

Ka Band Ranging Sensor Head Single channel

RF Products Group

Features

- High sensitivity
- Low 1/f noise
- Circular polarized waveform
- Low harmonic and spurious emission
- Compact size
- Low cost and volume production
- Temperature and vibration qualified

Applications

- Automotive radar
- Ranging radar
- Traffic enforcement radar
- Collision prevention radar
- Train alarm system

Sensor



Electrical Specifications: $T_c = 25 \pm 5^\circ\text{C}$ (Room Ambient)

Parameter	Min	Typ	Max	Units
RF Frequency	35.5			GHz
Varactor tuning range	100			MHz
Transmitter output power	10			dBm
Receiver conversion loss		6		dB
IF bandwidth	DC to 100 MHz			
Antenna 3 dB beamwidth	12			degrees
Antenna sidelobe level			-20	dB
Polarization	Right hand circular			
DC bias	+5.5 V/350 mA (Typ)			
Operation Temperature	-40 to +85			$^\circ\text{C}$

Capability

- Up to 2 km sensing distance
- Speed & range detection