

REFERENCE PHASE LOCKED TRANSLATOR

SURFACE MOUNT MODEL: VFCTS128-10

FIXED FREQUENCY

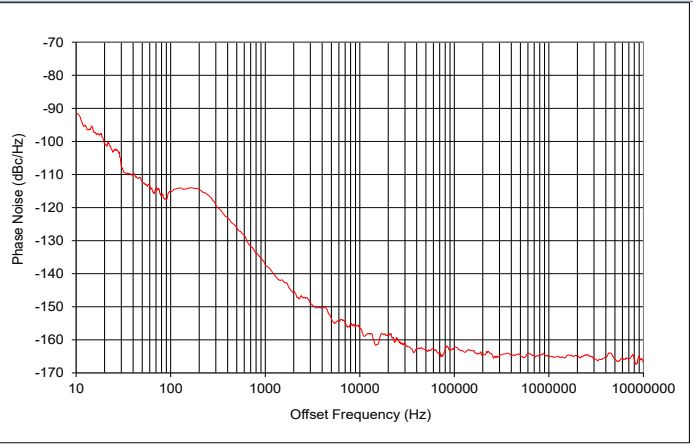
128 MHz

FEATURES:

- ▶ Ultra-Low Phase Noise
- ▶ No Programming Required
- ▶ Small Size, Surface Mount



Phase Noise (Measured with Agilent E5052A or R&S FSUP-26/27)



SPECIFICATIONS (Rev. B 10/29/20)

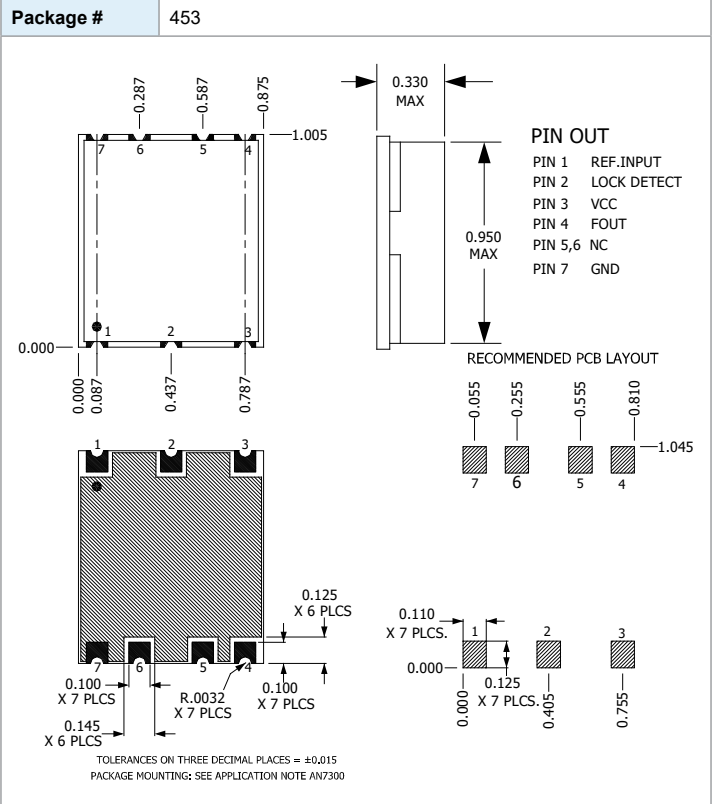
Frequency	128 MHz										
Reference Input Frequency	10 MHz ¹										
Reference Input Voltage	1.0 to 3.3 V p-p										
Bias Voltage (Vcc)	+5 Vdc @ 85 mA (max.)										
Output Power	8 dBm (Min.)										
Modulation Bandwidth	30 Hz (Typ.)										
Harmonic Suppression	20 dB (Typ.)										
Output Impedance	50 Ohms (Nom.)										
Lock Detect Indicator	LVC MOS 3.3 V (logic: 1 = lock, 0 = unlock)										
Typical Phase Noise	<table border="1"> <thead> <tr> <th>Offset</th> <th>Phase Noise</th> </tr> </thead> <tbody> <tr> <td>@ 100 Hz</td> <td>-100 dBc/Hz</td> </tr> <tr> <td>@ 1 kHz</td> <td>-130 dBc/Hz</td> </tr> <tr> <td>@ 10 kHz</td> <td>-155 dBc/Hz</td> </tr> <tr> <td>@ 100 kHz</td> <td>-160 dBc/Hz</td> </tr> </tbody> </table>	Offset	Phase Noise	@ 100 Hz	-100 dBc/Hz	@ 1 kHz	-130 dBc/Hz	@ 10 kHz	-155 dBc/Hz	@ 100 kHz	-160 dBc/Hz
	Offset	Phase Noise									
	@ 100 Hz	-100 dBc/Hz									
	@ 1 kHz	-130 dBc/Hz									
@ 10 kHz	-155 dBc/Hz										
@ 100 kHz	-160 dBc/Hz										
Operating Temperature Range	-40 to +85 °C										

¹ External 10 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 (Vcc)	+5.25 V

