

## Comb Generator

0.06-18GHz

Model: TLCG60M18G-S

This TLCG60M18G-S is designed to provide stable, high purity equidistant frequency comb signals. It operates within 60 MHz to 18 GHz. Featuring low phase noise, high stability and excellent spectral purity, the module delivers reliable multitone output. Widely used in spectrum testing, frequency calibration, microwave measurement and communication system verification.

### Features:

- Output harmonic Frequency range: 0.06-18 GHz
- 50 Ohm Matched Input / Output

### Applications:

- Communication receiver
- Laboratory test
- Sensor radar

### Electrical Characteristics:

Parameter		Min	Typ	Max	Units
Input Frequency range		0.03		10	GHz
Input Power		17	18	22	dBm
Output Frequency range		0.06		18	GHz
Maximum Output Harmonic Factor	@Input=0.1GHz		23		
	@Input=0.2GHz		15		
	@Input=3GHz		6		
	@Input=5GHz		3		
Phase Noise@1MHz			-180		dBc/Hz
Impedance		50			Ohms

### Mechanical Specifications:

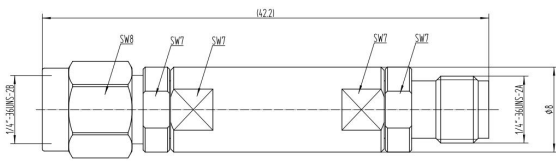
Parameter	Value	Units
Input /Output Connector	2.92mm Male/2.92mm Female	
Size	42.2	mm

### Absolute Maximum Ratings:

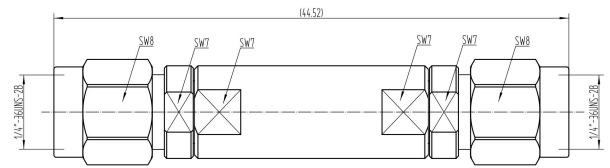
Parameter	Value
RF Input Power	+22 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

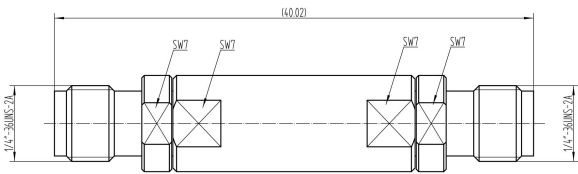
Unit:mm



TLCG60M18G-S



TLCG60M18G-S-MM



TLCG60M18G-S-FF



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude		10,000		feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

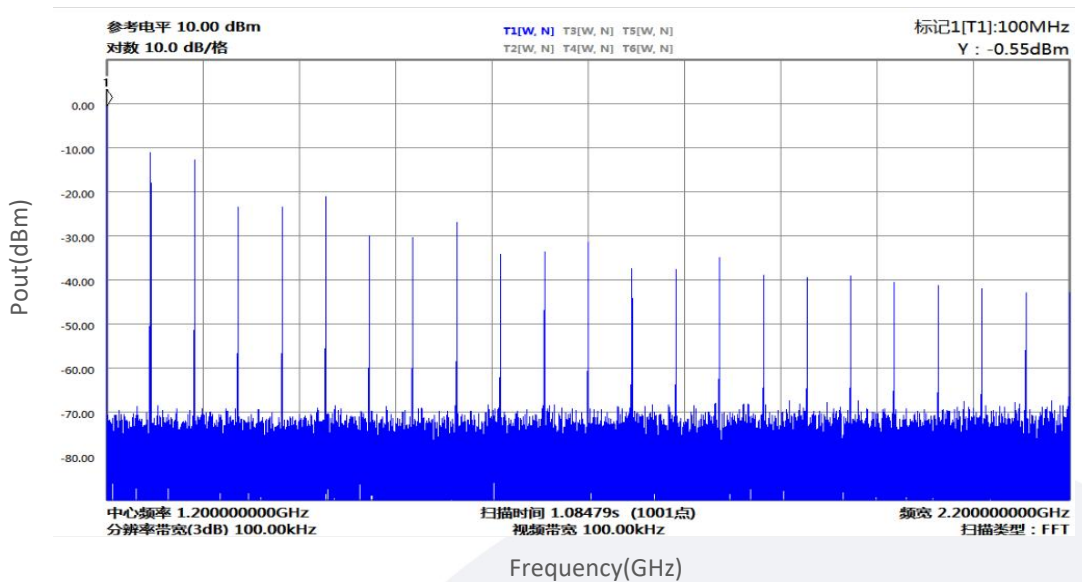
### Ordering Information:

