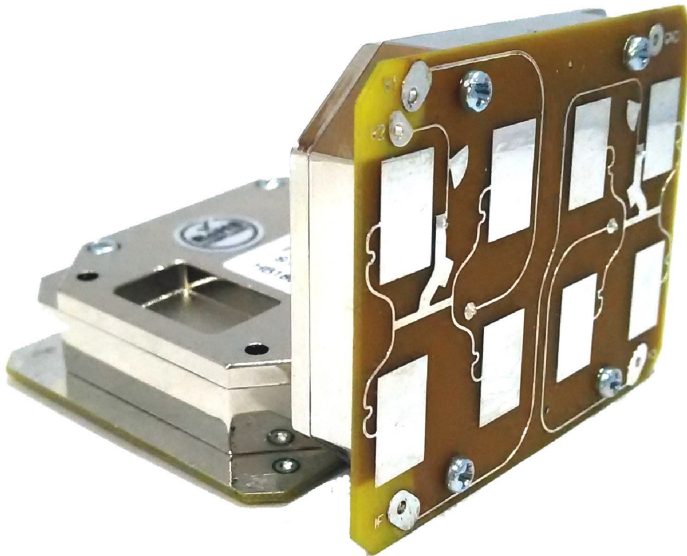


# HB181

## FMCW X-band Microwave Sensor



### Features:

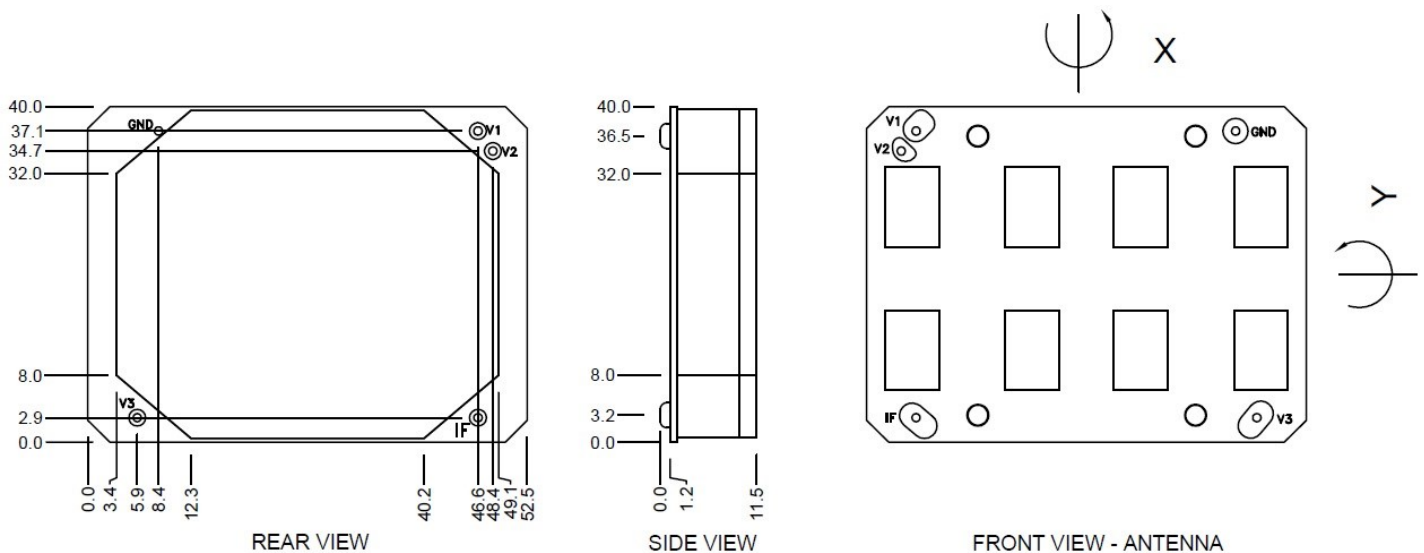
- FMCW function
- Low current consumption
- Small and flat profile
- CW and pulse mode

### Applications:

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

The HB181 microwave sensor is an X-band bi-static FMCW transceiver. It consists of one voltage tuned dielectric resonator oscillator (VT-DRO), a single balanced mixer and a pair of  $2 \times 2$  antenna arrays. It is suitable for FMCW or FSK ranging motion detectors.

### Module Outline



All dimensions are in mm.

Name	Description	Diameter	Plated Thru
GND	Ground	1mm	Yes
V1	+5 V <sub>DC</sub>	1mm	Yes
V2	NC	1mm	Yes
V3	Tuning voltage	1mm	Yes
IF	IF output	1mm	Yes

**Note 1:** Complies with EN 300 440.

**Note 2:** Complies with FCC Part 15.245.

**Note 3:** The tuning voltage V3 should be from 0.5 to 5 V<sub>DC</sub>, with a load less than 1k Ohm.

**Note 4:** **CAUTION: ELECTROSTATIC SENSITIVE DEVICE.** Observe precautions for handling and storage.



