

WR-19 Receiver, 47 to 52 GHz, 3 dB Noise Figure, 14 dB Gain

Description:

Model SSR-4930533014-19-SE1 is a WR-19 integrated receiver module for satellite internet applications such as Starlink. The receiver has a typical conversion gain of 14 dB with a typical Noise Figure of 3 dB in the frequency range of 47 to 52 GHz. The required LO power is +0 dBm between frequencies of 11.25 and 13 GHz. The RF receive port is WR-19 Uni-Guide™ Waveguide with UG-383/U Anti-Cocking Flange while the LO and IF port is female SMA connectors. Other port configurations, are also available under different model numbers.



Features:

- Good Gain Flatness and Noise Figure
- Built in x4 LO Multiplier
- Fully Integrated Module

Applications:

- Starlink

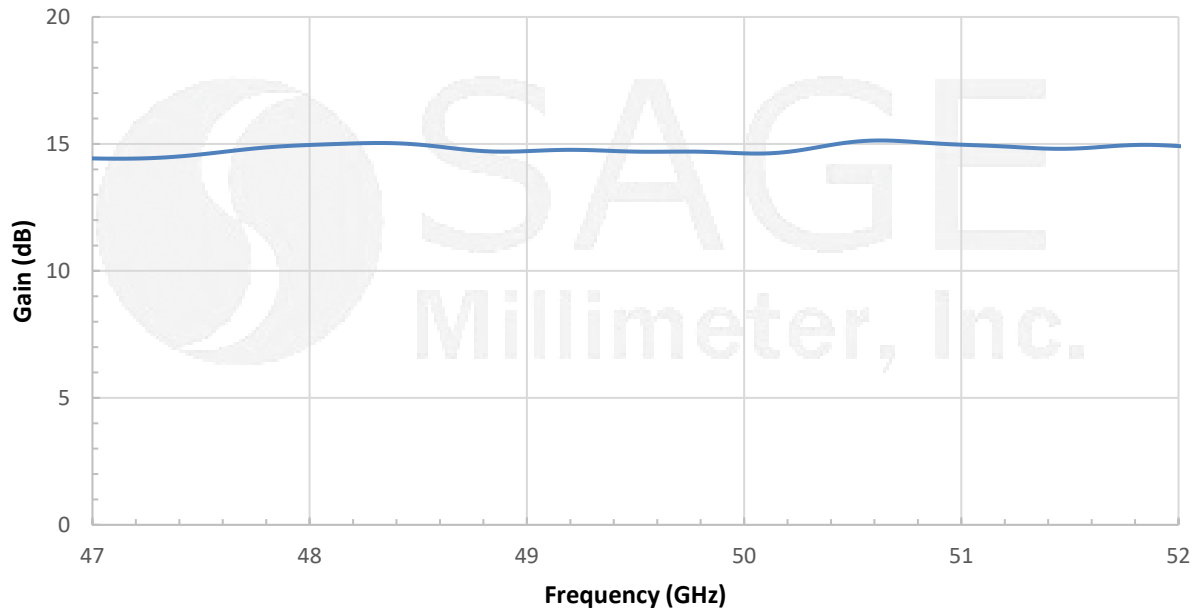
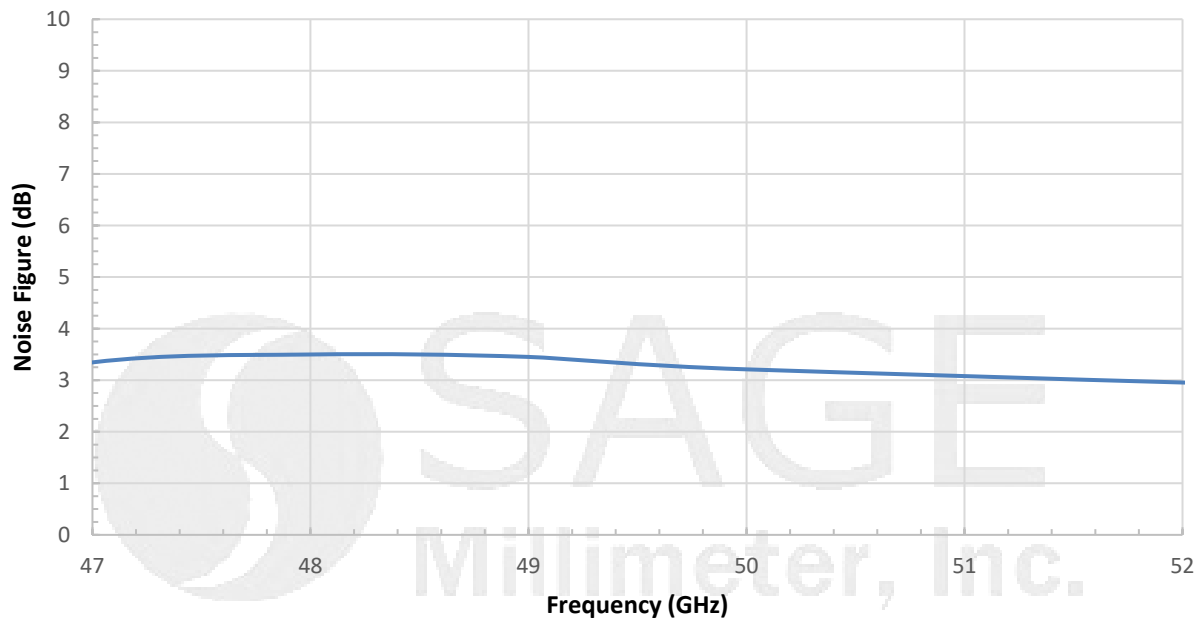
Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Input Frequency	47 GHz		52 GHz
RF Input Power			+5 dBm
IF Output Frequency	DC		7 GHz
LO Frequency	11.25 GHz		13 GHz
LO Input Power		+0 dBm	+10 dBm
Conversion Gain		14 dB	
Noise Figure		3 dB	
Input P _{1dB}		-25 dBm	
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+15 V _{DC}
Bias Current		500 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

