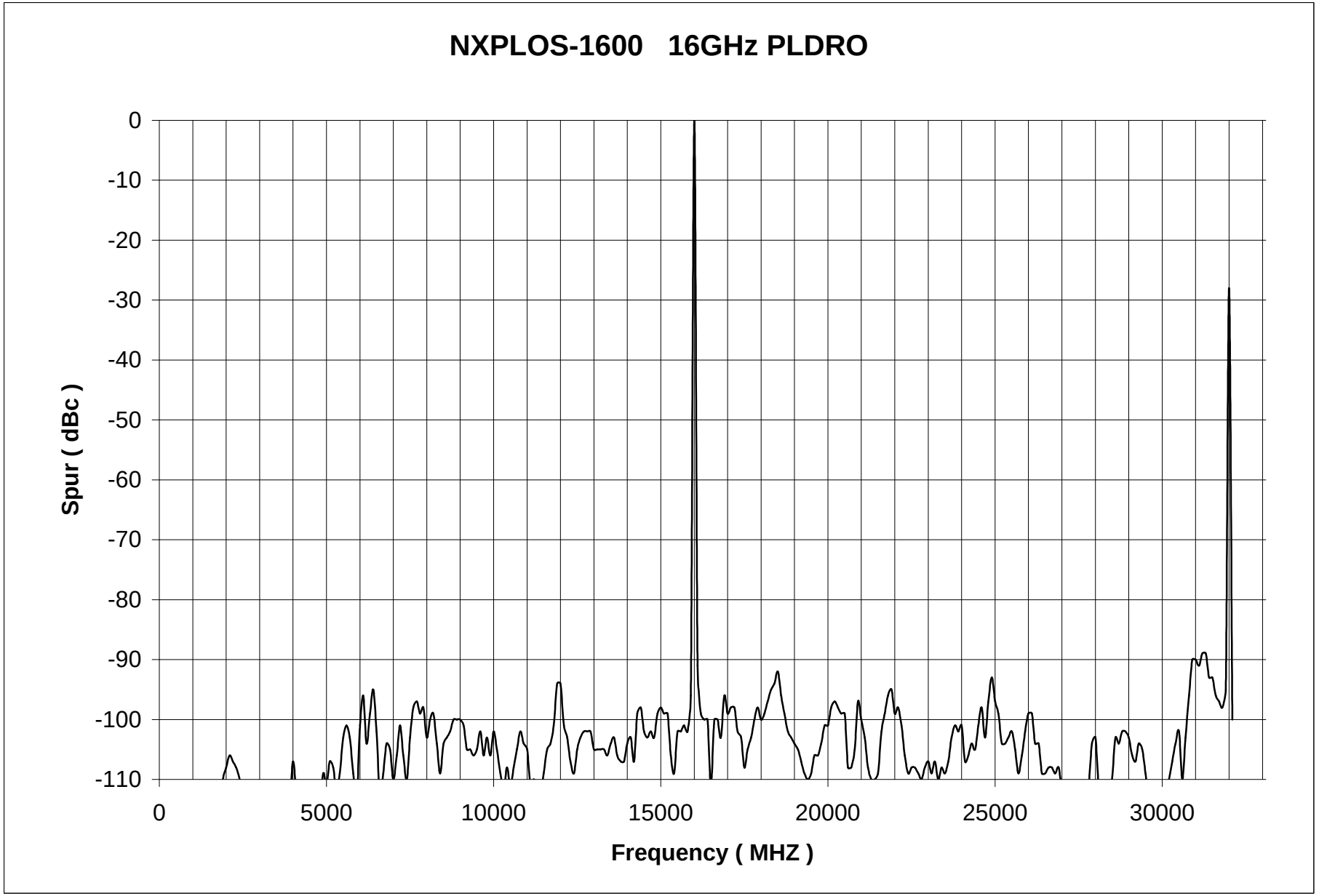
9.6000GHz Synthesizer SN974 NXS-0850
Measurement time: 30 Sep 2003 18:02:15 - 18:03:17
Measurement type: Absolute phase noise (using a phase locked loop)
Start offset frequency: 100 Hz
Stop offset frequency: 10E+6 Hz
Minimum number of FFT averages: 4
Carrier Source frequency: 9.6E+9 Hz
Detector input frequency: 600.030132813E+6 Hz
Detector: Automatic detector selection
Nominal VCO tune constant: 10E+3 Hz/Volt
VCO center voltage: 0 Volts
VCO tune range: 2 Volts
Detector constant cal method: Derive from measured beatnote.
Detector constant: 183.9E-3 V/Rad
VCO tune constant cal method: Measure the Tune Constant.
Current VCO tune constant: 9.67E+3 Hz/Volt
PLL Integrator attenuation: 0 dB
Phase Locked Loop suppression was NOT verified.
Closed PLL BW: 1.4571E+3 Hz
Peak Tune Range: 18.51E+3 Hz
Assumed Pole: 29.5E+3 Hz
Carrier Source: (manual)
Reference Source: HP-8662A ; VCO tuned using DC FM.
Time Base: (none)
Downconverter: HP-70427
LNA gain: 42 dB
Software Version: A.01.05

TYPICAL PHASE NOISE at 10 GHz

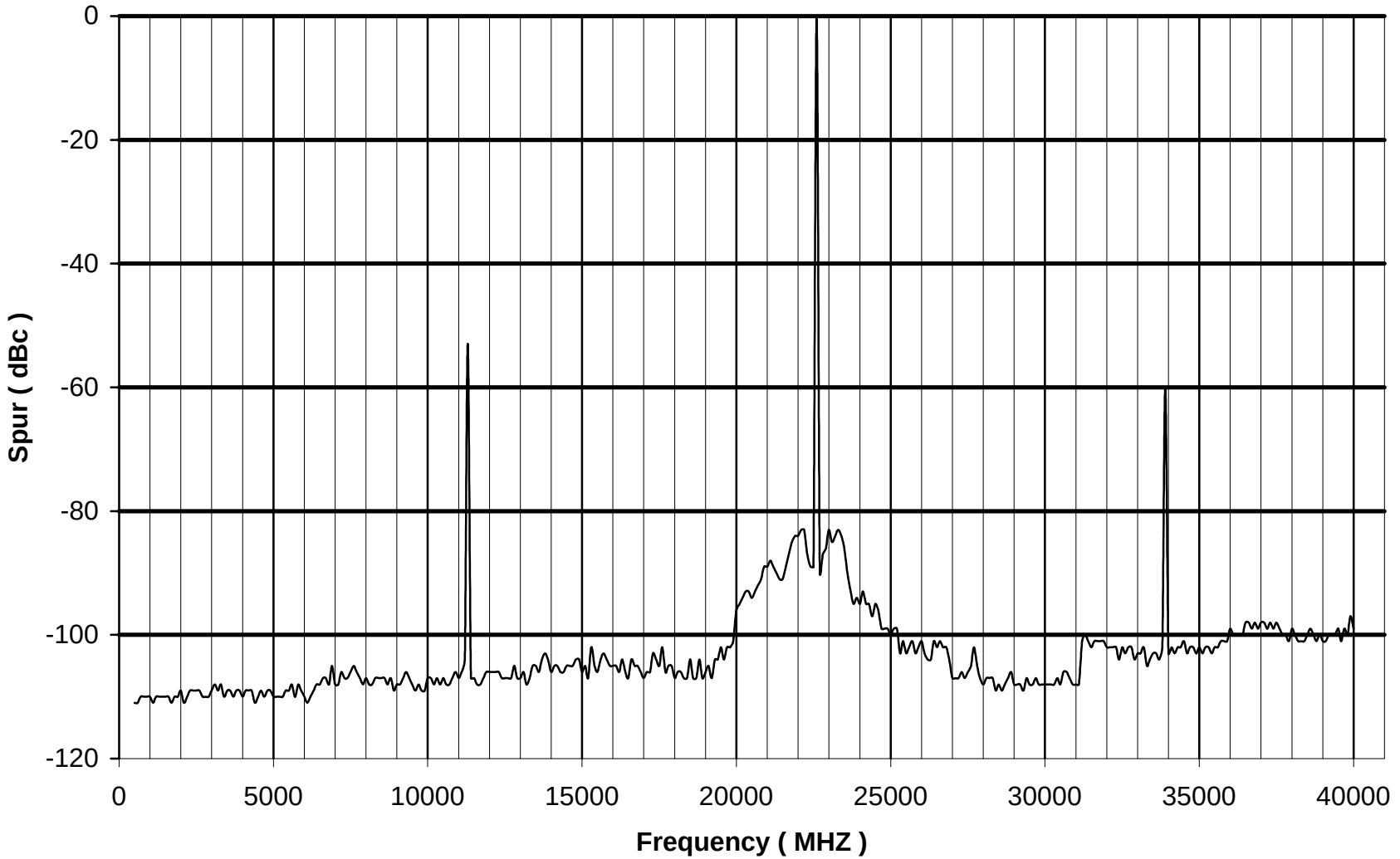


Spurious Plots

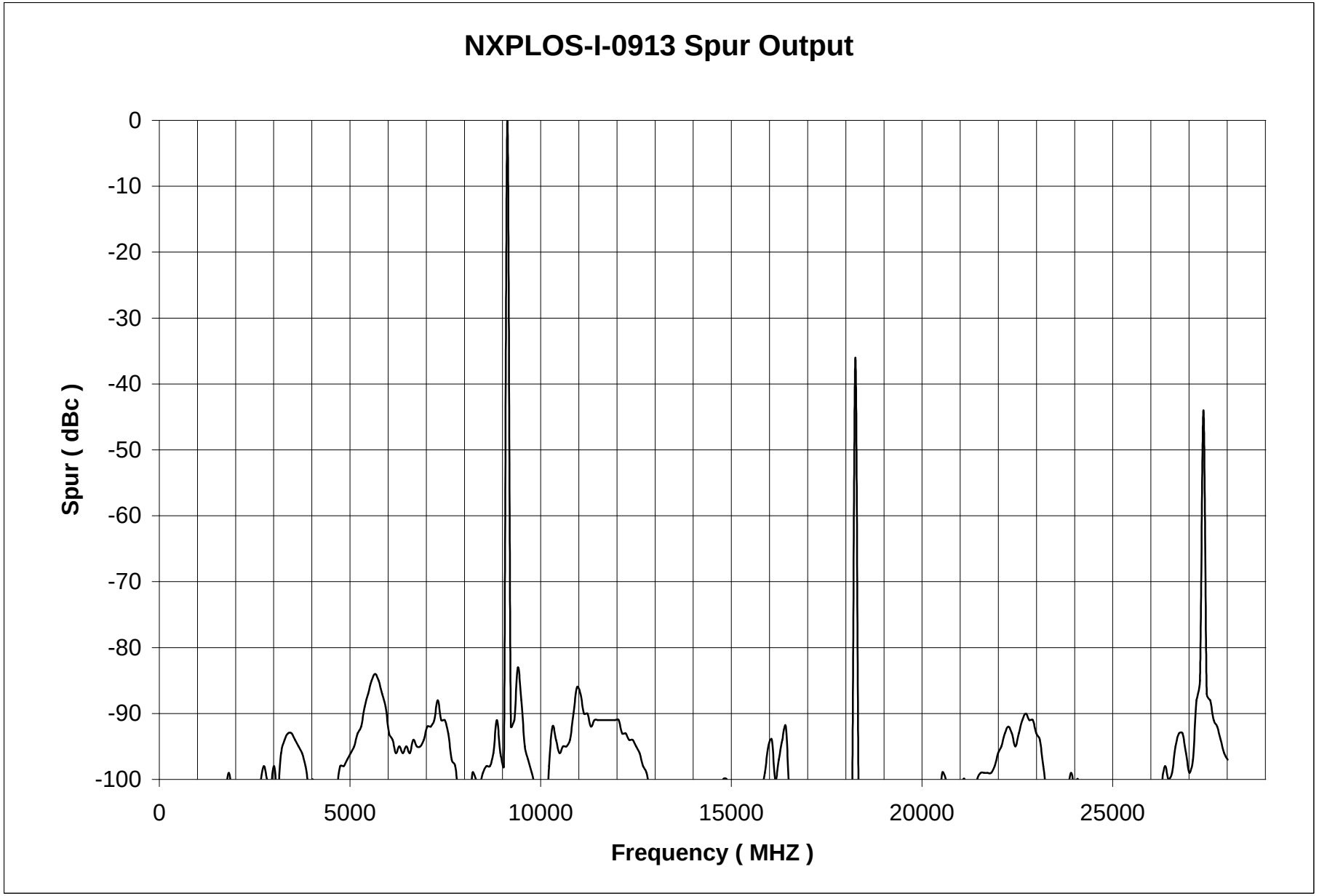
Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com


NXPLOS-1600 16GHz PLDRO
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
Spur (dBc)
0
5000
10000
15000
20000
25000
30000
Frequency (MHZ)

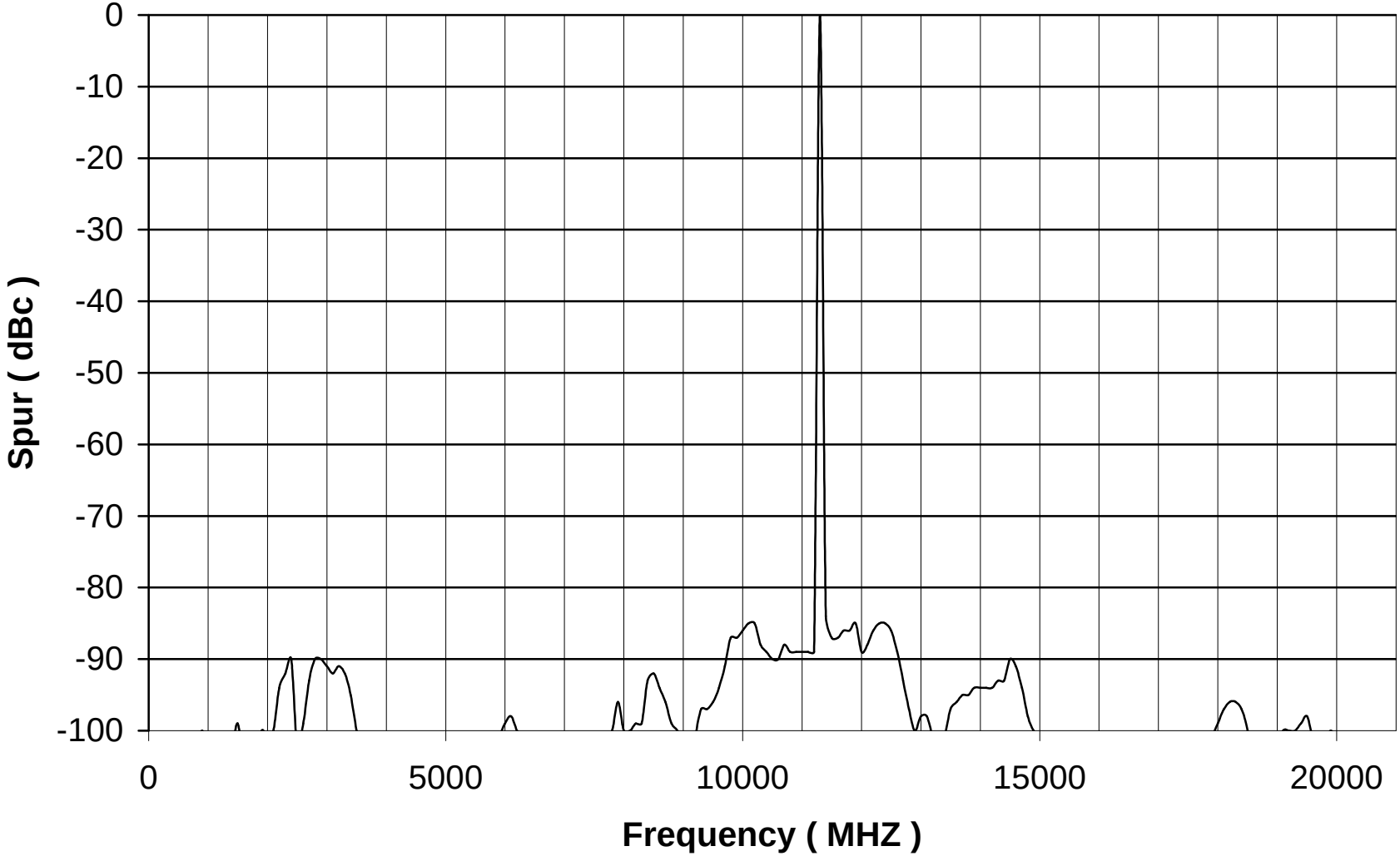
22.6 GHz Ext Ref PLDRO Model: NXPLOS-2260 (Spur Output)



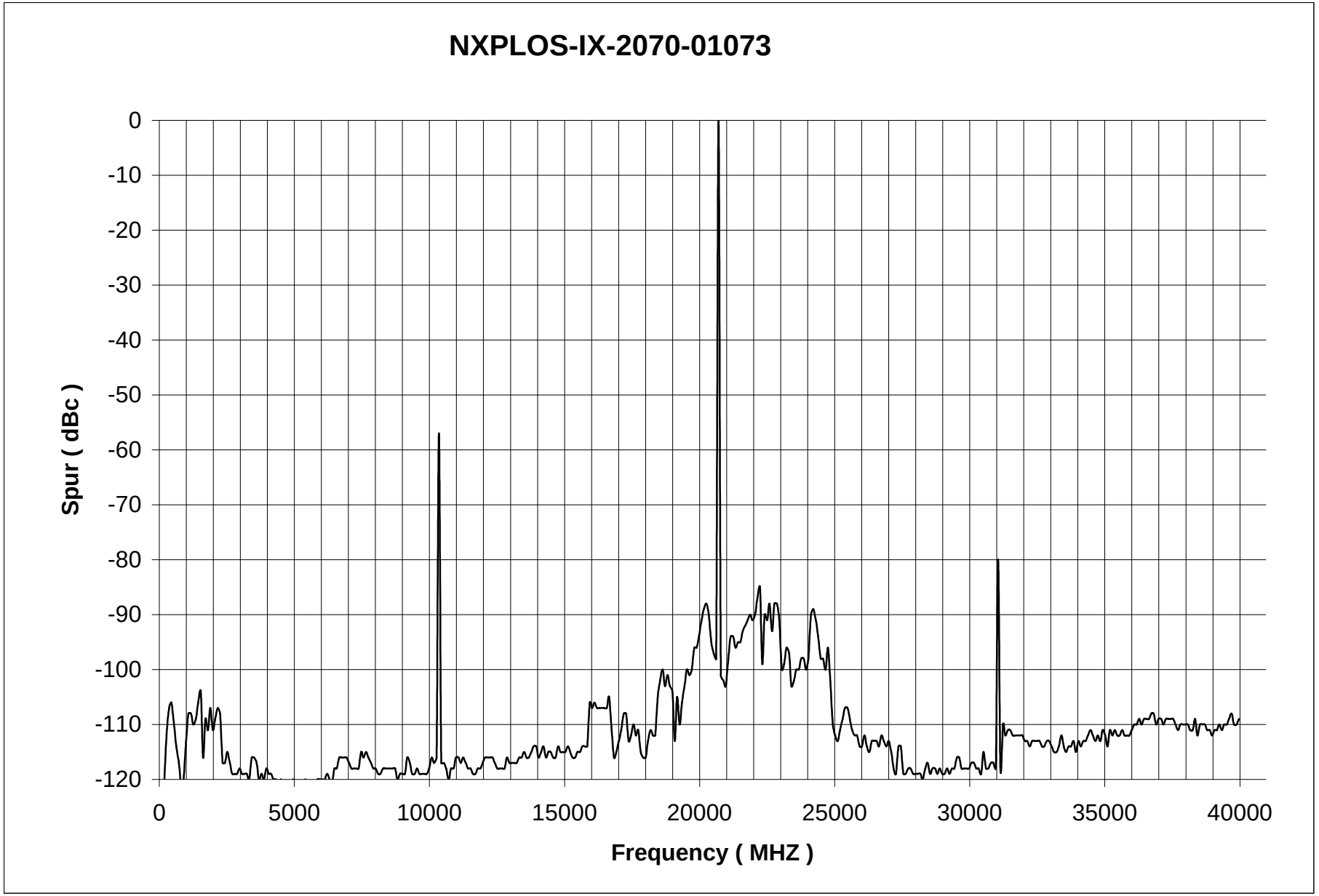
Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA Tel: 408-982-9339 Fax: 408-982-9275 www.nexyn.com


NXPLOS-I-0913 Spur Output
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Spur (dBc)
0
5000
10000
15000
20000
25000
Frequency (MHZ)

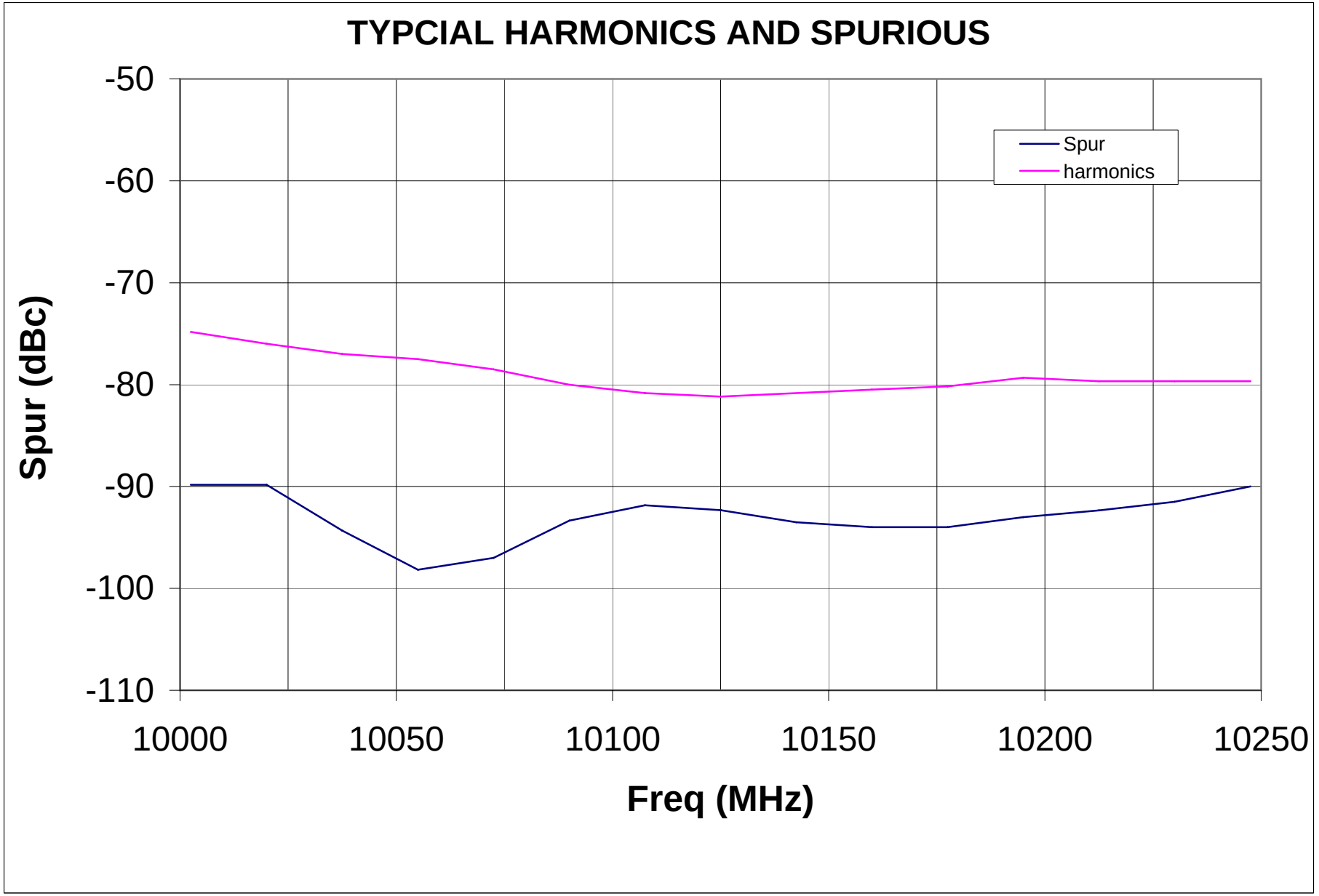
11.3 GHz Dual Loop PLDRO Model: NXPLOS-IX
Spur Output



Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA Tel: 408-982-9339 Fax: 408-982-9275 www.nexyn.com


NXPLOS-IX-2070-01073
Spur (dBc)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
0
5000
10000
15000
20000
25000
30000
35000
40000
Frequency (MHZ)

2/2/2006 7:10 PM



Archived Outline Drawings

Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com

NOTES:

1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:

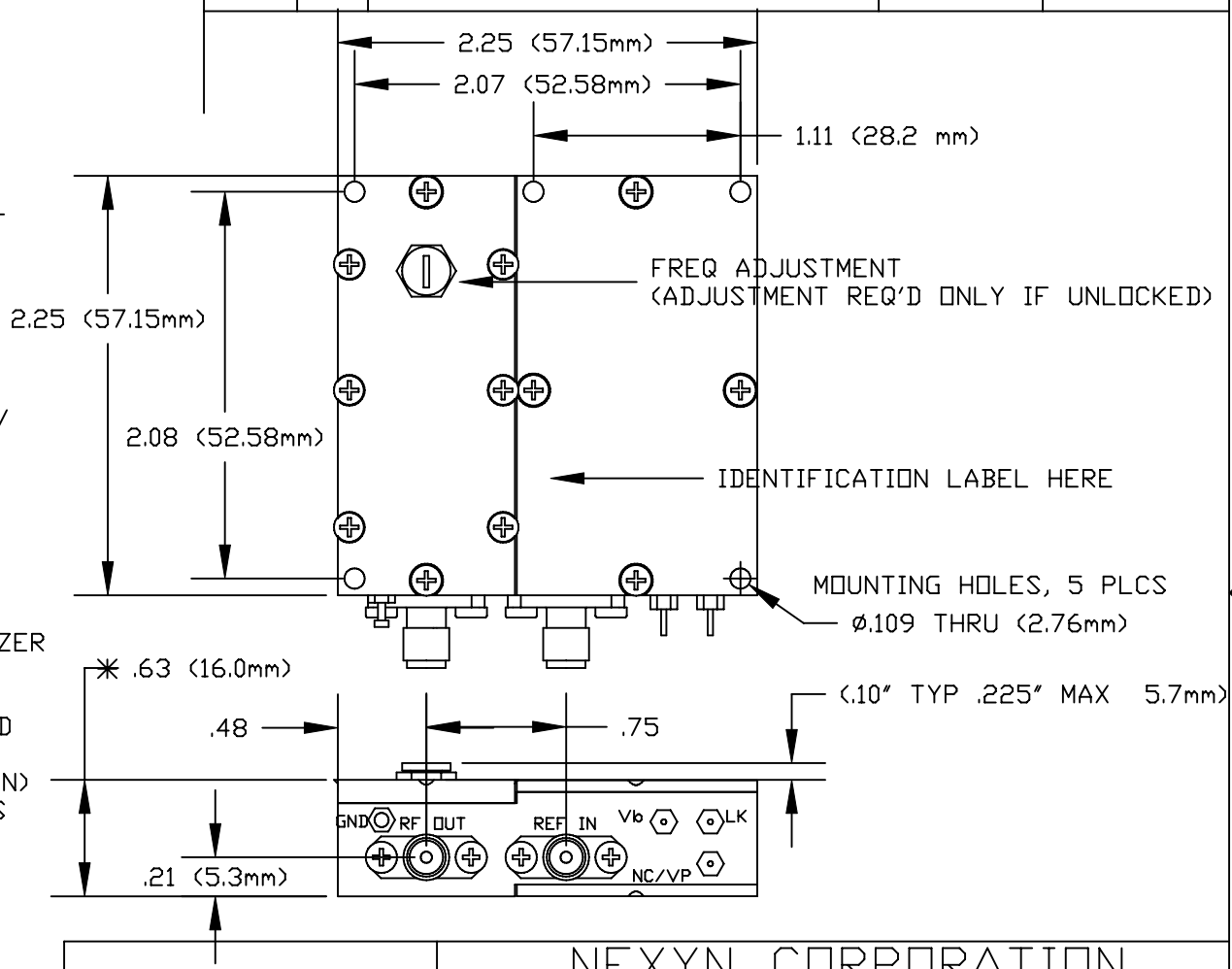
RF OUT:
REF IN: (100 MHZ NOMINAL INPUT)
Vb: BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
N/C: NORMALLY NOT COLLECTED, VP FOR PHASE VOLTAGE OPTION

TURN ON PROCEDURES:

1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO Vb PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

* HEIGHT TO BE .75" UNDER 8 GHz

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



FILE#: DC200102_4

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	4

SCALE		SHEET
1/1	7/2/01	1 OF 1

NOTES:

1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:

