

34.3 GHz Doppler Sensor Head, Dual Channel

Description:

Model SSS-34300-28L-D1 is a Ka Band, Doppler sensor head that is designed and manufactured for measurements of a moving target's speed and direction. The sensor module has a center frequency of 34.3 GHz and takes a nominal bias of +5.0 V_{DC}/350 mA. The sensor module is configured with a T/R diplexer, a dual channel (I/Q) receiver and a transmitter/receiver oscillator in an integrated die-cast housing. The sensor supports circular polarized waveform. Sensor modules with a single receiver are offered under model number SSS-34300-28L-S1 and can only detect the speed of a moving target.



Features:

- 34.3 GHz Operation
- Low Flicker Noise and High Sensitivity
- Low Harmonic Emission

Applications:

- Traffic Management Systems
- Law Enforcement
- Military Surveillance Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Antenna 3 dB Beamwidth		5°	
Antenna Side Lobes		-20 dB	
Antenna Gain		28 dBi	
Antenna Polarization	Right-Handed Circular		
Receiver Conversion Loss		10 dB	
RF Frequency		34.3 GHz	
Transmitting Power		-3 dBm	
Receiver I/Q Phase Δ		90°	
IF Frequency Range	DC		100 MHz
IF Offset Voltage		±0.1 V _{DC}	
Frequency Stability		-0.8 MHz/°C	
Power Stability		-0.03 dB/°C	
DC Supply Voltage		+5 V _{DC} /350 mA	+5.5 V _{DC}
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

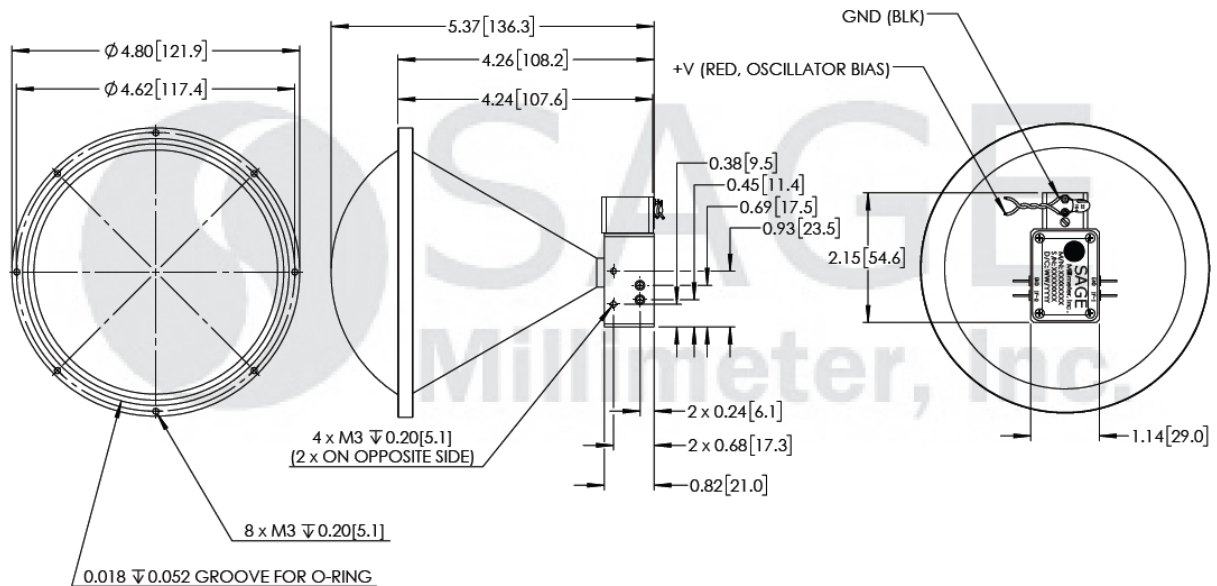


34.3 GHz Doppler Sensor Head, Dual Channel

Mechanical Specifications:

Item	Specification
Gunn Oscillator Bias Port	Red Wire
Mixer IF Port	Solder Pin
IF Ground	Solder Pin
Common Ground	Black Wire
Size	4.8" (W) X 5.37" (L) X 4.8" (H)
Material	Aluminum
Finish	Chem Film
Weight	12.0 Oz
Outline	SS-LA-G1

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



Note:

- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- The device is static sensitive. Always follow ESD rules when working with the device.
- Wrong bias or reverse bias on the sensor will damage the device.
- Exceeding absolute maximum ratings shown will damage the device. Use additional heatsink or fan if necessary.

