

DESCRIPTION

Aeroflex / Metelics MLPNC-7100S1 is a monolithic Non-Linear-Transmission-Line (NLTL) Comb Generator which offers outstanding Phase Noise Performance. This high performance Comb Generator operates over specified ranges of input Frequency/Power.

PRELIMINARY



FEATURES

- Ultra-Low Phase Noise
- Variable Input Frequency 100 MHz to 250 MHz
- Variable input Power from 18 – 24 dBm
- Output Harmonics to 6 GHz
- SMT580 Surface Mount & SMA800 Packages
- No Bias or Tuning required

PACKAGE STYLES



SMT580



SMA800

ENVIRONMENTAL RATINGS:

Maximum Input Power 27 dBm
 Operating Temperature -40°C to 85°C
 Storage Temperature -55°C to +125°C
 Temperature Cycling -55°C to +125°C

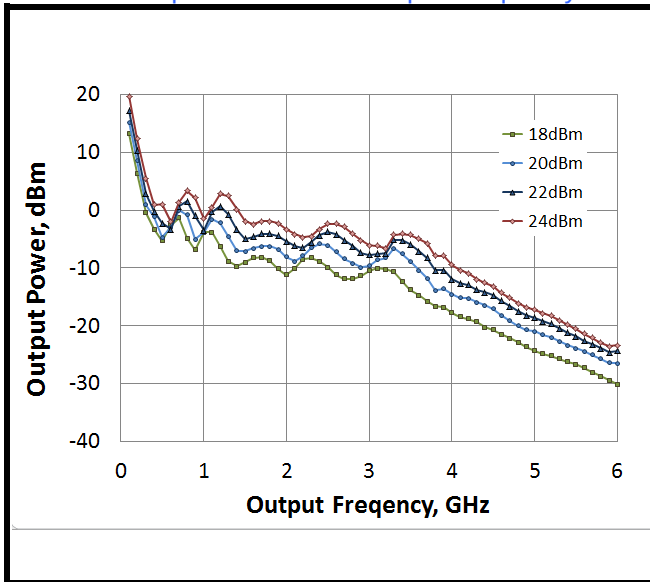
ELECTRICAL SPECIFICATIONS: $T_c = +25^\circ\text{C}$

OPERATING PARAMETERS				
Parameter	Recommended Input			Comments:
	Min	Typical	Max	
Frequency	75 MHz	100	250 MHz	The model 7100S1 does not abruptly stop working at the recommended min and max Frequencies and Powers. The conversion efficiency drops outside recommended limits.
Power	18 dBm	22 dBm	24 dBm	

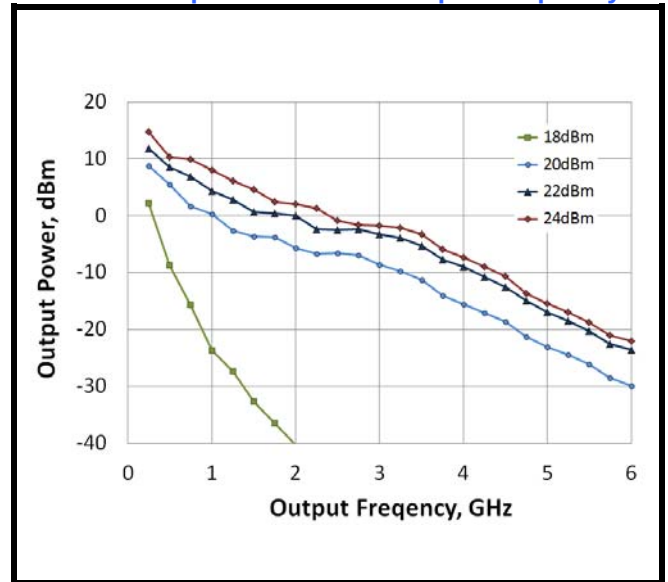
Tested Performance Limits ^[1]				
Inputs	Output Harmonics			Comments:
	Up to 1 GHz	1 to 2 GHz	2 to 4 GHz	
75 MHz 22dBm	> -15 dBm	> -15 dBm	> - 24 dBm	These are the harmonic output test limits used for production screening.
100 MHz 22 dBm	> -10 dBm	> -10 dBm	> - 18 dBm	
250 MHz 22 dBm	> -3 dBm	> -6 dBm	> - 16 dBm	