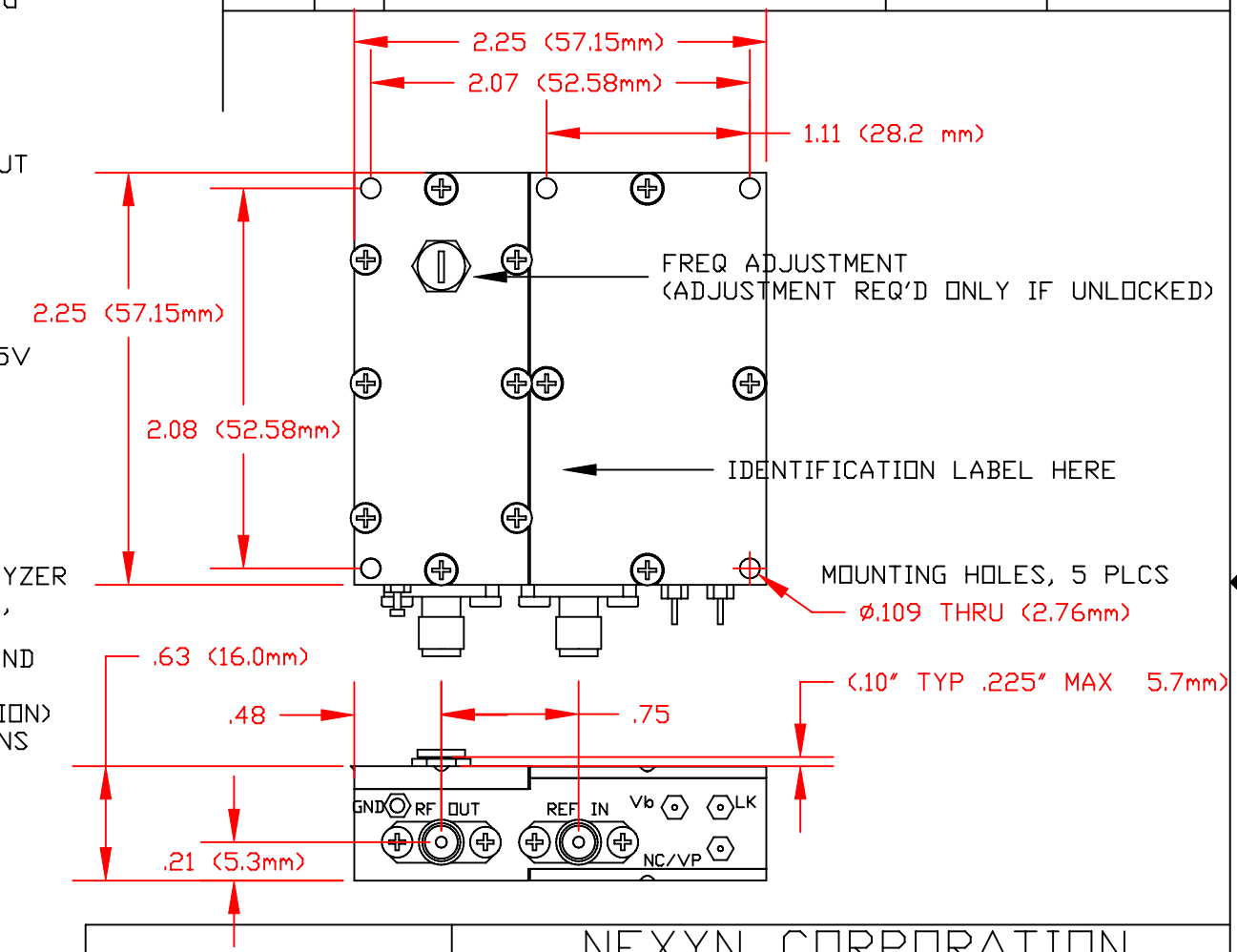
RF OUT:
REF IN: (100 MHZ NOMINAL INPUT)
Vb: BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
N/C: NORMALLY NOT COLLECTED, VP FOR PHASE VOLTAGE OPTION

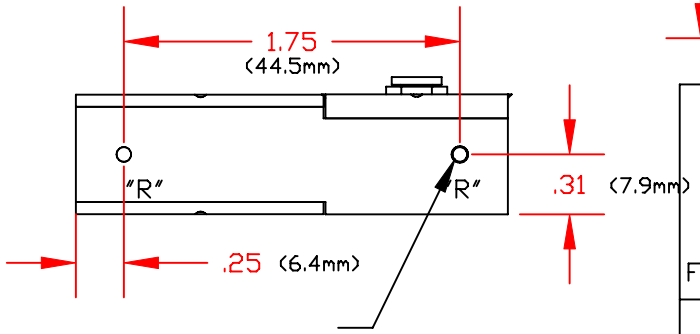
TURN ON PROCEDURES:

1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO Vb PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

P.S. HEIGHT DIMENSION MAY INCREASE BY .125" TO .250" UNDER 7 GHz

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





"R" HOLES: UNC2-56 X .12" DP, 2 PLCS

FILE#: DC200102_5

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	5

SCALE		SHEET
1/1	5/17/01	1 OF 1

NOTES:

1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:

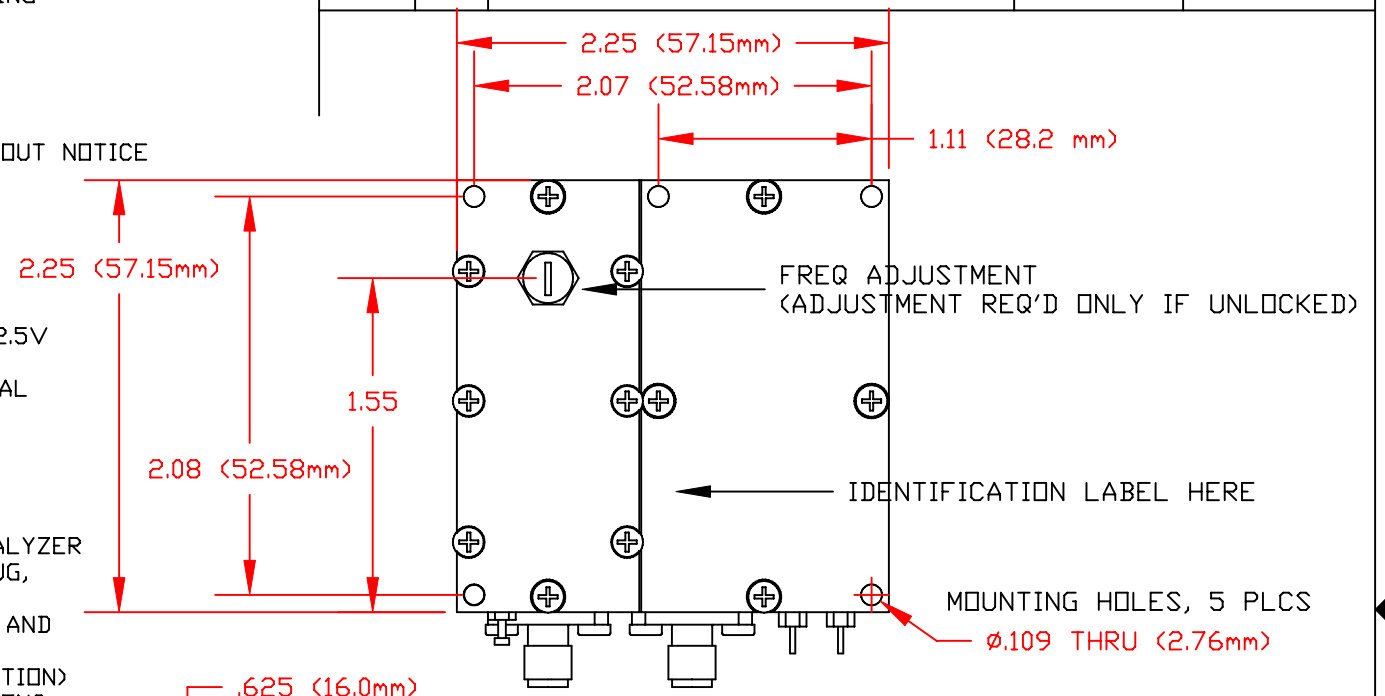
RF OUT:
REF IN: (100 MHZ NOMINAL INPUT)
+12V: BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
VP: PHASE VOLTAGE (1.5 TO 9.0V NORMAL OPERATION)

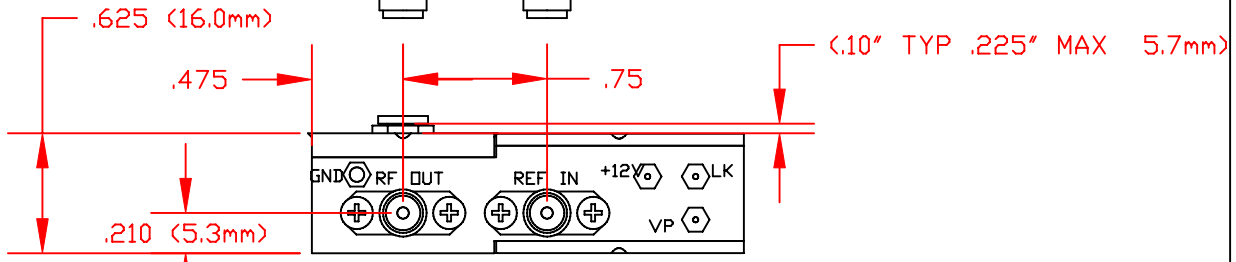
TURN ON PROCEDURES:

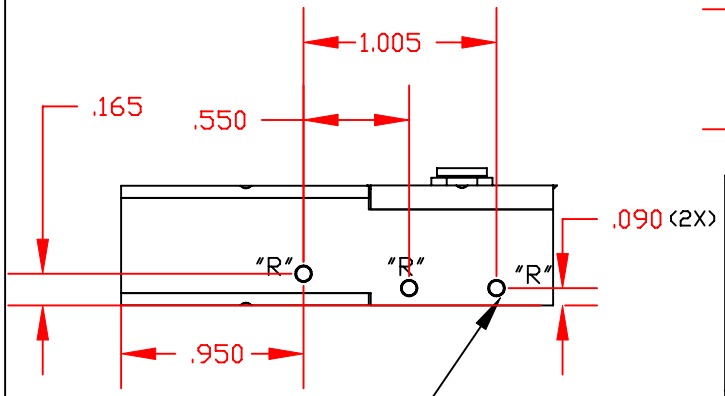
1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO +12V PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

P.S. HEIGHT DIMENSION MAY INCREASE BY .125" TO .250" UNDER 7 GHz

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED







"R" HOLES: UNC2-56 X .13" DP, 3 PLCS

ZEUS TECHNOLOGY SYSTEMS
NXPLOS-1360-00679

FILE#: DC200102_6A.dwg

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	6A

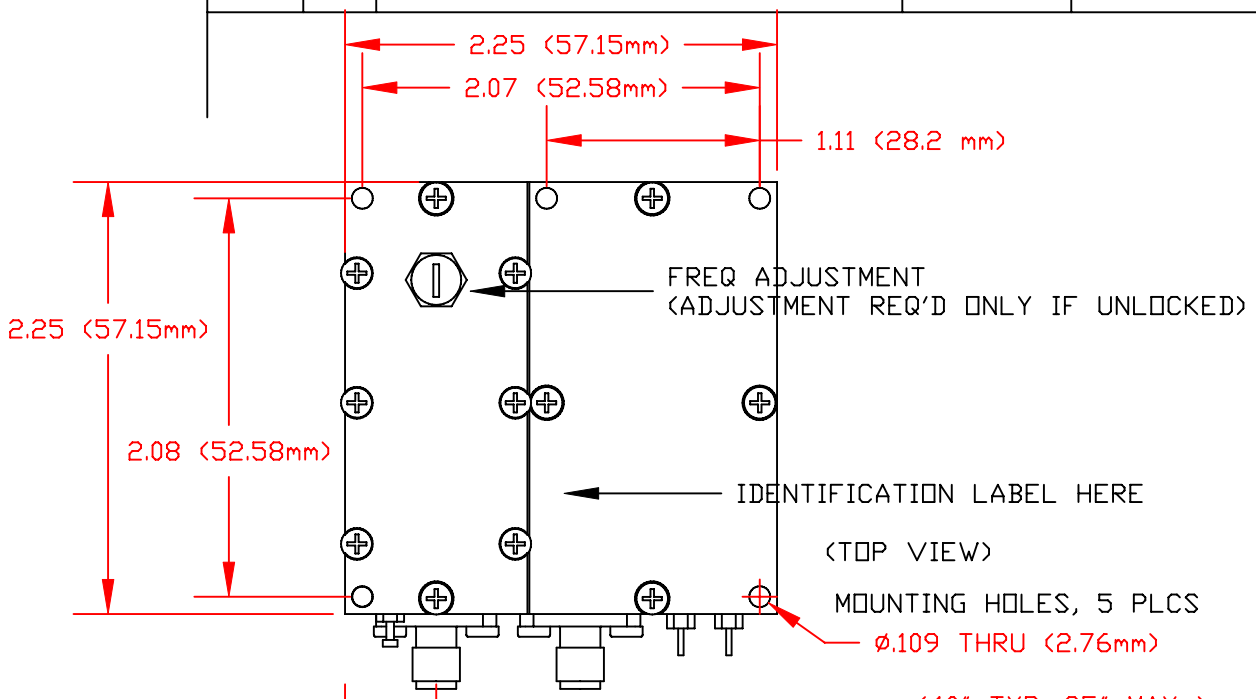
SCALE		SHEET
1/1	9/14/01	1 OF 1

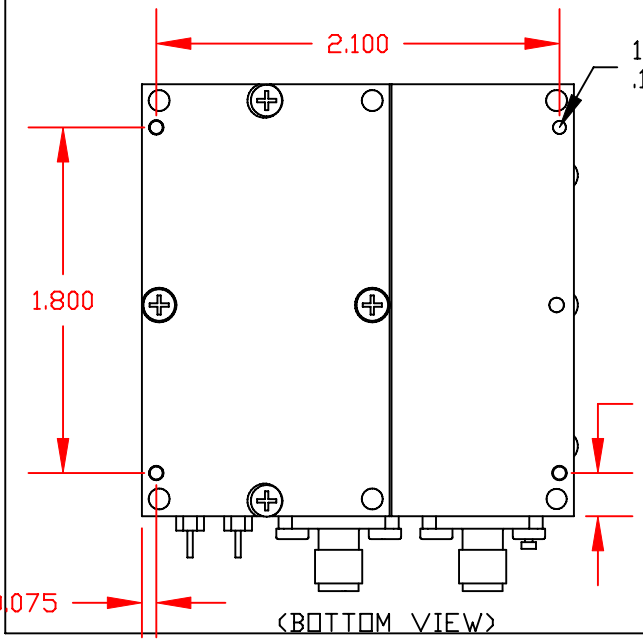
NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT:
REF IN: (50 MHZ NOMINAL INPUT)
+12V BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
VP FOR PHASE VOLTAGE OPTION

TURN ON PROCEDURES:
1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO +12V PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





ZETA LAB PLDRO

FILE#: DC200102_7

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO (3 - <9 GHz)
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	7

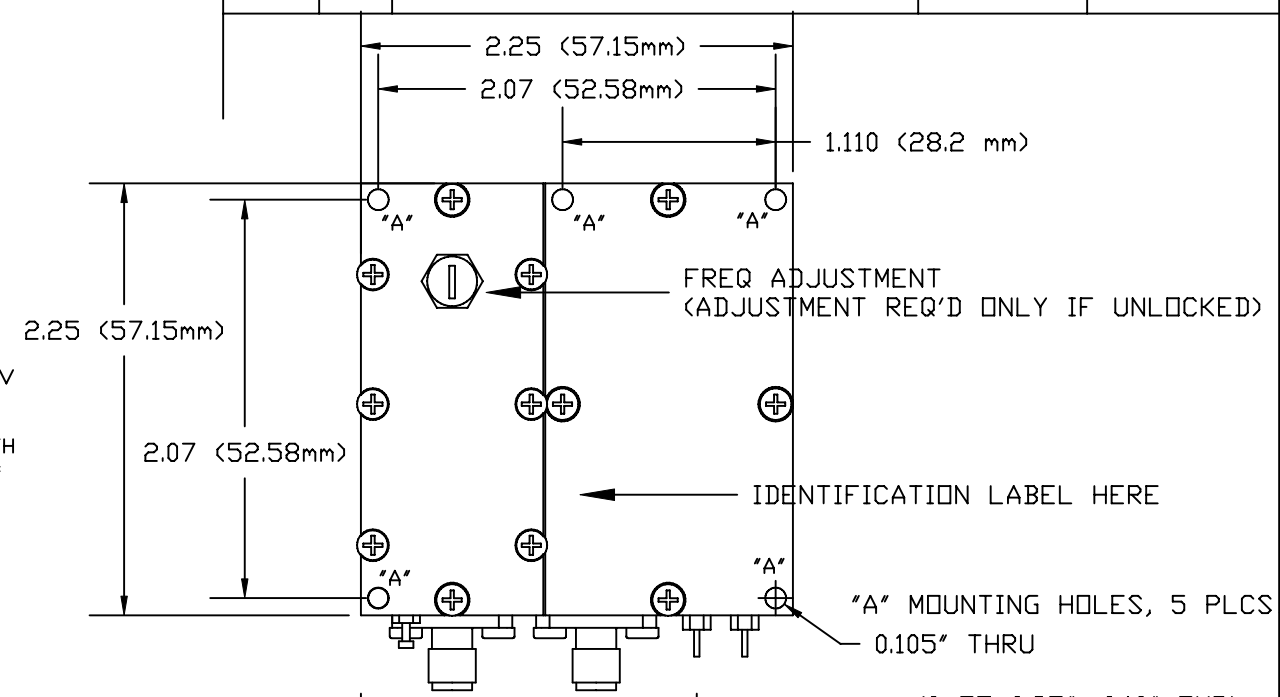
SCALE		SHEET
1/1	03/11/02	1 OF 1

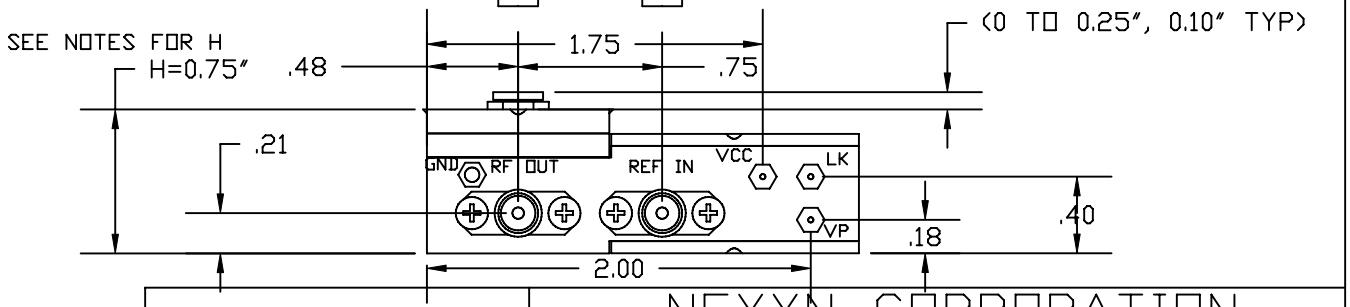
NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) FIELD REPLACEABLE SMA CONNECTORS AVAILABLE UPON REQUEST, PIN DIA. TO BE .015"
8) THICKNESS (H): SHIPPED H MAY BE 0.63" DEPENDING ON DESIRED SPECIFICATIONS.
9) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

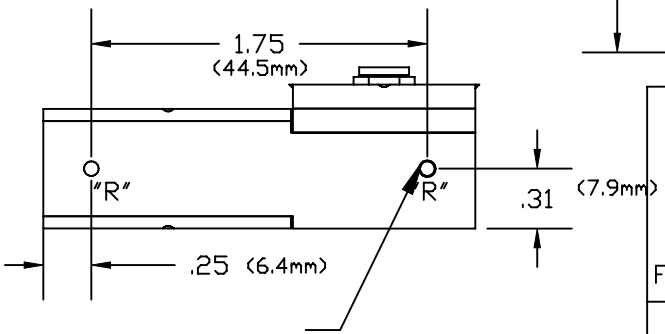
PIN FUNCTION DESCRIPTIONS:
RF OUT: OUTPUT SIGNAL
REF IN: (100 MHZ NOMINAL INPUT), OTHER FREQUENCIES AVAILABLE. OUTPUT FREQUENCY MUST BE INTEGER MULTIPLE OF REF IN FREQ.
VCC: +12V BIAS VOLTAGE (+12V NOMINAL, +10V or +15V AT CUSTOMER REQUEST)
LK LOCK DETECT: UNLOCKED=LOW, LOCKED=HIGH. OUTPUT CONSISTS OF OPEN COLLECTOR TRANSISTOR WITH INTERNAL 10 K OHM PULLUP RESISTOR TO +5V. I sink<= 30 mA CURRENT, PD< 80 mW.
VP = PHASE VOLTAGE. SWEEP RANGE FROM 1V to VCC-1V.

TURN ON PROCEDURES:
1) CONNECT EXTERNAL REFERENCE IN SPECIFIED INPUT POWER LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO VCC PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED







"R" HOLES: UNC2-56 X .12" DP, 2 PLCS
ALTERNATE BACK MOUNTING

FILE#: DC200102_8A

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO (3 - 6 GHz)
(EXTERNAL REFERENCE)

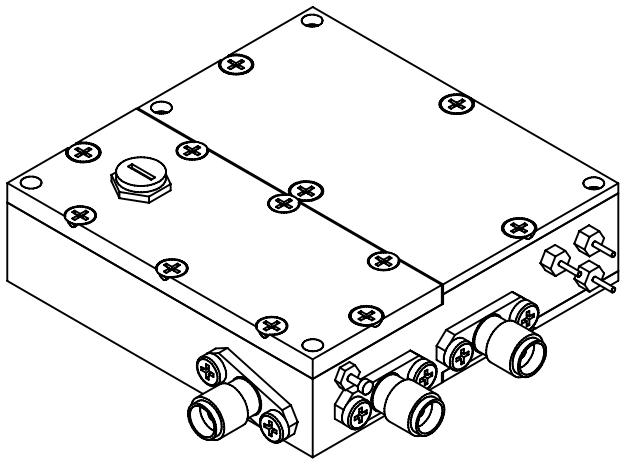
SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	8A

SCALE	1/1	09/21/05	SHEET	1 OF 1

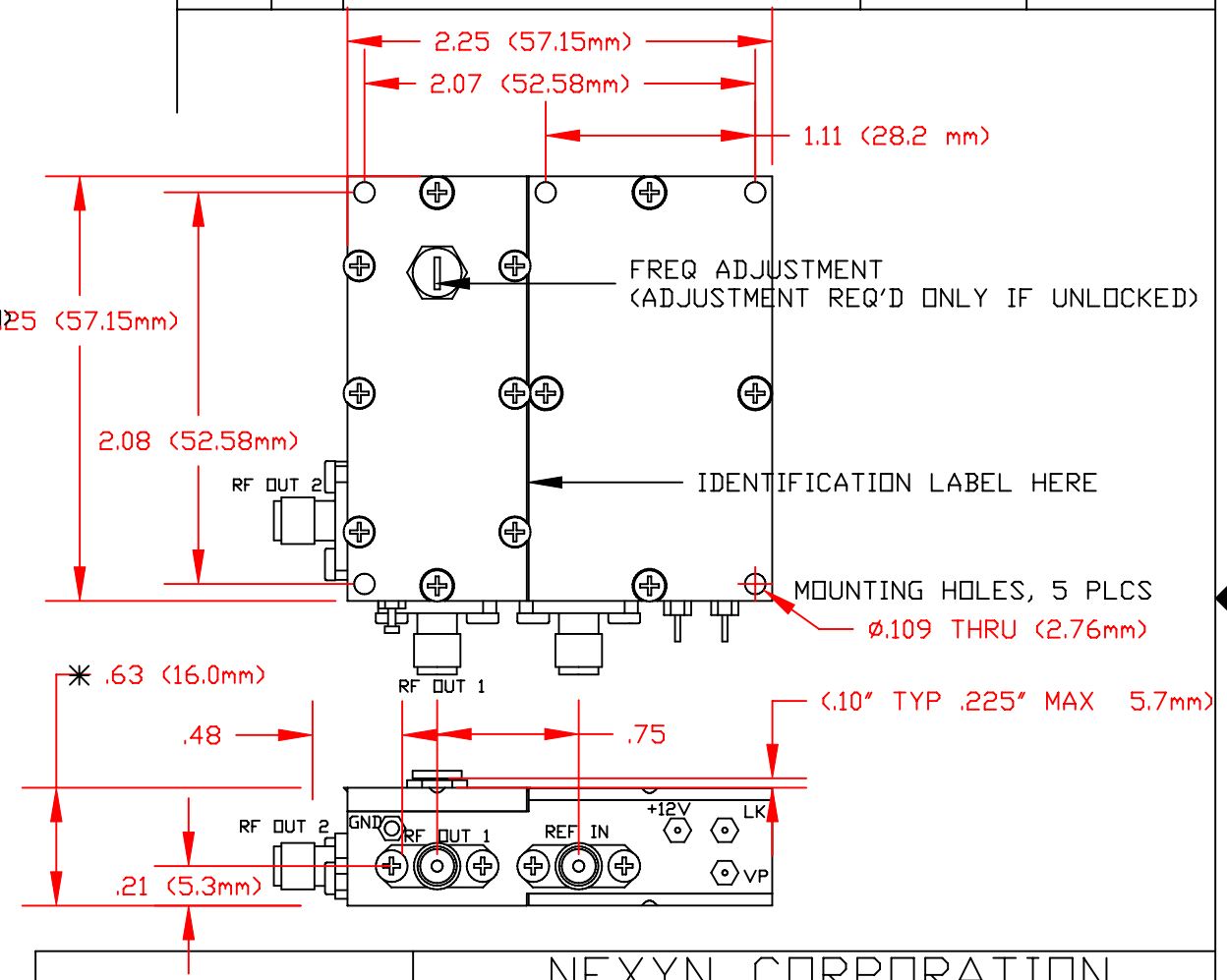
NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT1, RF OUT2: RF OUTPUTS
REF IN: (100-135 MHZ NOMINAL INPUT)
+12V: BIAS VOLTAGE
LK LOCK DETECT, OPEN COLLECTOR, OPEN LOCKED, GROUND UNLOCKED
VP: PHASE VOLTAGE (1.5V TO 9.5V NORMAL OPERATION)

TURN ON PROCEDURES:
1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO +12V PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



FILE#: DC200102_9

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

DUAL OUTPUTS PHASE LOCKED DRO
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	9

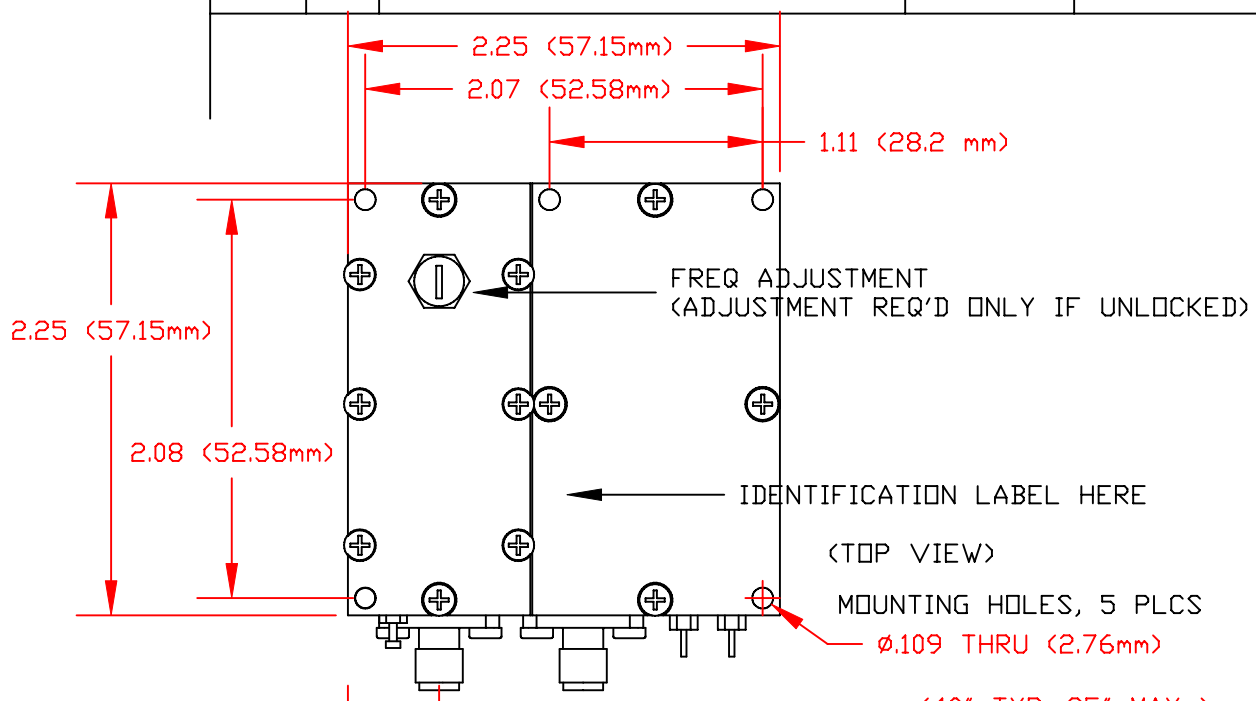
SCALE		SHEET
1/1	01/13/02	1 OF 1

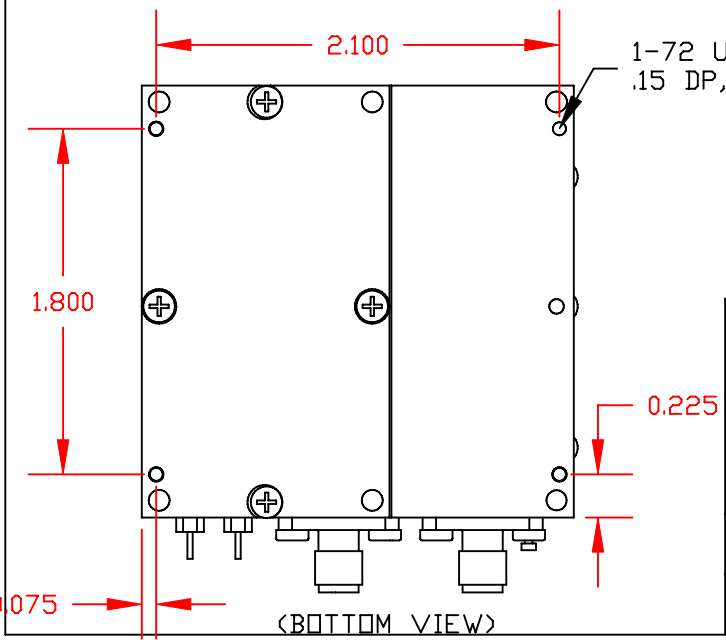
NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT:
REF IN: (50 MHZ NOMINAL INPUT)
+12V BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
VP FOR PHASE VOLTAGE OPTION

