



HAB-BO-M8Q3A-ASSY

uBLOX MAX-M8Q Breakout for Active Antennas

Description

The Uputronics u-blox MAX-M8Q Breakout for active antennas permits the connection of the Ublox MAX-M8Q GPS module to a microcontroller.

Pin Configurations



SCL	I ² C Clock Line.
SDA	I ² C Data Line.
TX	Serial TX Line. Connect to microcontroller RX line.
RX	Serial RX. Connect to microcontroller TX line.
TP	Time Pulse Output. When Locked the GPS will output a 1hz pulse to this pin.
VCC	3V Supply Pin.
GND	GND

Board Specifications

Weight	4.2g
Battery Backup	0.2F Elna SuperCap
Connector Pitch	2.54mm
Default baud rate	9600bps
Power Usage	Acquire 25mA / Tracking 21mA / Cyclic PSM Mode 6mA

Board Absolute Maximums

3V Board VCC Max Voltage 3.6V
Operating Temperature -40°C to +85°C

GPS Performance

Data obtained from u-blox M8Q GPS/GNSS Module Data sheet:

https://www.u-blox.com/sites/default/files/MAX-M8-FW3_DataSheet_%28UBX-15031506%29.pdf

Parameter	Specification		
Antenna Connector	SMA female	Antenna bias voltage	2.7V
Receiver Type	72 Channels GPS L1C/A SBAS L1C/A QZSS L1C/A QZSS L1 SAIF GLONASS L1OF BeiDou B1I Galileo E1B/C		NOTE: Default to GPS/GLONASS GNSS
Time To First Fix	Cold Start Warm Start Hot Start	26s GPS/GLONASS 2s 1s	
Horizontal Position accuracy	2.5m GPS		
Max Navigation Rate	18Hz		
Frequency of Time Pulse	0.25Hz -> 10Mhz		Configurable.
Operational Limits	Dynamics Altitude Velocity	< 4G 50,000m / 164000 feet 500m/s / 1118 mph	These figures assume Airborne < 4g dynamic model.

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