

Frequency Synthesizer

0.05-22.6GHz/4±5dBm Output Power

Model: TLFS00522-25

TLFS00522-25 is a frequency synthesizer, settable from 50MHz to 22.6 GHz. The settable output power range is from 4±5 dBm.

Features:

- Output Frequency range: 0.05-22.6GHz
- Output Power: 4±5dBm
- Switching time: 25us Max
- 50 Ohm Matched Input / Output

Applications:

- Communication/Radar Systems
- Test Labs

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Input Frequency		100		MHz
Input Power	4	7	10	dBm
Input Reference Phase Noise		-155		dBc/Hz@1KHz
Output Frequency	0.05-22.6GHz			
Frequency Step	0.1			Hz
Switching Speed			25	us
Output Power		4±5		dBm
Spurious		-70	-60	dBc
Harmonic			-5	dBc
DC Supply Voltage		12		V
DC Supply Current		700		mA
Impedance	50			Ohms

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Phase noise@1GHz			-110	dBc/HZ@100Hz
			-130	dBc/HZ@1KHz
			-136	dBc/HZ@10KHz
			-136	dBc/HZ@100KHz
			-136	dBc/HZ@1MHz
Phase noise@5GHz			-98	dBc/HZ@100Hz
			-117	dBc/HZ@1KHz
			-125	dBc/HZ@10KHz
			-125	dBc/HZ@100KHz
			-125	dBc/HZ@1MHz
Phase noise@10GHz			-92	dBc/HZ@100Hz
			-110	dBc/HZ@1KHz
			-119	dBc/HZ@10KHz
			-119	dBc/HZ@100KHz
			-119	dBc/HZ@1MHz
Phase noise@22.6GHz			-85	dBc/HZ@100Hz
			-104	dBc/HZ@1KHz
			-112	dBc/HZ@10KHz
			-112	dBc/HZ@100KHz
			-112	dBc/HZ@1MHz

Mechanical Specifications:

Parameter	Value	Units
RF Input/Output Connector	SMA Female/2.92mm Female	
DC Connector	53261-0671-7P(1.25mmpitch)	

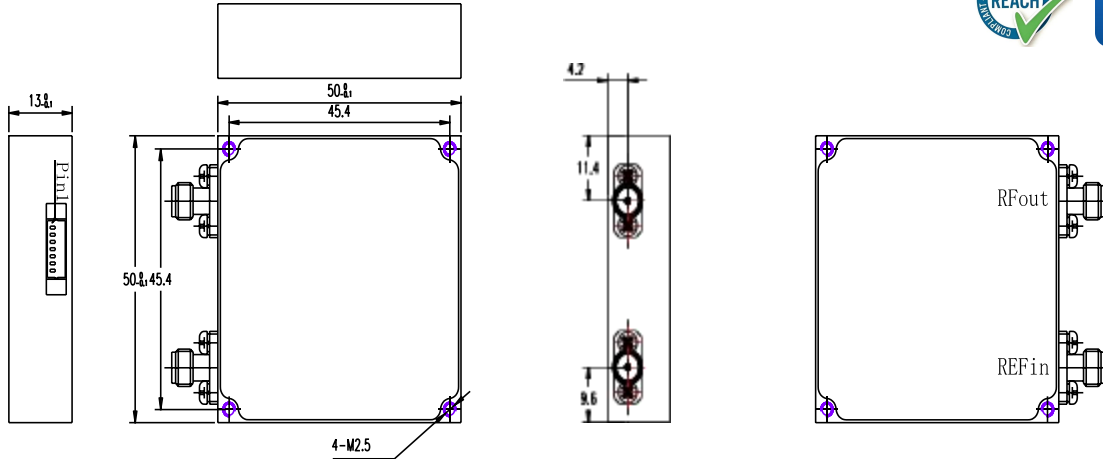
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



Definition			
Pin#	Function	Pin#	Function
1	+12V	5	SMISO(SPI)
2	GND	6	SCK(SPI)
3	MOSI(SPI)	7	LD(High level lock)
4	LE(SPI)		



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+70	°C
Non-operating Temperature	-55		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	10G rms (15 degree 2KHz) endurance			
Shock(non operating)	50G for 12msc half sin wave			

Ordering Information:

Base Number	Description	Revision
TLFS00522-25	Frequency Synthesizer, 0.05-22.6GHz, 4±5dBm Output Power	Rev.1.1