

### SMD

Illustration (not to scale)					
Part number	<b>M10382</b>	<b>M10477</b>	<b>M10478-A1</b>	<b>M10478-A2-1</b>	<b>M10478-A3</b>
Architecture	Ant + RF + BB	Ant + RF + BB	Ant + RF + BB	Ant + RF + BB	Ant + RF + BB
GPS Chipset	Ublox G6010-ST	SiRFstarIV 9333	SiRFstarIV 9333	Mediatek MT3337-E	Mediatek MT3333
Frequency	1575 MHz	1575 MHz	1575 MHz	1575 MHz	1559—1609 MHz
Dimensions (L x W x H in mm)	24.2 x 9.9 x 3.9	24.2 x 9.9 x 3.8	13.8 x 9.5 x 1.8	13.8 x 9.5 x 1.8	13.8 x 9.5 x 1.8
Antenna Bandwidth	30 MHz	30 MHz	30 MHz	30 MHz	50 MHz
Omni-directional antenna	√	√	√	√	√
External antenna support	√	√	√	√	√
Average antenna gain, equivalent to ceramic antenna	13 x 13 x 4	17 x 17 x 4	17 x 17 x 4	17 x 17 x 4	17 x 17 x 4
Power consumption: acquisition, tracking, sleep mode	50mA , 40mA, 25uA (battery backup)	40mA, 31mA, 20uA	40mA, 31mA, 20uA	31mA, 24mA, <200uA	38mA, 28mA, 350uA
Host Interface	UART / SPI / I2C / DDC / USB CMOS 1.8v / 3.3v	UART / SPI / I2C CMOS 1.8v	UART / SPI / I2C CMOS 1.8v	UART CMOS 3.3v	UART CMOS 3.3v
Baud rate (bps)	9600	9600	9600	4800 / 9600 / 38400 / 115200	9600
Data output protocol	NMEA 0183 / UBX	NMEA 0183 / OSP	NMEA 0183 / OSP	NMEA 0183	NMEA 0183
Sensitivity: acquisition / tracking	-147 dBm / -160 dBm	-147dBm / -163 dBm	-147dBm / -163 dBm	-148dBm / -165 dBm	-148dBm / -165 dBm
Typical applications	tracking devices, PNDs, automotive, marine	tracking devices, PNDs, automotive, marine	tracking devices, PNDs, OBD2, mHealth	tracking devices, PNDs, OBD2, mHealth	tracking devices, PNDs, OBD2, mHealth

### Implementation Support

### Contact us



Antenova M2M offers a full range of development support and RF testing to help reduce customization, design costs and accelerate your time to market. Antenova recommends our customers to use our know-how when it comes to implementing the antenna. We offer advanced measuring equipment, custom tuning and technical support to obtain a secure and reliable implementation. Make Antenova your partner of choice for new product development through the full life cycle of your product. To find out more, email: [sales@antenova-m2m.com](mailto:sales@antenova-m2m.com).

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### SMD

Illustration (not to scale)		
Part number	<b>M10578-A2</b>	<b>M10578-A3</b>
Architecture	RF + BB	RF + BB
GPS Chipset	Mediatek MT3337-E	Mediatek MT3333
Frequency	1575 MHz	1559—1609 MHz
Dimensions (L x W x H in mm)	13.8 x 9.5 x 1.8	13.8 x 9.5 x 1.8
Bandwidth	30 MHz	50 MHz
External antenna support	√	√
Power consumption: acquisition, tracking, sleep mode	31mA, 24mA, <200uA	38mA, 28mA, 350uA
Host Interface	UART CMOS 3.3v	UART CMOS 3.3v
Baud rate (bps)	4800 / 9600 / 38400 / 115200	9600
Data output protocol	NMEA 0183	NMEA 0183
Sensitivity: acquisition / tracking	-148dBm / -165 dBm	-148dBm / -165 dBm
Typical applications	Tracking devices, PNDs, OBD <sub>2</sub> , mHealth	Tracking devices, PNDs, OBD <sub>2</sub> , mHealth

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