

# MP100

## Evaluation Board for **AgilSense** Modules

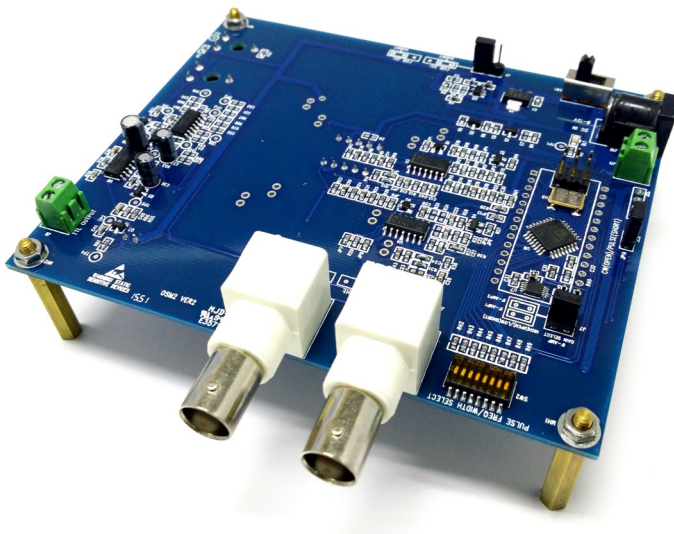
### Brochure

### Description

The MP100 is designed for evaluating and comparing various **AgilSense** HB-, AP-, LB- series sensor modules<sup>1</sup>.

Design engineers can speed up development by using the features in the MP100 to analyze the characteristics of **AgilSense** sensor modules.

The MP100 includes a detector circuit that receives the amplified IF signal from the sensor module and triggers an LED indicator when the received signal strength rises above a user defined sensitivity level.



<sup>1</sup> MP100 supports the following **AgilSense** microwave sensor modules:

- ⇒ **HB series:** HB100, HB170, HB570, HB490, HB190, HB190-2, HB590, HB590-3
- ⇒ **AP series:** AP96, AP96-3, AP97, AP97-3, AP98, AP98-3
- ⇒ **LB series:** LB200-1

<sup>2</sup> MP100 does not include sensor module and AD/DC power supply adaptor.

<sup>3</sup> Mounting hole size at each corner of PCB is Ø4mm.

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

### Applications

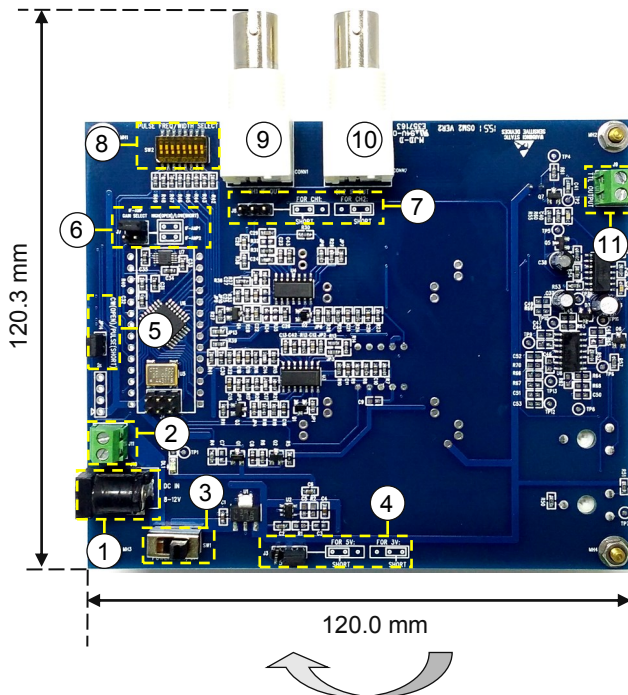
- Evaluation of **AgilSense** micro-wave sensor modules
- Motion detection
- Lighting control
- Security Alarm