Patent : <http://www.synergymwave.com/patents>



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 201 McLean Boulevard • Paterson, New Jersey 07504 USA
 Tel: (973) 881-8800 • Fax: (973) 881-8361
 E-Mail: sales@synergymwave.com • Website: <http://www.synergymwave.com>
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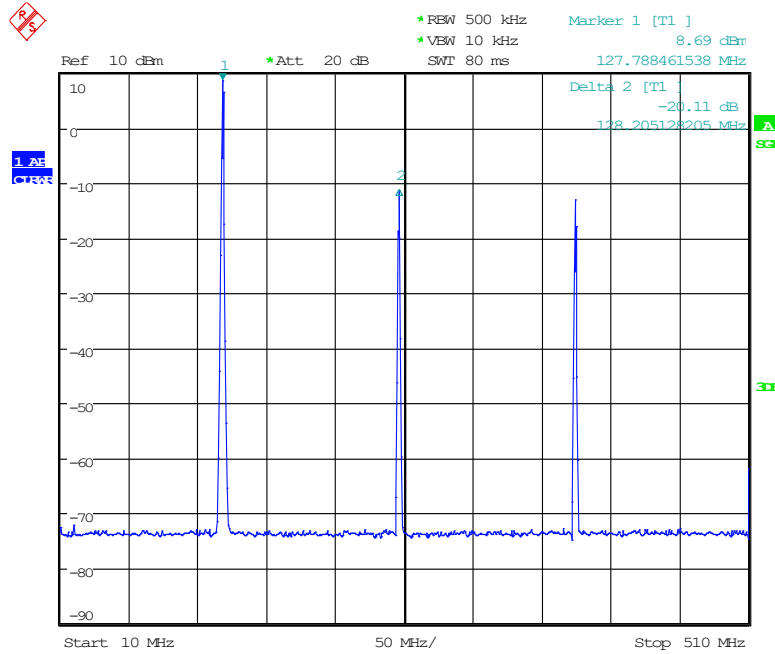
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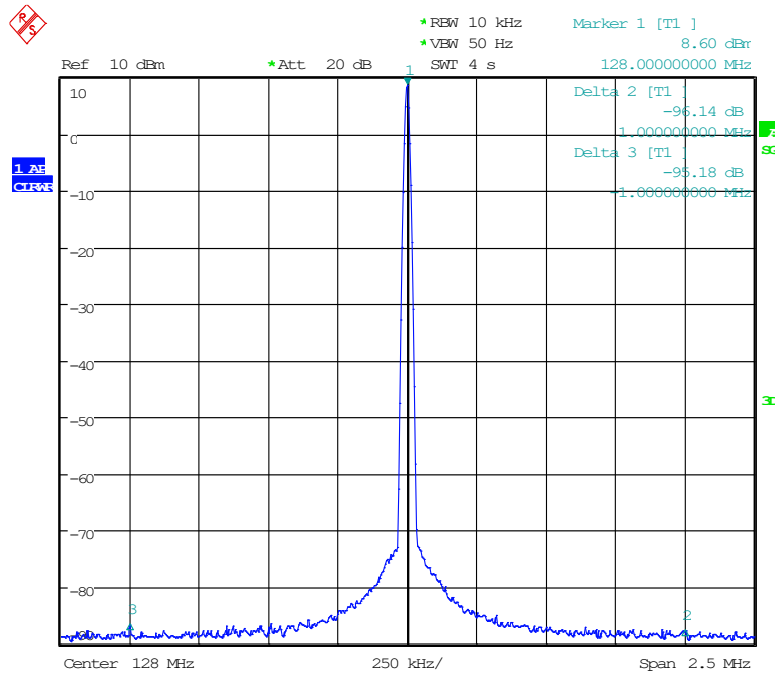
128 MHz

@ 25 °C

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

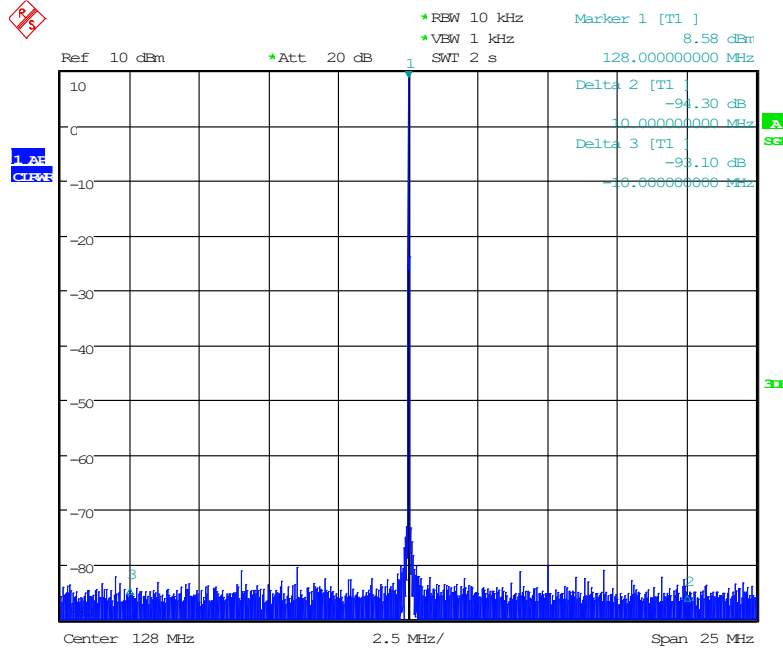
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