

REFERENCE PHASE LOCKED TRANSLATOR

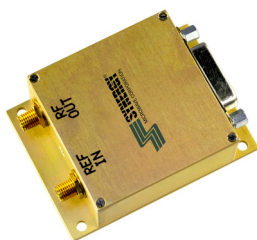
CONNECTORIZED MODEL: KFSA1000-100

FIXED FREQUENCY

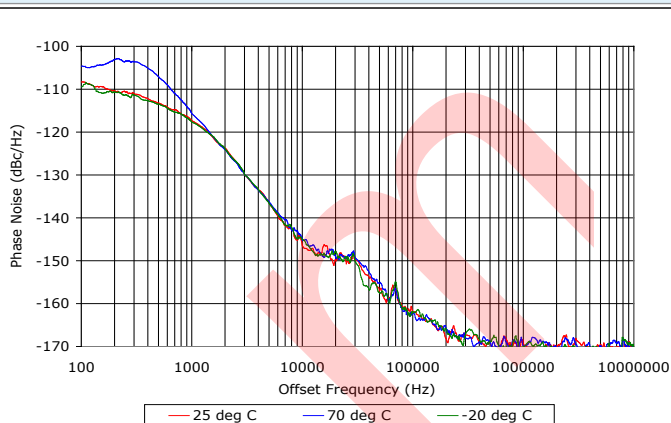
1000 MHz

FEATURES:

- ▶ Ultra-Low Phase Noise
- ▶ No Programming Required



Phase Noise (Measured with Agilent E5052A or R&S FSUP-26/50)



SPECIFICATIONS (Rev A 01/02/12)

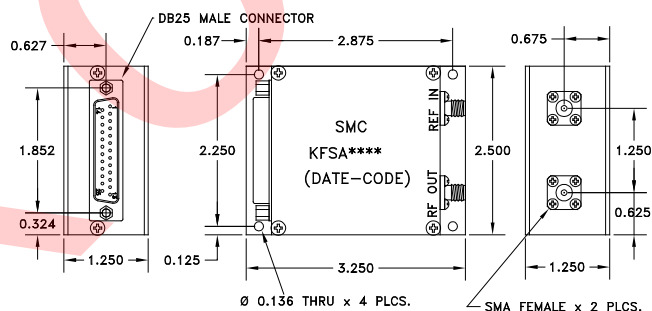
Frequency	1000 MHz										
Reference Input Frequency	100 MHz ¹										
Reference Input Voltage	1.0 to 3.3 V p-p										
Bias Voltage	+12 V @ 250 mA (Max.)										
Output Power	+5 dBm (Min.)										
Spurious Suppression	80 dB (Typ.)										
Harmonic Suppression	15 dB (Typ.)										
Output Impedance	50 Ohms (Nom.)										
Lock Detect Indicator	CMOS 3.3 V										
Typical Phase Noise	<table><tr><th>Offset</th><th>Phase Noise</th></tr><tr><td>@ 100 Hz</td><td>-105 dBc/Hz</td></tr><tr><td>@ 1 kHz</td><td>-115 dBc/Hz</td></tr><tr><td>@ 10 kHz</td><td>-145 dBc/Hz</td></tr><tr><td>@ 100 kHz</td><td>-160 dBc/Hz</td></tr></table>	Offset	Phase Noise	@ 100 Hz	-105 dBc/Hz	@ 1 kHz	-115 dBc/Hz	@ 10 kHz	-145 dBc/Hz	@ 100 kHz	-160 dBc/Hz
	Offset	Phase Noise									
	@ 100 Hz	-105 dBc/Hz									
	@ 1 kHz	-115 dBc/Hz									
	@ 10 kHz	-145 dBc/Hz									
@ 100 kHz	-160 dBc/Hz										
Operating Temperature Range	-20 to +70 °C										

¹ External 100 MHz reference sources *should* have phase noise *better than* -138 dBc/Hz @ 50 Hz offset to achieve published specifications.

Absolute Maximum Ratings

Storage Temp. Range	-40 to +85 °C
Bias Voltage	+13 V

Package # 372



PORT CONFIGURATION

Pin 1 - VCC 1 (+12 Vdc)	Pin 15 - VEE (Ground)
Pin 2 - VCC 2 (+12 Vdc)	Pin 16 - VEE (Ground)
Pin 3 - VEE (GND)	Pin 17 - NC
Pin 4 - NC	Pin 18 - NC
Pin 5 - NC	Pin 19 - NC
Pin 6 - NC	Pin 20 - NC
Pin 7 - NC	Pin 21 - NC
Pin 8 - NC	Pin 22 - LD OUTPUT (Lock detect/+3.3 V CMOS)
Pin 9 - NC	Pin 23 - NC
Pin 10 - NC	Pin 24 - NC
Pin 11 - NC	Pin 25 - NC
Pin 12 - NC	
Pin 13 - NC	
Pin 14 - VCC 3 (+12 Vdc)	

NC - No connection

* Reset is open or logic high (+3.3 Vdc) for normal operation. Logic low for >10 mSec will reset.

