Specifications

Trimble MPS566 Modular GNSS Heading Receiver



MPS566 GNSS Heading Receiver

Modular No, rover only 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20Hz, 50Hz Unrestricted Yes GPS, GLN, Triple Frequency, WiFi (AP, Client), LTE, Logging, Dual MSS (RTX, Marinestar) 9.25 GB logging

> Display 32 characters by 4 rows On/Off key for one-button startup Escape and Enter keys for menu navigation 4 arrow keys (up, down, left, right) for option scrolls and data entry 269 mm (10.6 in) L x 141 mm (5.5 in) W x 61 mm (2.4 in) H 1.85 kg (4.08 lb)

Triple-frequency GNSS (GPS, GLONASS, Galileo, BeiDou, QZSS, NavIC) MSS, SBAS Triple-frequency GNSS (GLONASS, Galileo, BeiDou, QZSS, NavIC), MSS, SBAS, MSK

> -40 °C to +65 °C (-40 °F to +149 °F) -40 °C to +80 °C (-40 °F to +176 °F) 93% humidity at 40 °C for a duration of 3 hours (IEC-60945 Method 8.3) IP67 for submersion to depth of 1 m (3.3 ft), dustproof

Designed to survive a 1.1 m (3.6 ft) pole drop onto a hard surface

To 75 g, 6 ms

To 40 g, 10 ms, saw-tooth

IEC 60945 Method 8.7 Random 6.2 g RMS operating 9.8g RMS 24-2000 Hz for 1 hrs each axis survival

Receiver Name

Configuration Option

Type Base and rover interchangeability Rover position update rate Rover maximum range from base Heading and Moving Base operation Rover operation within a VRS™ network Factory options Internal Memory

General

Keyboard and display

Dimensions (L \times W \times D)

Weight

GNSS Antenna (Recommended)

Zephyr™ 3 Series [Rover, Rugged] GA830

Temperature

Operating Storage Humidity Water Ingress Protection

Shock and Vibration

Pole Drop Shock – Non-operating Shock – Operating Vibration

Advanced Trimble Maxwell™ 7 Custom GNSS Chip High-precision multiple correlator for GNSS pseudorange measurements Unfiltered, unsmoothed pseudo-range measurements data for low noise, low multipath error, low-time domain correlation, and high-dynamic response Very low noise carrier phase measurements with <1 mm precision in a 1 Hz bandwidth Trimble EVEREST™ multipath signal rejection Spectrum Analyser to troubleshoot GNSS jamming Dual MSS Band: Trimble CenterPoint® RTX, OmniSTAR® and Fugro MarineStar correction services by subscription Trimble xFill® technology for short gaps in RTK correction messages Advanced Trimble dual Maxwell 7 GNSS chipset provide 672 channels for simultaneous satellite tracking and anti-spoofing capabilities GPS: L1 C/A, L1C, L2C, L5, L2E (Trimble method for tracking unencrypted L2P) GLONASS: L1-C/A, L2-C/A, L1P, L2P, L3 Full Cycle Carrier NavIC (IRNSS): L5-C/A Galileo: E1, E5-A, E5-B, E5-AltBOC, E6[8]

Upgradeable to BeiDou: B1, B2, B3, B1C. B2A, B2B [Tracks 3rd generation BeiDou signals]

4-channel SBAS L1 C/A, L5 (WAAS/EGNOS/MSAS/GAGAN)

QZSS: L1 C/A, L1C, L1 SAIF, L2C, L5, L6

Dual channel MSK

± 0.50m (1.6ft) ± 0.85m (2.8 ft)

DGPS RTCM 2.x

DGPS Base via radio, Internet or MSK

 \pm (0.25m + 1 ppm) RMS \pm (0.8 ft + 1 ppm) \pm (250+1xDx10⁻⁶) mm [D = distance from base in Km] \pm (0.50m + 1 ppm) RMS \pm (1.6 ft + 1 ppm) \pm (500+1xDx10⁻⁶) mm [D = distance from base in Km]

Horizontal <1 m (3.3 ft)