1. Contact the factory for specific input frequency and / or power applications.

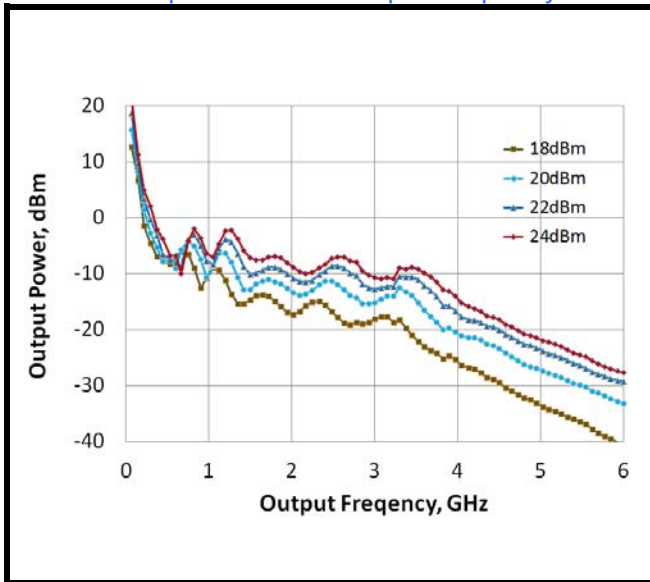
Harmonic Output with 100 MHz Input Frequency



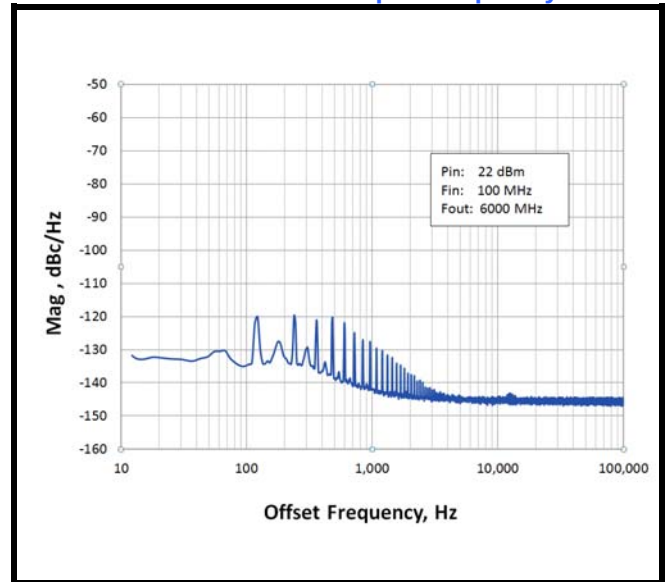
Harmonic Output with 250 MHz Input Frequency



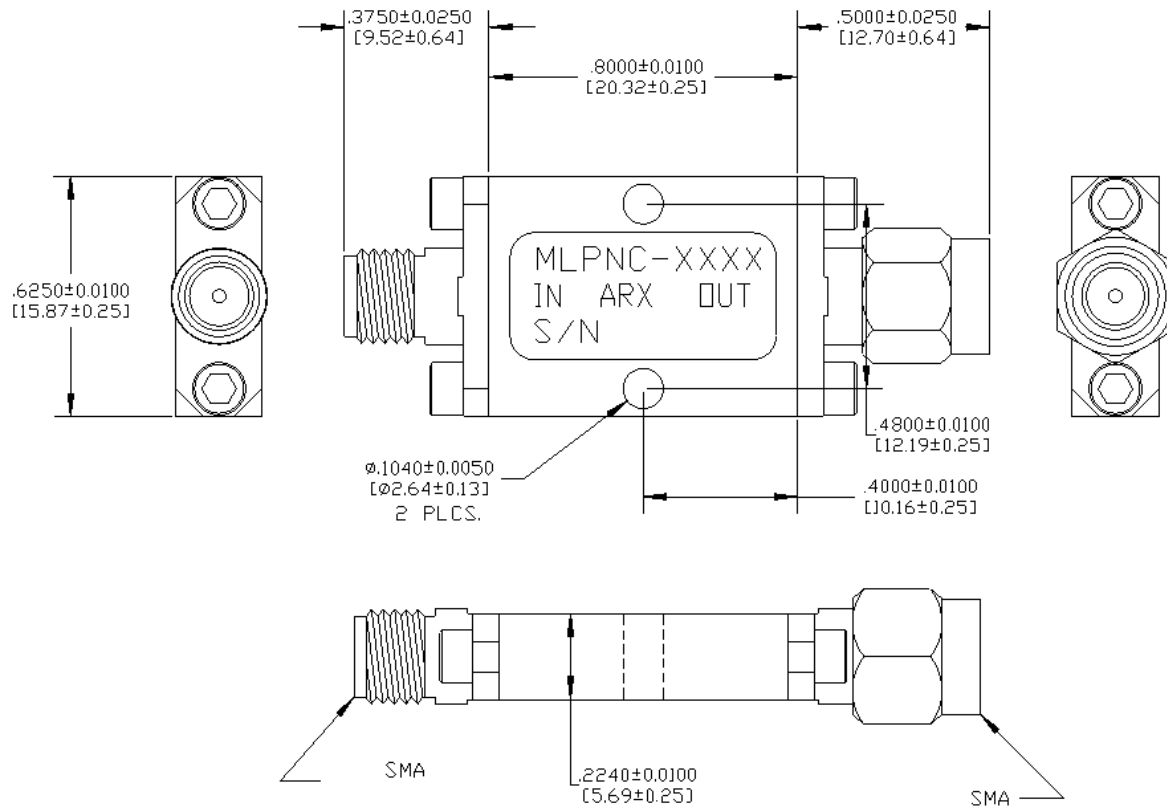
Harmonic Output with 75 MHz input Frequency