TURN ON PROCEDURES:
1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO +12V PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





ZETA LAB PLDRO

FILE#: DC200102_10

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO (9 - 23 GHz)
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	10

SCALE	1/1	3/11/02	SHEET	1 OF 1

NOTES:

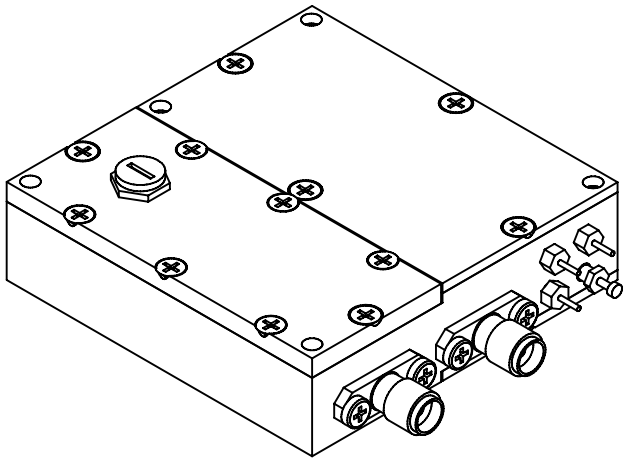
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:

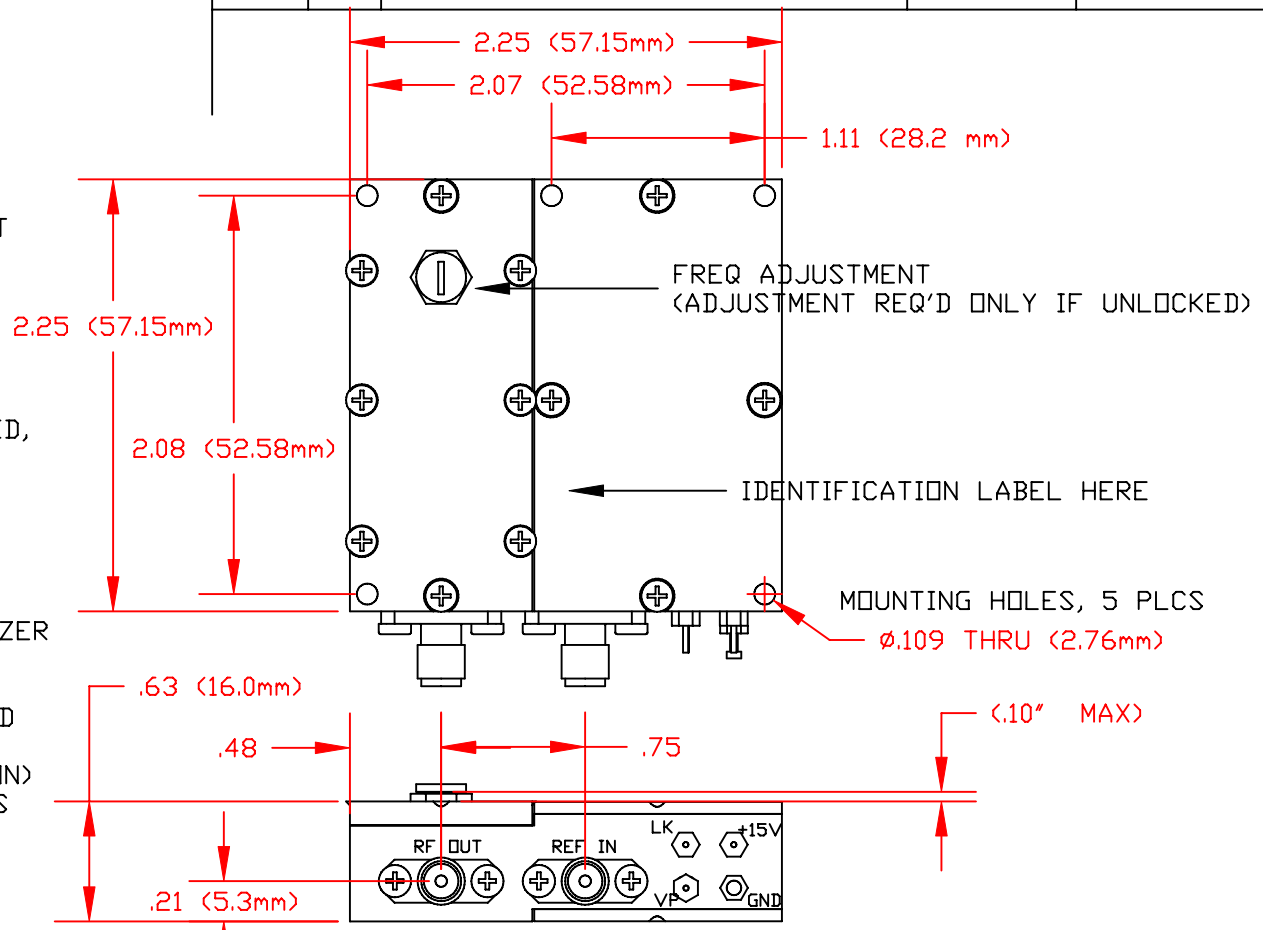
RF OUT:
REF IN: (100 MHZ NOMINAL @ 0+/-3 dBm)
+15V: BIAS VOLTAGE (+15VDC +/-3%)
LK LOCK ALARM, OPEN COLLECTOR, LOCKED, OPEN, SATURATED TO GROUND UNLOCKED
VP PHASE VOLTAGE (1 TO 10V NORMAL)

TURN ON PROCEDURES:

1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO +15V PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



MA/COM SC00128-01 REV D
MA/COM SC00128-02 REV E

FILE#: DC200102_11

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	11

SCALE		SHEET
1/1	05/01/02	1 OF 1

NOTES:

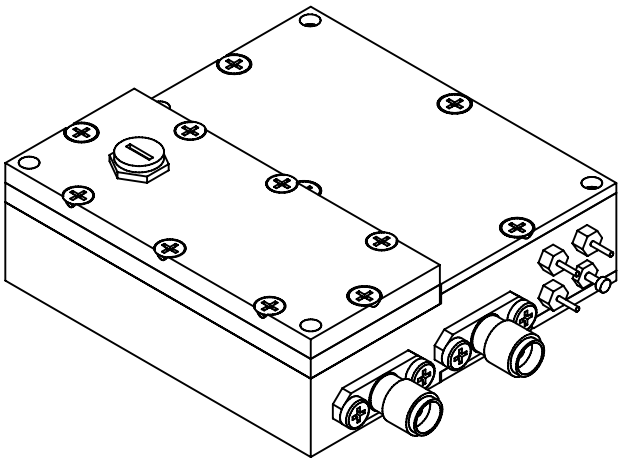
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:

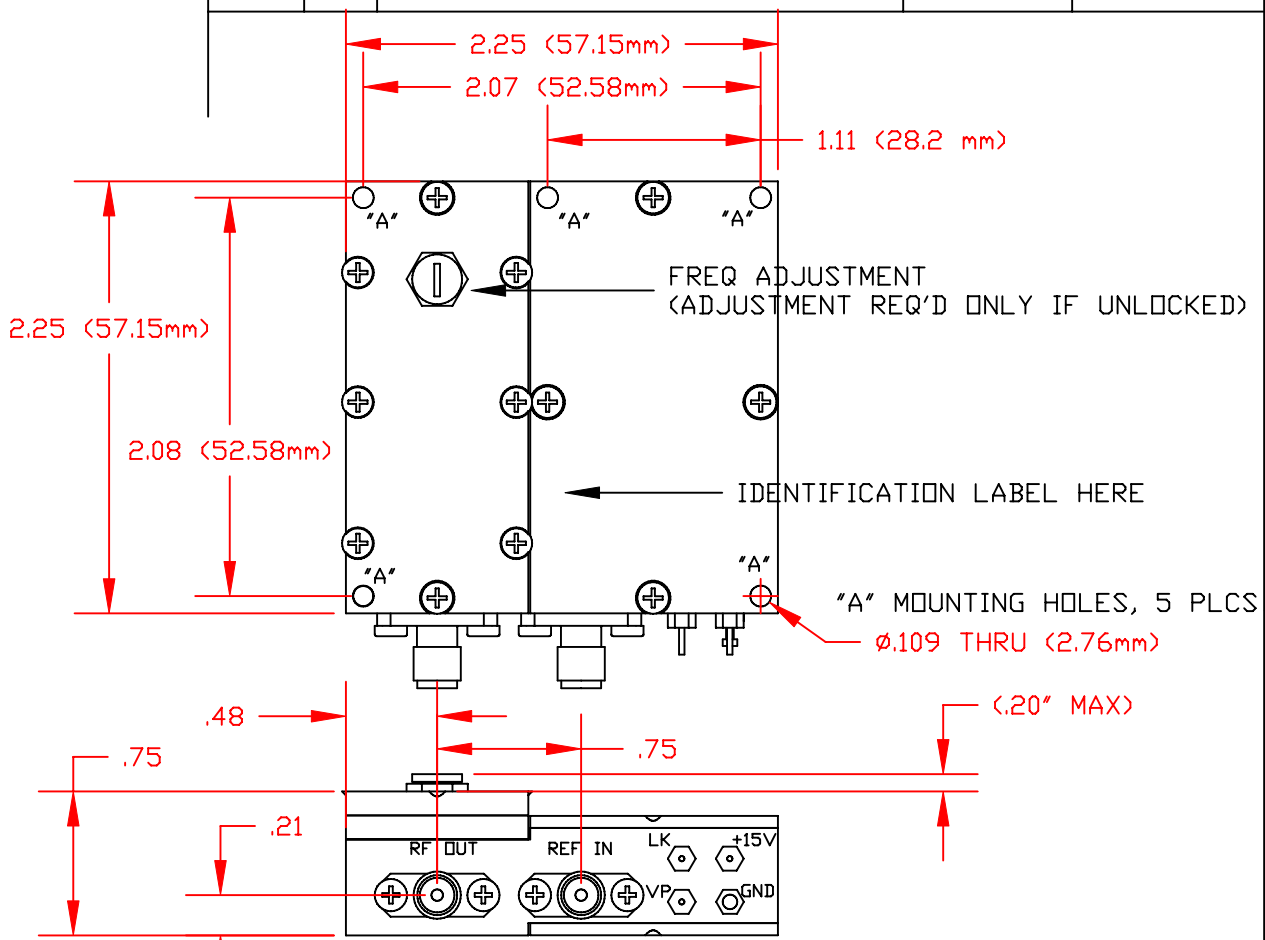
RF OUT:
REF IN: (100 MHZ NOMINAL @ 0+/-3 dBm)
+15V BIAS VOLTAGE (+15V +/-3%)
LK LOCK DETECT, OPEN COLLECTOR, LOCKED OPEN, SATURATED TO GROUND UNLOCKED
VP PHASE VOLTAGE (1 TO 10V NORMAL OPERATION)

TURN ON PROCEDURES:

1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO +15V PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



MA/COM SC00128-04 REV D

FILE#: DC200102_12

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO (3 - <9 GHz)
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	12

SCALE		SHEET
1/1	05/01/02	1 OF 1

NOTES:

1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

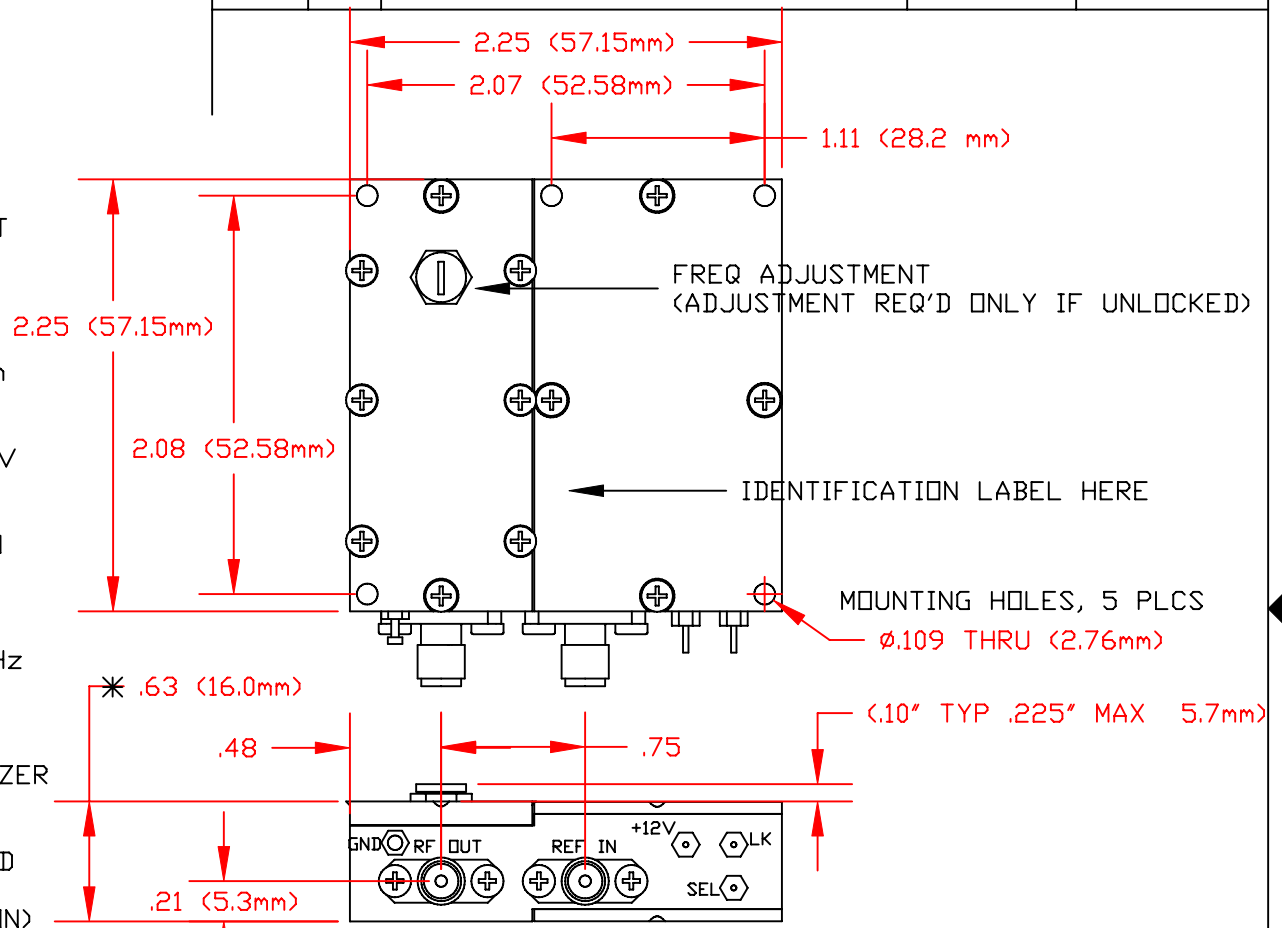
PIN FUNCTIONS:

RF OUT:
REF IN: 10 MHZ/50 MHz REF @ 0 +/-5 dBm
LEVEL SELECTED BY SEL PIN FUNCTION
+12V: BIAS VOLTAGE
LK: LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
SEL: REFERENCE INPUT SELECTION. +12V FOR 50 MHz REF, OPEN OR NO CONNECTION FOR 10 MHz REF.

TURN ON PROCEDURES:

1) SELECT REFERENCE INPUT FREQ (10 MHz OR 50 MHz) THROUGH SEL PIN FUNCTION.
(2) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
3) CONNECT RF OUT TO SPECTRUM ANALYZER
4) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO Vb PIN
5) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
6) MONITOR LK (PHASE LOCKED INDICATION)
7) CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



XICOM PLDRO NXPLOS-1280-00925A FILE#: DC200102_13	NEXYN CORPORATION SANTA CLARA, CA USA			
	PHASE LOCKED DRO (EXTERNAL REFERENCE)			
F. WONG	SIZE A	FSCM NO.	DWG NO. DC200102	REV 13
	SCALE 1/1	08/23/02	SHEET 1 OF 1	

NOTES:

1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

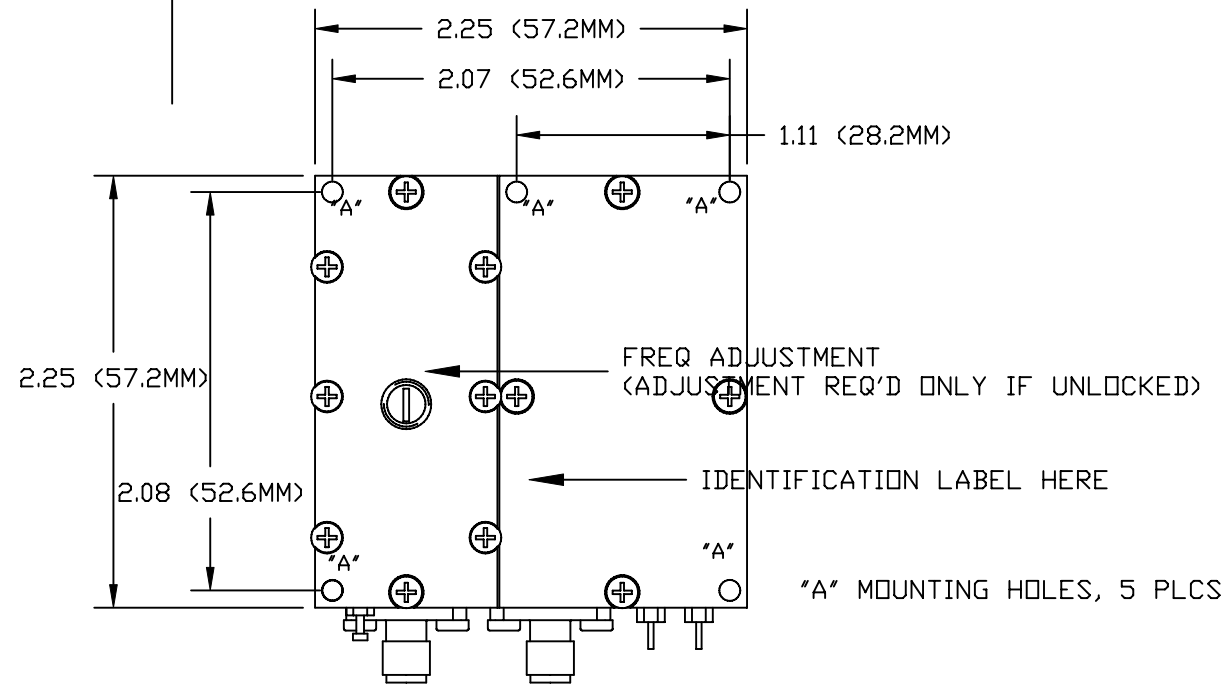
PIN FUNCTIONS:

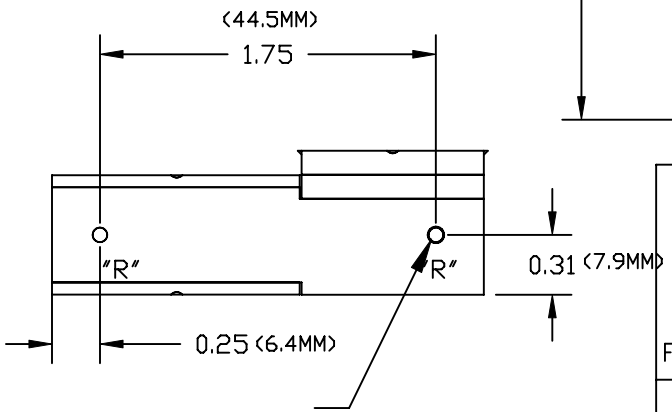
RF OUT:
REF IN: (100 MHZ NOMINAL INPUT), OTHER FREQUENCIES AVAIALBLE
+12V BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
N/C: NORMALLY NOT COLLECTED, VP FOR PHASE VOLTAGE OPTION

TURN ON PROCEDURES:

1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO Vb PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





"R" HOLES: UNC2-56 X .12" DP, 2 PLCS
ALTERNATE BACK MOUNTING

FILE#: DC200102_14

F. WONG

NEXYN CORPORATION
SANTA CLARA, CA USA

LOW PROFILE PHASE LOCKED DRO (3 - <9 GHz)
(EXTERNAL REFERENCE)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	14

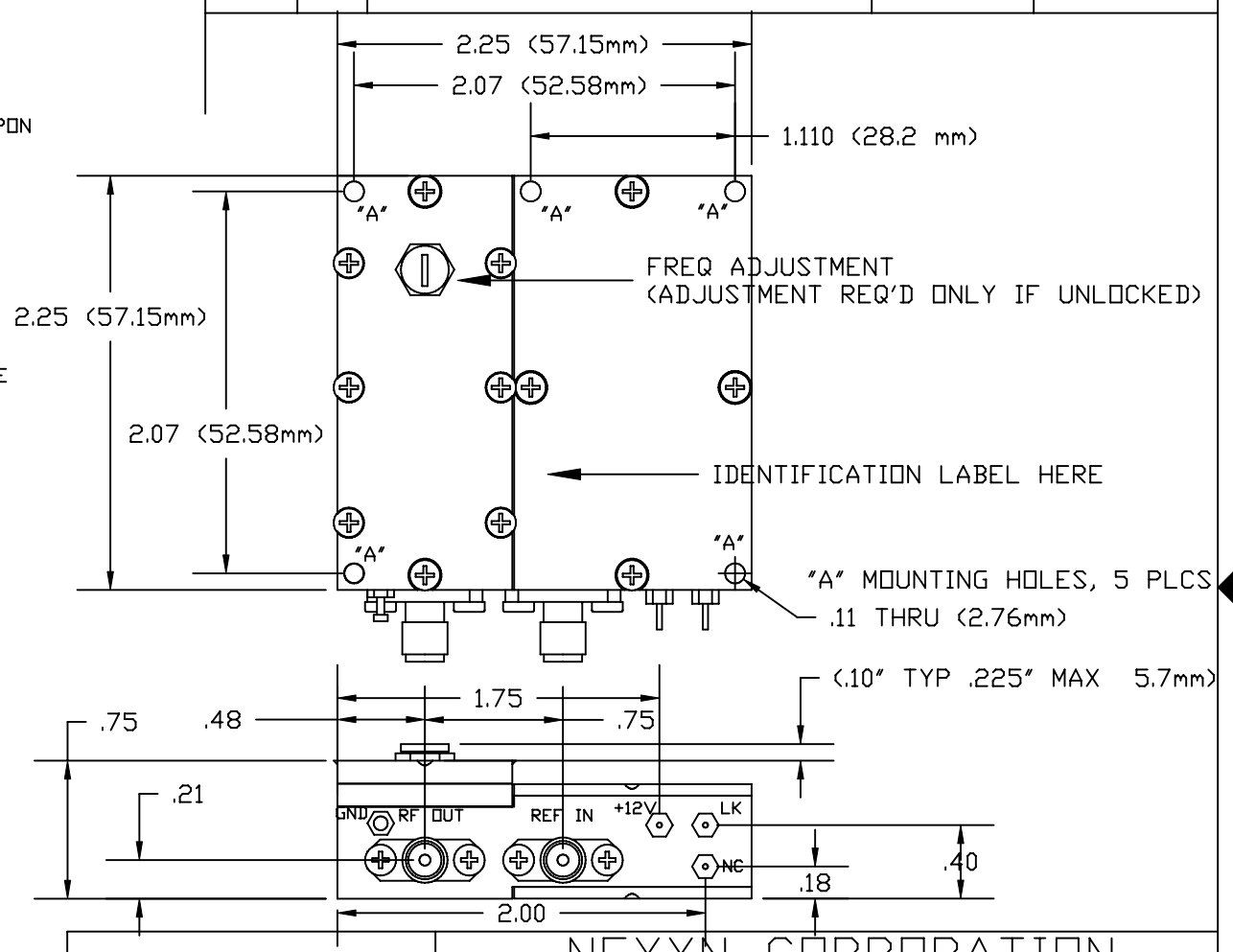
SCALE			SHEET
1/1	09/20/02		1 OF 1

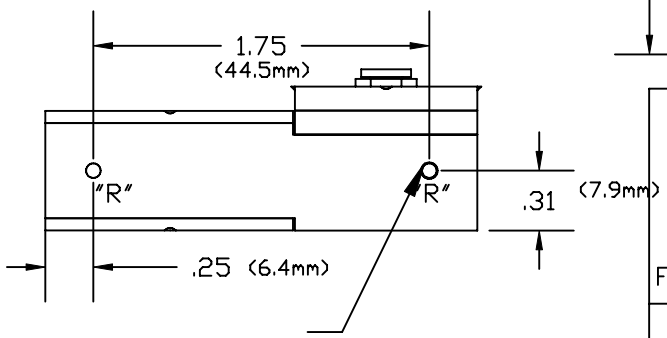
NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) FIELD REPLACEABLE SMA CONNECTORS AVAILABLE UPON REQUEST, PIN DIA. TO BE .015"
8) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT:
REF IN: (100 MHZ NOMINAL INPUT), OTHER FREQUENCIES AVAIALBLE
+12V BIAS VOLTAGE (+12V NOMINAL)
LK LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <.8V UNLOCKED
N/C: NORMALLY NOT COLLECTED, VP FOR PHASE VOLTAGE OPTION

TURN ON PROCEDURES:
1) CONNECT EXTERNAL REFERENCE AT RECOMMENDED INPUT LEVEL
2) CONNECT RF OUT TO SPECTRUM ANALYZER
3) CONNECT DC GROUND TO GROUND LUG, APPLY DC POWER TO Vb PIN
4) VERIFY PHASE LOCKED FREQUENCY AND OUTPUT POWER
5) MONITOR LK (PHASE LOCKED INDICATION)
6) CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





"R" HOLES: UNC2-56 X .12" DP, 2 PLCS
ALTERNATE BACK MOUNTING

FILE#: DC200102_16

NEXYN CORPORATION
SANTA CLARA, CA USA

PHASE LOCKED DRO (3 - <9 GHz)
(EXTERNAL REFERENCE)