Horizontal 0.2 m (0.66 ft), Vertical 0.3 m (1.0 ft) Horizontal 0.1 m (0.33 ft), Vertical 0.15 m (0.5 ft)

Horizontal 0.02 m (0.06 ft), Vertical 0.06 m (0.20 ft), 95%

0.02 m (0.06 ft) RMS

0.05 m (0.16 ft) RMS

5 minutes in select regions, and within 15 minutes worldwide

RTK + 10mm(0.03 ft)/min RMS RTK + 20mm(0.06 ft)/min RMS

8 mm + 1 ppm RMS (0.026 ft + 1 ppm RMS) ±(8+1xDx10⁻⁶) mm [D = distance from base in Km] 15 mm + 1 ppm RMS (0.05 ft +1 ppm RMS) ±(15+1xDx10⁻⁶) mm [D = distance from base in Km]

 $\begin{array}{l} 3 \text{ mm } + 0.5 \text{ ppm RMS} \\ \pm (3+0.5 \text{xD} \text{x} 10^{-6}) \text{ mm } [\text{D} = \text{distance from base in Km}] \\ 5 \text{ mm } + 0.5 \text{ ppm RMS} \\ \pm (5+0.5 \text{xD} \text{x} 10^{-6}) \text{ mm } [\text{D} = \text{distance from base in Km}] \end{array}$

3 mm + 0.1 ppm RMS (0.01 ft +0.1 ppm) \pm (3+0.1xDx10⁻⁶) mm [D = distance from base in Km]

SBAS (WAAS/EGNOS/MSAS) Positioning[3]

Horizontal accuracy Vertical accuracy

Code Differential GPS Positioning[2]

Correction type

Correction source

Horizontal accuracy

Vertical accuracy

OmniSTAR/MarineSTAR Positioning

VBS service accuracy

XP service accuracy

HP service accuracy

Marinestar G2+ service accuracy

CenterPoint RTX Positioning[12]