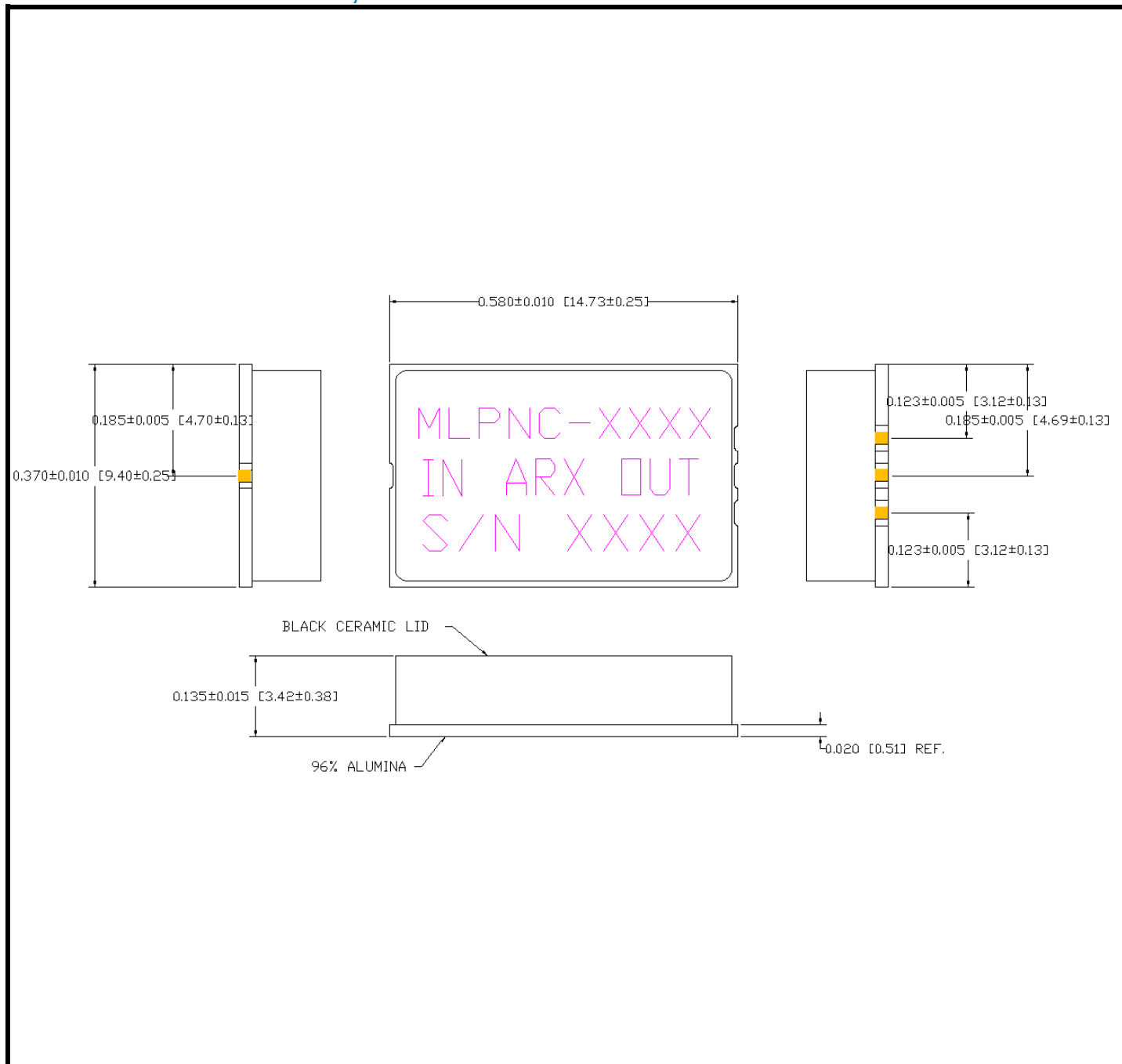
Phase Noise with 100 MHz Input Frequency



SUPER SMA800 HERMETIC PACKAGE OUTLINE AND DIMENSIONS



SMT580 PACKAGE OUTLINE, TOP AND SIDE VIEW



SMT580 PACKAGE OUTLINE, BOTTOM VIEW