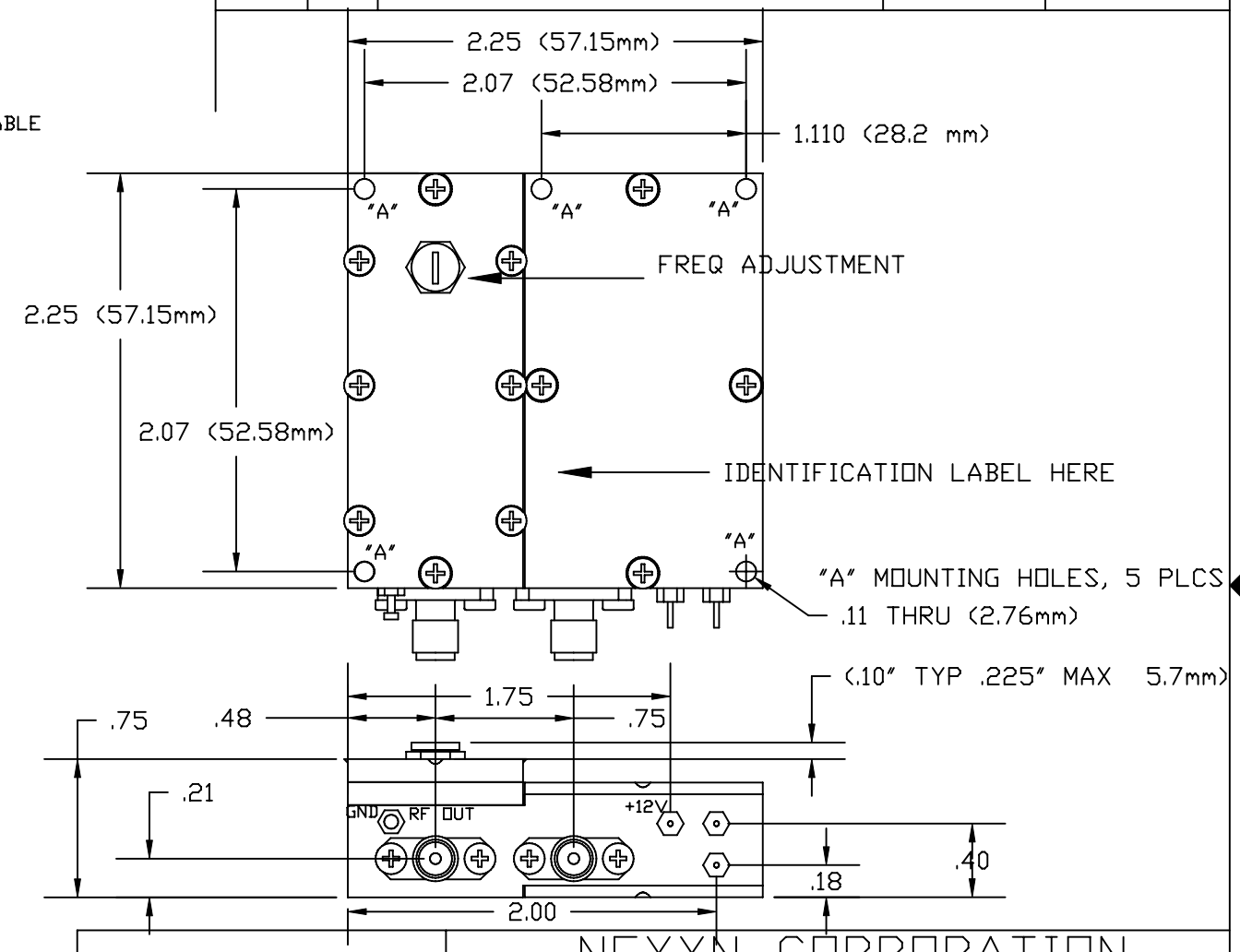
SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	16

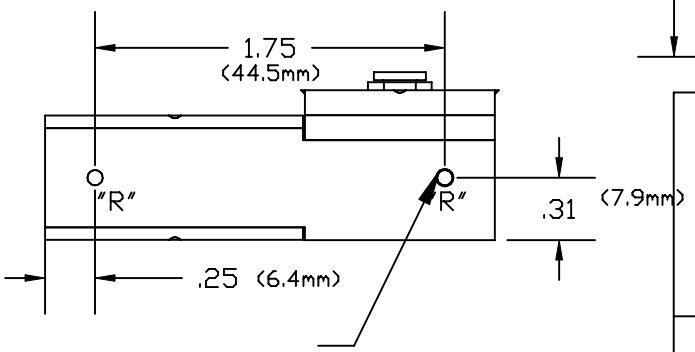
SCALE	1/1	01/29/03	SHEET	1 OF 1

NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) FIELD REPLACEABLE SMA OR K CONNECTORS AVAILABLE UPON REQUEST, PIN DIA. TO BE .015"
8) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT: OUTPUT SIGNAL
+12V or +15V BIAS VOLTAGE (+12V NOMINAL)

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





"R" HOLES: UNC2-56 X .12" DP, 2 PLCS
ALTERNATE BACK MOUNTING

NEXYN CORPORATION
SANTA CLARA, CA USA

FREE RUN DRO FOR F>18GHz

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	17

SCALE			SHEET
1/1	09/15/05		1 OF 1

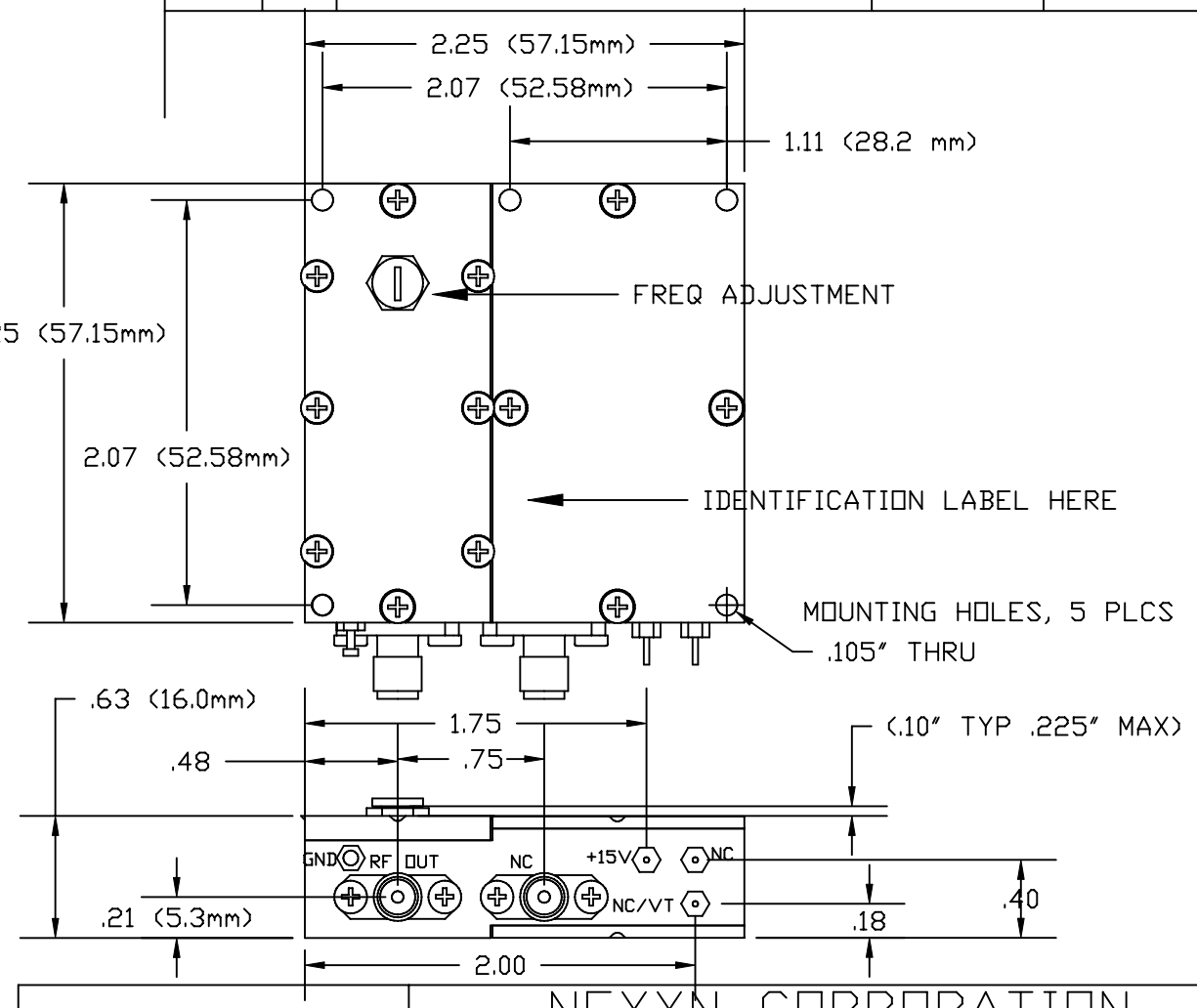
NOTES:

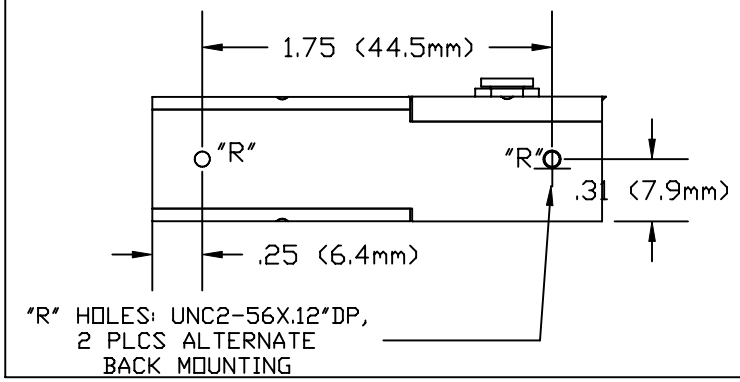
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) FIELD REPLACEABLE SMA CONNECTORS AVAILABLE UPON REQUEST, PIN DIA. TO BE .015"
8) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:

RF OUT: SIN OUTPUT, 50 OHM SOURCE
+15V: BIAS VOLTAGE (+12V OPTIONAL)
VT/NC: NORMALLY NOT COLLECTED, VT IF NXOS-EFC PRODUCT TYPE

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





NEXYN CORPORATION
SANTA CLARA, CA USA

FREE RUN DRO F>18 GHZ

FILE#: DC200102_18

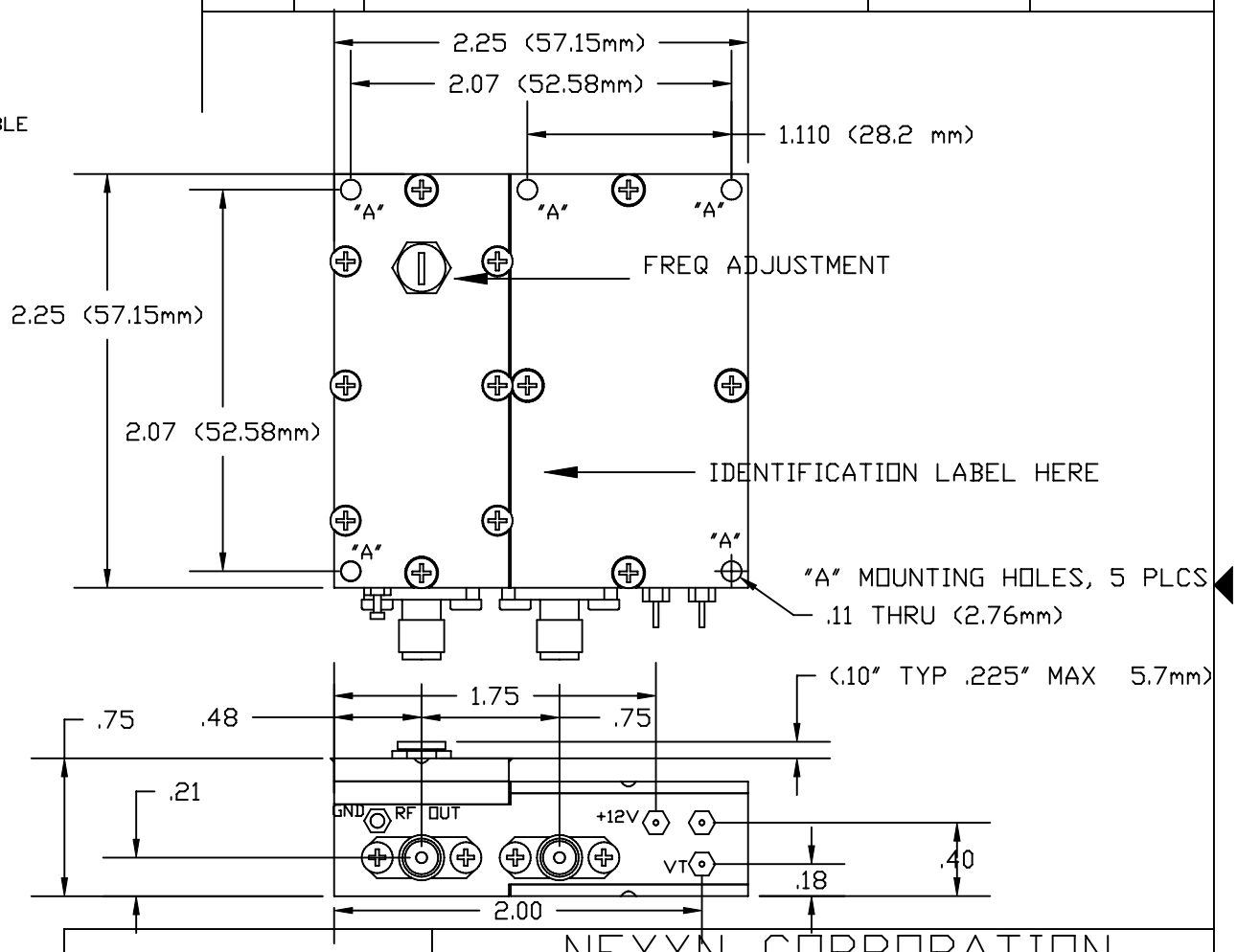
SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	18

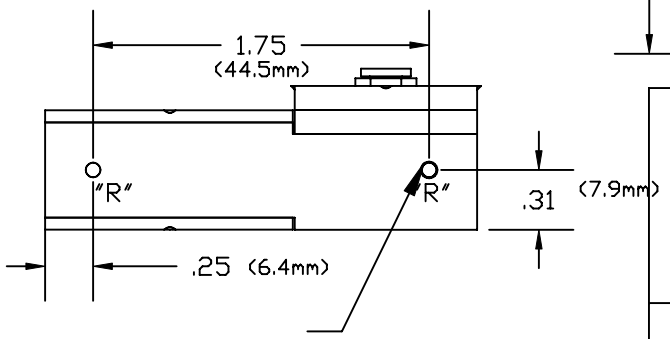
SCALE	1/1	11/14/05	SHEET	1 OF 1

NOTES:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING
3) WEIGHT: <3.5 OZ (100gm MAX)
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) FIELD REPLACEABLE SMA OR K CONNECTORS AVAILABLE UPON REQUEST, PIN DIA. TO BE .015"
8) OUTLINE SUBJECT TO UPDATE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT: OUTPUT SIGNAL
+12V or +15V BIAS VOLTAGE (+12V NOMINAL)

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED





"R" HOLES: UNC2-56 X .12" DP, 2 PLCS
ALTERNATE BACK MOUNTING

NEXYN CORPORATION
SANTA CLARA, CA USA

DRO w EFC FOR 3GHz < Fo < 6 GHz

SIZE	FSCM NO.	DWG NO.	REV
A		DC200102	19
SCALE 1/1	02/21/06	SHEET 1 OF 1	

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH

   ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

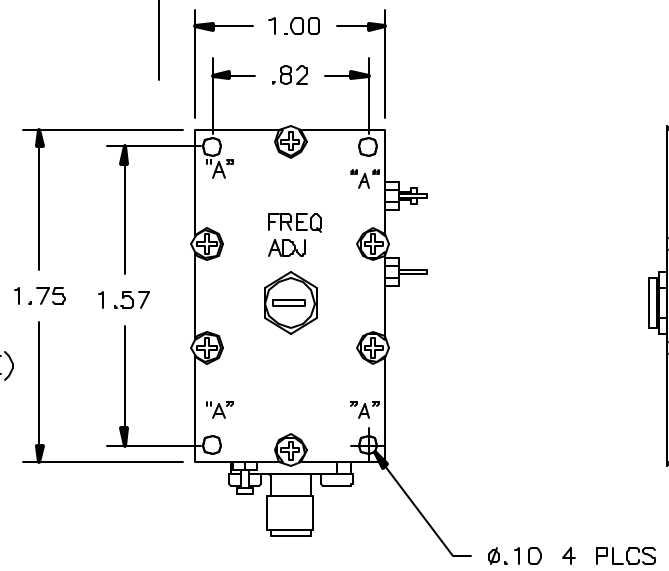
PIN FUNCTIONS:
RF OUT
Vb (+12V NOM., OTHER VOLTAGES AVAILABLE)

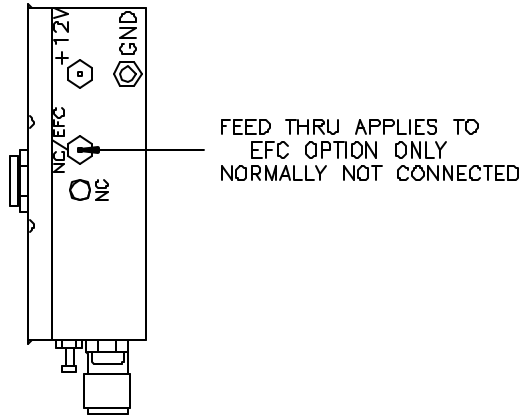
NC NORMALLY NOT CONNECTED
EFC (FOR EFC OPTION ONLY), ELECTRONIC FREQUENCY CONTROL (+1 TO +15V)

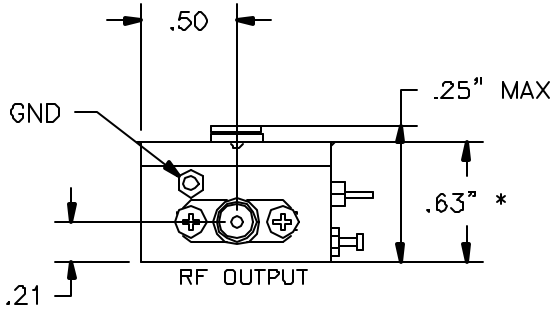
TURN ON PROCEDURES:
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO Vb PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

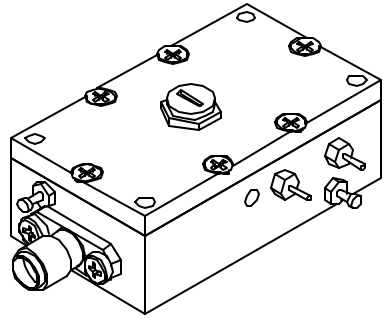
P.S. * HEIGHT TO BE .75" UNDER 8 GHz

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED









FILE#: DC200104_1A	NEXYN CORPORATION SANTA CLARA, CA. USA FREE RUNNING DRO			
F. WONG	SIZE A	FSCM NO	DWG NO DC200104	REV 1A
REVISED 10/01	SCALE 1/1	1/4/2000	SHEET 1 OF 1	

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT
Vb (+12V NOM., OTHER VOLTAGES AVAILABLE)

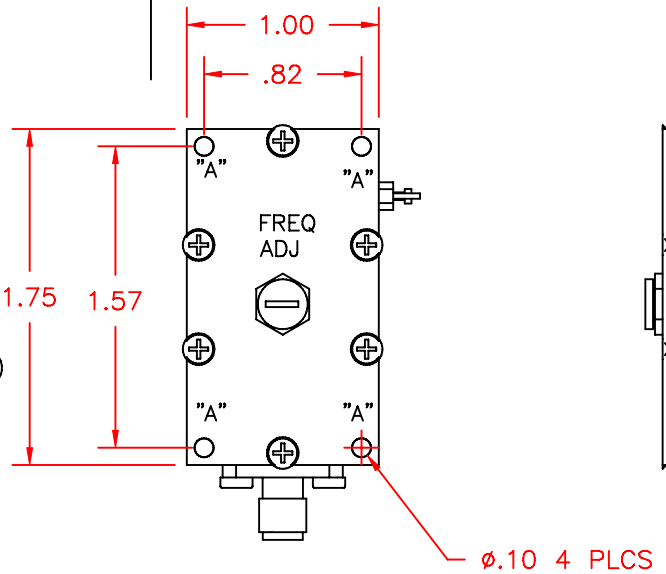
NC NORMALLY NOT CONNECTED
EFC (FOR EFC OPTION ONLY), ELECTRONIC FREQUENCY CONTROL (+1 TO +15V)

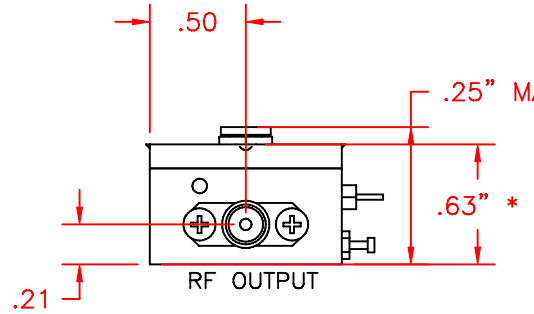
TURN ON PROCEDURES:

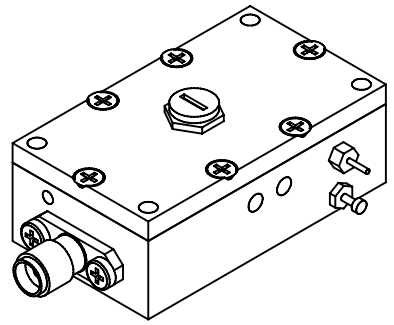
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO Vb PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

P.S. * HEIGHT TO BE .75" UNDER 8 GHz

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED







FILE#: DC200104_1B

REVISED 11/01

NEXYN CORPORATION
SANTA CLARA, CA. USA

FREE RUNNING DRO

SIZE	FSCM NO.	DWG NO.	REV
		DC200104	1B

SCALE 1/1 SHEET 1 OF 1

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

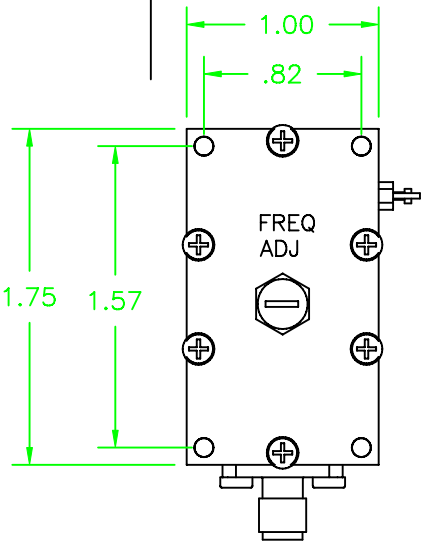
PIN FUNCTIONS:
RF OUT
+15V (NOMINAL, LOWER VOLTAGE AVAILABLE)

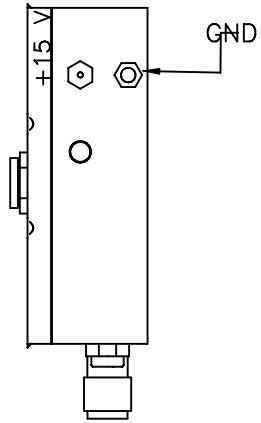
EFC (NOT APPLIED IN THIS MODEL)

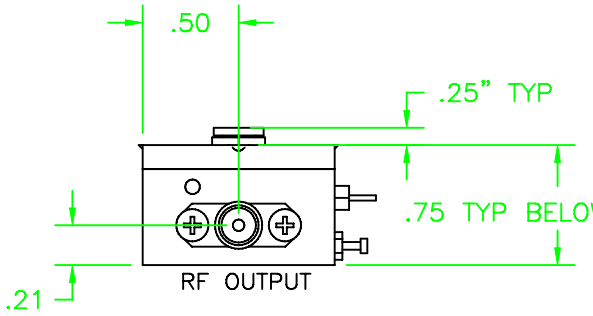
TURN ON PROCEDURES:

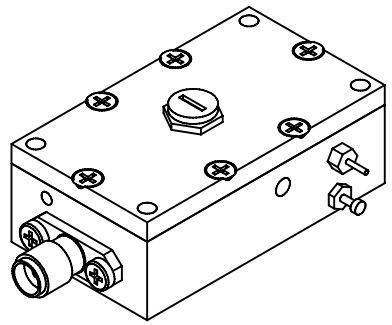
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO +15V PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED









NEXYN CORPORATION
(SUNNYVALE, CA. USA)

FREE RUNNING DRO
(MECHANICAL TUNED, 3.500 GHz)

F. WONG

SIZE	FSCM NO.	DWG NO.	REV
A		DC200104	2

SCALE		SHEET
1/1	1/4/2000	1 OF 1

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT
Vb (+12V NOM., OTHER VOLTAGES AVAILABLE)

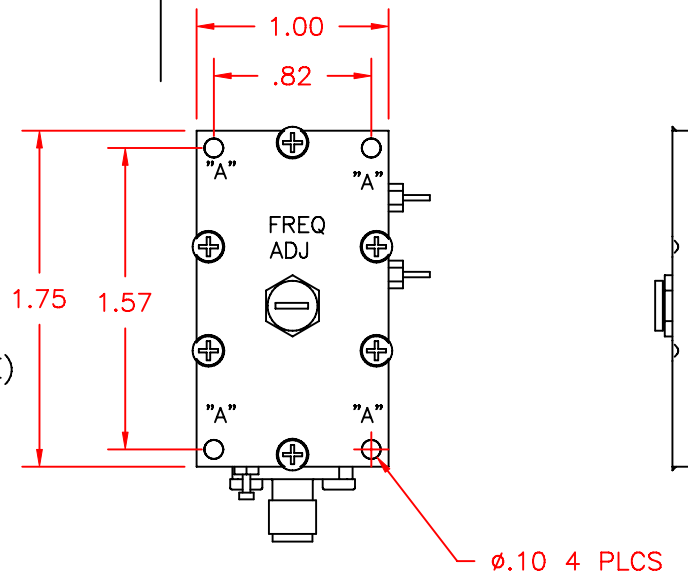
EFC (FOR EFC OPTION ONLY), ELECTRONIC FREQUENCY CONTROL

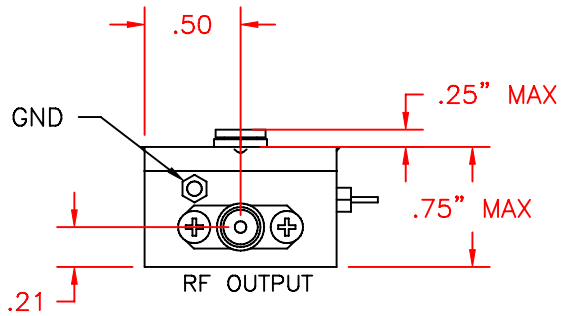
TURN ON PROCEDURES:

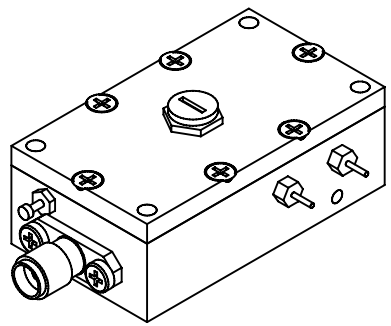
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO Vb PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

P.S. .63" HEIGHT DIMENSION OVER 7 GHz

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED







P/N NXOS-0541-001	NEXYN CORPORATION SANTA CLARA, CA. USA			
FILE# DC200104_2A	FREE RUNNING DRO			
F. WONG	SIZE A	FSCM NO.	DWG NO. DC200104	REV 2A
REVISED IN 5/01	SCALE 1/1	1/4/2000	SHEET 1 OF 1	

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH

   ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

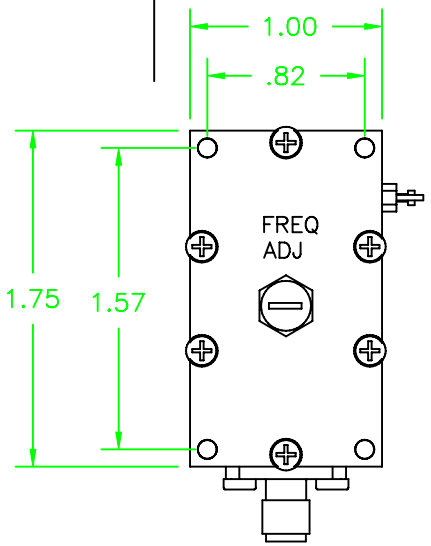
PIN FUNCTIONS:
RF OUT
+12V (NOMINAL, LOWER VOLTAGE AVAILABLE)

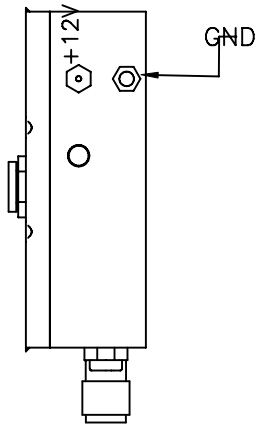
EFC (NOT APPLIED IN THIS MODEL)

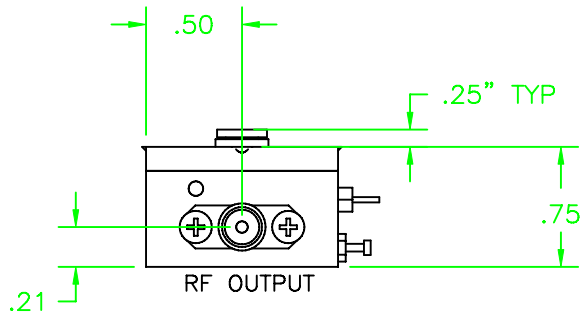
TURN ON PROCEDURES:

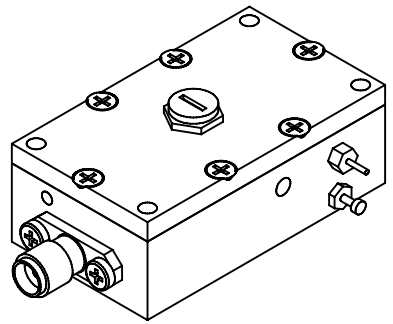
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO +12V PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED









NEXYN CORPORATION
(SUNNYVALE, CA. USA)

FREE RUNNING DRO
(MECHANICAL TUNED)

F. WONG

SIZE	FSCM NO.	DWG NO.	REV
A		DC200104	3

SCALE		SHEET
1/1	1/4/2000	1 OF 1

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
RF OUT
Vb (+12V NOM., OTHER VOLTAGES AVAILABLE)

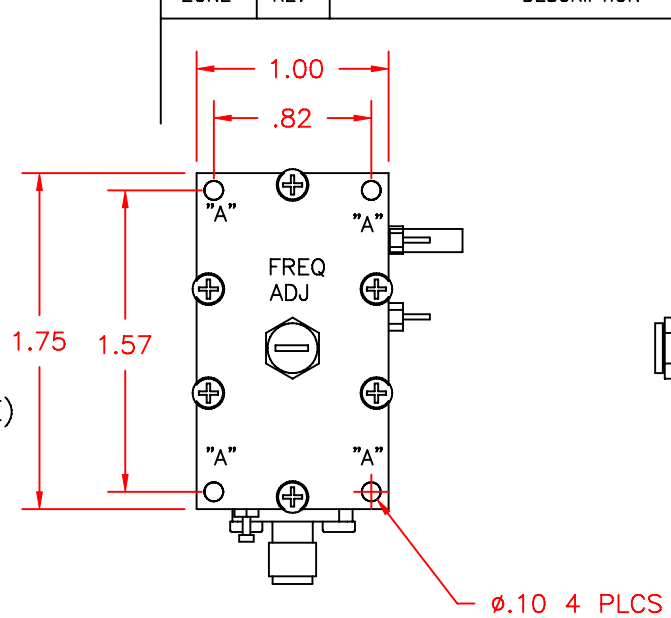
EFC (FOR EFC OPTION ONLY), ELECTRONIC FREQUENCY CONTROL

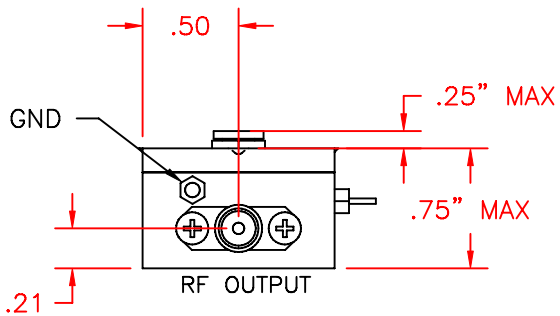
TURN ON PROCEDURES:

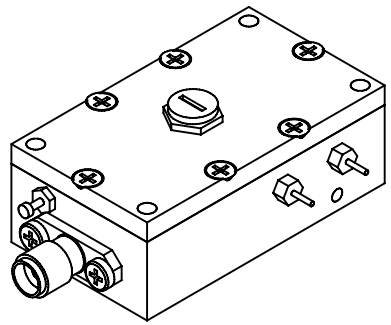
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO Vb PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

P.S. .63" HEIGHT DIMENSION OVER 7 GHz

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED







P/N NXOS-0541-001	NEXYN CORPORATION SANTA CLARA, CA. USA			
FILE# DC200104_2A	FREE RUNNING DRO			
F. WONG	SIZE A	FSCM NO.	DWG NO. DC200104	REV 4
REVISED IN 5/01	SCALE 1/1	1/4/2000	SHEET 1 OF 1	

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH

   ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. UNIT THICKNESS IS 0.75" FOR F < 6.5 GHz.