Horizontal accuracy

Vertical accuracy

Convergence time for specified precisions

xFill Positioning

Horizontal accuracy

Vertical accuracy

RTK Positioning[2], Single Baseline<30 km, Network RTK

Horizontal accuracy

Vertical accuracy

Fast Static

Horizontal accuracy

Vertical accuracy

High-Precision Static

Horizontal accuracy

Procise Heading (2) Process Heading accuracy A mathema sequention A mathema sequentio	Vertical accuracy	3.5 mm + 0.4 ppm RMS (0.011 ft +0.4 ppm)
Heading accuracy 2 m atterns separation 2 m atterns separation 3 m atterns separation 4 m a	Precise Heading[2]	$\pm (3.5 \pm 0.4 \text{ xDx 10}^{\circ})$ mm [D = distance from base in Kin]
2 n anima separation 0.00° RMS 0.00° RMS 100° RMS 10°	Heading accuracy	
10 m antoms sopration Vocity View View View View View View View View	2 m antenna separation	0.09° RMS
Valority Doppin	10 m antenna separation	0.05° RMS
Doppler Doppler Doppler Dower Internal Doppler Deternal Dower input on 7 pin 0-abtell Lens connector is optimized for lead acid batteries with a cut off threshold of 115 VL Maximum 22 VOC Power input on the 28-pin 0-auto connector is optimized for Timble ithum-ion battery input with a cut off threshold of a cut Maximum 22 VOC Power input on the 28-pin 0-auto connector is optimized for Timble ithum-ion battery input with a cut off threshold of a cut Power input on the 28-pin 0-auto connector is optimized for Timble ithum-ion battery input with over-voltage potention Power over Ethemse (POE) Power consumption Power cono	Velocity	
Power Internal NA External Power input on 7-pin 0-belt Leno connector is optimized for lead and batteries with a cut-off threatened of 15 V. Maximum 28 VOC Maximum 28 VOC Power input on the 28-pin D-aub connector is optimized for lead and batteries with a cut-off threatened of 15 V. Maximum 28 VOC Maximum 28 VOC Power input on the 28-pin D-aub connector is optimized for lead and batteries with a cut-off threatened of 15 V. Maximum 28 VOC No Power over Ethernet (PoE) DC external power input with over rodus protection Receiver automatically turns on when connected to actinal power 0. V. W in rover mode, dial GNS active 2.0 W in rover mode with internal receiver addial NA Regulatory/Type Approvals FCC: Part 15 Subpert 8 (Gaes 8 Device), Subpart C Sector 15, 20, 70 W in rover mode, dial GNS active 2.0 W in rover mode with internal receiver addial NA Regulatory/Type Approvals FCC: Part 15 Subpert 8 (Gaes 8 Device), Subpart C Sector 15, 20, 70 W in rover mode, dial GNS adtive 2.0 Canada: ICE5-003. Cet appareit and infrated active 8.0 W in rover mode, dial GNS adtive 2.0 Canada: ICE5-003. Cet appareit and infrated active 8.0 W in rover mode, dial GNS adtive 3.0 Canada: ICE5-003. Cet appareit and infrated active 8.0 W in rover mode, and some NMS 003.0 Canada: 3.0 Cet appareit act conforme à la norme NMS 003.0 Canada: 3.0 Cet appareit act conforme à la norme AMS 003.0 Canada: 3.0 Cet appareit act conforme à la norme AMS 003.0 Canada: 3.0 Cet appareit act conforme à la norme (NR-GE). CNR-102.0 CNR-102.0 CNR-102.0 CNR-102.0 CNR-102.0 CNR-103.0 CNR-103.0 CNR-103.0 CNR-103.0 CNR-103.0 CNR-103.0 CNR-103.0 C	Doppler	H 0.008 m/s RMS, V 0.025 m/s RMS
Internet NVA External Power input on 7, pin 0-shell Laroo connector is optimized for lasd acid batteries with a cut-of threshold of 11.5 v. Masmun 22 VDC Power input on the 25-pin 0-sub connector is optimized for Timble lithum-ion battery input with a cut-of threshold of 10.5 v Power input on the 25-pin 0-sub connector is optimized for Timble lithum-ion battery input with over-vottage protection Receiver automatically turin on when connected to downland power Power corner uppt NA Power corner uppt NA </td <td>Power</td> <td></td>	Power	
External Power input on 7-pn B-abel Leno connector is optimized for lead ado batteries with a cut-off threahold of Maximum 28 VCP. Power input on the 28-pin D-ub connector is optimized for Timble liftium-in-enterty typut with out-off threahold of Maximum 28 VCP. Power course supply (Internal/External) is hot-supp capable in the event of power source encoursed on a difference of the 2000 Power course light with out-voltage protection Resource automatically lumis on when connected to esternal power input with out-voltage protection Resource automatically lumis on when connected to esternal power input with out-voltage protection Resource over Ethernet (PoE) NAA Power course Ethernet (PoE) NAA Power course Ethernet (PoE) NAA Power course Ethernet (PoE) Regulatory/Type Approvals Regulatory/Type Approvals Regulato	Internal	N/A
External Power input on T-pin O-shell Lemo connector is optimized for Itmible ithum-ion battery input with a cut-off threadout 01550 Power input on the 2K-pin D-sub connector is optimized for Itmible ithum-ion battery input with a cut-off threadout 01550 Power over Ethernet (POE) NA Power over Ethernet (POE) <t< td=""><td></td><td></td></t<>		
