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Link do produktu: https://www.nobshop.pl/gps-matek-m10q-qmc5883-gnss-compass-p-4014.html

GPS Matek M10Q QMC5883 GNSS & Compass

Cena brutto	**179,99 zł**
Cena netto	**146,33 zł**
Dostępność	**Dostępny**
Czas wysyłki	**1 - 3 dni**
Producent	**Matek Systems**

Opis produktu

GPS Matek M10Q QMC5883 GNSS & Compass

- M10Q-5883 uses multi-constellation GNSS module powered by u-blox SAM-M10Q-00B.
- The SAM-M10Q features the u-blox M10 standard precision GNSS platform and provides exceptional sensitivity and acquisition time for all L1 GNSS signals. SAM-M10Q supports concurrent reception of four GNSS (GPS, GLONASS, Galileo, and BeiDou). The high number of visible satellites enables the receiver to select the best signals. This maximizes the position availability, in particular under challenging conditions such as in deep urban canyons. u-blox Super-S (Super-Signal) technology offers great RF sensitivity and can improve the dynamic position accuracy in non-line-of-sight scenarios.
- The high-gain 15 x 15 mm2 patch antenna provides the best balance between performance and small size. The omnidirectional antenna radiation pattern increases flexibility for device installation.
- More details about the SAM-M10Q, pls check out u-blox SAM-M10Q page

Specifications

- GNSS u-blox SAM-M10Q-00B (GPS, GLONASS, Galileo and BeiDou)
- Magnetic Compass QMC5883L
- Patch antenna 15*15*4mm

- Input voltage range: 4~9V (5V pad/pin)
- Power consumption: 13mA
- UART baudrate: 9600 default
- Operating Temperatures: -20~80 °C
- UART(TX, RX) interface for GNSS SAM-M10Q-00B
- I2C(DA, CL) interface for Compass QMC5883L
- JST-GH-6P connector (SM06B-GHS-TB). 1.27mm pitch

- GNSS PPS LED, Green. (Solid ON after powering on, blinking(1Hz) when GNSS get 3D fix)
- Protocol: UBX(u-blox) 5Hz@GPS+GAL+BDS B1C+GLO or NMEA 1Hz

- 20mm*20mm*12.4mm
- 8g
- M10Q-5883_step.zip

Includes

- 1x M10Q-5883
- 1x JST-GH-6P to JST-GH-6P 20cm silicon wire

Wiring and settings

- M10Q-5883 5V to Flight controller 4~9V
- M10Q-5883 RX to Flight controller UART_TX
- M10Q-5883 TX to Flight controller UART_RX
- M10Q-5883 CL to Flight controller I2C_SCL

- M10Q-5883 DA to Flight controller I2C_SDA
- M10Q-5883 G to Flight controller GND

Tips and Notes

- **Compass Alignment(flat mounting): Tilting the magnetometer is strongly discouraged !**
    - INAV/BetaFLight: compass Arrow forward, set CW 270° Flip when flight controller arrow is facing forward.
    - INAV/BetaFLight: compass Arrow backward, set CW 90° Flip when flight controller arrow is facing forward.
    - Ardupilot/Mission Planner: Rotation None.
- Make sure to have compass/magnetometer 10cm away from power lines/ESC/motors/iron based material

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- INAV 5.0.0, Betaflight 4.3.0, ArduPilot 4.3 or newer is required.

- UBlox NEO-M9N, MAX-M10S, SAM-M10Q series all don’t have dataflash built in. once GNSS is powered off and the supercapacitor run out. the settings will back to default.

- UBX protocol is bidirectional. Flight controller firmware can change settings on GPS via UBX protocol. You don’t need to set GNSS module parameters in u-center.

- The default configuration on SAM-M10Q with ublox FW 5.1 is concurrent reception of GPS, Galileo, GLONASS, and BeiDou B1C with QZSS and SBAS enabled.
- Start with u-blox GNSS FW3.01, timepulse is aligned with UTC time and that time is set valid only after leap second is downloaded. That could take up to 12.5 min. Probably PPS LED will not blink immediately after GPS has 3D fixed.
- The M10Q-5883 provides the ability to reset the receiver. Bridging “RST” pad to Ground for at least 100 ms will trigger a cold start. RESET will delete all information and trigger a cold start. It should only be used as a recovery option. If you are sure wiring and setup are all right. but flight controller can’t detect the GNSS module(grey GPS icon), try doing reset.
- The scratches on ceramic antenna are the result of tuning the antenna.

- Troubleshoot GPS related issues: http://www.mateksys.com/?p=5712#tab-id-6
- u-center Windows

- ***** The SKU silk print on the first batch of M10Q-5883 PCB is “M10-5883”.**