



Receiver GNSS RTK X25 R Base

Transmission power and
proven connectivity
in all terrains

Radio
5w

IP67

1408
Channels

32GB
Storage

The Metattec X25 R receiver is a Professional Station robust, and fully featured

integrated base, designed to cover most of the needs of surveyors.

It incorporates 4G, Bluetooth, Wi-Fi, and a 5-watt radio, which allows for fast and stable data transmission.

Its rugged design makes it ideal for outdoor work and demanding conditions, offering reliable GNSS RTK coverage of up to 35 km in ideal conditions.

CE · FCC · RoHS

Technical Specifications

X25 R	
GNSS SIGNAL	
Channel	1408
BDS	B1I, B2I, B3I, B1C, B2a, B2b*
GPS	L1 C/A, L1C, L2P(Y), L2C, L5
GLONASS	L1, L2, L3*
GALILEO	E1, E5a, E5b, E6*
QZSS	L1C/A, L1C, L2C, L5, L6*
SBAS	L1, L5*
NavIC(IRNSS)*	L5
L-band	B2b-PPP*, E6B-HAS*
Data Format	CMR, CMR+, RTCM2.X, RTCM3.X
Data Output	NMEA-0183, RINEX, TXT
Data Updating Rate	Up to 20Hz
Time to Recapture	<1s
Cold Start	<40s
Positioning Performance	
Single Point Positioning (RMS)	Horizontal: 1.5m Vertical: 3.0m
DGPS (RMS)	Horizontal: 0.4m Vertical: 0.8m
Real-Time Kinematic (RMS)	Horizontal: ±(8mm+1ppm)
Speed Accuracy (RMS)	0.03m/s
Static Accuracy (RMS)	Horizontal: ± (2.5mm+0.5ppm) Vertical: ± (5mm+0.5ppm)
Time Accuracy (RMS)	20ns
Speed Accuracy	≥0.03m/s
Tilt Compensation Accuracy	≤2cm(Tilt Angle≤60°, Upto 120°)
IMU Update Frequency	200Hz
Communication	
Bluetooth	V2.1+EDR/V4.0 Dual Mode
WiFi	802.11 a/b/g/n/ac
Cellular	LTE FDD: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28 LTE TDD: B38/39/40/41 WCDMA: B1/2/4/5/6/8/19 GSM: B2/3/5/8
Storage	32GB, Up to 64GB
Internal Radio	Transmitting power: 5W, 2W Frequency: 410~470MHz Protocol: TRIMTALK, TRIMMK3, SOUTH, TRANSEOT, SATEL, MeridianLink Air Baud Rate: 9600, 19200
Battery	
Specifications	7.2V, 6900mAh lithium-ion Rechargeable Battery
Operating Times	RTK Rover: Up to 20 hours (Typical Power Consumption) Static: Up to 35 hours (Typical Power Consumption)
Charging	Support USB PD 15V/2A (Supports Quick Charging Adapter)
Environment	
Operating Temperature	-40°C~+85°C
Storage Temperature	-55°C~+85°C
Anti-seismic	2m Pole Drop Onto Concrete
Dust & waterproof	IP67
Control Panel	
Display	0.96" OLED Display
LED Lamp	Signal, Power
Physical button	2
Physical	
I/O Interface	1× USB type-C port; 1 × SMA antenna port; 1× SIM card slot; 1 × 5 pin LEMO port
Dimensions	133mm×133mm×84.5mm
Weight	700g

*All specifications are subject to change without notice.

(1) Compliant, GLONASS L3, Galileo E6, Galileo E6 High Accuracy Service (HAS), BDS B2b and SBAS L5 will be provided through future firmware upgrade. (2) Accuracy and reliability are determined under open sky, free of multipaths, optimal GNSS geometry and atmospheric condition. PPP accuracy is subject to the region, environment, and convergence time. High-precision static requires a minimum of 24 hours of long-term observation and precise ephemeris.

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