Power input on the 26-pin D-aub connector is optimized for Timble lithum-ion battery input with a cut of 16.5 V Power source supply (Internal/External) is hot-swap capable in the event of power source removal or cut of DC external power input with over-voltage protection Receiver automatically turns on when connected to external power Power over Ethernet (PGE) NNA Power consumption 7,7 W in rover mode, dual CNSS active 8.0 W in rover mode with internal receive radio, dual CNSS active Regulatory/Type Approvals FGC: Part 15 Subpart B (Cass B Device), Subpart C Seaton 15.2 X7, Part 20, 2024 Part 22, KDB 447490 DOI, IEEE COSS, ULI EC 62308-1, UL 2054, IEC 9035, ULI EC 6633, ULI EC 62308-1, UL 2054, IEC 9035, ULI EC 6633, PTCR8, 615 SIG, Canada: ICES-003, Cet appareit numérique de la classe B ext conforme à la norme NMB-003 du Canada. RES-GEN, RS-102, RSS-247, RSS-1301(12)(13)(13)(19) et Cet appareit est conforme à la norme CAR-GEN, CIR-1102, CIR2-1303, 12)(13) E ULI Radio Directive (FED 2014/45,EU), E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 382, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 301 098, E N 300 413, E N 300 282, E N 300 41	External	Power input on 7-pin 0-shell Lemo connector is optimized for lead acid batteries with a cut-off threshold of 11.5 V, Maximum 28 VDC
Power source supply (Internal/External) is hot-swap capable in the event of power source removal or cut off CC-center automatically turns on when connected to external power Power consumption 7.7 W in rover mode, dual GNSS active 8.0 W in rover mode, dual GNSS active 8.0 W in rover mode with internal receive radio, dual GNSS active 8.0 W in rover mode with internal receive radio, dual GNSS active 8.0 W in rover mode, dual GNSS active 9.0 Part 2.2 9.0 Part 2.2		Power input on the 26-pin D-sub connector is optimized for Trimble lithium-ion battery input with a cut-off threshold of 10.5 V
Centernal power input with over-voltage protection Reseiver automaticity us on withen connected to axiternal power Power over Ethernet (PoE) NA Power consumption 7.7 W in rover mode, dual GNSS active Regulatory/Type Approvals PCC: Part 15 Subpart B (Class B Device), Subpart C Section 15.247, Part 2, Part 2, KDB 447498 D01, IEEE C683, Part 20, Part 2, KDB 447498 D01, IEEE C683, UL IEC 6238-1, UL 2064, IEC 6231, EN 83, PTCRB, BT SIG, Canada: ICES-003, Cet appareil normer/que de la classe B BT SIG, Canada: ICES-004, Cet Res-101, 2013/3139/199, Cet eappareil est conforme à la norme NRH-603 du Canada. RES-GEN, RS-102, RS-247, RS-1301/321/33/139/199, Cet eappareil est conforme à la norme CNR-65EN, CNR-102, CNR-102, CNR-103/132/133/139 CAR-199 du Canada. EU: Radio Directive (RED 2014/dSEU) CAR-199 du Canada. EU: Radio Directive (RED 2014/dSEU) CEN 2004/d. EN 800 98, EU 300 113, EN 300 328, EN 301 98, EN 300 143, EN 300 328, EN 301 98, EN 300 413, EN 300 328, EN 301 98, EU 2004/2, 2002 3 Saction 8, Protected Charda Fel 50 Incelve 2017/192EU. WEEE Directive 2017/19EU. WEEE Directive 2017/19EU. WEEE		Power source supply (Internal/External) is hot-swap capable in the event of power source removal or cut off
Receiver automatically turns on when connected to external power Power consumption 7.7 W in rover mode, autil CNSS active Regulatory/Type Approvals Regulatory/Type Approvals Receiver automatically turns on when connected to external power Subpart C Section 15.247, Part 20, KDB 447498 0001, HEEC 0633, UL IEC 05308-1, UL 2064, IEC 06311, EN 38.3, PCR8		DC external power input with over-voltage protection
Power consumption 7.7 W in rover mode, dual GNSS active Regulatory/Type Approvals 8.0 W in rover mode with internal receive radio, dual GNSS active Regulatory/Type Approvals FCC: Part 15 Subpart 8 (Class B Device), Subpart C Section 15.247, Part 2, KDB 447498 00.1 (EEC CGS3, UL EC 62368-1, UL 2054, IEC 6237), Part 3, CDB 447498 00.1 (EEC CGS3, UL EC 62368-1, UL 2054, IEC 6237), Part 2, KDB 447498 00.1 (EEC CGS3, UL EC 62368-1, UL 2054, IEC 6237), Part 3, CDB 447498 00.1 (EEC CGS3, UL EC 62368-1, UL 2054, IEC 6237), Part 3, CDB 447498 00.1 (EEC CGS3, UL EC 62368-1, UL 2054, IEC 6237), Part 3, CDB 447498 00.1 (EEC CGS3, UL EC 62368-1, UL 2054, IEC 6237), Part 3, CDB 447498 00.1 (EEC CGS3, IEC 62368-1, UL 2054, IEC 6237), Part 3, CDB 447498 (DCB 41), Part 3, CDB 41, CDB		Receiver automatically turns on when connected to external power
Power consumption 7.7 W in rover mode, dual GNSS active Regulatory/Type Approvals FGC: Part 15 Subpart 8 (Class B Device), Subpart C Section 15.247, Part 2, KDB 447498 D01, IEEE C653, ULI EC 62368-1, UL 2054, IEC C02311, EN 38.3, PTCR8, FM 22/2427, Part 2, KDB 447498 D01, IEEE C653, ULI EC 62368-1, ULI 2054, IEC C02311, EN 38.3, PTCR8, FM 22/2427, Part 2, KDB 447498 D01, IEEE C653, ULI EC 62368-1, ULI 2054, IEC C02311, EN 38.3, PTCR8, FM 22/2427, Part 2, KDB 447498 D01, IEEE C653, ULI EC 62368-1, ULI 2054, IEC C02311, EN 38.3, PTCR8, FM 22/2427, Part 2, KDB 447498 D01, IEEE C653, ULI EC 62368-1, ULI 2054, IEC 00311, EN 30.37, PTCR8, FM 23/242, Clanads: ICES-003. Cet appareil numérique de la classe B est conforme à la norme MB-003 20, Canada. FU 2001/1011/1011/1011/1011/1011/1011/1011	Power over Ethernet (PoE)	N/A
