MM112AL
High accuracy timing module

The MM1 12AL is a professional timing module developed by MXGNSS for timing markets. Built on proprietary high precision chipdesign, it supports independent timing with BeiDou, as well as multi-constellation combined timing. The output Pps achieves stablnanosecond-level precision, ensuring high reliability. lt provides an ideal solution for applications such as telecommunication basestation timing, power grid time synchronization and financial network time synchronization.

Technical Features

•Accurate and stable time synchronization performance with high reliability

•Support for GPS/BDS dual-constellation timing

•Support for BeiDou-3 signals

•Flexible configuration of timing modes and time markers

•Mainstream package size 17x22mm

•Industrial-grade standards

Specifications

Power Supply	
Voltage	3.0V~ 3.6V
RF input	
Signal Tracking	BDS B1I
	GPS L1C/A
Physical	
Package	28-PIN LCC
	22x17x2.4mm
I/O Data Interface	
UART	Default 115200bps
GNSS Performance	
TTFF	Cold Starts: ≤32
	Hot Starts: ≤1s
Position Accuracy	2.5m
Velocity Accuracy	0.1m/s
Sensitivity	Tracking: -160dBm
	Acquisition: -146dBm
Timing Mode	Real-time positioning
	Fixed- point optimization□User Fixed-point
Timing Accuracy	20ns
Timing Marker	Configurable 1PPS time marker
	UTC□BDT□GPST
Nav. Update Rate	1HZ
Nav. Data Format	NMEA 0183 V4.1

Application Fields

Telecommunication Base Station | Power Grid Synchronization | Financial Networks