

## Microwave Sensors Modules V1.01

Unless noted otherwise, the specifications are measured with +5VDC, CW Operation, 12 kΩ load and at ambient temperature +25°C.

| Parameters               | Notes | HB100  | HB110                   | HB210            | HB310          | HB410  | HB510           | Units |
|--------------------------|-------|--|-------------------------|------------------|----------------|--------|-----------------|-------|
| Frequency Setting        | 1     | 10.525   | 10.525                  | 9.90             | 10.687         | 9.35   | 10.587          | GHz   |
| Radiated Power (EIRP)    | 1     | 20 dBm max                                     | 14 dBm max              |                  |                |        |                 | dBm   |
| Spurious Emission        | 1     | 25 mV/m @3 m                                   | -30 dBm max             |                  |                |        |                 | dBm   |
| Received Signal Strength | 2     | 80 to 250                                      |                         |                  |                |        |                 | μVp-p |
| Noise                    | 3     | 4 μVrms typ                                    | 2 μVrms typ             |                  |                |        |                 | μVrms |
| Antenna Beam-width       |       | Azimuth: 80 Elevation: 40                      |                         |                  |                |        |                 | °     |
| Power Supply             |       | 5 V, 30mA                                      |                         |                  |                |        |                 | mA    |
| Pulse Operation          |       | Pulse Amplitude: 5V; PRF: 2KHz; PW: 20μsec typ |                         |                  |                |        |                 | KHz   |
| Operating Temperature    |       | -15 ~ 55                                       |                         |                  |                |        |                 | °C    |
| Outlines                 |       | Diagram A                                      | Diagram B               |                  |                |        |                 |       |
| Weight                   |       | 8  | 17                      |                  |                |        |                 | gm    |
| Compliance               | 1     | FCC Part 15                                    | ETS 300 440             |                  |                |        |                 |       |
| Applicable country       | 1     | USA, Canada                                    | Belgium,<br>Netherlands | Italy,<br>France | UK<br>(indoor) | German | UK<br>(Outdoor) |       |

**Note 1 :** The radiated emissions are regulated by local authority and the regulations are subjected to change from time to time. Please check with the local Authority in country of installation for latest information.

**Note 2 :** The Received Signal Strength (RSS) is measured at the total 2 ways path loss of 93dB. Specifications of various models are different; please refer to specific model's technical data sheet.

**Note 3 :** The noise voltages are measured from 10 Hz to 100 Hz at Output port, inside Anechoic chamber.

**Note 4 :** The data indicated are for reference only, always refer to technical data sheet of specific model for latest information.

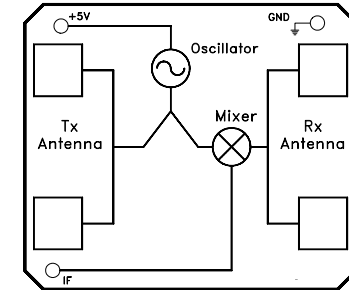
**Note 5 :** The design, manufacturing process and specifications of this device are subject to change without prior notice.



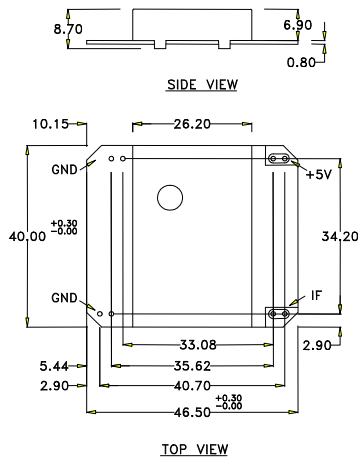
Diagram A : HB100



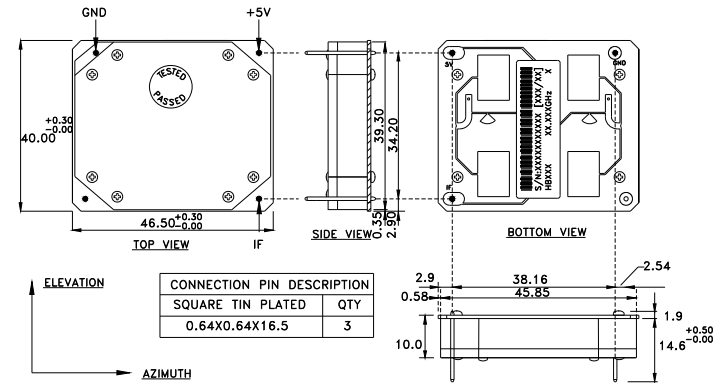
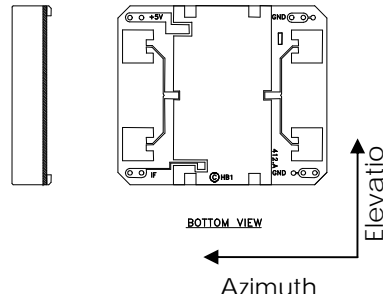
Diagram B :  
HB110/210/310/410/510



Block Diagram &  
Connection



| CONNECTION HOLE CHART |     |             |
|-----------------------|-----|-------------|
| DIAMETER              | QTY | PLATED THRU |
| 1.0                   | 8   | YES         |



## Satcom & Sensor Systems

ST Electronics (Satcom & Sensor Systems) Pte. Ltd.  
 100, Jurong East Street 21, ST Electronics Jurong East Building Level 4, Singapore 609602  
 Tel: (65) 6567 6791 Fax: (65) 65676370 Email: agilsense@stee.stengg.com  
 Website: www.agilsense.com ( Regn. 199103901W)