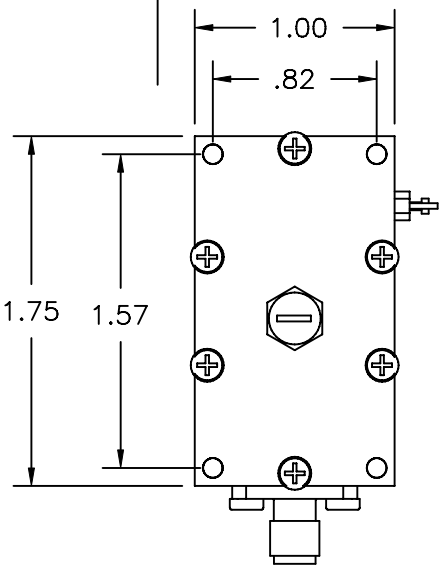
PIN FUNCTIONS:
RF OUT
+15V (NOMINAL, LOWER VOLTAGE AVAILABLE)

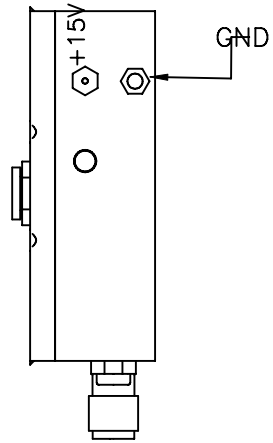
EFC (NOT APPLIED IN THIS MODEL)

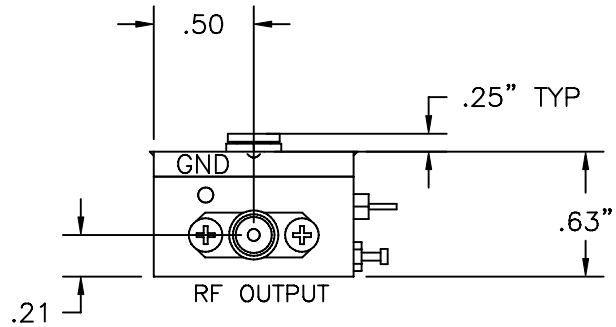
TURN ON PROCEDURES:

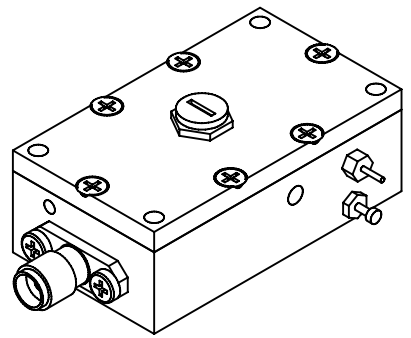
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO +15V PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED









NEXYN CORPORATION
(SUNNYVALE, CA. USA)

FREE RUNNING DRO
(MECHANICAL TUNED)

F. WONG

SIZE	FSCM NO.	DWG NO.	REV
A		DC200104	5

SCALE		SHEET
1/1	1/4/2000	1 OF 1

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

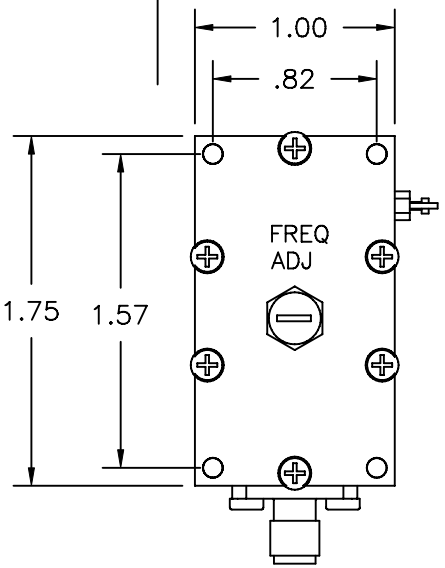
PIN FUNCTIONS:
RF OUT
+12V (NOMINAL, LOWER VOLTAGE AVAILABLE)

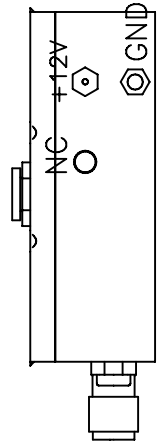
EFC (NOT APPLIED IN THIS MODEL)

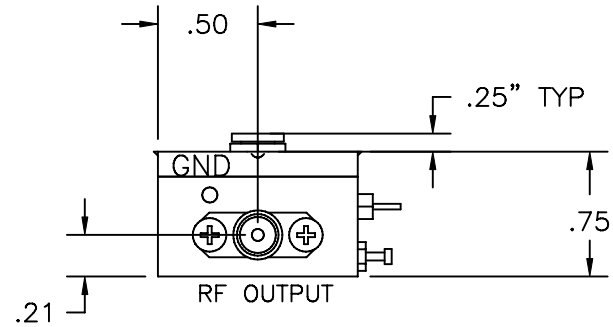
TURN ON PROCEDURES:

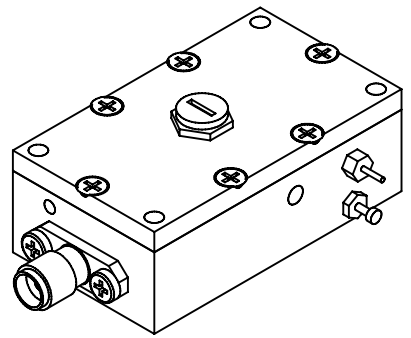
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO +12V PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED









NEXYN CORPORATION
(SUNNYVALE, CA. USA)

FREE RUNNING DRO
(MECHANICAL TUNED)

F. WONG

SIZE	FSCM NO.	DWG NO.	REV
A		DC200104	6

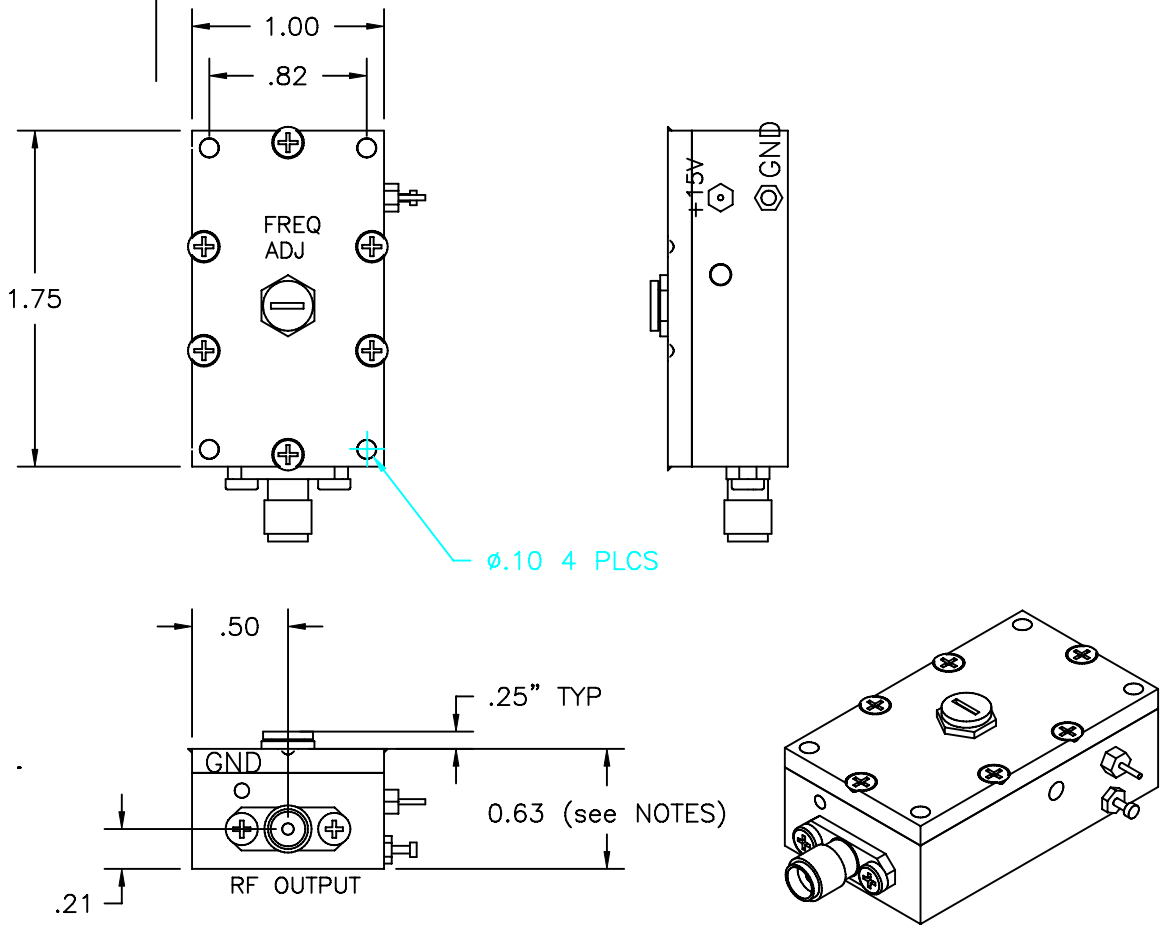
SCALE		SHEET
1/1	1/4/2000	1 OF 1

NOTES

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <2 OZ
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE
8. TUNING SCREW NOT USED FOR F < 3.0 GHz
9. THICKNESS = 0.63" FOR F < 3 GHz OR F > 6.5 GHz
   THICKNESS = 0.75" FOR 3.2 GHz < F < 6.5 GHz

PIN FUNCTIONS:
RF OUT : SIN OUTPUT, 50 OHM SOURCE IMPEDANCE
+15V (NOMINAL, OTHER VOLTAGE AVAILABLE)

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



NEXYN CORPORATION
(SUNNYVALE, CA. USA)

FREE RUNNING DRO
(MECHANICAL TUNED)

F. WONG

SIZE	FSCM NO.	DWG NO.	REV
A		DC200104	7

SCALE		SHEET
1/1	1/4/2000	1 OF 1

NOTES

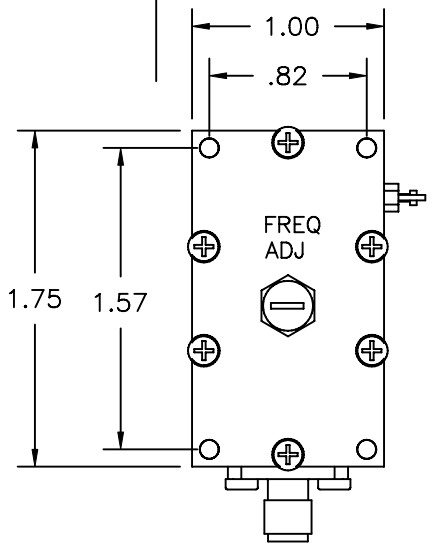
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 40 gm
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

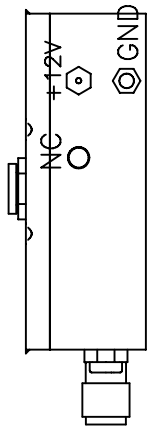
PIN FUNCTIONS:
RF OUT
+12V (NOMINAL, OTHER VOLTAGE AVAILABLE)

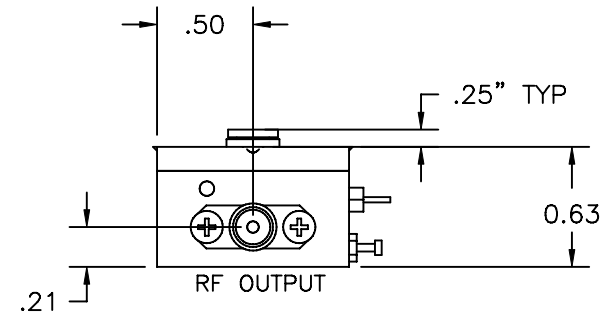
TURN ON PROCEDURES:

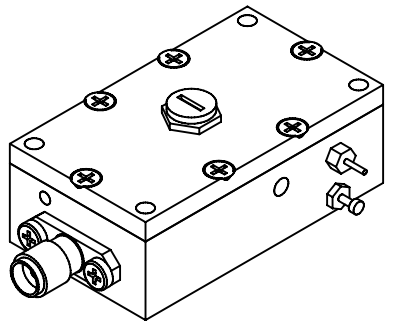
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO +12V PIN
3. VERIFY OUTPUT FREQUENCY
4. ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
5. CONSULT FACTORY FOR ANY QUESTIONS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

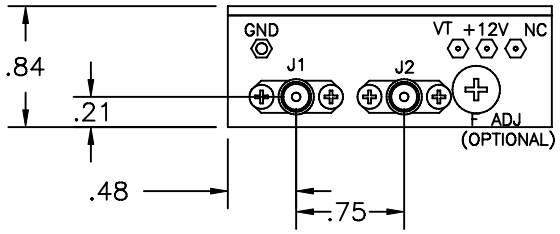


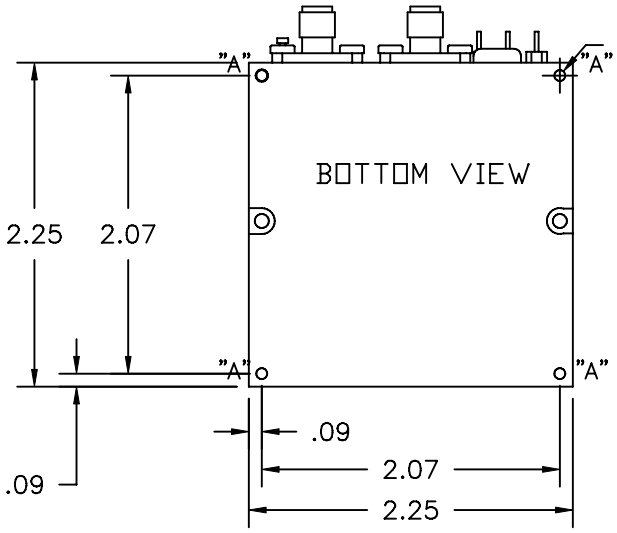


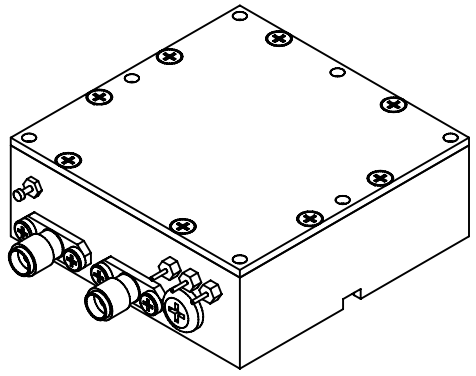




	NEXYN CORPORATION (SUNNYVALE, CA. USA)			
	FREE RUNNING DRO (MECHANICAL TUNED)			
F. WONG	SIZE A	FSCM NO.	DWG NO. DC200104	REV 8
	SCALE 1/1	1/4/2000	SHEET 1 OF 1	







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: +12V NOMINAL, OTHER VOLTAGES AVAILABLE
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQ MECHANICAL ADJUST FINE TUNE PORT
J1: XTAL REFERENCE FREQUENCY MONITOR OUTPUT
J2: XTAL REFERENCE FREQUENCY OUTPUT (100 MHz NOMINAL)

AVAILABLE FROM 50 MHz TO 400 MHz

TURN ON PROCEDURES:
1. CONNECT XTAL REF FREQUENCY OUTPUT J2 TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY XTAL FREQUENCY OUTPUT AND POWER LEVEL
4. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0-5V TO VT PIN)
5. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200105_1B

F. WONG

REVISED IN 7/01

NEXYN CORPORATION

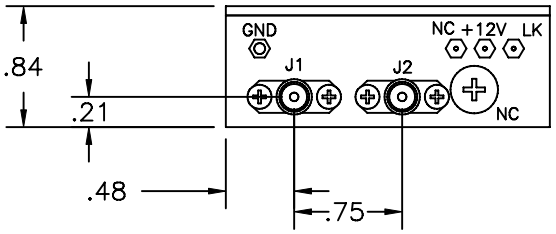
SANTA CLARA, CA. 95050

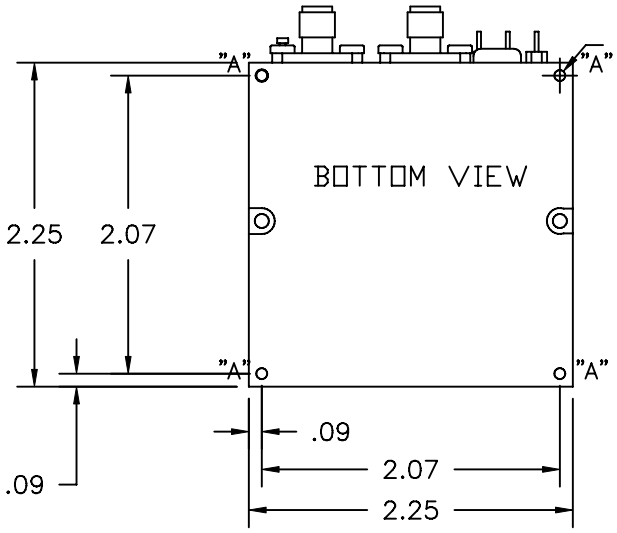
FREE RUNNING XTAL REFERENCE MODULE

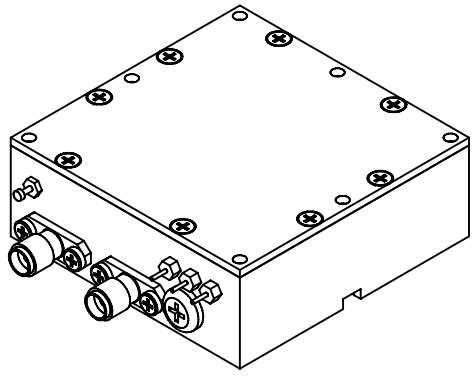
NXOS-XO SERIES

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1B

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:

+12V BIAS VOLTAGE, (OTHER VOLTAGES AVAILABLE)
NC: NOT CONNECTED
LK: LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <0.8V UNOCKED
J1: EXTERNAL REFERENCE INPUT (10 MHz @ 0 dBm +/- 3dB NOMINAL), OTHER REFERENCE FREQ AVAILABLE
J2: XTAL REFERENCE OUTPUT, 100 MHz NOMINAL, (ALSO AVAILABLE FROM 50 MHz TO 400 MHz)

TURN ON PROCEDURES:
1. CONNECT EXT REFERENCE J1 AT RECOMMENDED POWER LEVEL
2. CONNECT XTAL FREQUENCY OUTPUT J2 TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY XTAL FREQUENCY OUTPUT AND POWER LEVEL
5. CONSULT FACTORY FOR ANY QUESTIONS

NEXYN CORPORATION
SANTA CLARA, CA. 95050

PHASE LOCKED XTAL REFERENCE MODULE
NXOS-PLXO SERIES

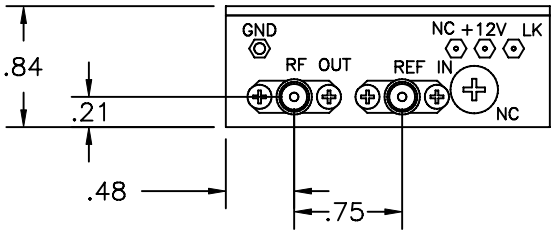
FILE# DC200105_1C

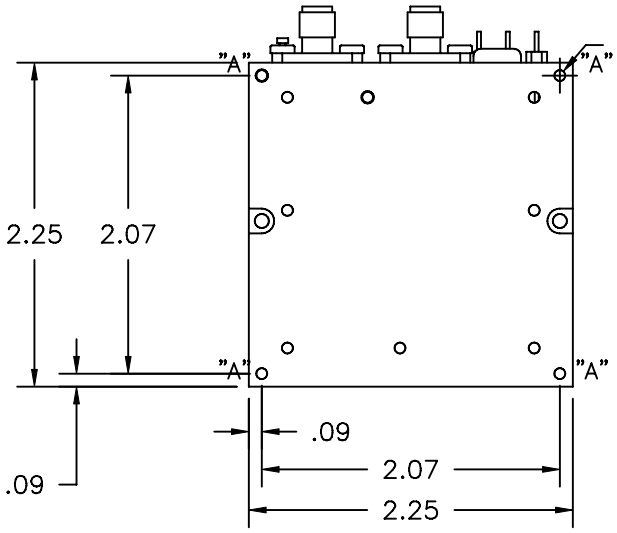
F. WONG

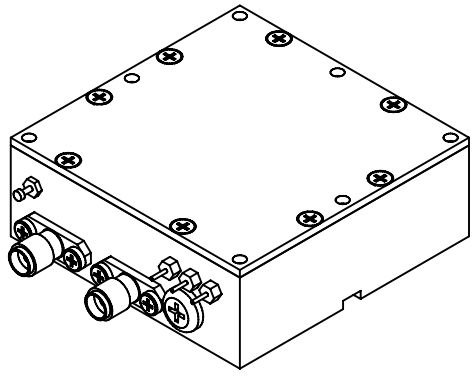
REVISED 07/02/2001

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1C

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V BIAS VOLTAGE, (OTHER VOLTAGES AVAILABLE)
NC: NOT CONNECTED
REF IN: EXTERNAL REFERENCE INPUT (10 MHz @ 0 dBm +/- 3dB NOMINAL), OTHER REFERENCE FREQ AVAILABLE
RF OUT: RF OUTPUT
LK: LOCK ALARM, >2.5V LOCKED, <0.8V UNLOCKED

TURN ON PROCEDURES:
1. CONNECT EXT REFERENCE AT RECOMMENDED POWER LEVEL
2. CONNECT RF OUTPUT TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY RF FREQUENCY OUTPUT AND POWER LEVEL
5. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200105_1D

F. WONG

REVISED IN 1/01

NEXYN CORPORATION

SANTA CLARA, CA. 95050

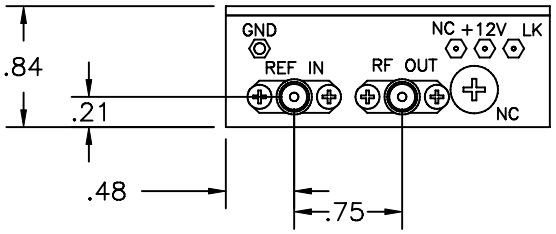
LOW FREQ PHASE LOCKED OSCILLATOR

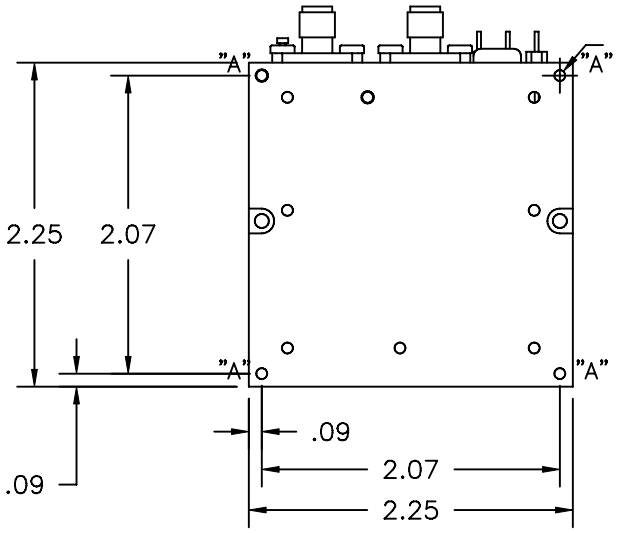
NXPLOS SERIES (300 TO 1000 MHz)

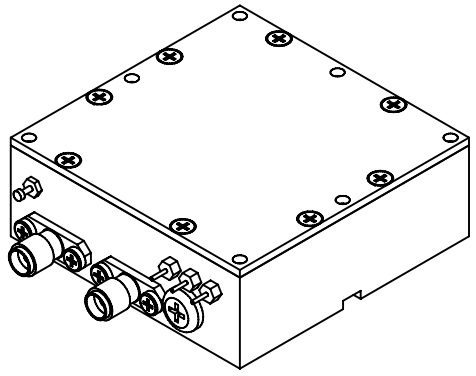
SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1D

SCALE 3/4

SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V NOMINAL BIAS VOLTAGE, (OTHER VOLTAGES AVAILABLE)
NC: NOT CONNECTED
REF IN: EXTERNAL REFERENCE INPUT (10 MHz @ 0 dBm +/- 3dB NOMINAL), OTHER REFERENCE FREQ AVAILABLE
RF OUT: RF OUTPUT
LK: LOCK ALARM, >2.5V LOCKED, <0.8V UNLOCKED

TURN ON PROCEDURES:
1. CONNECT EXT REFERENCE AT RECOMMENDED POWER LEVEL
2. CONNECT RF OUTPUT TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY RF FREQUENCY OUTPUT AND POWER LEVEL
5. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200105_1E

