

FMCW RF Signal source

RF Frequency:34.5-35.5GHz/1GHz, BW

Model: TLFS-FMCW-35G-1G

TLFS-FMCW-35G-1G is a FMCW RF Signal Source module. Its operating bandwidth covers 34.5 GHz to 35.5 GHz, with an output power of 0 dBm. The supported modulation waveforms include triangular wave and sawtooth wave.

Features:

- RF coverage : 34.5 to 35.5GHz
- Modulation Bandwidth : 1GHz
- Frequency modulation cycle:10ms
- Output Power: 0dBm Typ
- Great Spurious

Applications:

- Defense & federal communications
- Instrumentations

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
中心频率 Center Frequency		35		GHz
调制带宽 Modulation Bandwidth		1		GHz
调频周期 Frequency Modulation Period		10		ms
调制波形 Modulated Waveform	Triangular wave/Sawtooth wave			
输出功率 Output Power		0		dBm
功率平坦度 Output Power Flatness			±1.5	dB
杂散 Spurious@single frequency point		-50		dBc
谐波 Harmonics		-45		dBc
动态范围 Dynamic range @continuous frequency sweeping	50			dB
触发方式 Trigger Mode	Internal/External			
相位噪声 Phase Noise	@100Hz		-85	dBc/Hz
	@1KHz		-95	
	@10KHz		-100	
	@100KHz		-105	
	@1MHz		-110	
供电电压 Power Supply Voltage		12		V DC
控制方式 Control Mode		RS232		

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF输出接口 RF Output Connector	2.92mm Female	
直流供电接口 DC Supply Connector	J30J-9Pin	
尺寸 Size	TBD	mm
重量 Weight	TBD	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+24 V
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-20		+60	°C
存储温度 Non-operating Temperature	-40		+70	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	3,000			meters
震动 Shock / Vibration(MIL-STD-810F)	10G rms (15 degree 2KHz) endurance			
冲击 Shock(non operating)	50G for 12msc half sin wave			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLFS-FMCW-35G-1G	FMCW RF Signal Source RF:34.5-35.5G Bandwidth:1GHz	Rev.1.0