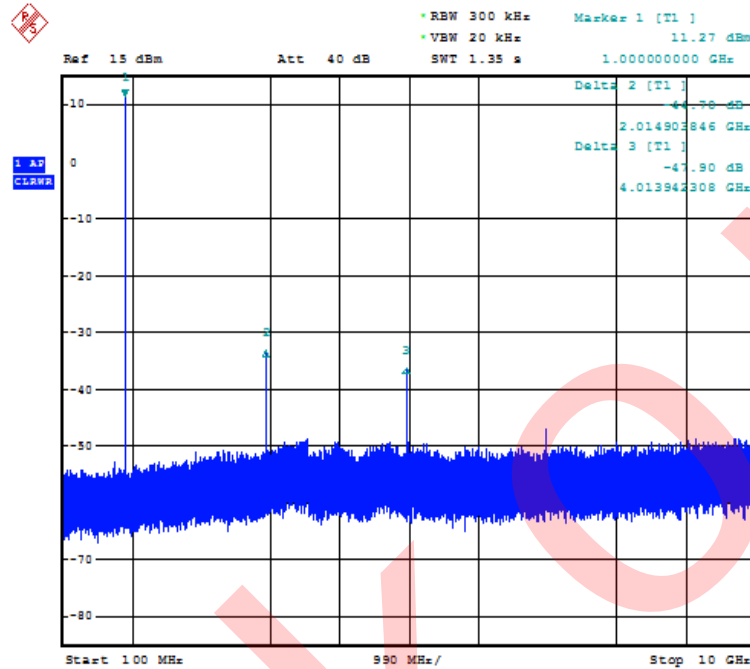
REFERENCE PHASE LOCKED TRANSLATOR CONNECTORIZED MODEL: KFSA1000-100

FIXED FREQUENCY

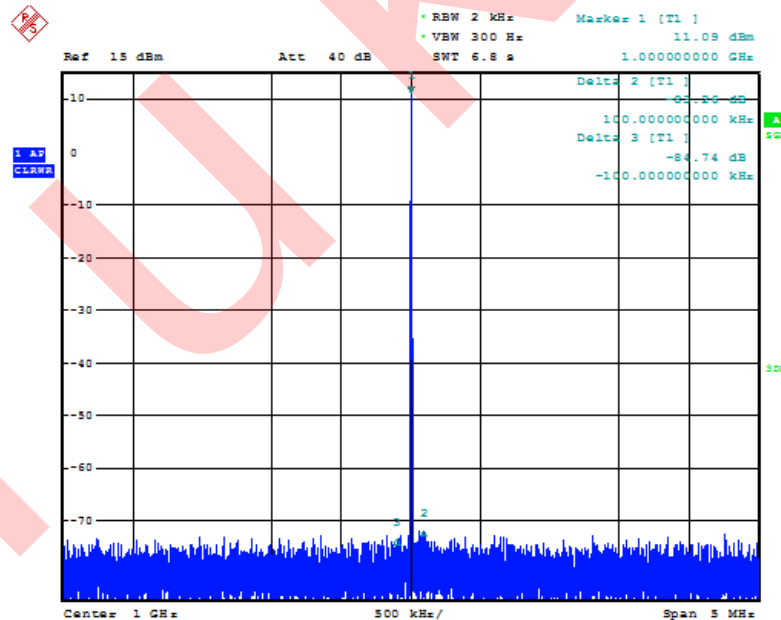
1000 MHz

HARMONIC SUPPRESSION

@ 25 °C



REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

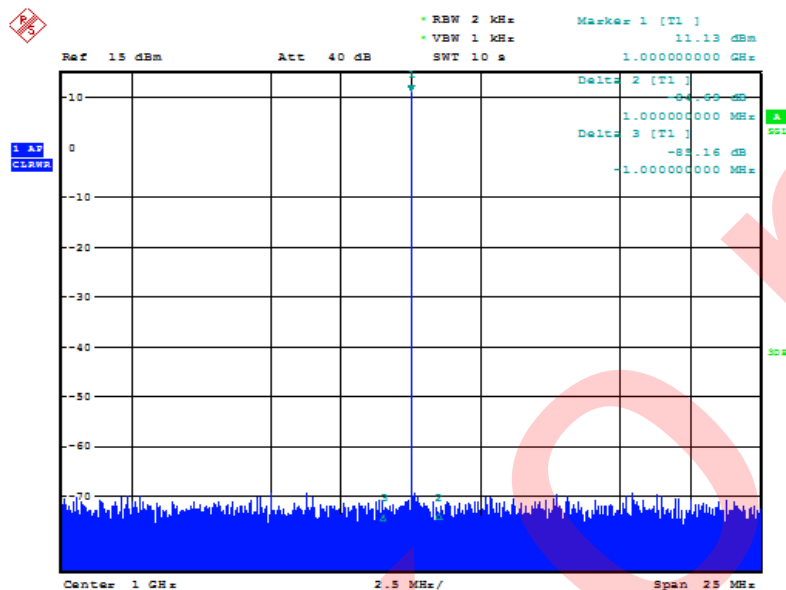
REFERENCE PHASE LOCKED TRANSLATOR CONNECTORIZED MODEL: KFSA1000-100

FIXED FREQUENCY

1000 MHz

REFERENCE SIDEBAND SUPPRESSION

@ 25 °C



PERFORMANCE PLOTS