

# INTELLIGENT INTERACTIVE SYNTHESIZER

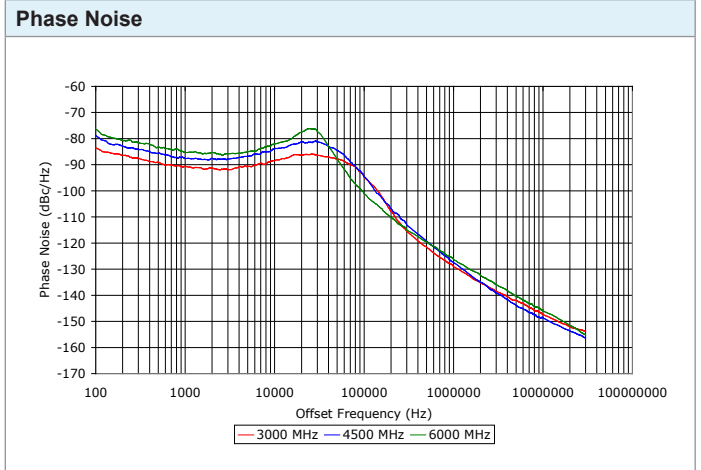
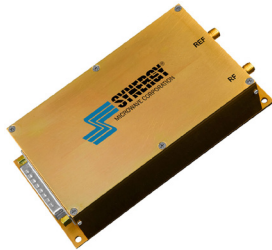
## SURFACE MOUNT MODEL: KMTS2500-300600-10

WIDE BANDWIDTH

3000 - 6000 MHz

### FEATURES:

- ▶ Octave bandwidth tuning
- ▶ Small step size resolution
- ▶ Outstanding spectral purity
- ▶ High spurious rejection
- ▶ Fast lock settling time
- ▶ Easy programmable format
- ▶ Buffered Output



### SPECIFICATIONS (Rev. A 08/16/16)

Output Frequency	3000 - 6000 MHz
Bandwidth	3000 MHz
External Reference <sup>1</sup>	10 MHz
External Reference Input	1 V p-p to 3.3 V p-p
Step Size	Programmable to 1 Hz
<b>Bias Voltage</b>	
VCC1	+12 VDC
VCC2	+12 VDC
VCC3	+12 VDC
<b>Bias Power Consumption</b>	
Bias Power Consumption	3 W (Max.)
Output Power	+4 dBm (Min.)
Spurious Suppression	50 dB (Typ.)
Harmonic Suppression	18 dB (Typ.)

<b>Typical Phase Noise</b>	<b>Offset</b>	<b>dBc/Hz.</b>
	1 kHz	-87
	10 kHz	-83
<b>Settling Time<sup>2</sup></b>	Within 1 kHz	<6 mSec
	Within 10 Hz	<12 mSec
	<b>Output Impedance</b>	50 Ohms (Nom.)
<b>Operating Temperature Range</b>	-20 to +70 °C	
<b>Non-Operating Temperature Range</b>	-40 to +85 °C	
<b>Programming</b>	See Application Note: AN7400	
<b>Programming Bus <sup>3</sup></b>	Specify SPI or RS-232	

### Absolute Maximum Ratings

<b>Storage Temp. Range</b>	-55 to +125 °C
<b>Bias Voltage (+12.0 V)</b>	+15 V
<b>DC Voltage Applied to RF Out</b>	± 25 V

<sup>1</sup> Reference input frequency can be factory programmed for requested common reference frequencies from 10 - 25 MHz. Unless otherwise specified, the reference frequency is factory programmed for 10 MHz.

<sup>2</sup> Time between latch enable (LE) high (after user command) and final output frequency.

<sup>3</sup> Default bus (if unspecified) is SPI.



