

Features:

- Frequencies from 0.8GHz to 36 GHz
- Operating temperature from -55°C to +85°C
- Ultra Low Phase Noise
- Low spurious
- Low power consumption
- Phase lockable to references from 1 MHz to 300MHz



Applications:

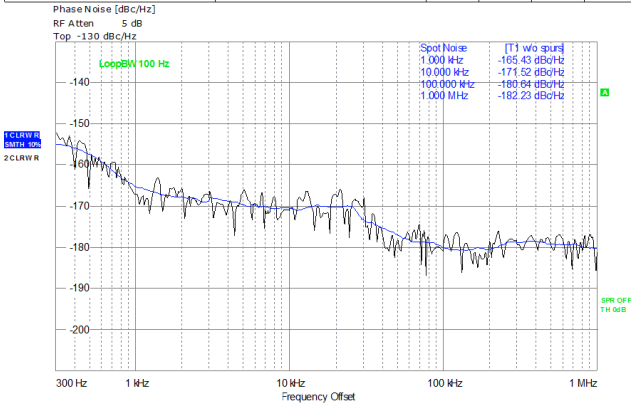
- EW Receivers
- Communication Systems
- Radar Systems
- Satellite Communications

Specifications

Parameters	Typ.	Units									
Output Frequency	0.8-36	GHz									
External Reference Frequency	1 to 300	MHz									
External REF Input Power	0±5	dB									
External REF Phase Noise	≤-163dBc/Hz@1KHz										
Output Power	13	dB									
Spurious	≤-80	dBc									
Harmonics	≤-20	dBc									
Load VSWR	2.0:1										
Phase Noise	Typical Phase Noise Data VS Frequency Point										
		1	2	4	5.8	9	12	14	16	18	
	dBc/Hz@1KHz	20logN+3 / 20LogN / 20logN-3 (Optional)									
	dBc/Hz@10KHz										
	dBc/Hz@100KHz	148	140	133	126	122	120	116	114	113	
dBc/Hz@1MHz	159	157	152	144	136	136	132	130	125		
Lock Alarm	TTL High For Locked										
Power Supply(+12V)	300										
Outline Dimensions	50.8×47.8×15.7 & 50.8×47.8×35.7										

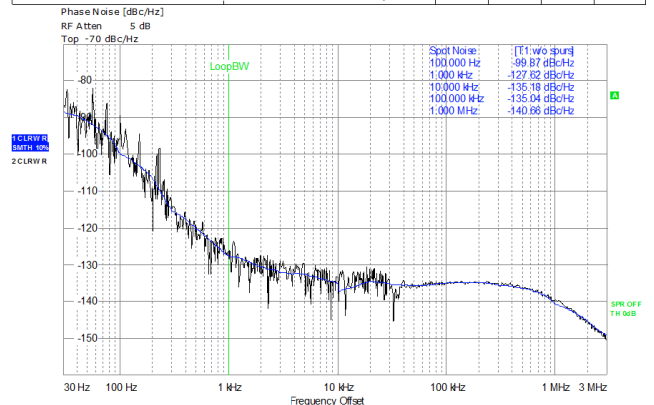
***Electrical Specifications, TA = +25° C**

R&S FSUP Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]	Phase Detector +40 dB	
Signal Frequency:	100.000207 MHz	Int PHN (300.0 ..1.0 M)	-119.0 dBc	
Signal Level:	9.19 dBm	Residual PM	90.502 m°	
Cross Corr Mode	Harmonic 1	Residual FM	0.708 Hz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0025 ps	



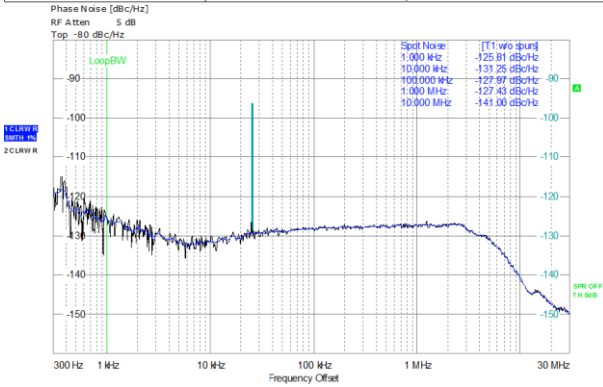
100MHz Phase Noise Plot

R&S FSUP Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]	Phase Detector +40 dB	
Signal Frequency:	3.200000 GHz	Int PHN (30.0 ..3.0 M)	-71.2 dBc	
Signal Level:	15.09 dBm	Residual PM	22.405 m°	
Cross Corr Mode	Harmonic 1	Residual FM	234.651 Hz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0194 ps	