8.0 W in rover mode with internal roceive radio, dual GNSS active Regulatory/Type Approvals FCC: Part 15 Subpart B (Class B Device), Subpart C Section 15.247, Part 90, Part 220427, Part 2, KDB 447498 DOI, FEEE C95.3, UL IEC 62368-1, UL 2054, IEC 62311, EN 38.3, FFCR8, B TSIG, Canada: ICES-003. Cet apparell numérique de la classe B est conforme à la norme NMB-003 du Canada. RSS-GEN, RS-102, RSS-247, RSS-1301/321/331/391/99. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-1301/32/1331/991/99. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-1301/32/1331/991/99. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-1301/32/1301/991/90. EN 300 113, EN 300 437, EN 300 313, EN 300 437, EN 300 313, EN 300 437, EN 200 256cton 8, Protected RoHS Directive (RED 2011/65/EU), WEEE Directive 2011/65/EU, WEEE Directive 2011/65/EU, WEEE Directive 2011/65/EU, UKCA: S.I. 2017 No. 1206, S.I. 2016 No. 1101, ACMA: ASINZ 426, ASINZS CISPR 32, China SRRC, Japan MCC, South Africa ICASA. Brazil AWATEL, Martine Equipment: IEC 60945-2002 Section 8, Protected RoHS Directive (RED 2011/65/EU, WEEE Directive 2011/65	Power consumption	7.7 W in rover mode, dual GNSS active
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FCC: Part 15 Subpart 8 (Class 8 Device). Subpart 2 Section 15 247. Part 20, Part 22/24/27. Part 2, KDB 447498 DO1, IEEC 6953. UL IEC 62366-1, UL 2054, IEC 62311, EN 38.3. PTCRB, BT SIG. Canada: ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. RSS-GEN, RS-102, RSS-247, RSS-130/132/133/139/199. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/123/133/139 et CNR-199 du Canada. IEU: Radio Diractive (RED 2014/53/EU), EN 300 113, EN 300 328, EN 301 908. EN 300 313, EN 300 487. EN 100 313, EN 300 328, EN 301 908. EN 303 413, EN 300 487. EN IEC 62368-1, Marine Equipment: IEC 60945:2002 Section 8, Protected ReHS Diractive 2012/19EU. UKCA: S.I. 2017 No. 1206, S.I. 2016 No. 1011. ACMA: ASINZS 4268, ASINZS CISPR 32. China SRRC. India WPC. Japan MIC. Japan MIC. South Africa ICASA. Brazil ANATEL. Mesico IFT.	Regulatory/Type Approvals	
Subpart C Section 15.247, Part 90, Part 22/2427, Part 2, KDB 447498 D01, IEEC 6953, UL IEC 62869-1, UL 2054, IEC 62311, EN 383, F7CR8, BT SIG, Canada: ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. RSS-GEN, RS-102, RSS-247, RSS-130/132/133/199/199. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/199/199. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/199/199. Cet appareil est conforme à la norme CNR-GEN, SNR-102, CNR-247, CNR-130/132/133/199/199. EN 300 113, EN 300 487, EN 1800 113, EN 300 487, EN 1805 2012/165/EU, WEEE Directive 2012/19/EU. UKGA: S.1. 2017 No. 1206, S.I. 2016 No. 1101, S.I. 2016 No. 1101, ACMA: ASINZS 4268, ASINZS CISPR 32, China SRRC, India WPC, Japan MIC, South Africa ICASA. Brazil ANATEL. Merico IFT, Argentina RAMATEL.		FCC: Part 15 Subpart B (Class B Device),
Part 90, Part 2, KDB 447496 D01, IEEE C95.3, UL IEC 62384-1, UL 2054, IEC 62311, EN 38.3, PTCR8, BT SIG, Canada: ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. RSS-GEN, RS-102, RSS-247, RSS-130/132/133/139199 Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/139199 (CH appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/139199 (CH appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/139199 (CH appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/139199 (CNR-199 du Canada. EU: Radio Directive (RED 2014/53/EU), EN 300 113, EN 300 328, EN 301 908, EN 303 413, EN 300 487, EN 190 528, EN 301 908, EN 303 413, EN 300 487, EN 190 528, EN 301 908, EN 303 413, EN 300 487, EN 190 528, EN 301 908, EN 303 413, EN 300 487, EN 190 528, EN 301 908, EN 303 413, EN 300 487, EN 190 40, EN 200 11/66/EU, WEEE Directive 2011/65/EU, WEEE Directive 2011/65/EU, WEEE Directive 2011/65/EU, WEEE Directive 2011/67/EU, WEEE Directive 2012/19/EU. UKCA: S.I. 2017 No. 1206, S.I. 2016 No. 1901, S.I. 2016 No. 1101, MAC Japan MIC, Japan MIC, Japan MIC, Mexico IFI, Argentina RAMATEL, United Arab Emirates TDRA.		Subpart C Section 15.247,
Part 222427, Part 2, KDB 447498 D01, IEEE C953, UL IEC 62368-1, UL 2064, IEC 62311, EN 383, PTCR8, BT SIG, Canada: ICES-003, Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. RSS-GEN, RS-102, RSS-247, RSS-130/132/133/139/199. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-103/23/133/199 Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-103/23/133/199 EU: Radio Directive (RED 2014/53/210) EN 300 313, EN 300 328, EN 301 908, EU: Radio Directive (RED 2014/53/210) EN 300 313, EN 300 487, EN 1EC 620641, Marine Equipment: IEC 60045/2002 Section 8, Protected RoHS Directive 2011/65/LU UKCA: S.I. 2017 No. 1206, S.I. 2016 No. 1101, ACMA: AS/NZS 4268, AS/NZS 12017 No. 1206, S.I. 2016 No. 1101, ACMA: AS/NZS 4268, AS/NZS 12017 No. 1206, S.I. 2016 No. 1101, ACMA: AS/NZS 4268, AS/NZS 12017 No. 1206, S.I. 2016 No. 1101, India WPC Japan MIC, Japan MIC, South Africa ICASA. Brazil ANATEL, Mexico IFT.		Part 90,
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More certification is available upon request		More certification is available upon request

