The compact B210 receiver board uses Vanguard Technology™ to provide high-accuracy VHD heading determination simultaneously with centimeter-level RTK positioning for your most challenging environments.

Low-power consumption and comprehensive communication interfaces make the B210 extremely flexible and easy to integrate into any precision positioning application.

- 226 channels with Universal Tracking Channels™
- Future-proof GNSS tracking of all constellations and signals (GPS, GLONASS, Galileo, BeiDou, QZSS)
- High-performance, high-accuracy RTK engine with position update rate up to 100 Hz
- VHD heading engine for fast initialization and high-precision heading output
- Serial, USB, CAN, Ethernet, and external SD connectivity
- PPS output and mark input for high-precision timing applications

Tracking	
Channels	226 Channels with Universal Tracking Channels technology
Signals Tracked	GPS: L1, L2, L1C, L2C, L5 GLONASS: L1, L2, L3 Galileo: E1, E5a, E5b, AltBOC BeiDou: B1, B2 QZSS: L1, L2, L1C, L1-SAIF, L2C, L5 SBAS: L1, L2C, L5 WAAS, EGNOS, MSAS, GAGAN L-Band
Accuracy*	
Standalone	H: 1.2 m; V: 1.8 m
DGPS	H: 0.3 m; V: 0.5 m
SBAS	H: 0.8 m; V: 1.2 m
RTK	H: 5 mm + 0.5 ppm x baseline; V: 10 mm + 0.8 ppm baseline
RTK Initialization	Time: < 10 seconds; Reliability: > 99%
Velocity	0.02 m/second
Time	30 nsec
Acquisition Time	
Hot / Warm / Cold Start	< 10 sec / < 35 sec / < 60 sec
Reacquisition	< 1 sec
Communication Interfaces	
RS232 / LVTTL UART	2x ports up to 460.8 kbps / 4x ports up to 460.8 kbps
USB 2.0 (client)	1x port USB 2.0 500mA
CAN	3x ports (without transceivers), LVTTL, NMEA2000
Ethernet	1x port supporting TCP/IP, FTP, NTRIP
PPS	2x ports with 5ns resolution, <30 nsec precision, LVTTL configurable polarity and period
EVENT	2x ports 5ns resolution, LVTTL, programmable active edge
Data and Memory	
SD card support	External SD card memory capacity up to 32 GB
Data Update/Output Rate	1 Hz – 100 Hz Selectable
Real Time Data Output	TPS, RTCM SC104 2.x and 3.0, CMR, CMR+
ASCII Output	NMEA 0183 version 2.x and 3.0
Environmental	
Temperature	Operating: -40°C to 85°C; Storage: -40°C to 85°C
Vibration	4g Sine Vibe (SAEJ1211); 7.7g Random Vibe (MIL-STD 810F)
Humidity	95%, non-condensing
Shock	40 g (IEC 68-2-27)
Acceleration	20 g
Power	
Voltage / Power Consumption	3.25V- 4.5V / 4W
LNA Power	+5.0 VDC at 0 – 100 mA
Physical	
Dimensions / Weight	60 x 100 x 12 mm / 65 g
Main Connector	160-pin Molex
Antenna Inputs and Connector	2, ESD protected, MMCX Female

* Specifications will vary depending on the number of satellites used, obstructions, satellite geometry (PDOP), multipath effects, and atmospheric conditions. For maximum system accuracy, always follow best practices for GNSS data collection.

Contact your Topcon representative to discuss specific requirements for your configuration and availability of higher data rates.

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For more information:
topconpositioning.com/b210