

# SMF-24051212-02



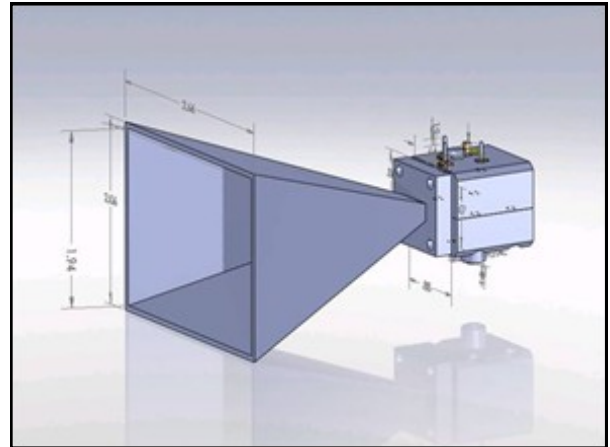
**Motion Detection Doppler Sensor Head**  
**Single channel, 12 degrees Rectangular Horn**

**RF Products Group**

## Features

- Basic sensitivity
- High reliability
- Low harmonic emission
- Compact
- Low cost and volume production

## Sensor



## Applications

- Speed measurement
- Traffic signal actuator
- Automatic illumination system
- Automatic door opener
- Intrusion alarm
- Contactless vibration measurement

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

Parameter	Min	Typ	Max	Units
RF Frequency	24.15			GHz
Transmitter Output Power	+5			dBm
Receiver conversion loss		12		dB
IF bandwidth	DC to 100			MHz
Antenna	Rectangular horn; 3 dB beamwidth = 12 degrees			
Antenna side lobe level			-15	dB
DC bias		5.5 V / 200 mA		
Operation temperature	-30 to +60			$^\circ\text{C}$
Frequency drifting			$\pm 40$	MHz
Speed measuring error			$\pm 0.2$	km/h
Measurable distance	200			m
Response time			25	ms

## Capability

- Up to 500 m sensing distance
- Speed detection only