communications	
Serial 1 (COM1)	7-pin 0S Lemo, Serial 1, 3-wire RS-232
Serial 2 (COM2)	26-pin D-sub, Serial 2, 5-wire RS232, using adaptor cable
Serial 3 (COM3)/CAN	26-pin D-sub, Serial 3, 3-wire RS232, using adaptor cable (Selectable) 2 wire CAN Output [NMEA 2000] (Selectable)
1PPS (1 Pulse-per-second)	Supported on both Lemo and 26-pin D-sub
Event In	Supported on Lemo
USB	USB v2 (Supports USB-PD)
Ethernet	Through a multi-port adaptor (PN 57168)
Wi-Fi	Fully-integrated, fully-sealed 2.4 GHz Wi-Fi module Simultaneous Access Point (AP) and Client modes
Bluetooth® wireless technology	Fully-integrated, fully-sealed 2.4 GHz Bluetooth module[5]
Cellular	Fully-integrated, fully-sealed LTE compliant module Bands 1:2:3:4:5:7:8:12:18:19:20:28 [Verizon not supported]
Network Protocols	
HTTP (web browser GUI)	HTTP, HTTPS
NTP Server	Yes
TCP/IP or UDP	Yes
NTRIP	NTRIP v1 and v2, Client, Server and Caster modes
mDNS/uPnP Service discovery	Yes
Dynamic DNS	Yes
eMail alerts	Supports SSL/TLS secure Email Servers
Integrated UHF radio (Rx Only)	
450 MHz	Fully-integrated, internal 403-473 MHz Rx Only, 12.5 kHz or 25 kHz spacing configurable by Trimble Dealer
Sensitivity	-114 dBm (12 dB SINAD)
900 MHz	Fully-integrated, internal 900 MHz; Rx Only
Frequency approvals (902-928 MHz)	USA/Canada
Cellular support	
Internet-based correction streams: (Trimble IBSS, Trimble VRS Now, NTRIP)	Internal LTE modem Connected smartphone Connected Trimble Controller ISiteWorks
Carriers	Bands 1:2:3:4:5:7:8:12:18:19:20:28 [Verizon not supported]
Remote Access	Using DynDNS and appropriate service
Internal MSK Beacon receiver	
Channels	2
Frequency range	283.5–325.0 kHz
Channel spacing	500 Hz
MSK bit rate	50, 100, and 200 bps
Demodulation	Minimum shift key (MSK)
Antenna	Trimble GA830
Internal MSS Demodulator (L-Band)	
Channels	2
Frequency range	1525-1559 MHz
Correction Services	Trimble CenterPoint® RTX, OmniSTAR® and Fugro MarineStar