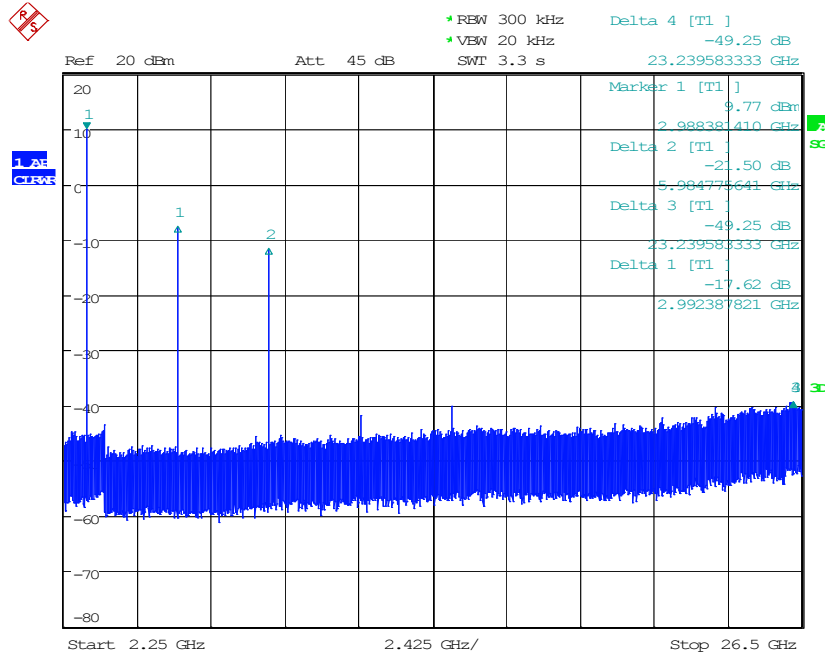
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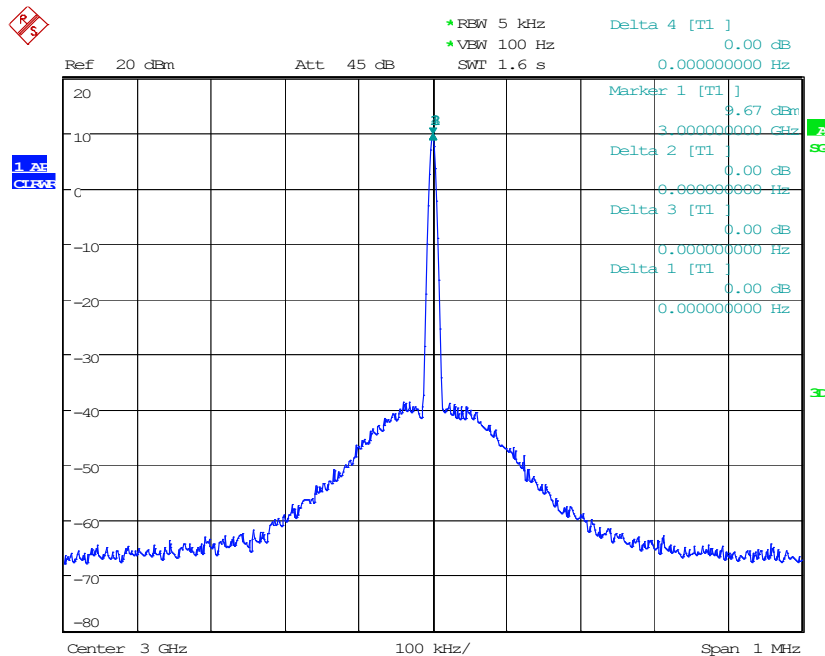
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HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

