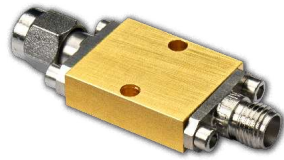
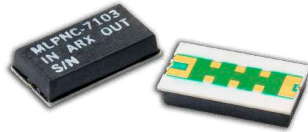


MLPNC-7103

NLTL COMB GENERATOR



SMA800
Hermetic



SMT680



DESCRIPTION:

Aeroflex / Metelics MLPNC-7103 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 and is currently available in two package styles.

FEATURES:

- Ultra-Low Phase Noise
- Input Frequency from 800 to 1300 MHz
- Input Power from 21 to 23 dBm
- No Bias Required
- Output Harmonic up to 30 GHz
- SMA800 Hermetically Sealed Package
- SMT680 Surface Mount Package

ENVIRONMENTAL RATINGS:

Maximum Input Power 27 dBm
 Operating Temperature -45°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		
	Min	Typical	Max
Frequency	800 MHz	1000 MHz	1300 MHz
Power (dBm)	21 dBm	22 dBm	23 dBm

Comments:

The model MLPNC-7103 does not abruptly stop working outside the minimum and maximum limits. The conversion efficiency drops outside recommended limits.

Tested Performance Limits*					
Input/Power	Output Harmonics				
	@ 6 GHz	@ 12 GHz	@ 18 GHz	@ 24 GHz	@ 30 GHz
1000 MHz/ 22 dBm	> - 5 dBm	> - 8 dBm	> - 15 dBm	> - 18 dBm	> - 20 dBm

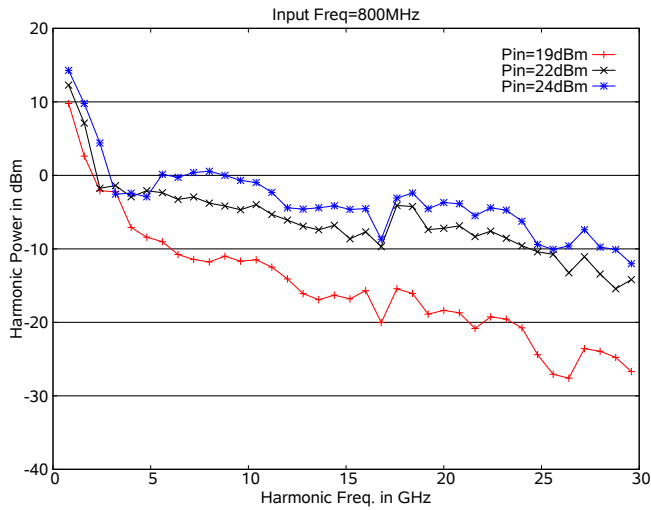
Comments:

These are the harmonic output test limits used for production screening.

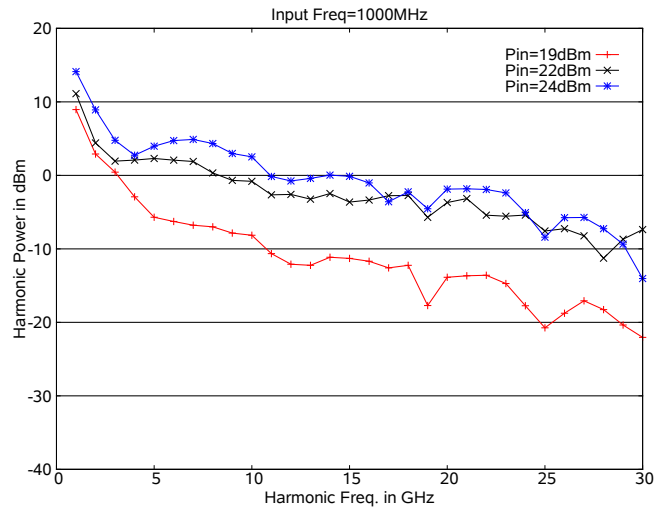
* Contact the factory for specific input frequency and/or input power applications.