Communications

Input/Output

Features and Upgrades

Correction inputs

Maximum data rate

Standard features

Precision upgrades

Raw data logging (*.T02, *.T04)

Data outputs

Data inputs

CMR+, CMRx, RTCM 2.x, RTCM 3, RTCM 3.3(MSM) MSS [Marinestar, Trimble RTX] NMEA 0183, NMEA 2000, GSOF, 1PPS Time Tags Event

100Hz (depending on data type)

GPS, GLONASS, Triple Frequency, Wi-Fi (AP, Client), LTE, Logging

9.25 GB Internal

Premium Precise Heading Rover Precise Heading Rover 10/02 Heading Rover 10/10 Heading Rover

Signal / Constellation upgrades	Galileo BeiDou
Feature upgrades	Inertial (INS) Heading, Pitch and Roll Attitude, 1° Pitch and Roll Programmatic Interface Binary Ouputs
Notes	1 Operating up to +65 °C ambient when the device is powered by external DC supply Operating up to +48 °C ambient when the device is powered by a USB-PD battery or charger.
	2 Accuracy and reliability may be subject to anomalies such as multipath, obstructions, satellite geometry, interference and atmospheric conditions. Always follow recommended survey practices.
	3 Depends on SBAS system performance.
	4 May be affected by atmospheric conditions, signal multipath, and satellite geometry. Initialization reliability is continuously monitored to ensure highest quality.
	5 Bluetooth type approvals are country specific. For more information, contact your local Trimble office or representative.
	6 Networked RTK PPM values are referenced to the closest physical base station
	7 Receiver accuracy and convergence time varies based on GNSS constellation health, level of multipath, and proximity to obstructions such as large trees and buildings.
	8 Galileo Commercial Authorization Developed under a Licence of the European Union and the European Space Agency.
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