F. WONG

REVISED IN 09/01

NEXYN CORPORATION

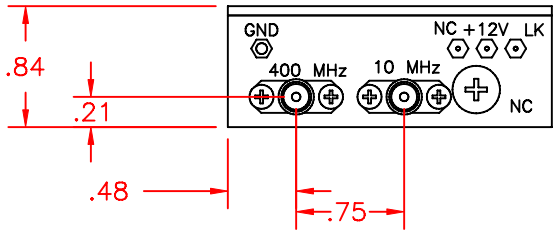
SANTA CLARA, CA. 95050

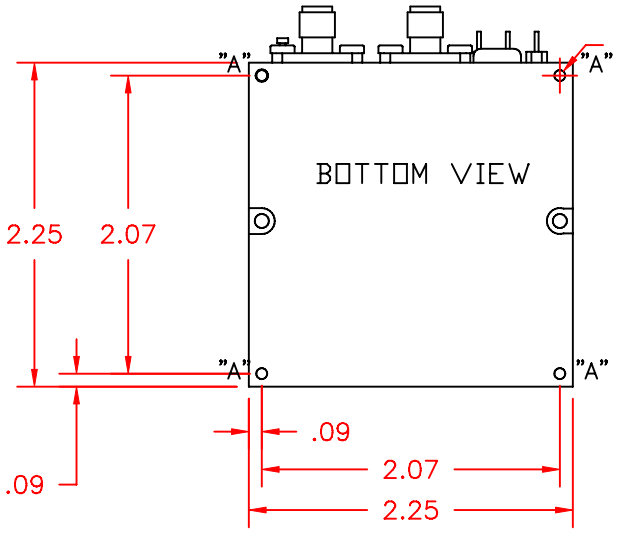
LOW FREQ PHASE LOCKED OSCILLATOR

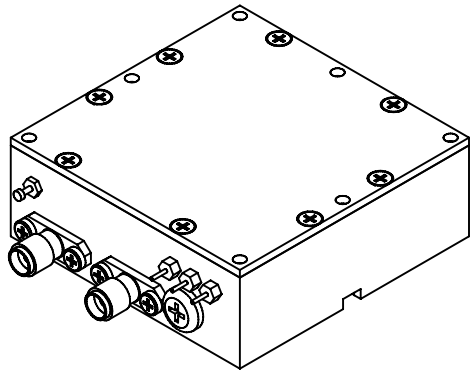
NXPLOS SERIES (300 TO 3000 MHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1E

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: +12V NOMINAL, OTHER VOLTAGES AVAILABLE
NC: NOT CONNECTED
400 MHz: XTAL REFERENCE FREQUENCY OUTPUT (400 MHz)
10 MHz: EXTERNAL REFERENCE INPUT (10 MHz @ 0 dBm+/- 3 dB)
GND: CASE GROUND
LK: LOCK ALARM, >2.5V LOCKED, <0.8 V UNLOCKED

TURN ON PROCEDURES:
1. CONNECT 400 MHz OUTPUT TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY XTAL FREQUENCY OUTPUT AND POWER LEVEL
4. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200105_1G

F. WONG

REVISED IN 09/02

NEXYN CORPORATION

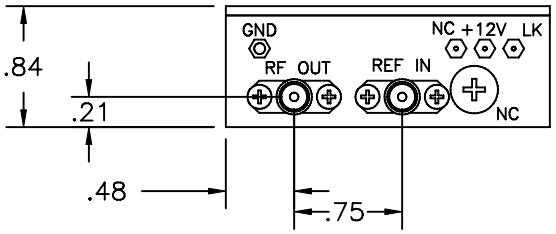
SANTA CLARA, CA. 95050

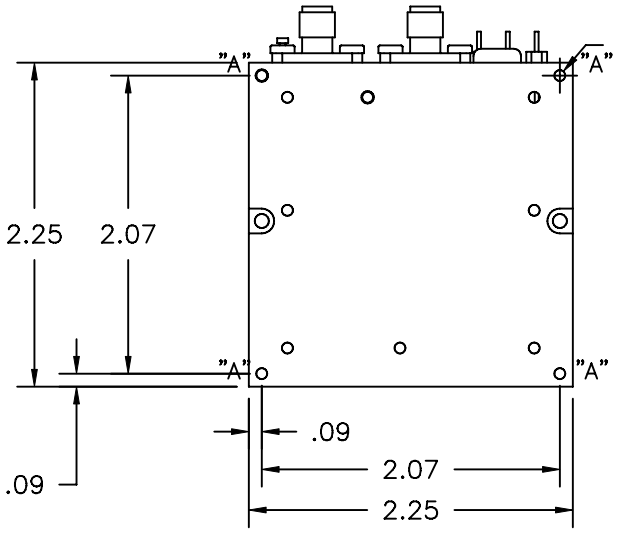
PHASE LOCKED XTAL REFERENCE MODULE

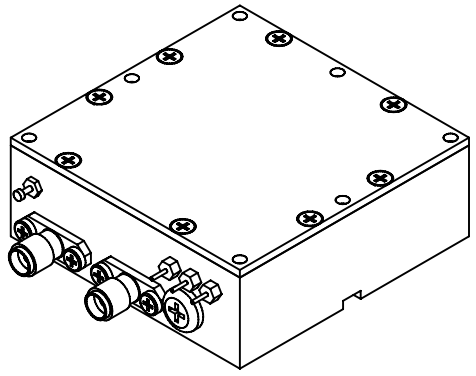
NXOS-PLXO SERIES (150 - 400 MHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1G

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:

+12V NOMINAL BIAS VOLTAGE, (OTHER VOLTAGES AVAILABLE)
NC: NOT CONNECTED
REF IN: EXTERNAL REFERENCE INPUT (10 MHz @ 0 dBm +/- 3dB NOMINAL), OTHER REFERENCE FREQ AVAILABLE
RF OUT: RF OUTPUT
LK: LOCK ALARM, >2.5V LOCKED, <0.8V UNLOCKED

TURN ON PROCEDURES:
1. CONNECT EXT REFERENCE AT RECOMMENDED POWER LEVEL
2. CONNECT RF OUTPUT TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY RF FREQUENCY OUTPUT AND POWER LEVEL
5. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200105_1E

F. WONG

REVISED IN 09/01

NEXYN CORPORATION

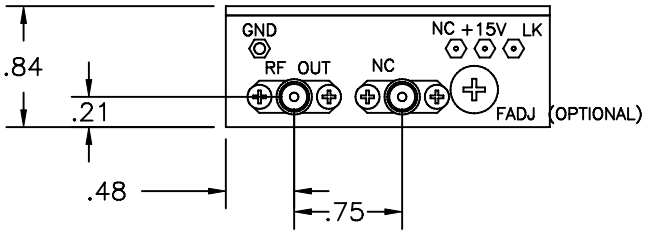
SANTA CLARA, CA. 95050

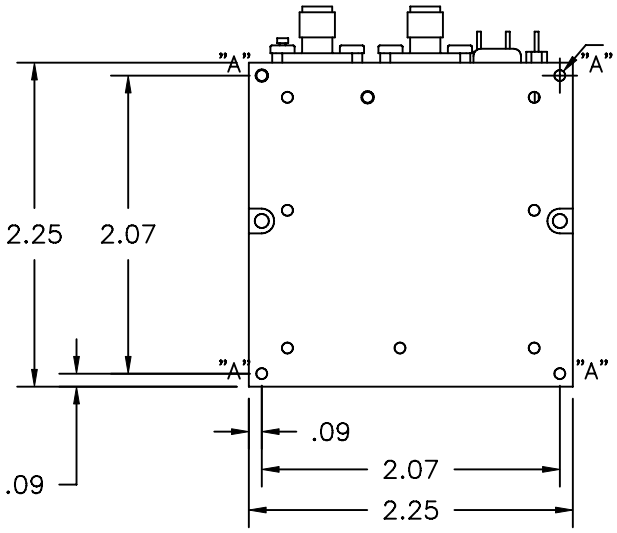
LOW FREQ PHASE LOCKED OSCILLATOR

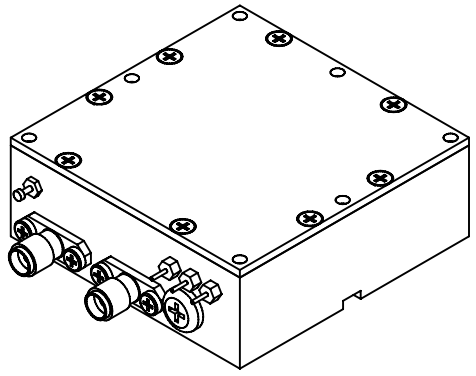
NXPLOS SERIES (300 TO 3000 MHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1H

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+15V NOMINAL BIAS VOLTAGE, (OTHER VOLTAGES AVAILABLE)
NC: NOT CONNECTED
RF OUT: RF OUTPUT 50 OHM SOURCE, AC COUPLED
LK: LOCK ALARM: LOCKED=HI-Z STATE, UNLOCK=SAT TO GND
F ADJ: SCREW DRIVER TRIM FOR OUTPUT FREQUENCY (OPTIONAL)

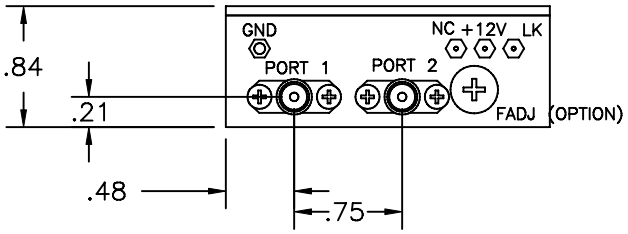
FILE# DC200105_1I

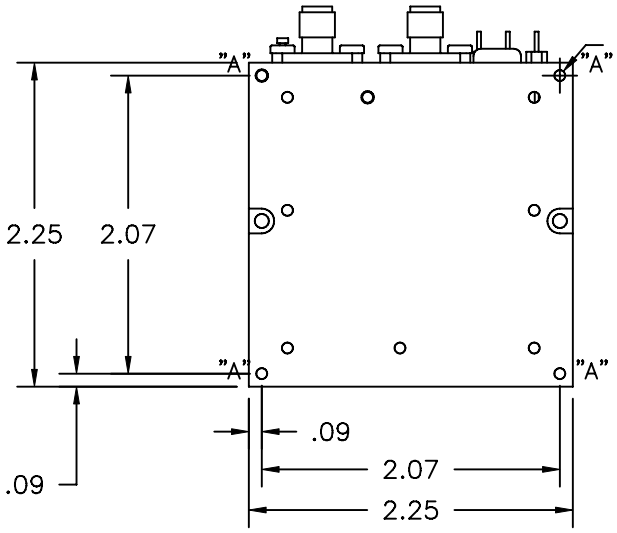
NEXYN CORPORATION
SANTA CLARA, CA. 95050

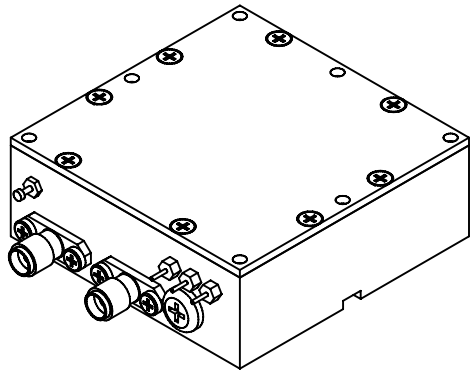
LOW FREQ INTERNAL REF PLO
NXPLOS-I SERIES (300 TO 3000 MHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1I

SCALE 3/4 SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V NOMINAL BIAS VOLTAGE, (OTHER VOLTAGES AVAILABLE)
NC: NOT CONNECTED
PORT 1 & 2: RF OUTPUT 50 OHM SOURCE, AC COUPLED
LK: LOCK ALARM: LOCKED=HI-Z STATE, UNLOCK=SAT TO GND
F ADJ (IF SPEC'D): SCREW DRIVER TRIM FOR OUTPUT FREQUENCY

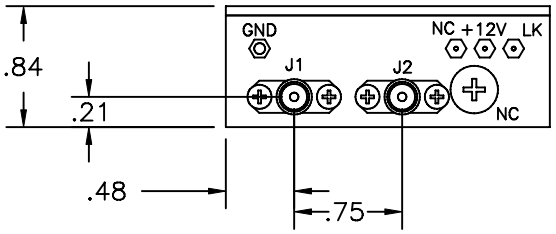
FILE# DC200105_1I

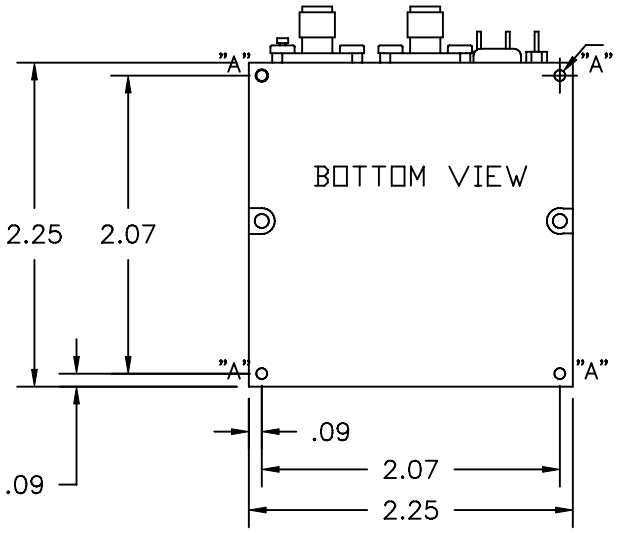
NEXYN CORPORATION
SANTA CLARA, CA. 95050

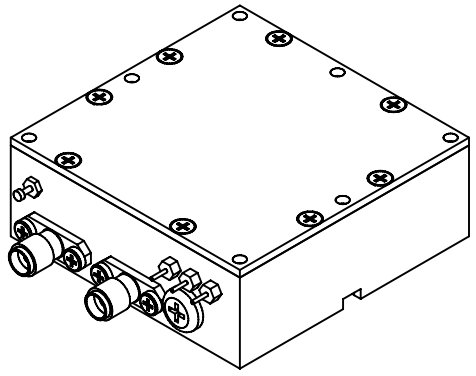
DUAL OUTPUT LOW FREQ INTERNAL REF PLO
NXPLOS-I SERIES (300 TO 3000 MHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1J

SCALE		SHEET
3/4		1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <4.5 OZ (<128 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:

+12V BIAS VOLTAGE, (OTHER VOLTAGES AVAILABLE)
NC: NOT CONNECTED
LK: LOCK DETECT, OPEN COLLECTOR, >2.5V LOCKED, <0.8V UNOCKED
J1: EXTERNAL REFERENCE INPUT (10 MHz @ 0 dBm +/- 3dB NOMINAL), OTHER REFERENCE FREQ AVAILABLE
J2: XTAL REFERENCE OUTPUT, 100 MHz NOMINAL, (ALSO AVAILABLE FROM 50 MHz TO 400 MHz)

TURN ON PROCEDURES:
1. CONNECT EXT REFERENCE J1 AT RECOMMENDED POWER LEVEL
2. CONNECT XTAL FREQUENCY OUTPUT J2 TO SPECTRUM ANALYZER OR FREQUENCY COUNTER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY XTAL FREQUENCY OUTPUT AND POWER LEVEL
5. CONSULT FACTORY FOR ANY QUESTIONS

NEXYN CORPORATION
SANTA CLARA, CA. 95050

PHASE LOCKED XTAL REFERENCE MODULE
NXOS-PLXO SERIES

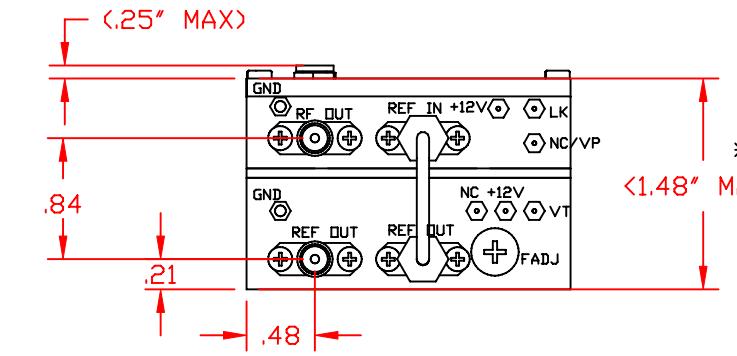
FILE# DC200105_1C

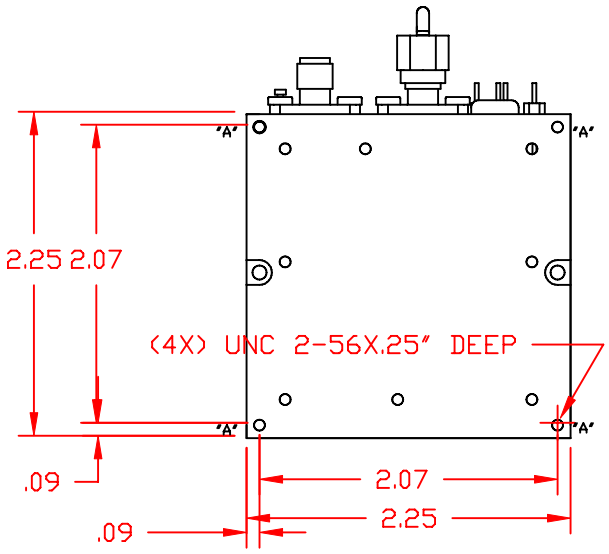
F. WONG

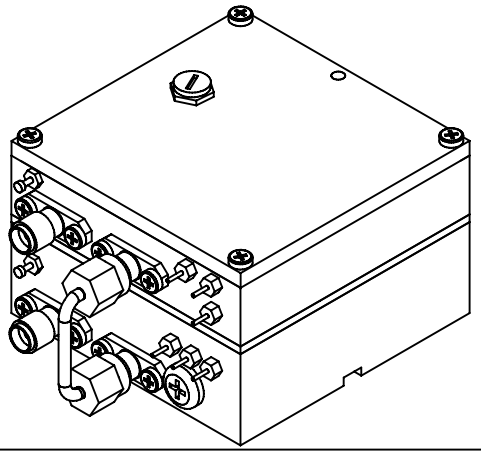
REVISED 07/02/2001

SIZE	FSCM NO.	DWG NO.	REV
A		DC200105	1C

SCALE 3/4 SHEET 1 OF 1







REVISIONS			
ZONE	REV	DESCRIPTION	DATE

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UN
NC/VP: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AV
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TI
REF OUT: INTERNAL REFERENCE (SAMPLE OUTPUT)
NC: NOT CONNECTED
VT: INTERNAL REF ELECTRONIC TUNE +/-8PPM (2.5 V NOMINAL
FADJ: INTERNAL REFERENCE FREQUENCY MECHANICAL ADJUSTMEN

TURN ON PROCEDURES:
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT PO
4. MONITOR LK FOR PHASE LOCKING, +5V LOCKED, <0.8V UNLO
5. CONSULT FACTORY FOR ANY QUESTIONS

P.S. HEIGHT TO BE 1.61" UNDER 8 GHz

FILE# DC200106_1B

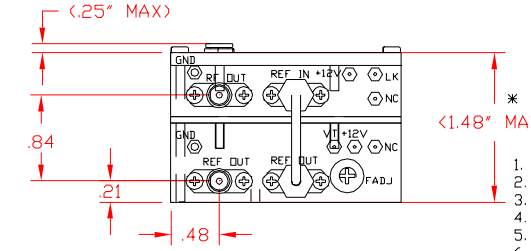
F. WONG

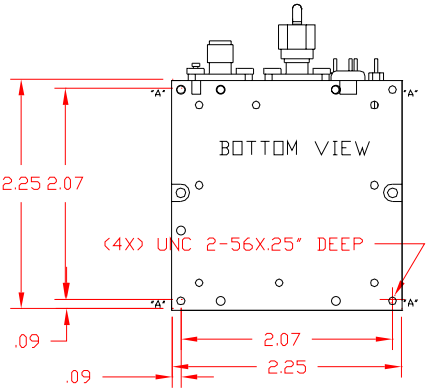
NEXYN CORPORATI
SANTA CLARA, CA. USA

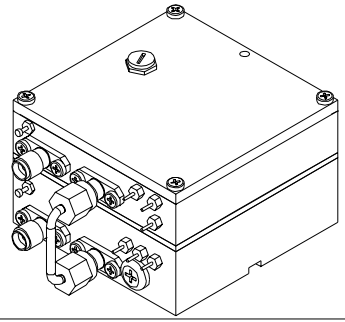
INTERNAL REFERENCE PHASE LOCK
NXPLOS-I SERIES

SIZE	FSCM NO.	DWG NO.
A		DC20010

SCALE		SHEET
3/4	7/2/2001	1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE (SAMPLE OUTPUT)
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQUENCY MECHANICAL ADJUST FINE TUNE PORT

TURN ON PROCEDURES:
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +15V PIN
3. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
4. MONITOR LK FOR PHASE LOCKING, +5V LOCKED, <0.8V UNLOCKED
5. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0 - 5V TO VT PIN). ALLOW 5 TO 10 MINUTES WARM UP TIME.
6. CONSULT FACTORY FOR ANY QUESTIONS

P.S. * HEIGHT TO BE 1.61" UNDER 8 GHz

FILE# DC200106_2B

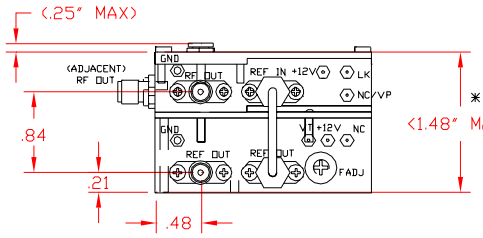
F. WONG

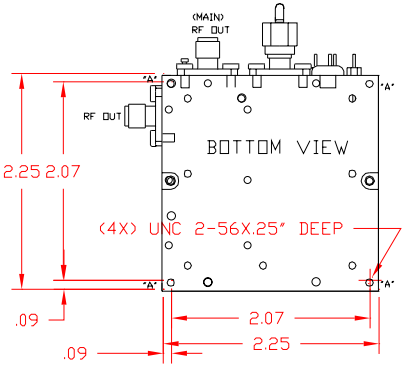
NEXYN CORPORATION
SANTA CLARA, CA. USA

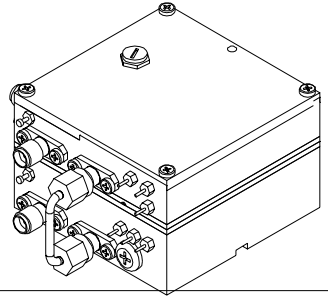
INTERNAL REFERENCE PHASE LOCKED DRO, NXPLOS-I SERIES

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2B

SCALE		SHEET
3/4	7/2/2001	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:

+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC/VP: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT: (DUAL OUTPUTS)
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE (SAMPLE OUTPUT)
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQUENCY MECHANICAL ADJUST FINE PORT

TURN ON PROCEDURES:

1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
4. MONITOR LK FOR PHASE LOCKING, >+2.5V LOCKED, <0.8V UNLOCKED
5. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0 - 5V TO VT PIN).
   ALLOW 5 TO 10 MINUTES WARM UP TIME
6. CONSULT FACTORY FOR ANY QUESTIONS

P.S. * HEIGHT TO BE 1.61" UNDER 8 GHz

NEXYN CORPORATION

SANTA CLARA, CA. USA

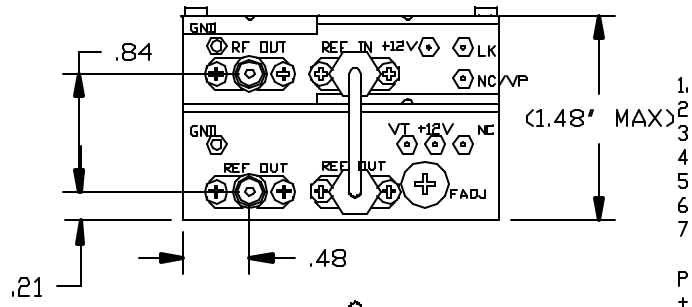
INTERNAL REFERENCE PHASE LOCKED DRO, NXPLOS-I SERIES (DUAL OUTPUTS)

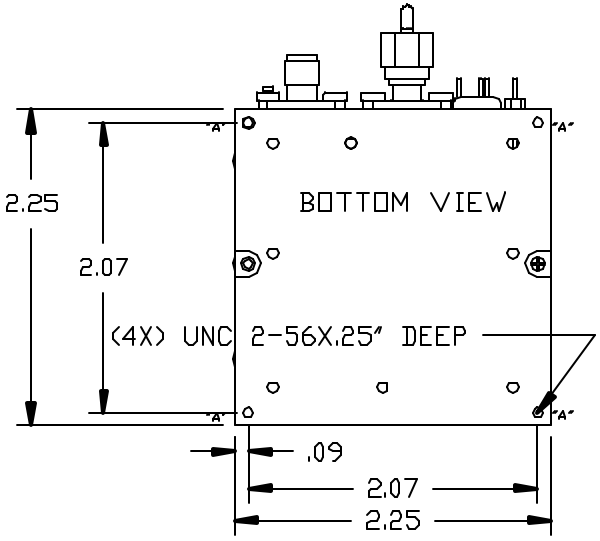
FILE# DC200106_2D

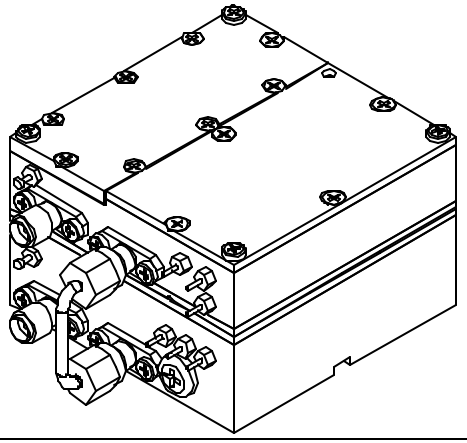
SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2D

F. WONG

SCALE 3/4 | 7/2/2001 | SHEET 1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
LK : (LOCK ALARM), OPEN COLLECTOR, >+2.5V LOCKED, <0.8V UNLOCKED
NC: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE (SAMPLE OUTPUT)
NC: NOT CONNECTED
VT: INT REF FREQ ELECTRONIC FINE TUNE, PRESET @ 2V TYP AT FACTORY (0 TO +5V FOR +/- 8PPM TUNING TYP)
FADJ: INT REF FREQUENCY MECHANICAL ADJUST FINE TUNE PORT

TURN ON PROCEDURES:
1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
3. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
4. MONITOR LK FOR PHASE LOCKING, +5V LOCKED, <0.8V UNLOCKED
5. OUTPUT FREQ FINE ADJUSTMENT BY MECHANICAL ADJUSTMENT (FADJ) OR ELECTRONIC TUNING (APPLY 0 - 5V TO VT PIN). ALLOW 5 TO 10 MINUTES WARM UP TIME AFTER DC POWER ON
6. CONSULT FACTORY FOR ANY QUESTIONS

FILE# DC200106_2I

F. WONG

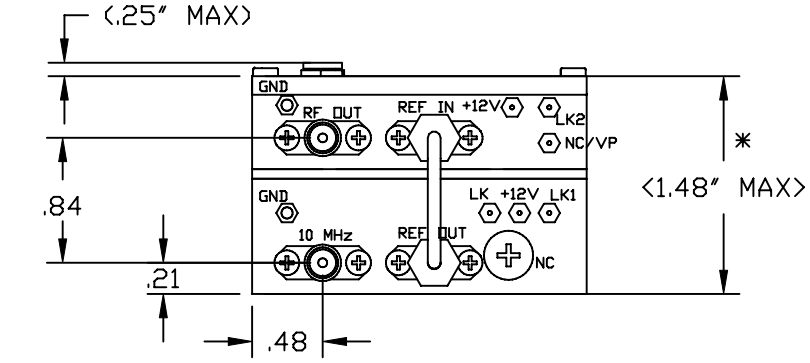
NEXYN CORPORATION

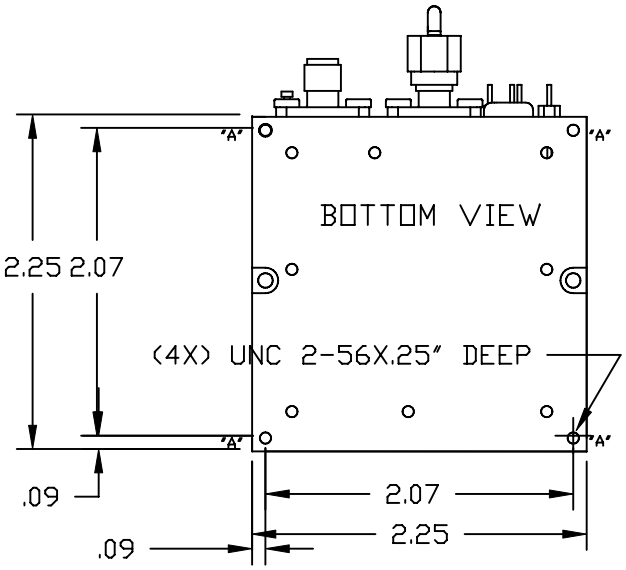
SANTA CLARA, CA. USA

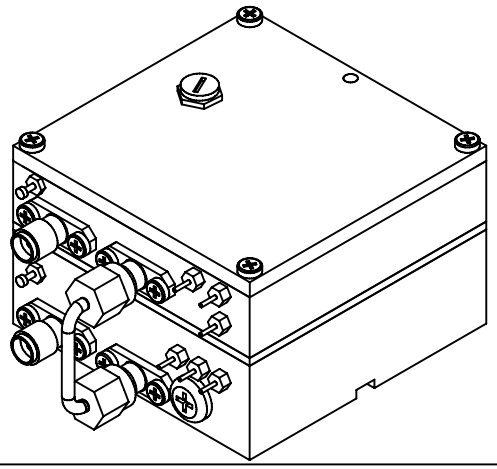
INTERNAL REFERENCE PHASE LOCKED DRO, NXPLOS-I SERIES (300 MHz-3 GHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2I