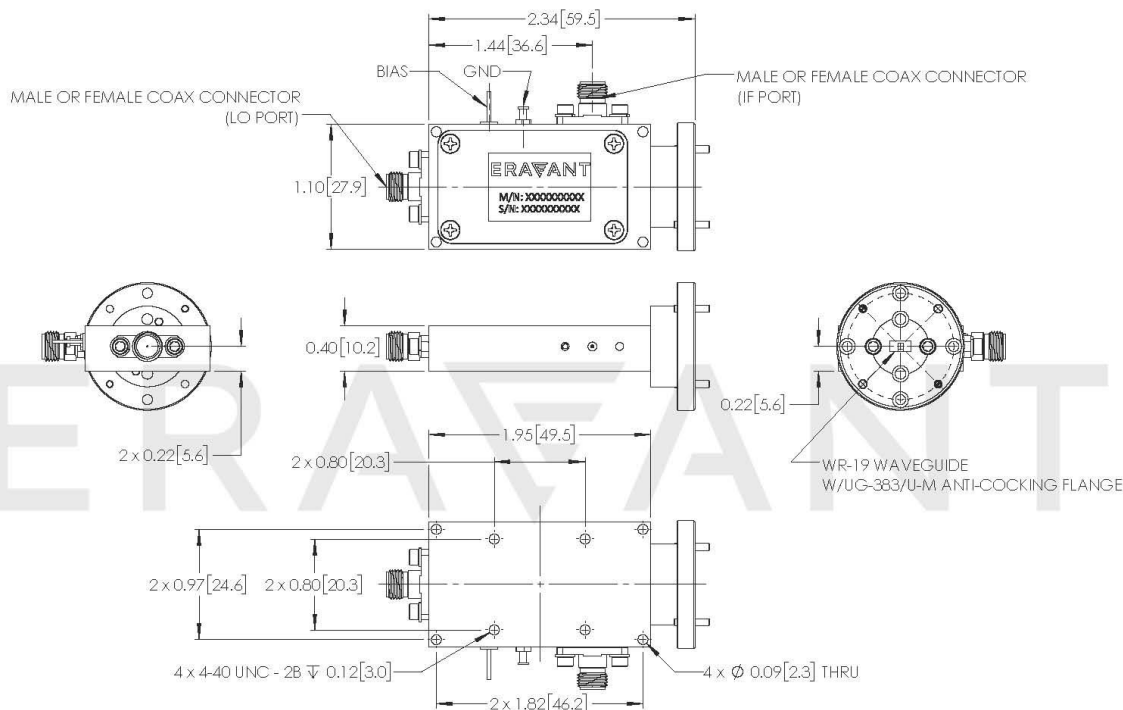
Item	Specification
RF Port	WR-19 Uni-Guide™ Waveguide with UG-383/U Anti-Cocking Flange
LO Port	SMA (F)
IF Port	SMA (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	2.0 Oz
Size	1.10" (W) X 2.34" (L) X 0.40" (H)
Outline	SR-SU-A-2

www.eravant.com | 501 Amapola Ave, Torrance, CA 90501
 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: support@eravant.com

**WR-19 Receiver, 47 to 52 GHz, 3 dB Noise Figure, 14 dB Gain****Gain vs. Frequency**Bias: +8 V_{DC}/489mA**Noise Figure vs. Frequency**Bias: +8V_{DC}/489 mA

WR-19 Receiver, 47 to 52 GHz, 3 dB Noise Figure, 14 dB Gain

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



Note:

- The receiver employs Eravant's trademarked and patent pending technology, **Uni-Guide™**, as its waveguide interfaces. The orientation of the input and the output waveguides can be specified through corresponding model numbers. For example, the model number for a horizontal output waveguide configuration would be **SSR-4930533014-19H-SE1** instead of the default **SSR-4930533014-19-SE1** which indicates vertical orientation output.
- Eravant reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- The case temperature of the device shall never exceed +50 °C. Use proper heatsink or fan if necessary.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**