### Key Features

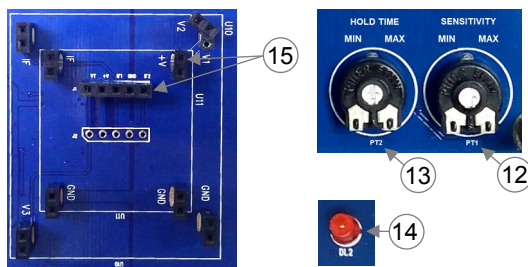
- Selectable 3V and 5V DC supply to sensor module
- Selectable CW and Pulse mode operation
- Selectable pulse frequency & pulse width via an on-board DIP-switch
- Selectable IF-amplifier gain
- Comes with detector circuit that allows tunable sensitivity and hold time via on-board trimmers.
- Provides TTL output for triggering or activating compatible external devices such as LED lightings and alarms



## On-board Connectors and Controls



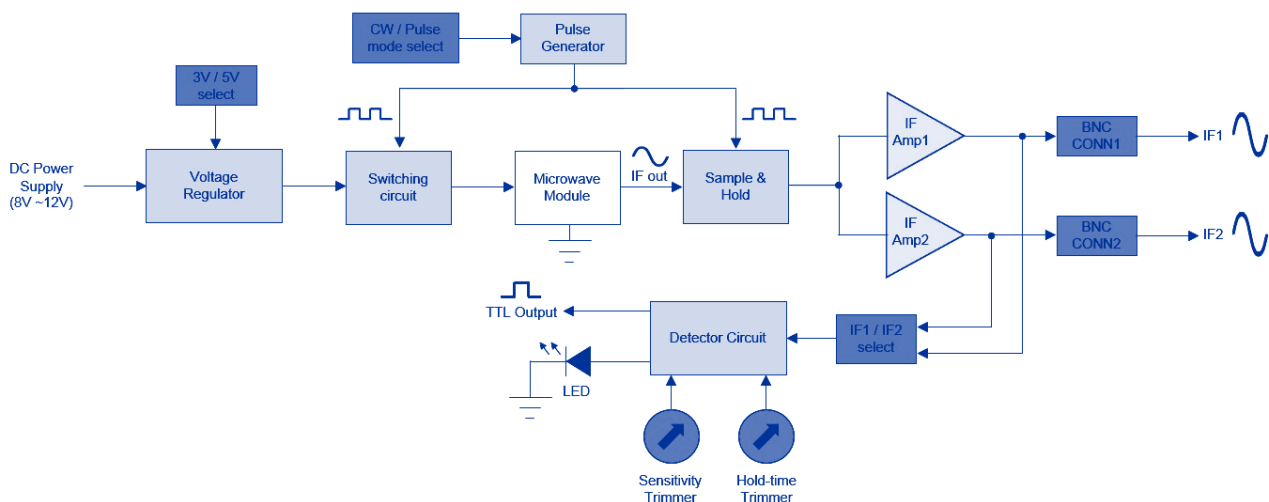
Underside of board:



Label	Description	Functions
1	DC power jack <sup>1</sup>	DC power supply input (8 to 12V <sub>DC</sub> )
2	Two-way terminal block	Alternate DC power supply input
3	Slide switch	ON/OFF power switch
4	Three-way pin header	Select 3V or 5V supply to sensor module
5	Two-way pin header	Select continuous wave (CW) or pulse mode operation
6	4 × two-way pin header	Select IF-amplifier gain (76dB or 56dB)
7	Three-way pin header	Select amplified IF1 or IF2 output to detector circuit
8	DIP switch	Configures pulse frequency and width
9	BNC connector	Amplified IF1 output
10	BNC connector	Amplified IF2 output
11	Two-way terminal block	TTL output
12	Trimpot PT1	Adjusts sensitivity level
13	Trimpot PT2	Adjusts hold-time
14	LED	Detection indicator
15	2.54mm Pitch Pin Socket	Sensor module interface

<sup>1</sup>The mating connector for the DC power jack is a 5.5 × 2.5 mm barrel plug.

## Block Diagram of MP100



ST Engineering Electronics Ltd.

1 Ang Mo Kio Electronics Park Road, #06-02, ST Engineering Hub, Singapore 567710

Tel: (65) 6521 7888 Fax: (65) 6521 7801

Website: [www.agilsense.com](http://www.agilsense.com) ( Regn. No.: 199103901W )