SCALE		SHEET
3/4	09/17/2002	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS:
+12V: BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE e.g +15V.,)
LK : (LOCK ALARM), SOURCE/SINK 32mA from +5V or to GND
NC/VP: NORMALLY NOT CONNECTED, (PHASE VOLTAGE OPTION AVAILABLE)
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
10 MHz: EXTERNAL REFERENCE INPUT @ 0dBm +/- 3dB (OTHER REFERENCE FREQ AVAILABLE)
LK1, LK2: WIRED TOGETHER -DO NOT USE
TURN ON PROCEDURES:

1. CONNECT 10 MHz EXT REFERENCE
2. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
3. CONNECT DC GROUND LUG, APPLY DC POWER TO +12V PIN
4. VERIFY OUTPUT PHASE LOCKED FREQUENCY AND OUTPUT POWER
5. MONITOR LK FOR PHASE LOCKING, >+2.5V LOCKED, <0.8V UNLOCKED
   ALLOW 5 TO 10 MINUTES WARM UP TIME AFTER DC POWER ON.
6. CONSULT FACTORY FOR ANY QUESTIONS

P.S. * HEIGHT TO BE 1.61" BETWEEN 3 TO 6.5 GHz. NO TUNING SCREW FOR F< 3 GHz

FILE# DC200106_2C

RHB

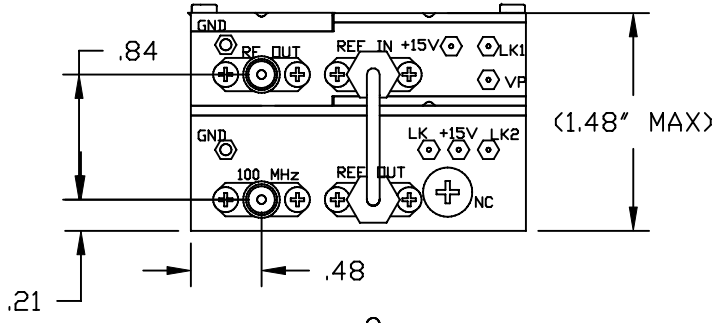
NEXYN CORPORATION

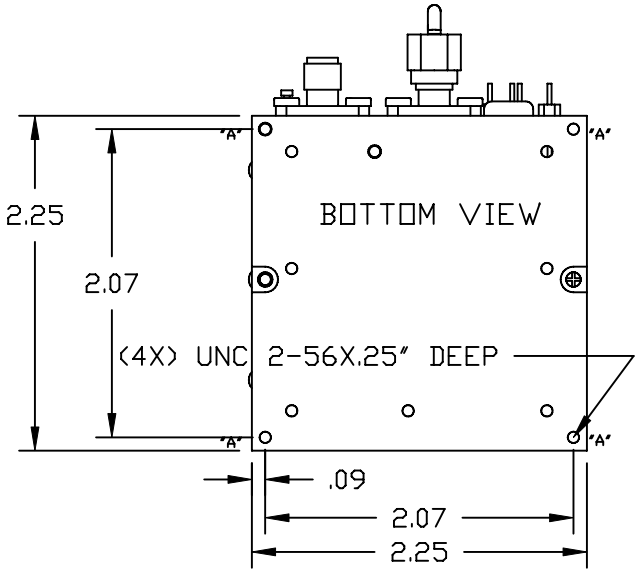
SANTA CLARA, CA. USA

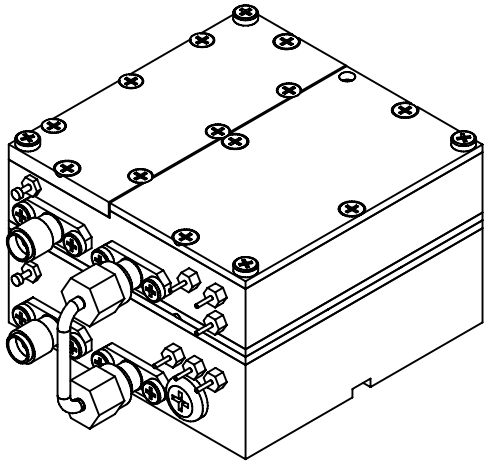
DUAL LOOP PHASE LOCKED DRO,
NXPLOS-IX SERIES

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2J

SCALE		SHEET
3/4	9/15/2005	1 OF 1







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:

1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: < 9 OZ (<255 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF WARRANTY SEAL BROKEN
6. DO NOT EXCEED OPERATION LIMITS

PIN FUNCTIONS:

+15V: BIAS VOLTAGE (2 DC PINS WIRED TOGETHER)
LK : (LOCK ALARM), LOCKED=+5V, UNLOCK=0 V, SOURCE/SINK CAPABILITY > 20 mA
VP: PHASE VOLTAGE, NO USER CONNECTION TO THIS TERMINAL
RF OUTPUT:
REF IN: INTERNAL REFERENCE (CONNECTED AT ALL TIMES)
REF OUT: INTERNAL REFERENCE OUTPUT (CONNECTED AT ALL TIMES)
100 MHz: EXTERNAL REFERENCE INPUT -3 to +13 dBm
LK1, LK2: MUST WIRE TOGETHER FOR LK TO FUNCTION

FILE# DC200106_2K

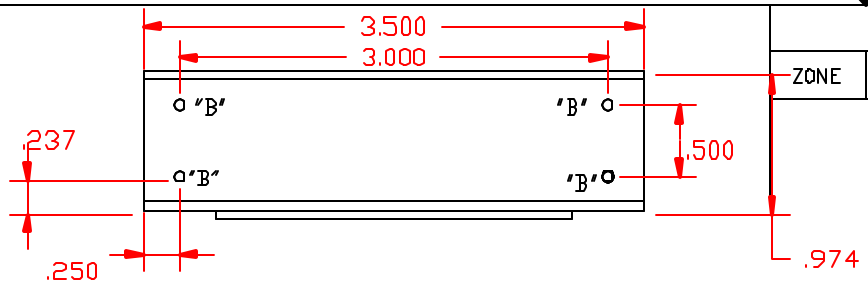
NEXYN CORPORATION

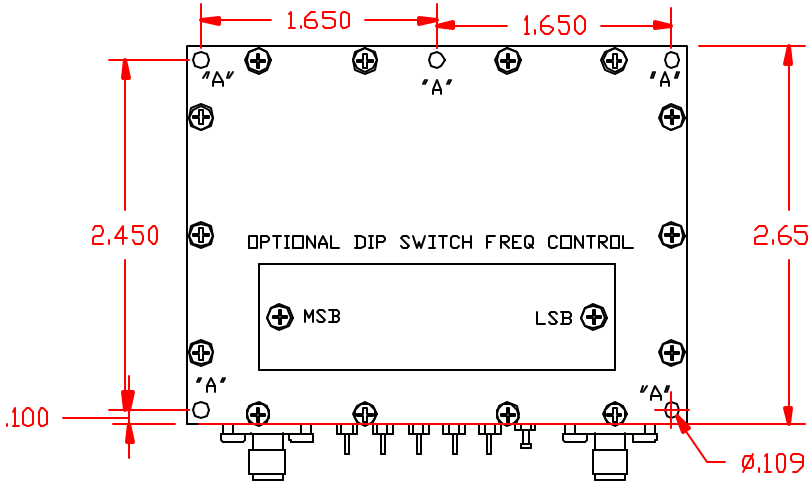
SANTA CLARA, CA. USA

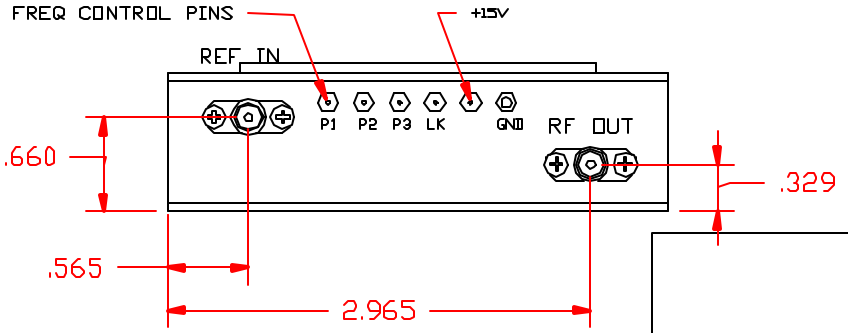
DUAL LOOP PHASE LOCKED CRO,
NXPLOS-IX SERIES (300 MHz-3 GHz)

SIZE	FSCM NO.	DWG NO.	REV
A		DC200106	2K

SCALE		SHEET
3/4	10/14/2005	1 OF 1





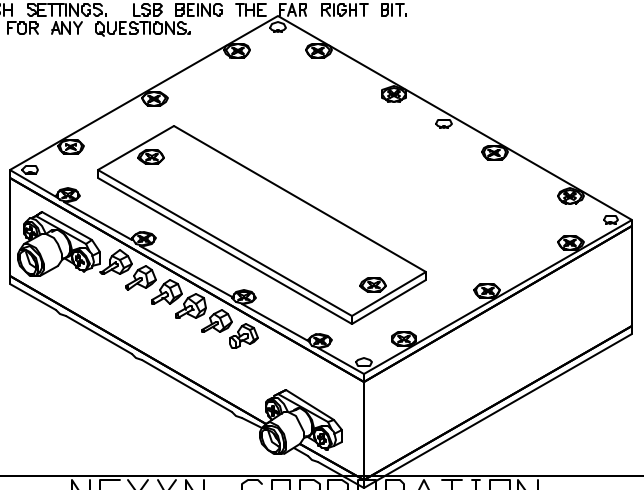


REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:
1. MATERIAL, ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <18 OZ
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

PIN FUNCTIONS.
+15V BIAS VOLTAGE.
NC: NOT CONNECTED
REF IN: EXTERNAL REFERENCE INPUT (10 MHz @ 0 dBm +/- 3dB NOMINAL)
RF OUT: RF OUTPUT
LK: LOCK ALARM, >2.5V LOCKED, <0.8V UNLOCKED

TURN ON PROCEDURES:
1. MOUNT UNIT FROM TOP SIDE THROUGH CLEARANCE HOLES
2. CONNECT EXT REFERENCE AT RECOMMENDED POWER LEVEL.
3. CONNECT RF OUTPUT TO SPECTRUM ANALYZER OR FREQUENCY COUNTER.
4. CONNECT DC GROUND LUG, APPLY DC POWER TO +15V PIN
5. VERIFY RF FREQUENCY OUTPUT AND POWER LEVEL
6. TO CHANGE FREQUENCY, REMOVE DIP SWITCH COVER PLATE, ADJUST DIP SWITCH SETTINGS. LSB BEING THE FAR RIGHT BIT.
7. CONSULT FACTORY FOR ANY QUESTIONS.



FILE# DC200200B.DWG

F. WONG

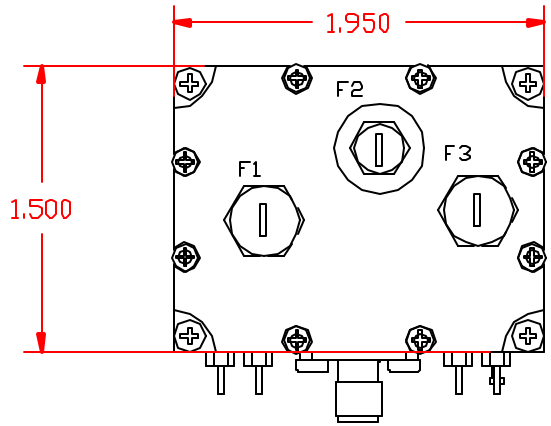
NEXYN CORPORATION

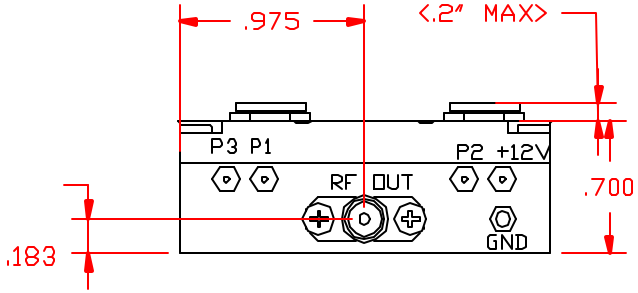
SANTA CLARA, CA 95050

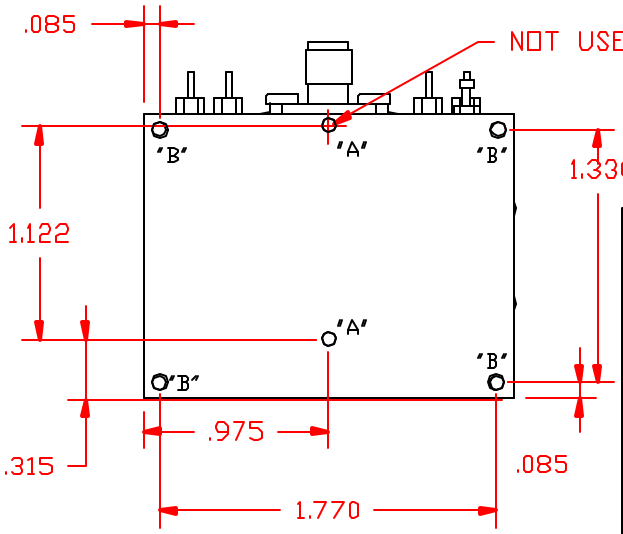
3 TO 14 GHz FREQUENCY SYNTHESIZER (5 -15% BANDWIDTH)

SIZE	FSCM NO	DWG NO	REV
A		DC200200	B

SCALE		SHEET
1	02/25/02	1 OF 1





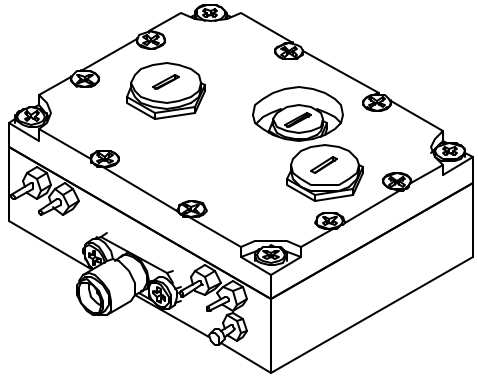


REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

UNLESS OTHERWISE SPECIFIED:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING PER MIL-C-2607
3) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
4) WARRANTY VOID IF SEALS BROKEN
6) DO NOT EXCEED OPERATION LIMITS
7) OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE
8) MOUNTING HOLES: "A" HOLES: NOT USED, OPTIONAL ONLY
"B" HOLES: UNC2-56X.110" DEEP, 4 PLCS

TRIPLE BIT OSC PIN FUNCTIONS:
P1 F1 LOGIC SELECTION "1" ON, "0" OFF
P2 F2 LOGIC SELECTION "1" ON, "0" OFF
P3 F3 LOGIC SELECTION "1" ON, "0" OFF
+12V BIAS VOLTAGE (OTHER VOLTAGES AVAILABLE)
GND GROUND
RF OUT: OSC OUTPUT (F1, F2 OR F3 BY LOGIC SELECTION)

TURN ON PROCEDURES:
1) CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2) CONNECT DC GROUND LUG, APPLY REGULATED +12VDC TO +12V BIAS PIN
3) APPLY TTL TO P1, P2, P3 FOR FREQUENCY SELECTION:
"100 LOGIC: F1, 010 LOGIC: F2, 010 LOGIC: F3"
4) VERIFY FREQUENCY CORRESPONDING TO LOGIC SELECTION
5) ADJUST MECHANICAL TUNING SCREWS TO FINE ADJUSTMENT IF NECESSARY
6) CONSULT FACTORY FOR ANY QUESTIONS



TRIPLE BIT OSC

FILE# DC200201B.DWG

F. WONG

NEXYN CORPORATION

SANTA CLARA, CA 95050

OUTLINE FOR TRIPLE BIT OSC (FRDRO)
(3 TO 15 GHz)

SIZE	FSCM NO	DWG NO	REV
A		DC200201	B

SCALE		SHEET
1/1	05/09/02	1 OF 1

NOTES

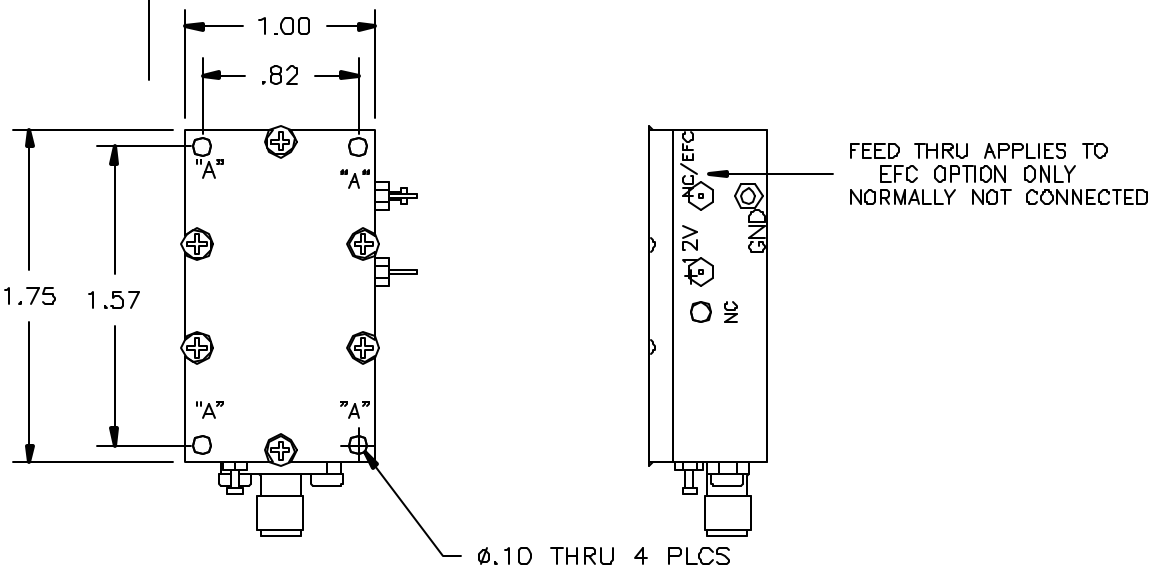
1. MATERIAL: ALUMINUM 6061T ALLOY
2. FINISH: ELECTROLESS NICKEL PLATING
3. WEIGHT: <1 OZ (<28 gm)
4. COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5. WARRANTY VOID IF SEALS BROKEN
6. DO NOT EXCEED OPERATION LIMITS
7. OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

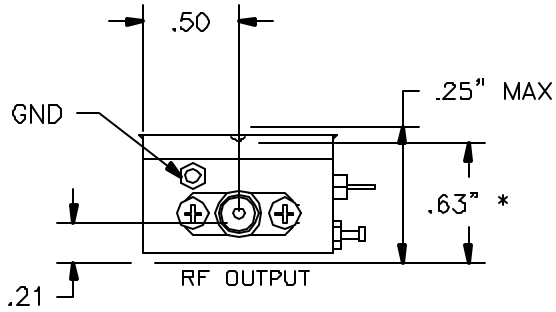
PIN FUNCTIONS:
RF OUT
+12V (OTHER VOLTAGES AVAILABLE)
NC NORMALLY NOT CONNECTED
EFC (FOR EFC OPTION ONLY), ELECTRONIC FREQUENCY CONTROL (+1 TO +15V)

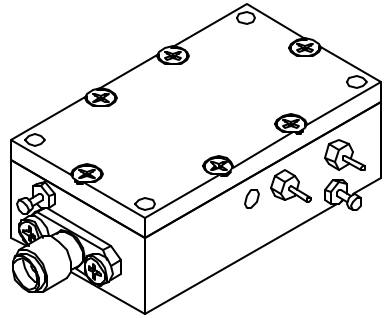
TURN ON PROCEDURES:

1. CONNECT RF OUTPUT TO SPECTRUM ANALYZER
2. CONNECT DC GROUND LUG, APPLY REGULATED DC POWER TO +12V PIN
3. VERIFY OUTPUT FREQUENCY
4. CONSULT FACTORY FOR ANY QUESTIONS

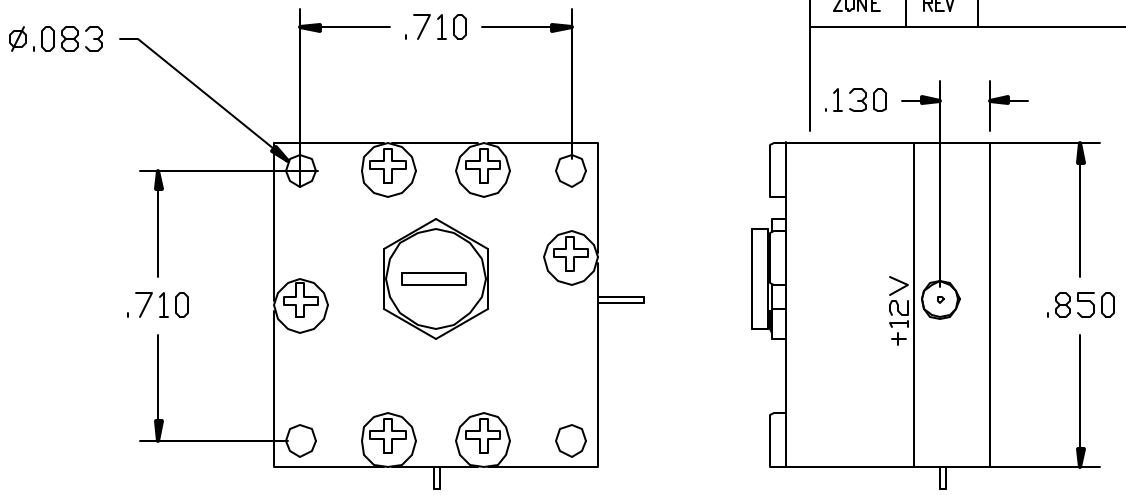
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

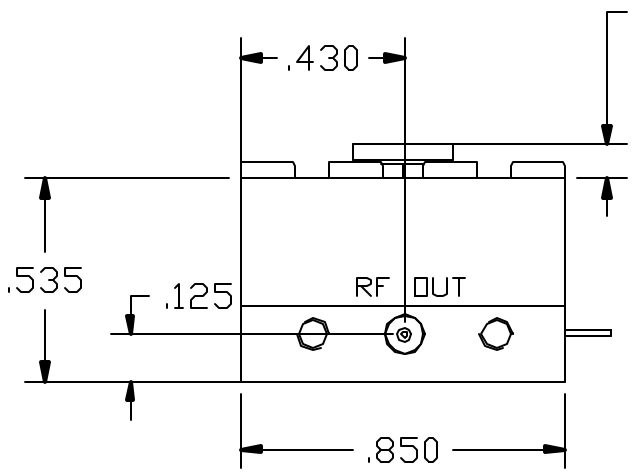


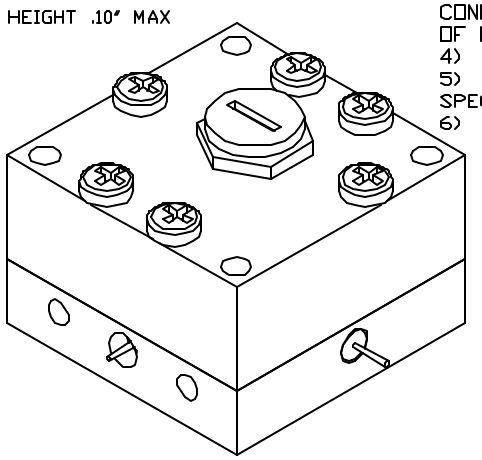




FILE#: DC200209	NEXYN CORPORATION SANTA CLARA, CA. USA			
	FREE RUNNING CRO (300 MHz – 3 GHz)			
F. WONG	SIZE A	FSCM NO	DWG NO DC200209	REV
	SCALE 1/1	12/06/01	SHEET 1 OF 1	







REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

UNLESS OTHERWISE SPECIFIED:
1) MATERIAL: ALUMINUM 6061T ALLOY
2) FINISH: ELECTROLESS NICKEL PLATING PER MIL-C-26074 CLASS C, .0005" TO .0008" THICK
3) WEIGHT: < .5 OZ TYPICAL
4) COMPONENT TO BE HANDLED WITH ANTISTATIC PROTECTION
5) CORNER MOUNTING THRU HOLES FOR 1- 72 SOCKET HEAD OR PAN HEAD SCREWS (4 PLCS)
6) RF OUT AND +12V BIAS PINS ARE FRAGILE HANDLE UNIT WITH PIN PROTECTION
7) WARRANTY VOID IF SEALS BROKEN.
8) DO NOT EXCEED OPERATION LIMITS
9) OUTLINE SUBJECT TO CHANGE WITHOUT NOTICE

TURN ON PROCEDURES:
1) MOUNT UNIT WITH 1-72 PAN HEAD OR SOCKET HEAD SCREWS.
2) KEEP RF PIN FROM MATING SURFACE CLEARANCE OF .004" TO .007".
3) CONNECT UNIT BODY TO CHASSIS GROUND, CONNECT +12 V PIN TO REGULATED DC SUPPLY OF LESS THAN +/-3% RIPPLE.
4) VERIFY OUTPUT FREQUENCY
5) ADJUST MECHANICAL TUNING SCREW TO SPECIFIED FREQUENCY IF NECESSARY
6) CONSULT FACTORY FOR ANY QUESTIONS

NEXYN CORPORATION
SANTA CLARA, CA. USA

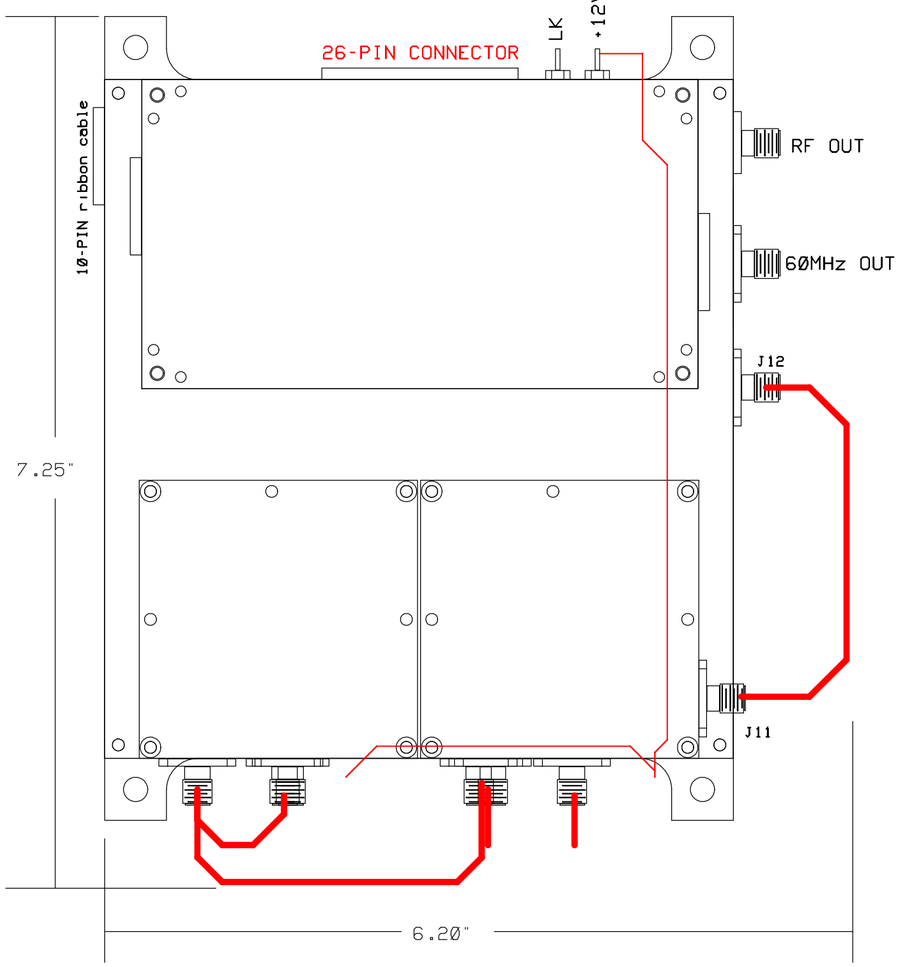
OUTLINE, SMT FRDRO
(NO SMA CONNECTOR)

