

You can read the recommendations in the user guide, the technical guide or the installation guide for HOLUX M-89. You'll find the answers to all your questions on the HOLUX M-89 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual HOLUX M-89
User guide HOLUX M-89
Operating instructions HOLUX M-89
Instructions for use HOLUX M-89
Instruction manual HOLUX M-89





## Manual abstract:

1F, No.30, R&D Road, Hsinchu 300, Taiwan (Hsinchu Science Industrial Park) TEL: 886-3-6687000 FAX:886-3-6687111 E-mail:info@holux.com.tw http:www.holux.com.tw M-89 GPS Module series 2.3 Specification General GPS technology MTK GPS chipset Frequency L1,1575.42MHZ C/A Code 1.023MHZ chip rate Channels 32 channels all in view searching Sensitivity Better than -159dBm Receiver Accuracy (Follow MTK chip specification) Without aid:3.

0 M 2D-RMS Position DGPS(WAAS, EGNOS, MSAS, RTCM): 2.5 M Time 0.1£gs. Sync GPS time Datum WGS84(Default) total 219 datum's Time to First Fix (Follow MTK chip specification) Hot start 1 sec. average Warm start 33 sec.

average Cold start 36 sec. average Reacquisition ¡Õ1sec. Protocol NMEA0183(v3.1)- GGA,GLL,GSA,GSV,RMC,VTG GPS Output Data Support Baud rate 4800/9600//115200 bps (default 4800), Data bit:8,Stop bit:1, No parity. Update Rata 1Hz(default) Protocol Support NMEA-0183 1PPS Limitations Acceleration Limit Altitude Limit Velocity Limit Jerk Limit Enable(1Hz pulse 10% duty cycle) (Follow MTK chip specification) ¡Õ4G ¡Õ18000 meters ¡Õ515 M/sec 20 M/sec3 THE PRO NAME IN GPS Velocity Without aid:0.

1 M/sec Power Operation Current Acquisition:65 mA@3.3V Operation Current Tracking:¡Õ35mA@3.3V HOLUX Technology, Inc. 1F, No.30, R&D Road, Hsinchu 300, Taiwan (Hsinchu Science Industrial Park) TEL: 886-3-6687000 FAX:886-3-6687111 E-mail:info@holux.com.tw http://www.holux.com.tw M-89 GPS Module series VCC 3.

0~5.0V DC Input Range VBAT 3.0~5.0V Processing Core Processor Type Processor Speeds Integrated program Flash Interface Temperature Operating Temperature -40 THE PRO NAME IN GPS ARM7EJ-S 48 MHz 4 MHz CMOS 2.8 V Level to +85. to +85. Storage Temperature -40 Physical Operating Humidity 5% to 95%, Non condensing Dimension 25.4 \* 25.4 \* 3 mm. Weight 3g.

HOLUX Technology, Inc. 1F, No.30, R&D Road, Hsinchu 300, Taiwan (Hsinchu Science Industrial Park) TEL: 886-3-6687000 FAX:886-3-6687111 E-mail:info@holux.com.tw http://www.

holux.com.tw M-89 GPS Module series THE PRO NAME IN GPS 3. Mechanical Dimension 3.1 Mechanical Dimension HOLUX Technology, Inc. 1F, No.30, R&D Road, Hsinchu 300, Taiwan (Hsinchu Science Industrial Park) TEL: 886-3-6687000 FAX:886-3-6687111 E-mail:info@holux.com.tw http://www.holux.com.tw M-89 GPS Module series THE PRO NAME IN GPS 4. Package 4.1 Packing Tray dimension: 370\*312\*15mm; A Standard Content Qty: 1,000 pcs; C HOLUX Technology, Inc.

1F, No.30, R&D Road, Hsinchu 300, Taiwan (Hsinchu Science Industrial Park) TEL: 886-3-6687000 FAX:886-3-6687111 E-mail:info@holux.com.tw http:www.holux.com.tw M-89 GPS Module series 4.2 Reference Product photo Top side : THE PRO NAME IN GPS Bottom side HOLUX Technology, Inc. 1F, No.30, R&D Road, Hsinchu 300, Taiwan (Hsinchu Science Industrial Park) TEL: 886-3-6687000 FAX:886-3-6687111 E-mail:info@holux. com.tw http:www.holux.com.tw M-89 GPS Module series THE PRO NAME IN GPS 5.

User Interface M-89 provides 2-wire digital UART port for communication of GPS position data using NMEA protocol or MTK extension protocol. UART port is capable of 4800 to 115200 baud rate. 5.1 Protocol M-89 is default to support standard NMEA-0183 protocol. In addition, a series of MTK extensions (PMTK messages) have been developed that can be used to provide extended capabilities common to many applications.

5.2 NMEA Protocol M-89 is capable of supporting following NMEA formats: NMEA RECORD GGA GLL GSA GSV RMC VTG ZDA Description GPS fix data Geographic GNSS DOP and active satellite GNSS Satellites in view Recommended minimum specific GNSS data Course Over Ground and Ground Speed Time&Data HOLUX Technology, Inc. 1F, No.30, R&D Road, Hsinchu 300, Taiwan (Hsinchu Science Industrial Park) TEL: 886-3-6687000 FAX:886-3-6687111 E-mail:info@holux.com.tw http:www.holux.com.tw M-89 GPS Module series 5..