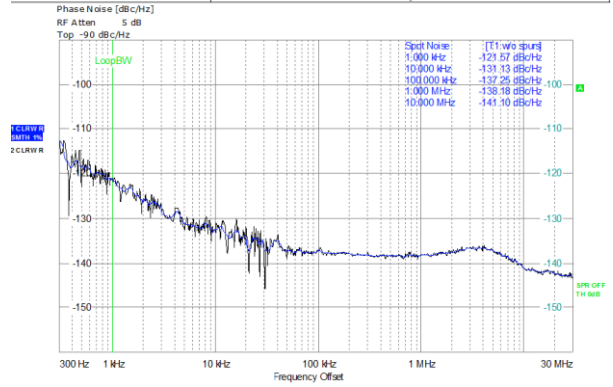
3.2GHz Phase Noise Plot

R&S FSUP Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]	Spur List	
Signal Frequency:	2.998997 GHz	Int PHN (300.0 ..30.0 M)	-60.0 dBc	25.598 kHz -96.55 dBc
Signal Level:	17.63 dBm	Residual PM	80.735 m°	
Cross Corr Mode	Harmonic 1	Residual FM	7.546 kHz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0748 ps	



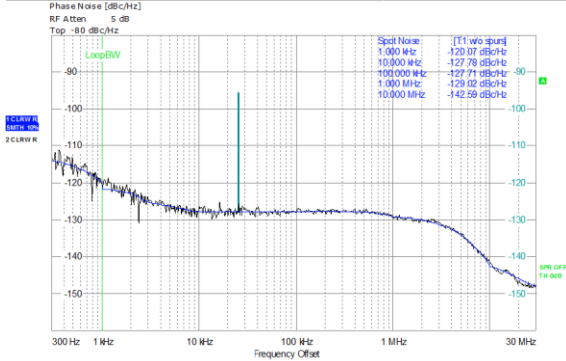
3GHz Phase Noise Plot

R&S FSUP Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]	Spur List	
Signal Frequency:	3.999995 GHz	Int PHN (300.0 ..30.0 M)	-65.5 dBc	
Signal Level:	14.61 dBm	Residual PM	43.053 m°	
Cross Corr Mode	Harmonic 1	Residual FM	10.336 kHz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0299 ps	



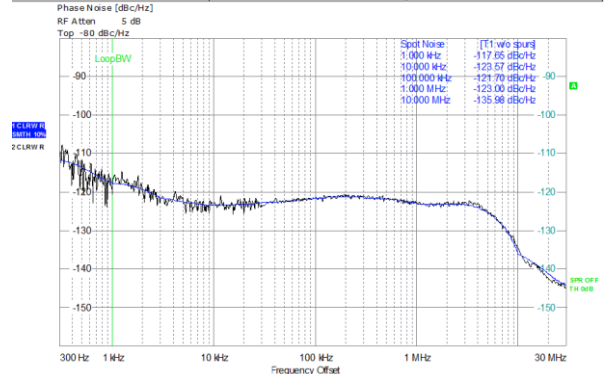
4GHz Phase Noise Plot

R&S FSUP Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]	Spur List	
Signal Frequency:	4.999995 GHz	Int PHN (300.0 ..30.0 M)	-62.1 dBc	25.657 kHz -95.76 dBc
Signal Level:	15.01 dBm	Residual PM	63.740 m°	
Cross Corr Mode	Harmonic 1	Residual FM	7.295 kHz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0355 ps	



