

GPS and GPS+GLONASS

The GPS and GPS+GLONASS receiver options for the GMR Series of master clocks provide precision time reference based on satellite broadcasts, achieving Stratum 1 synchronization. PPS on-time output is locked to the top of each second. Three antenna options are available for both standard and mobile applications.

RECEIVER OPTIONS

	GPS Option	GPS+GNSS Option
Satellites	12-channel, up to 12 satellites simultaneously, parallel	32-channel, up to 24 satellites simultaneously, parallel
Frequency	L1, 1575 MHz	L1, 1575 MHz and 1598-1606 MHz
Antenna Connector	SMA female	SMA female
RF Bias to Antenna	5V DC, center pin	5V DC, center pin
PPS	50 ms, TTL level, on-time leading edge	50 ms, TTL level, on-time leading edge
Accuracy	±60 ns of UTC	±15 ns of UTC

FEATURES

- > Stratum 1 synchronization via satellite constellations
- > Receive time signals from up to 24 satellites
- > Accurate reference to within ± 15 ns of UTC
- > PPS on-time output is locked to the top of each second
- > NMEA-0183 messages on serial port output
- > Provides most accurate external time source for GMR devices
- > Compact antenna designs for portable applications
- > Optional magnetic-mount or standard-mount antennas
- > Antenna cable lengths up to 500 ft (152 m) available
- > In-line surge arrestors and in-line GPS amplifiers available

ANTENNA OPTIONS

	Basic Antenna	Standard Antenna	High-Gain Antenna
Type	Active, External	Active, External	Active, External
Gain	28 ± 2 dB	28 ± 2 dB	40 ± 4 dB
Mount	Magnet/Adhesive	Outdoor, threaded pipe/mast. M24 x 1.5 internal thread - Mounting kit provided	Metal mounting kit provided, per user specifications
Operating Temp.	-40° to 85°C (up to 95% humidity)	-40° to 85°C (up to 95% humidity)	-40° to 85°C (up to 95% humidity)
Voltage	2.2-5V	3-5V	3.3-9V
Polarization	Right hand circular	Right hand circular	Right hand circular
Impedence	50 Ω	50 Ω	50 Ω
Connector	SMA Female	SMA Female	SMA Female
Antenna Cable	Belden 8219 or equivalent	Belden 8219 or equivalent	Belden 8219 or equivalent
Weight	0.9 oz (26 g)	6.7 oz (190 g)	9.6 oz (272 g)
Dimensions	1.5 x 1.9 x .59 in (39 x 49 x 15mm)	3.7 dia x 5.5h in (9.3dia x 14h cm)	3.2dia x 5.0h in (8.1dia x 12.6h cm)