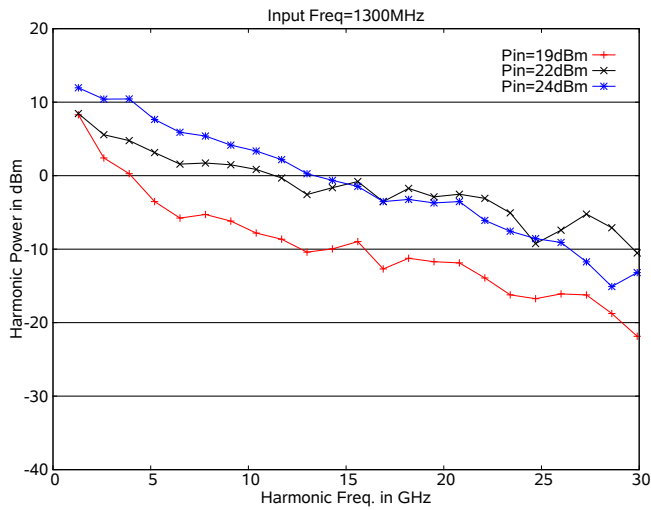
Harmonic Output with 800 MHz Input Frequency



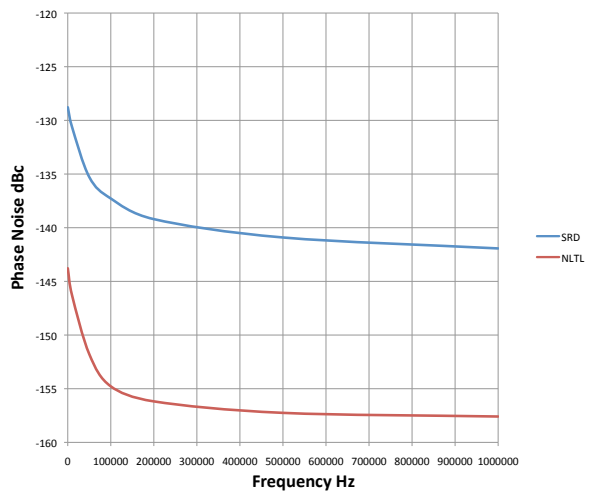
Harmonic Output with 1000 MHz Input Frequency



Harmonic Output with 1300 MHz input Frequency

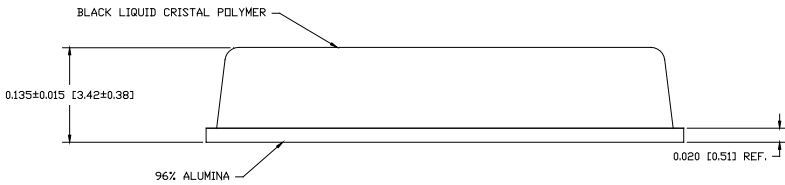
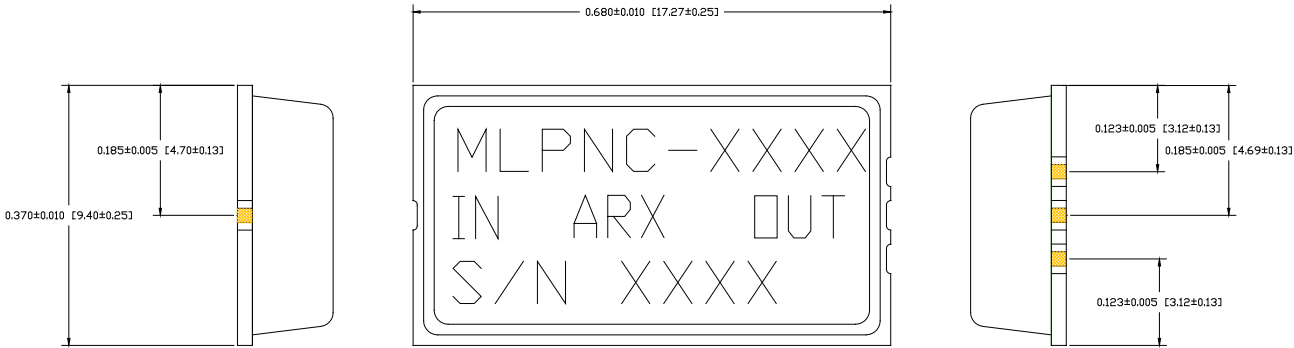


