SST-2430630005-42-S1

K-Band Transmitter, 21.0 to 27.0 GHz

typical conversion gain of 3 dB with a typical IF input P-1 dB of +5 dBm

in the frequency range of 21.0 to 27.0 GHz and a IF output frequency range of DC to 4.0 GHz. The required LO power and frequency range are 0 dBm and 12.0 GHz, respectively. The LO and IF port are both equipped with female SMA connectors and the RF port is a WR-42 waveguide with a UG-595/U flange. K(F) RF port option is available under a different model number.

SST-2430630005-42-S1 is a K-Band transmitter. The transmitter has a

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
IF Input Frequency	10 MHz		4.0 GHz
IF Input P-1 dB		+5 dB	
RF Output Frequency	21.0 GHz		27.0 GHz
IF to RF Conversion Gain	0 dB	3 dB	
2LO to RF Isolation		35 dB	
2LO to IF Isolation		35 dB	
LO Frequency		12.0 GHz	
LO Input Power	-4 dBm	0 dBm	+13 dBm
Bias Voltage	+6 V _{DC}	+10 V_{DC}	+15 V _{DC}
Bias Current		170 mA	
Specification Temperature		+25°C	
Operating Temperature	-25°C		+65°C

Mechanical Specifications:

Item	Specification
RF Port	WR-42 Waveguide with UG-595/U Flange
IF and LO Port	SMA (F) and SMA (M)
Bias	Solder Pin
Size	1.60" (W) X 1.50" (L) X 0.50" (H)
Weight	2.0 Oz
Finish	Gold Plated
Outline	ST-SK

HI2VGE GND HI2VGE GND ERAÇANT NEXT GENNE WARKING LONG IP INC: 222015 IP INC: 222015 IP INC: 222015 IP INC: 222015

FEATURES

ECCN EAR99

- Compact Size
- Sub-harmonically Pumped Mixer
- Fully Integrated Module

APPLICATIONS

- Radar Systems
- Communication Systems
- System Integration

SUPPLEMENTAL DETAILS

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ERAVANT

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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model <u>SCH-06004-S1</u> is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model <u>SCH-08008-S1</u> is highly recommended
- The case temperature of the device shall never exceed +85 °C. Use proper heatsink or fan if necessary.