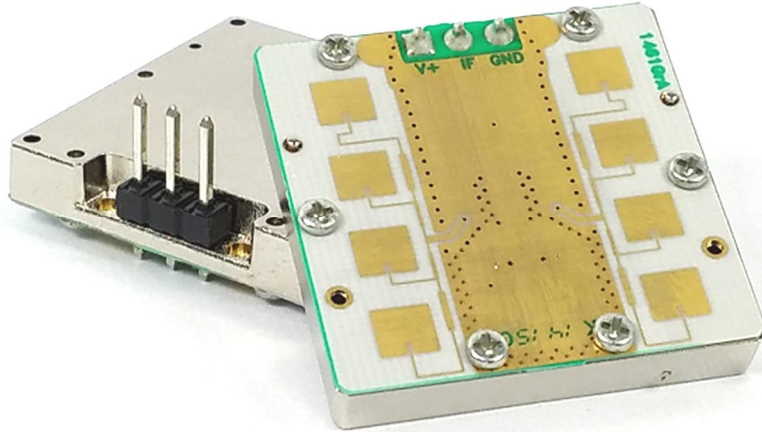


AP96

Miniature K-band Microwave Sensor



Features:

- Small and flat profile
- Light weight
- CW and pulse mode operation
- Low current consumption

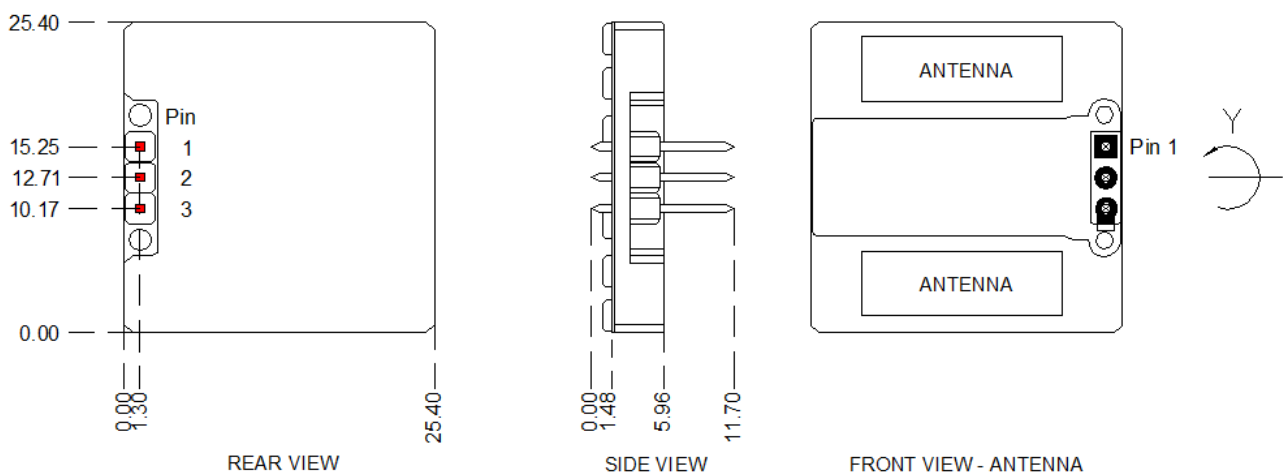
Applications:

- Motion detection
- Lighting control
- Security alarm
- Automatic door control

The AP96 series K-band miniature sensor is a Doppler transceiver with a HEMT oscillator, a single balanced mixer and bi-static microstrip patch antenna arrays. It is suitable for applications in automatic access, security, lighting control and speed measurement.

Its lightweight, miniature size and slim profile offer the flexibility to OEMs in making trendy and slim products.

Module Outline



All dimensions are in mm.

Pin	Name	Description
1	+V	Supply voltage, V_{in}
2	IF	IF output
3	GND	Ground

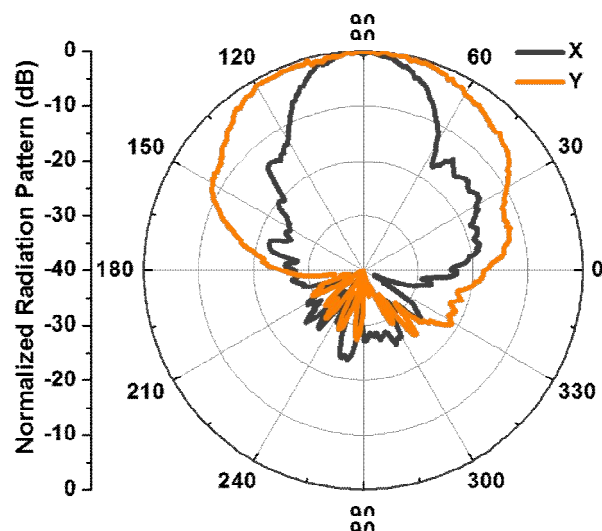
Note 1: Complies with EN 300 440.

Note 2: Complies with FCC Part 15.245.

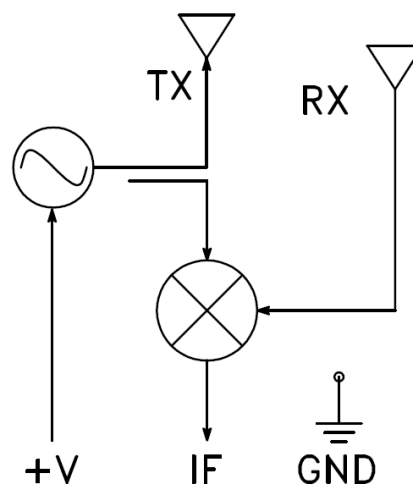
Note 3: **CAUTION: ELECTROSTATIC SENSITIVE DEVICE.**
Observe precautions for handling and storage.



Antenna Beam Pattern



Block Diagram



Technical Specifications

Unless noted otherwise, the specifications are measured in CW mode, $V_{IN} = +5 V_{DC}$ and 12k ohm load at +25°C.

Parameter	Remarks	Min	Typical	Max	Units
Operating Conditions					
Supply voltage, V_{IN}	AP96, AP96-1, AP96-2	4.75	5	5.25	V_{DC}
	AP96-3	2.85	3	3.15	V_{DC}
Current consumption			30	40	mA
Operating temperature		-20		60	°C
Recommended Pulse Scheme					
Pulse frequency	Pulse mode		2		KHz
Duty cycle	Pulse mode		2		%
Transmitter					
Operating frequency	AP96	24.000	24.125	24.250	GHz
	AP96-1	24.075	24.125	24.175	GHz
	AP96-2	24.150	24.200	24.250	GHz
	AP96-3	24.000	24.125	24.250	GHz
Radiated power (EIRP)			15		dBm
Spurious emission				-30	dBm
Frequency drift vs temperature			-1		MHz/°C
Antenna					
Antenna beam-width (3 dB) - X			32		°
Antenna beam-width (3 dB) - Y			80		°
Antenna sidelobe rejection			15		dB
Physical Properties					
Dimension			25.4×25.4×11.7		mm
Weight			2		g