Phase Noise 22 dBm NLTL, 24 dBm SRD & 500 MHz Input Frequency



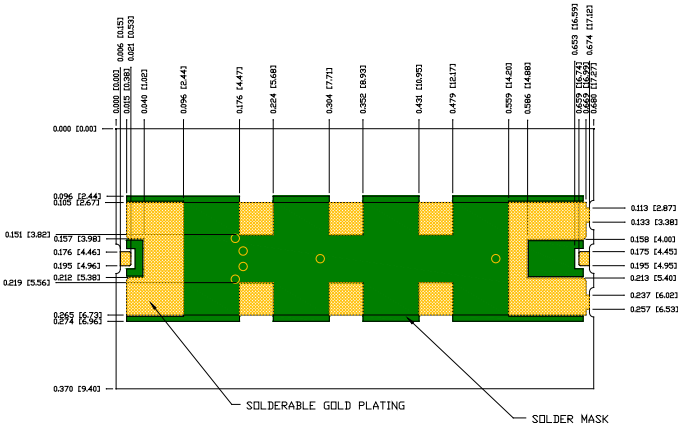
SMT680 PACKAGE OUTLINE AND DIMENSIONS

TOP VIEW



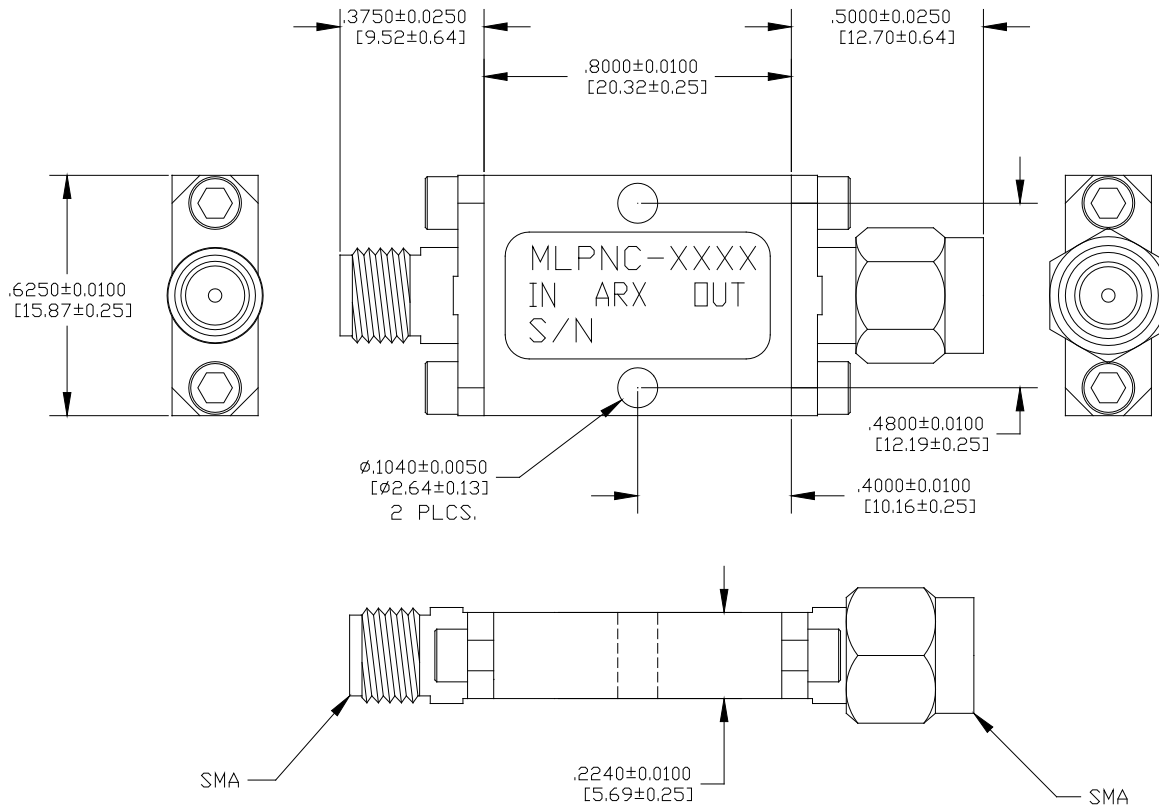
Revision Date: 7/18/2012

SMT680 PACKAGE OUTLINE



BOTTOM VIEW

SUPER SMA800 HERMETIC PACKAGE OUTLINE AND DIMENSIONS



Aeroflex / Metelics Inc.

Aeroflex Microelectronic Solutions
 975 Stewart Drive
 Sunnyvale, CA 94085
 TEL: 408-737-8181

54 Grenier Field Road
 Londonderry, NH 03053
 TEL: 603-641-3800

ISO 9001:2008 certified companies

Sales

888-641-SEMI (7364)
 metelics-sales@aeroflex.com

www.aeroflex.com/Microwave www.aeroflex.com/Metelics



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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.