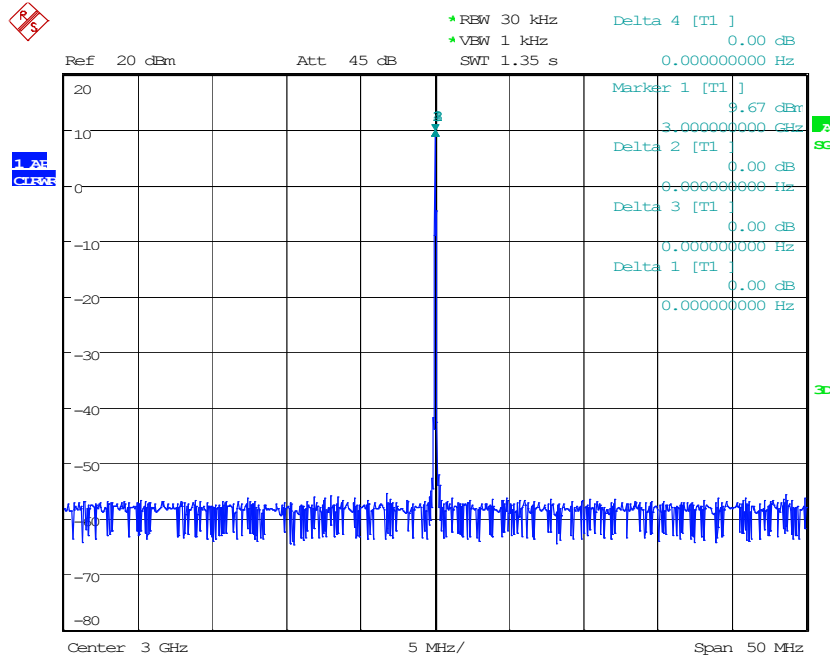
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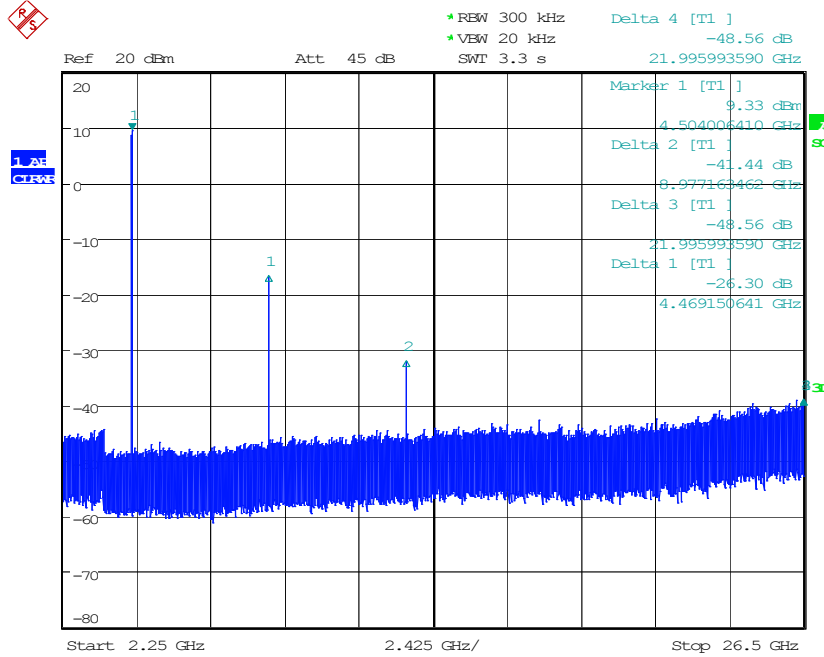
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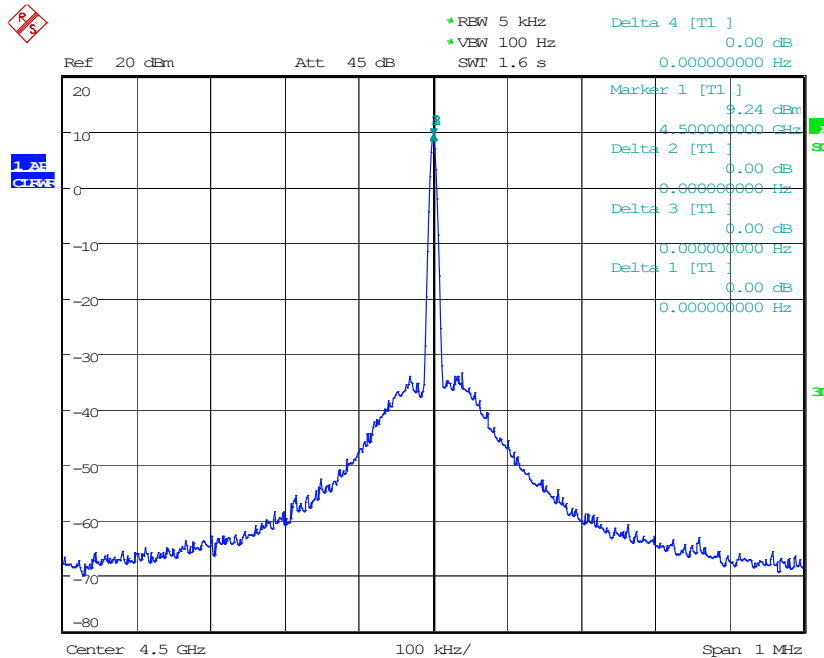
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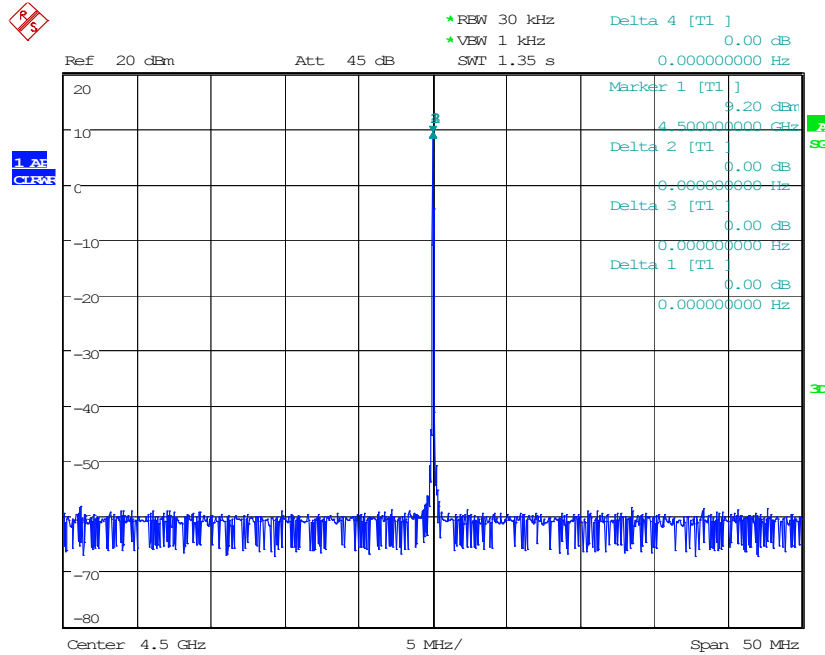
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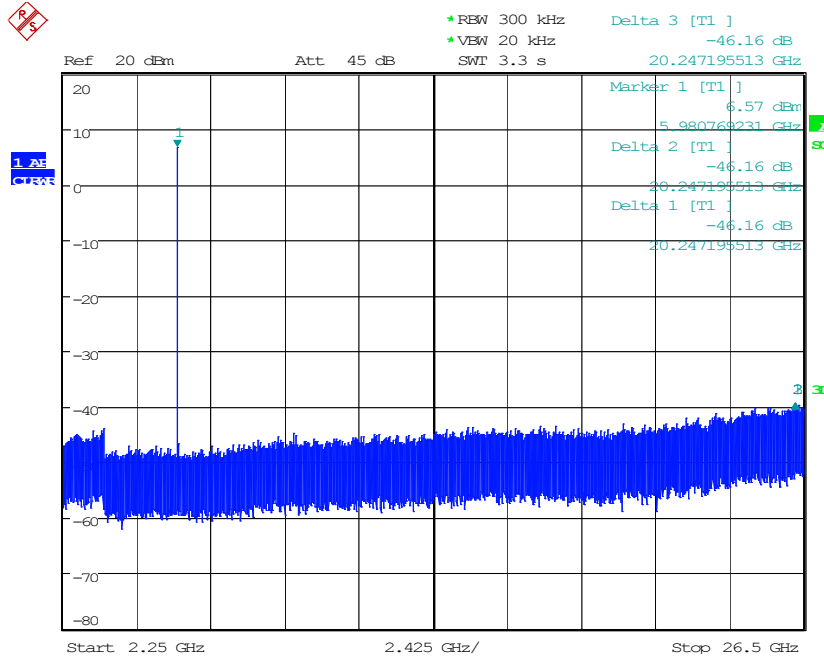
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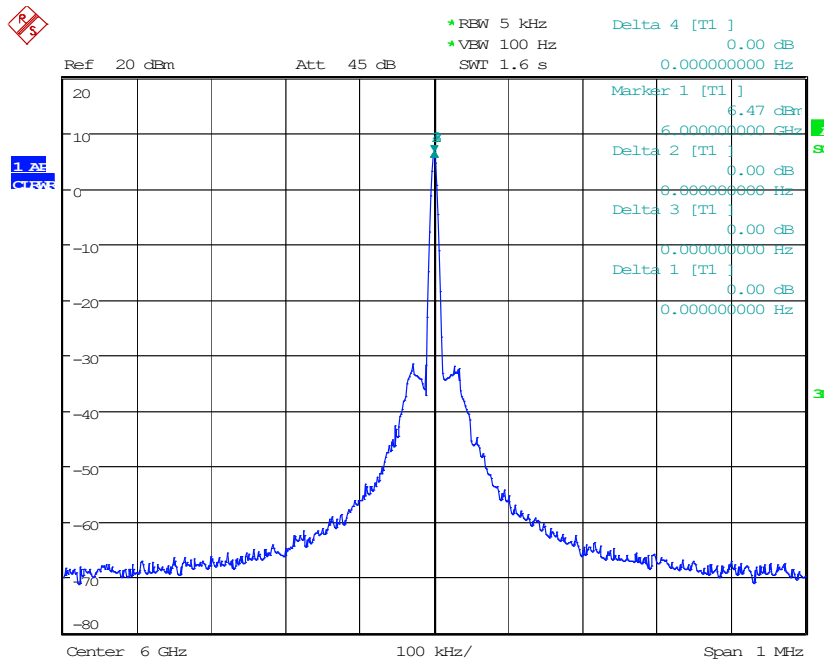
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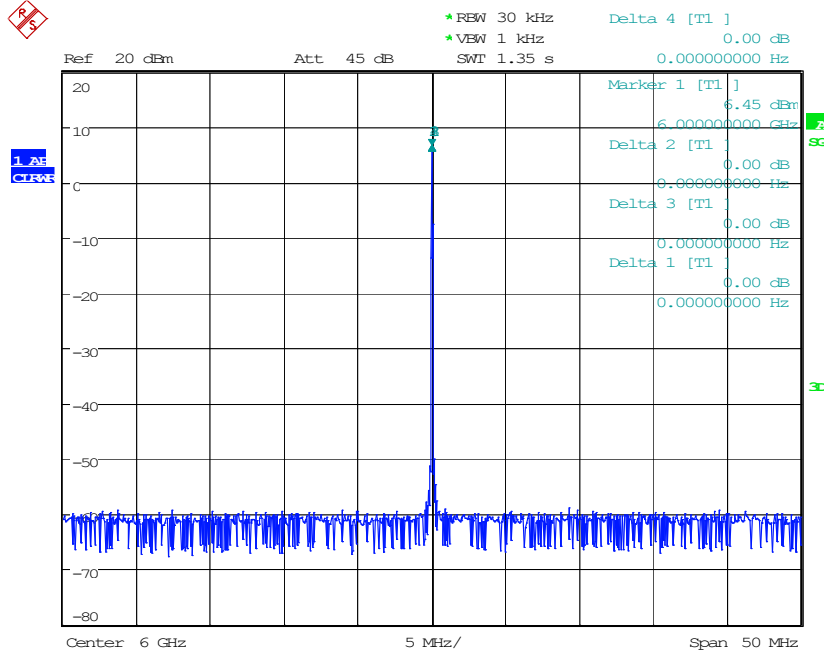
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