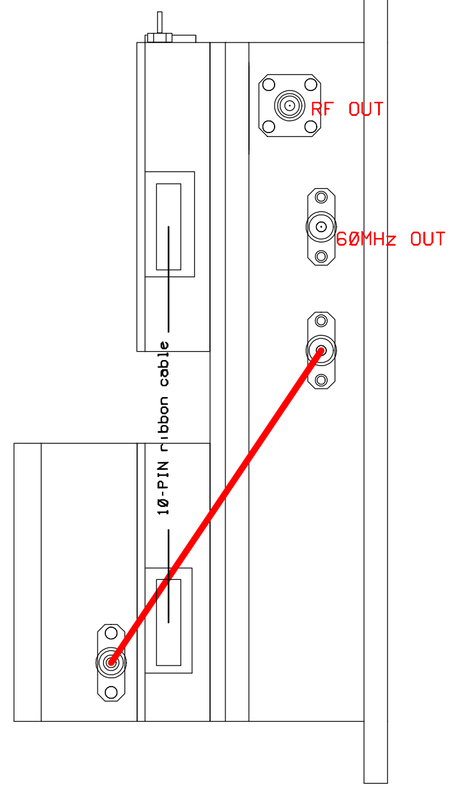
F. WONG

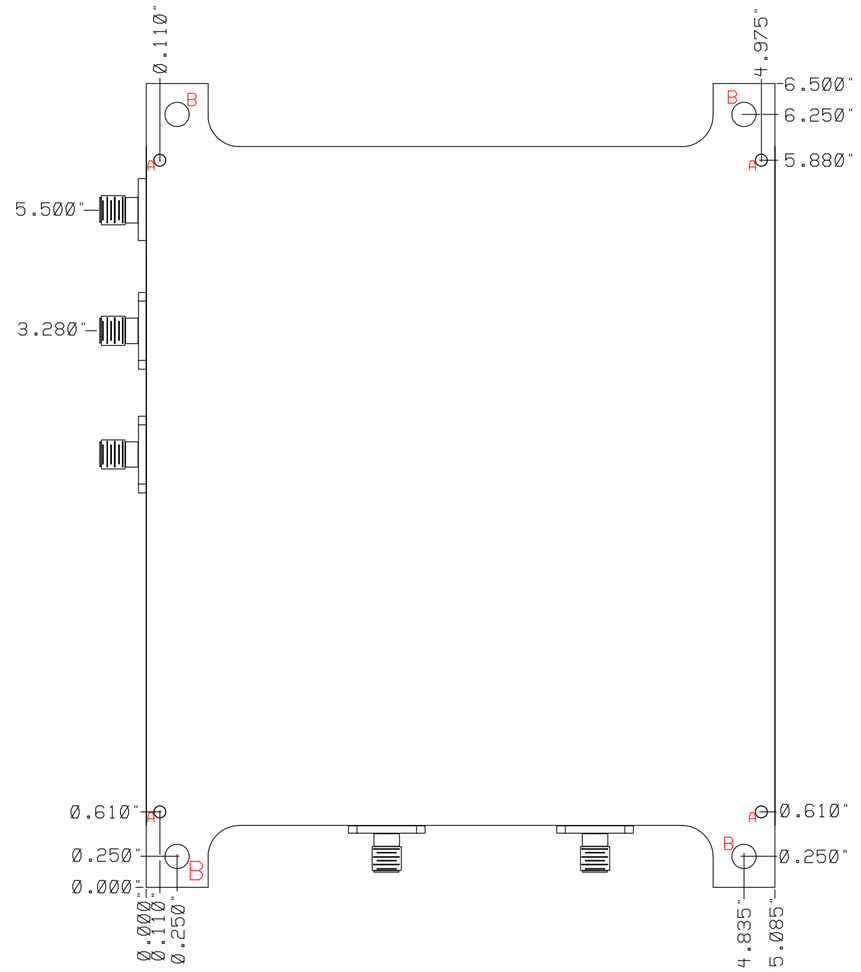
SIZE	FSCM NO	DWG NO	REV
A		DC200215A	-

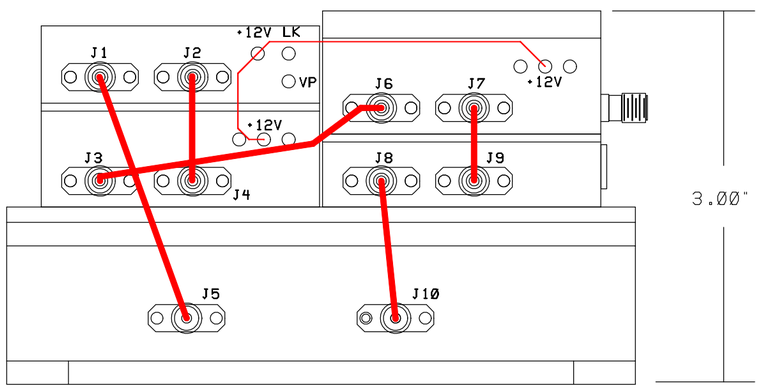
SCALE	DATE	SHEET
2/1	09/16/02	1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED









A Holes 4-40 TAPPED HOLES
B Holes #10 BODY THRU

FINISH ELECTROLESS NICKEL PLATING PER MIL-C-26074 CLASS C, 0.4 MIL THK
BOTTOM SURFACE FLATNESS 0.001" MAX
USE THERMAL GREASE ON MATING SURFACE

UNIT WEIGHT IS 60 OZ

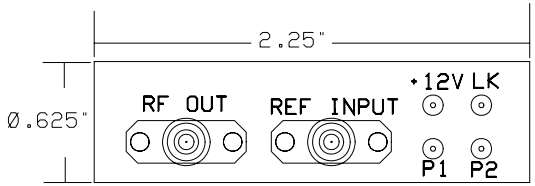
ASSEMBLY NO.	PROPRIETARY	NEXYN CORPORATION 1089 MEMOREX DRIVE SANTA CLARA, CA 95050 http //www.nexyn.com
CHECKED BY _____ DATE _____	THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM	TITLE NXS-I-0850 FREQUENCY SYNTHESIZER 100KHZ STEPS, BCD INPUT
APPROVED _____ DATE _____		SIZE C · DRAWN · DRAWING NUMBER DC200304 · REV. A0
TOLERANCES X.X ~ 0.050" X.XX ~ 0.010" X.XXX ~ 0.005" ANGLES ~ 0.500$ UNLESS OTHERWISE NOTED	NEXT HIGHER ASSEMBLY	ENGR · SCALE · DATE 04-NOV-03 · SHEET OF

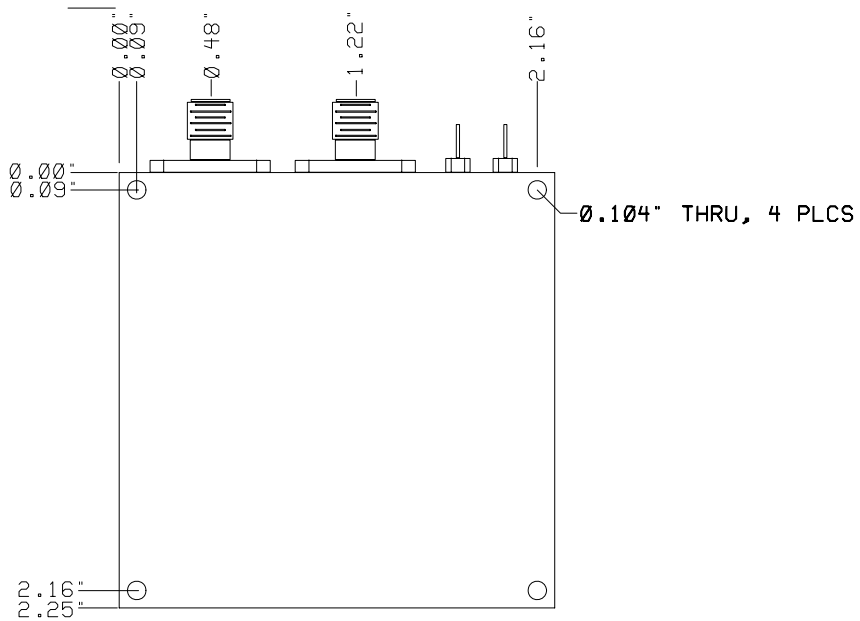
SHEET

PART NO.

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED





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TITLE
FREQ SYNTH IN STD PLDRO HSG

SIZE	DRAWN	DRAWING NUMBER	REV.
A	ENGR	DC200310	
SCALE	DATE 13-JUN-05	SHEET OF	

SHEET
PART NO.

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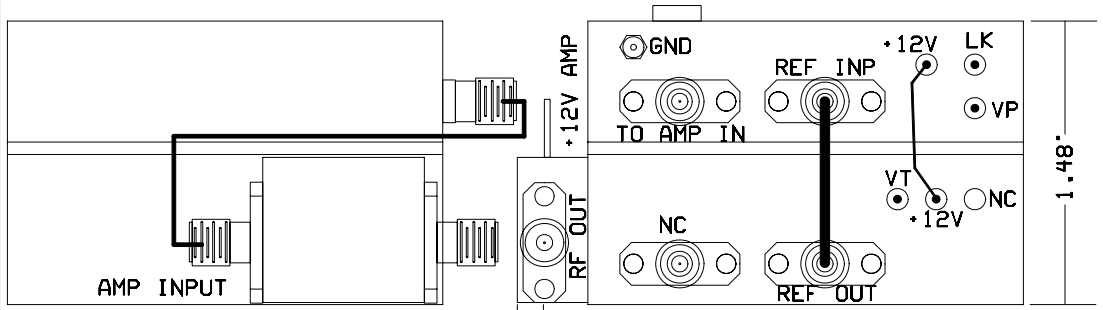
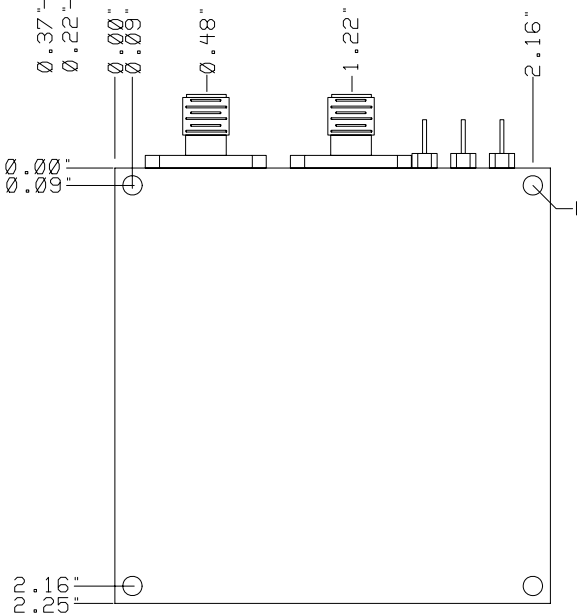
http //www.nexyn.com

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

MOUNT PER DC200106 Rev 2C

NXPLOS-IX-2650





TITLE			
OUTLINE OF IR-PLDRO + AMP			
SIZE A	DRAWN	DRAWING NUMBER	REV.
	ENGR	DC200313	
SCALE	DATE 14-JUL-05	SHEET OF	

SHEET

PART NO.

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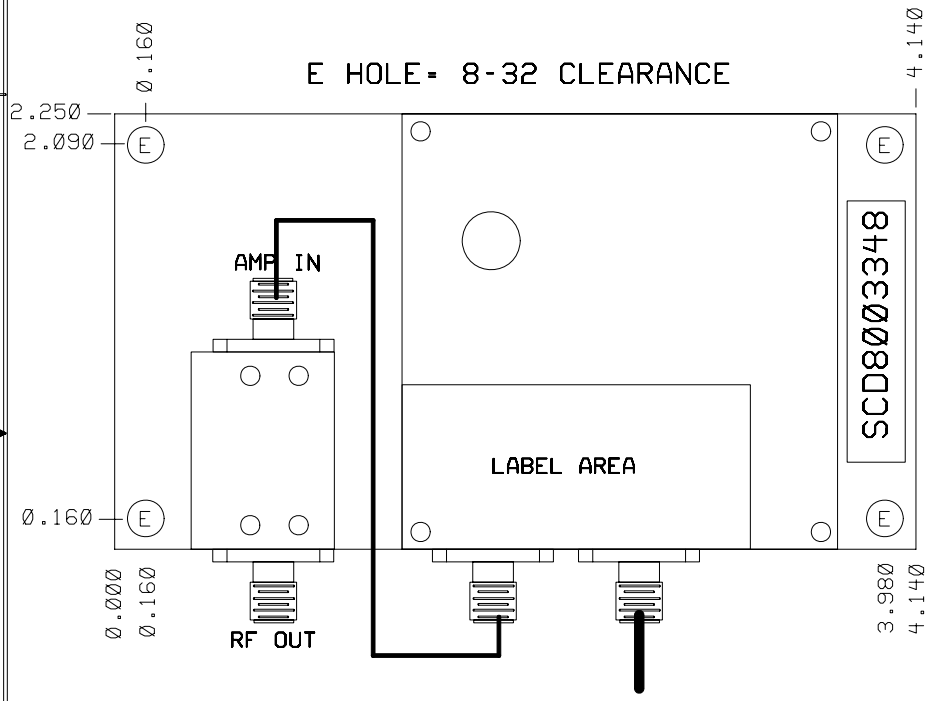
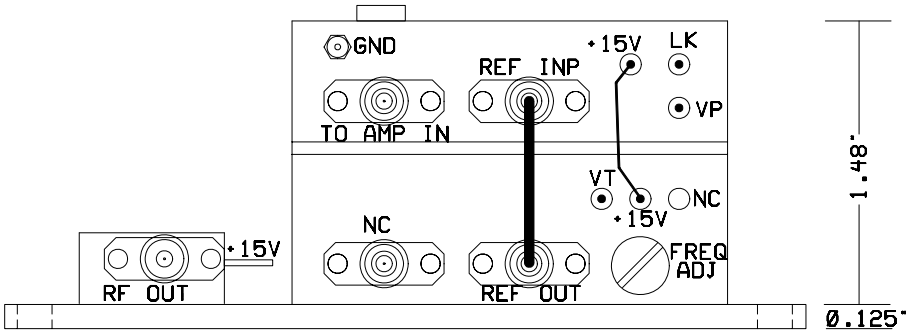
SANTA CLARA, CA, USA
http //www.nexyn.com

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

E HOLE= 8-32 CLEARANCE





TITLE: OUTLINE OF IR-PLDRO + AMP			
SIZE: A	DRAWN	DRAWING NUMBER: DC200314	REV.
	ENGR		
SCALE	DATE: 14-JUL-05	SHEET OF	

SHEET
PART NO.

NEXYN CORP
SANTA CLARA, CA, USA
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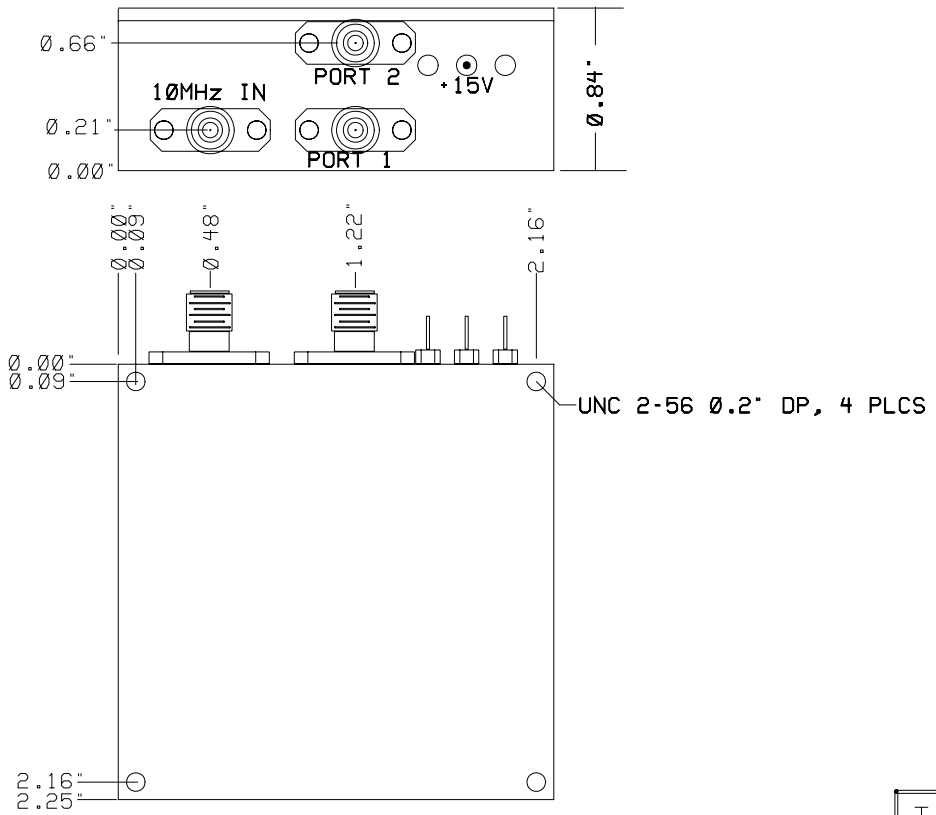
REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED

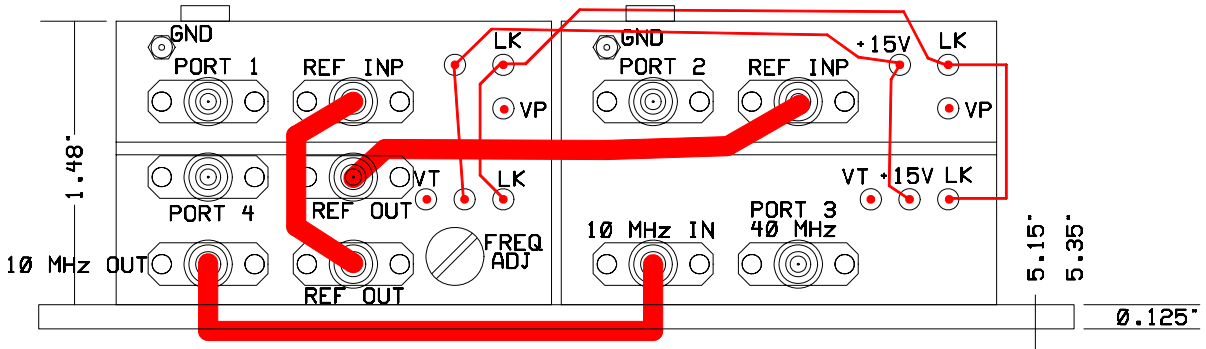


TITLE
OUTLINE OF NXCON-Ø1Ø-Ø1747

SIZE	DRAWN	DRAWING NUMBER	REV.
A	ENGR	DC2ØØ315	
SCALE	DATE Ø9-AUG-Ø5	SHEET OF	

SHEET
PART NO.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED



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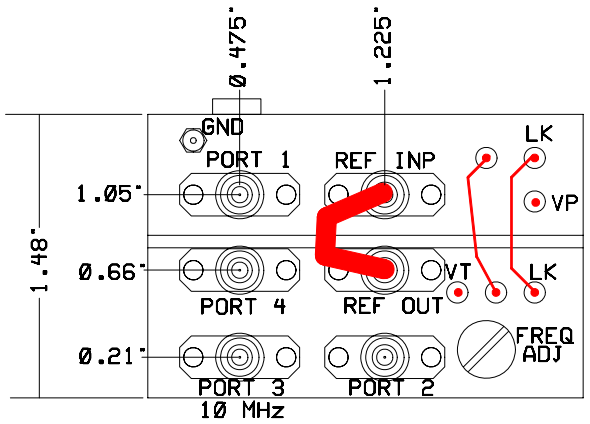
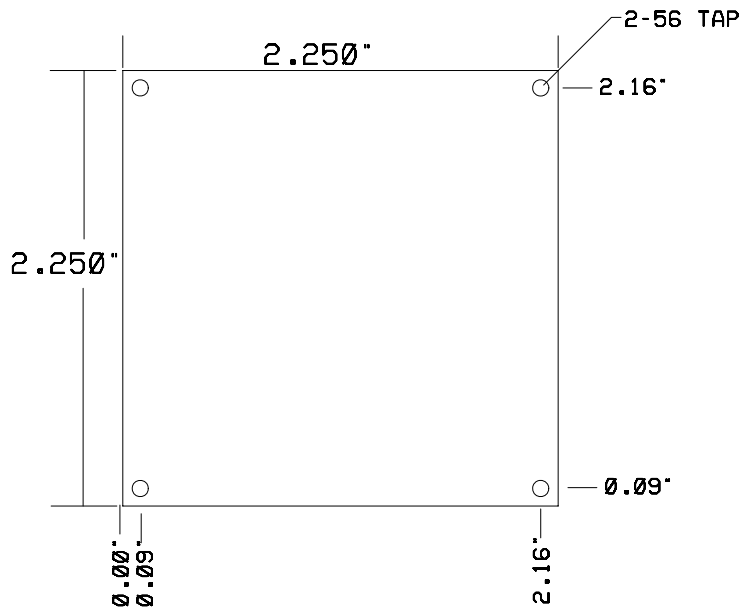
TITLE
NXPLOS-I-1445/1450-XXXXX

SIZE	DRAWN	DRAWING NUMBER	REV.
A	ENGR	DC200316	
SCALE	DATE 01-SEP-05	SHEET OF	PART NO.

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED





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TITLE
NXPLOS-I w multiple outputs

SIZE	DRAWN	DRAWING NUMBER	REV.
A	ENGR	DC200319	
SCALE	DATE 29-NOV-05	SHEET OF	PART NO.

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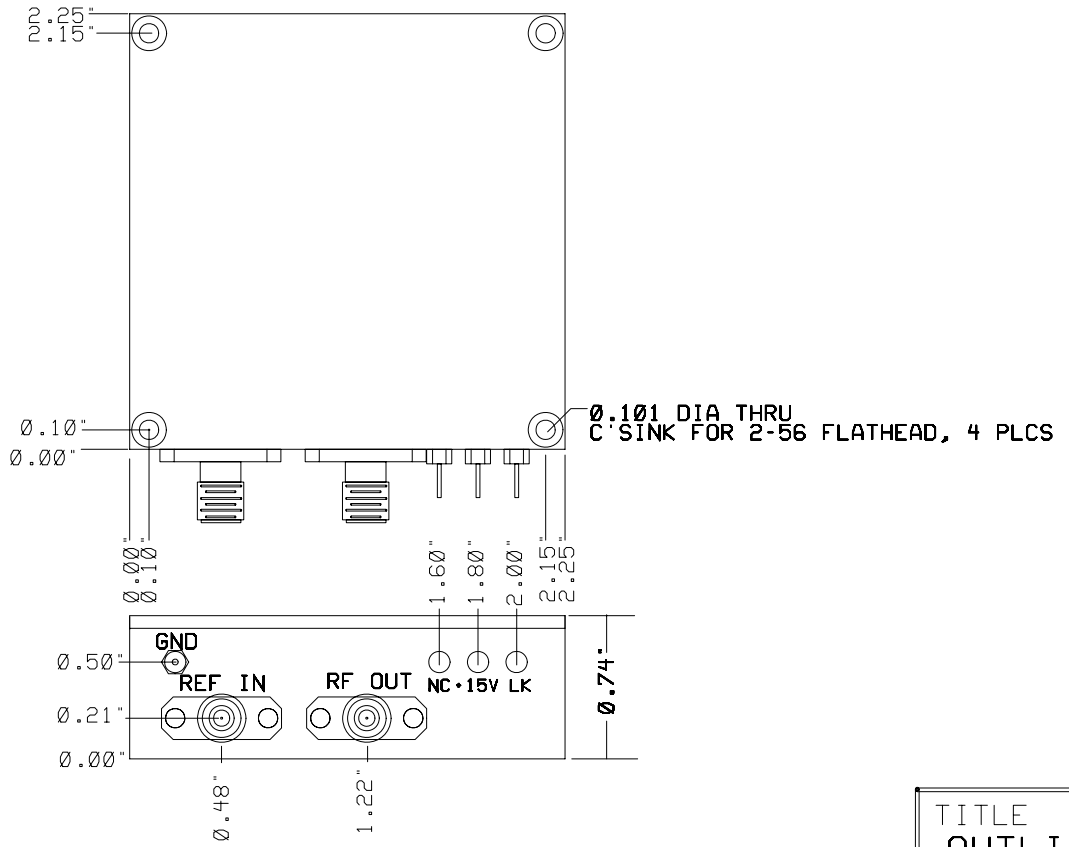
REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED



TITLE
OUTLINE OF NXOS-PLXO

SIZE	DRAWN	DRAWING NUMBER	REV.
A	ENGR	DC200321	
SCALE	DATE 07-APR-06	SHEET OF	PART NO.

Nexyn Corporation
Terms and Conditions

Nexyn Corporation 1089 Memorex Dr. Santa Clara, CA 95050 USA
www.nexyn.com Tel: 408-982-9339 Fax: 408-982-9275 email: sales@nexyn.com

Nexyn Corporation
1089 Memorex Dr.
Santa Clara CA, 95050
Ph. (408) 982-9339
Fax. (408) 982-9275
www.nexyn.com

ORDER INFORMATION

Orders for Nexyn Corporation products may be placed with either sales representatives or directly with the Nexyn Corporation sales department.

TERMS

All sales are F.O.B. Santa Clara, CA unless specified otherwise. Terms will be COD/CAD for all initial orders. All Non-Domestic orders shall be CAD (Cash against document) unless otherwise agreed upon by Nexyn Corporation.

Nexyn Corporation's standard terms of payment are NET 10 or NET 30 days to those firms having open accounts with Nexyn Corporation. A deposit of 30% – 50% may be required for certain orders. Terms are granted upon order history and approved credit.

All late payments are subject to late charges of 1.5% per 30 days beyond the invoice due date. Customers granted terms who frequently pay late may have their terms set back to COD/CAD.

SHIPPING METHODS

Nexyn Corporation uses both airborne and ground methods of shipment. Carriers include UPS, Federal Express, DHL, and other air express groups. For specified situations when appropriate, Nexyn Corporation will be happy to use a designated carrier.

Nexyn Corporation is not responsible for units damaged or lost in transit. Unless otherwise specified, shipping insurance may be billed to customer. The customer will specify if they already have insurance to cover shipments.

EXPORT REGULATIONS

All Nexyn products are exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

DRAWINGS AND SPECIFICATIONS

Please see our website for up to date information. Mechanical and electrical requirements are subject to change without notice. Please contact the factory to verify information or to enquire about products not listed on our website.

ENGINEERING ASSISTANCE

Nexyn Corporation maintains a support staff of technical experts who can assist you with your potential requirements. Nexyn Corporation will be happy to provide you with the level of engineering assistance necessary to properly define the optimum product for your application.

SERVICE AND REPAIR

Nexyn Corporation's standard warranty is applicable to all items manufactured by Nexyn Corporation. Received material will be tested promptly.
For items requiring service, either in or out of warranty, the Nexyn Corporation customer service department should be contacted. To expedite matters, please include the part number, the serial number, and as full a description of the difficulties as possible. In addition, if a contact is available at the user's facility, please provide his or her name, should any communications be necessary.

RETURN OF UNITS

All items being returned to Nexyn Corporation for repair must be shipped to Nexyn Corporation with the shipping charges prepaid. Items subject to in-warranty repairs will be returned prepaid to the customer at no charge. The customer will be responsible for return shipping charges for items that are out-of-warranty or that have been mishandled. A $300 evaluation fee will be charged for testing and processing units returned, and subsequently found to have no defects.

REPAIR COSTS

Warranty repairs will be made at no charge to the customer. Nexyn may choose to replace rather than repair units returned to Nexyn.

Units out-of-warranty require an approval by the customer for the charges involved before repairs can be accomplished. Nexyn Corporation will provide an estimate for the cost to repair. For those items that are deemed to be beyond repair or items where the customer decides against repairing the unit, the customer will be charged an evaluation fee for the evaluation work that was performed.

WARRANTY POLICY

Nexyn Corporation’s warranty policy is one (1) year from the date of shipment for new products. Our obligation is limited to repairing units that prove to be defective during the warranty period.

Warranties do not apply to any product that has been modified, damaged, statically damaged, mishandled, or subjected to conditions exceeding the operation limits of the specifications. Warranties do not apply to units with tampered warranty labels.