Base Number	Description	Revision
TLCG60M18G-S	Comb Generator, 0.06-18GHz	Rev.1.0

## Typical Performance Data:

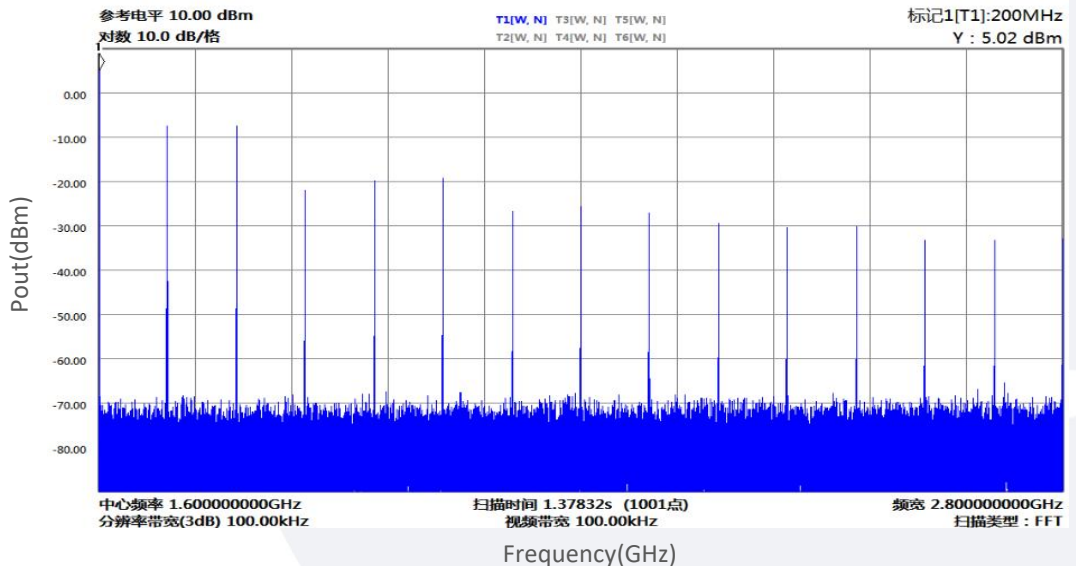
0.1GHz:

### Pout vs Frequency



0.2GHz:

### Pout vs Frequency

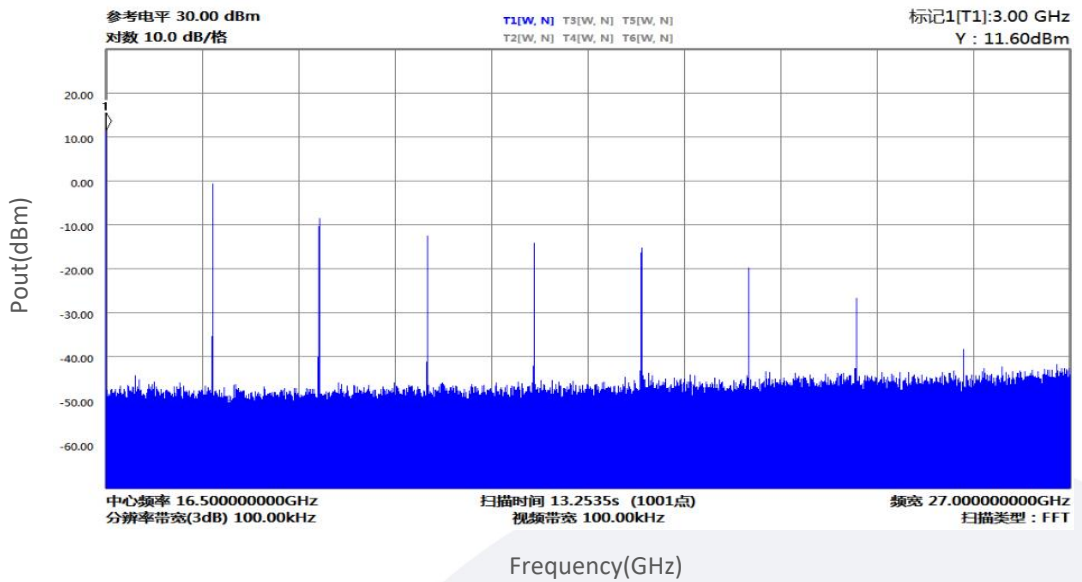


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

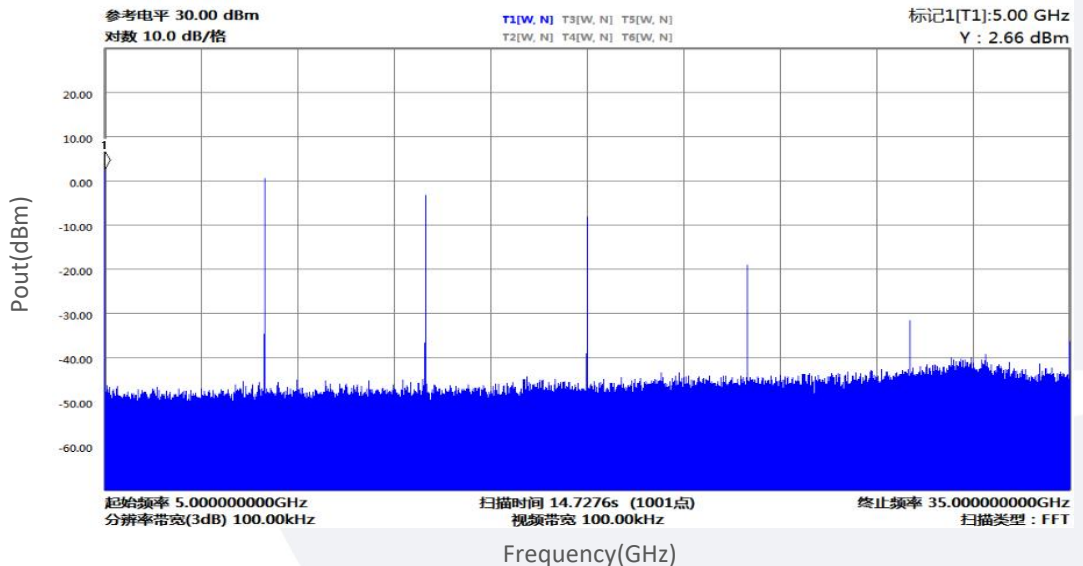
3GHz:

### Pout vs Frequency



5GHz:

### Pout vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.