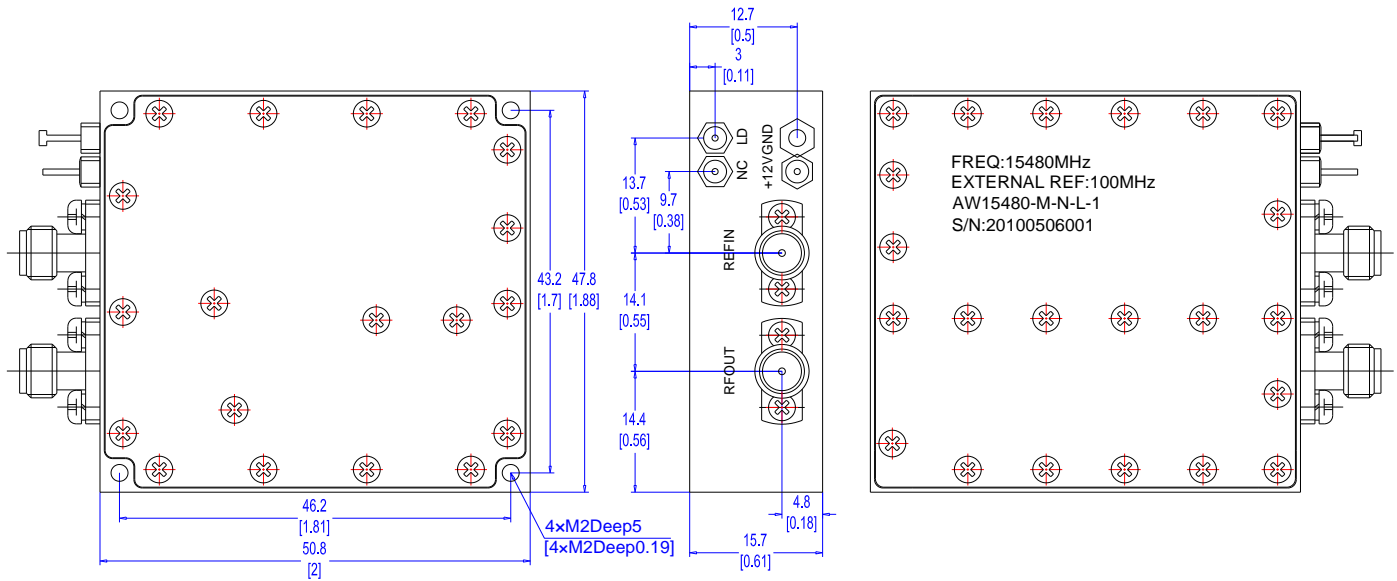
5GHz Phase Noise Plot

R&S FSUP Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]	Spur List	
Signal Frequency:	7.799990 GHz	Int PHN (300.0 ..30.0 M)	-54.9 dBc	
Signal Level:	15.37 dBm	Residual PM	0.145 °	
Cross Corr Mode	Harmonic 1	Residual FM	14.538 kHz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0517 ps	

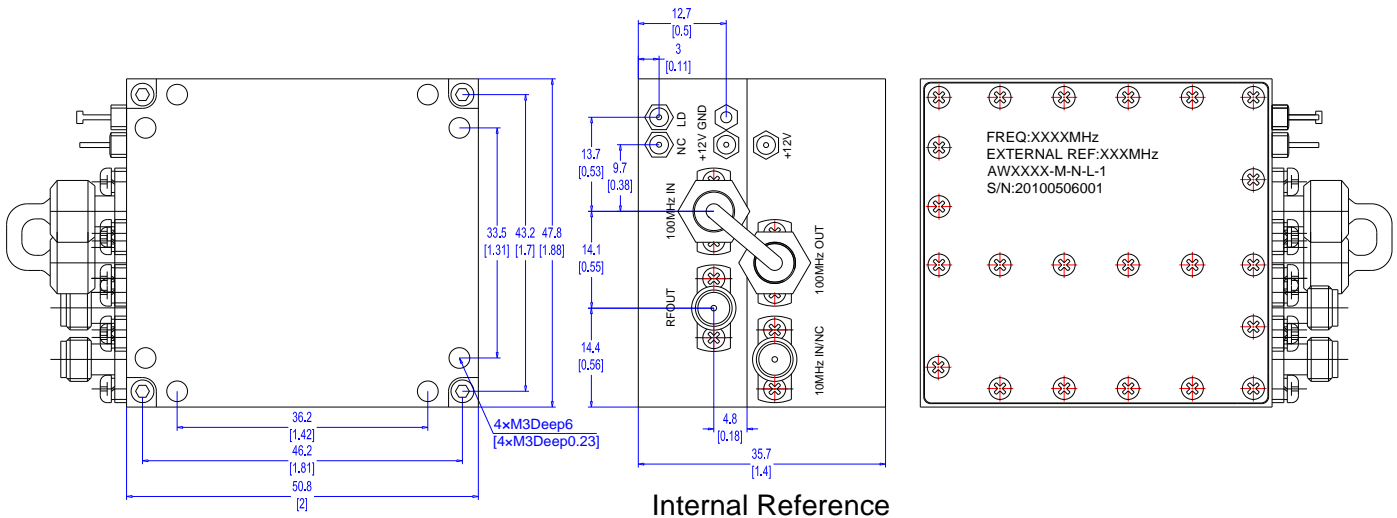


7.8GHz Phase Noise Plot

Outline Drawing:



External Reference



Internal Reference

Notes:

1. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME
2. DIMENSIONS ARE IN MM.

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Amwav reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal.