

INTELLIGENT INTERACTIVE SYNTHESIZER

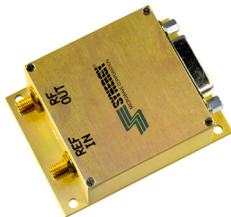
CONNECTORIZED MODEL: KFSW1545-50

WIDE BANDWIDTH

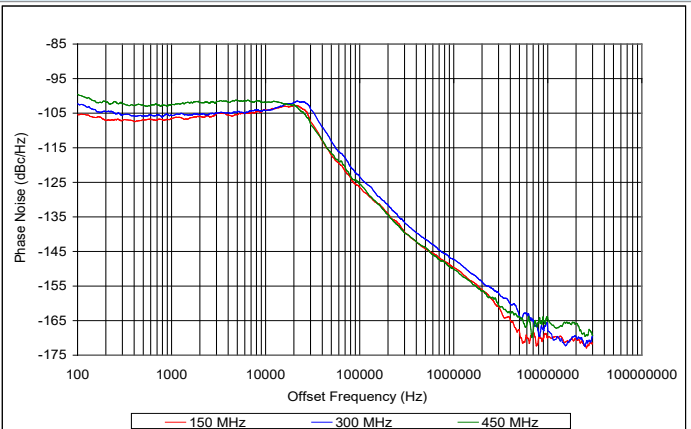
150 - 450 MHz

FEATURES:

- ▶ Exceptionally Low Phase Noise
- ▶ Interactive Communication
- ▶ Standard Programming Interface
- ▶ Ultra Wide Tuning Range
- ▶ Lead Free - RoHS Compliant



Phase Noise



SPECIFICATIONS

Frequency	150 - 450 MHz		
Step Size	500 kHz		
Reference Input Frequency	10 MHz ¹		
Reference Input Voltage	1.0 V p-p to 3.3 V p-p		
Bias Voltage	Vcc	V (Vdc)	I (mA Max.)
	Digital	+5	15
	VCO	+5	35
	Tune	+25	5
Output Power	0 dBm (Min.)		
Spurious Suppression	85 dB (Typ.)		
Harmonic Suppression	20 dB (Typ.)		
Settling Time	10 mSec (Typ.) ²		
Output Impedance	50 Ohms (Nom.)		
Lock Detect Indicator	CMOS 3.3 V		
Typical Phase Noise	Offset	Phase Noise	
	@ 1 kHz	-103 dBc/Hz	
	@ 10 kHz	-103 dBc/Hz	
	@ 100 kHz	-125 dBc/Hz	
Operating Temperature Range	-40 to +85 °C		
Programming	See Application Note: AN7100		

¹ Reference input frequency is programmable (See AN7100) in multiples of the step size, 10 MHz is the factory default setting. 150 MHz (Max.)
² From the rising edge of LE to stable lock detect

Absolute Maximum Ratings

Storage Temp. Range	-55 to +125 °C
Bias Voltage (Digital)	+5.25 V
Bias Voltage (Tune)	+26.0 V
Bias Voltage (VCO)	+5.5 V
DC Voltage Applied to RF Out	±25.0 V

Package # 337

BACK VIEW
 Mounting Plate
 0.530
 1.000
 0.405
 2 SMA CONN.
 0.436 ±0.055

TOP VIEW
 REF IN
 RF OUT
 SMC
 PART NUMBER
 <DATE CODE>
 2.750
 2.375
 1.750
 2.000
 0.345
 DB 15 CONN.

SIDE VIEW
 2.000
 Mounting Plate

TOLERANCE: UNLESS OTHERWISE SPECIFIED .XXX ±0.015

DB15 Female Connector Configuration

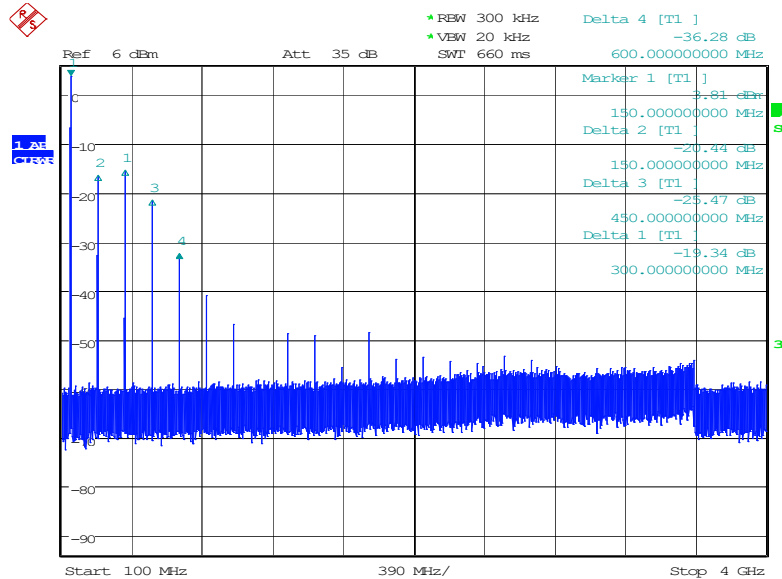
Pin 1 - Vcc (Digital)	Pin 5 - Error Flag	Pin 10, 15 - Ground
Pin 2 - Vcc (Tune)	Pin 6 - Latch Enable	Pin 7, 11 to 14 - NC
Pin 3 - Clock In	Pin 8 - Lock Detect	
Pin 4 - Data In	Pin 9 - Vcc (VCO)	NC - No Connection

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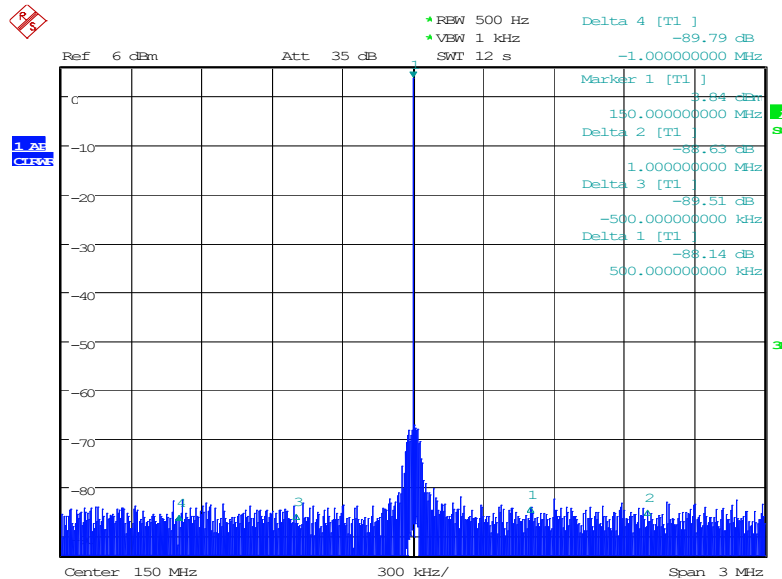
WIDE BANDWIDTH

150 - 450 MHz

HARMONIC SUPPRESSION



REFERENCE SIDEBAND SUPPRESSION



PERFORMANCE PLOTS

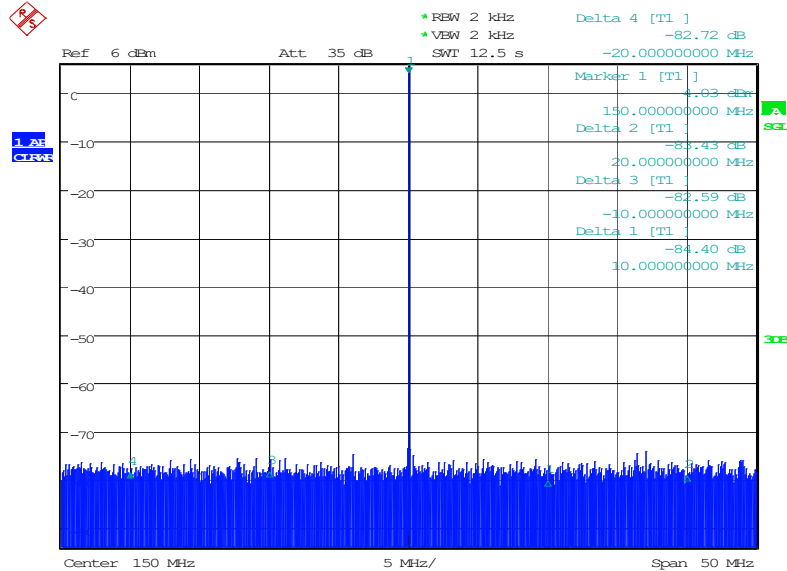
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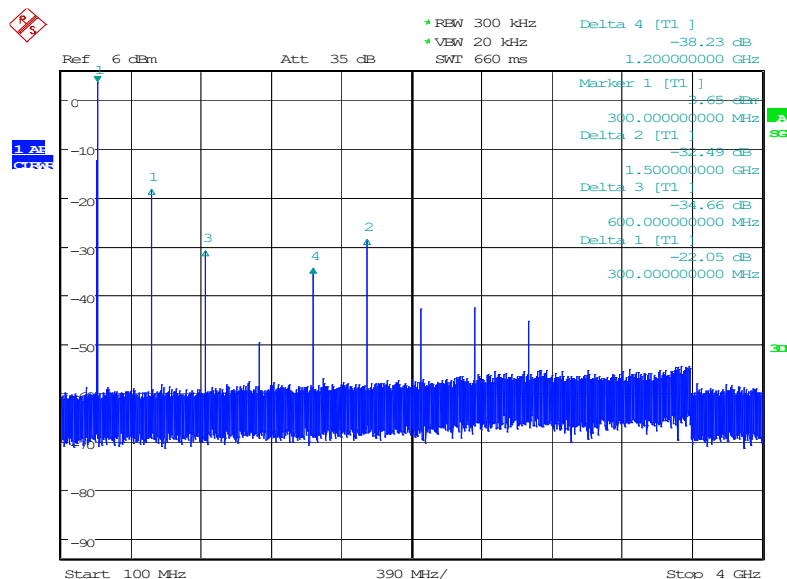
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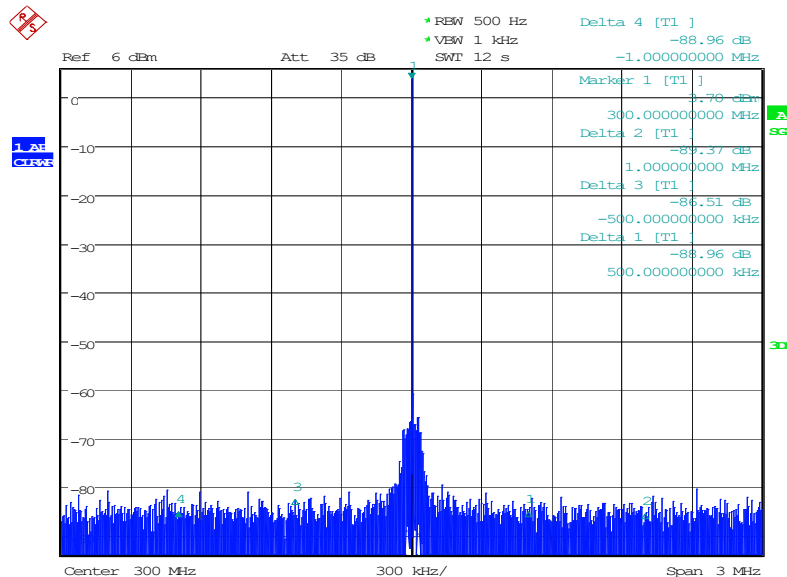
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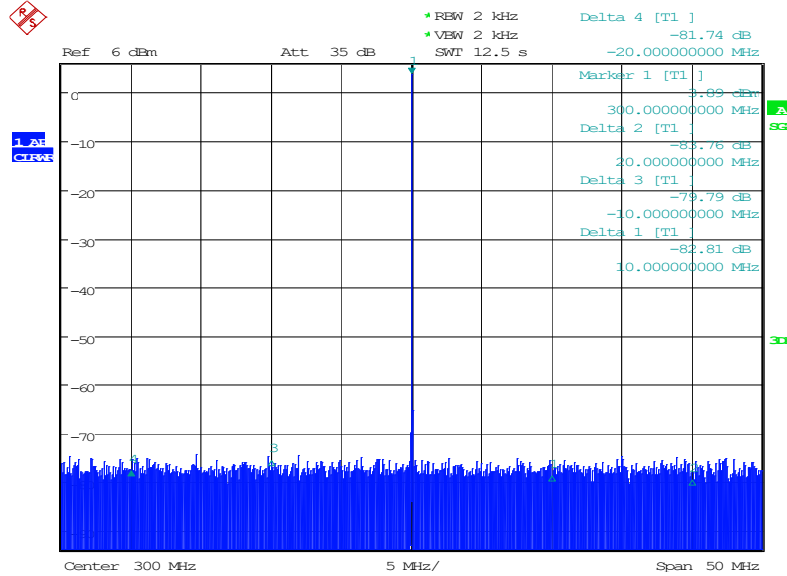
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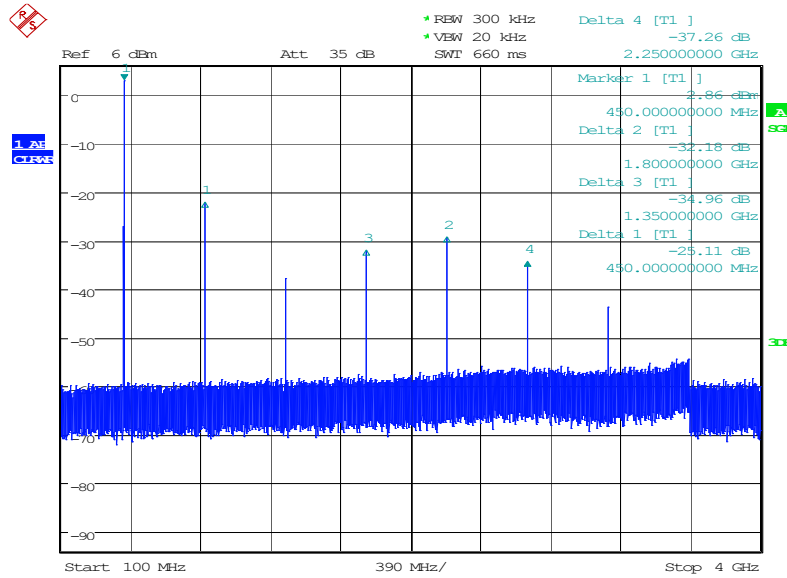
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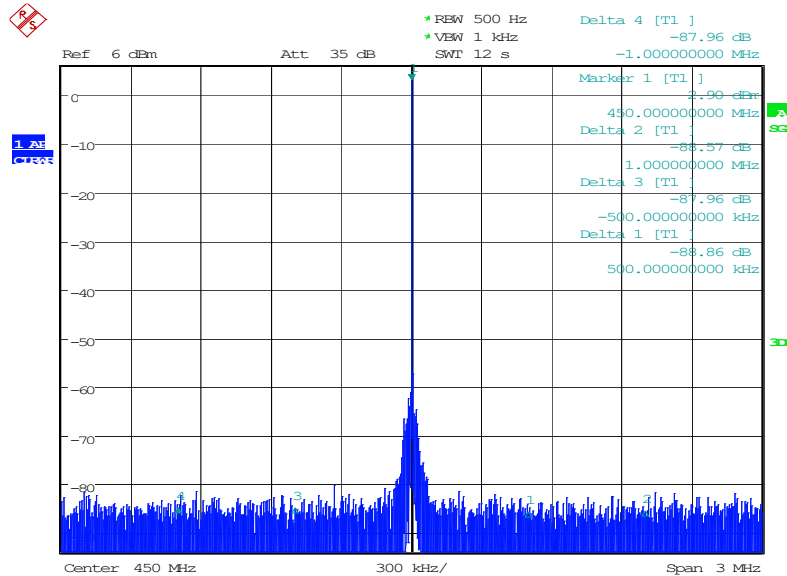
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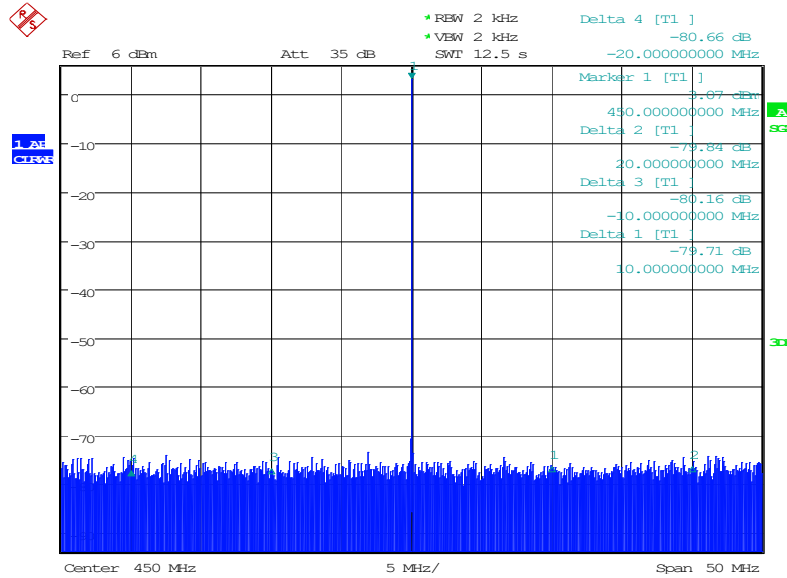
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