DISTRIBUTED BY Aptella AUTOMATION + POSITIONING TECH

VASCO®-B

High Precision GNSS Base for Machine Control

Carlson MACHINE CONTROL

BEST-IN-CLASS GNSS BASE STATION

The VASCO-B GNSS base station is designed for office or harsh environment installation. A flexible and easy to setup base station for all your GNSS applications, the VASCO-B can be configured as your base for a localized site or as part of a base network configuration.

- Broadcast RTK over cellular, UHF or Network
- Remote web interface for easy setup and troubleshooting
- Track all satellite constellations

GNSS+ technologies

AIM+ Industry-leading anti-jamming, anti-spoofing interference monitoring & mitigation technology

IONO+ Advanced protection against ionospheric disturbances

APME+ Multipath mitigation to remove reflected signals

LOCK+ For robust tracking during high vibrations and shocks

RAIM+ Receiver autonomous integrity monitoring

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Carlson BREAK NEW GROUND

GNSS Subsystem

Receiver Type: High Precision GNSS
Channels: 448
Protocols: RTCM3.4, CMR, CMR+, NMEA, RINEX, Proprietary Binary Format (NJS)
GNSS: GPS, GLONASS, Galileo, BeiDou, NavIC, QZSS
RTK Accuracy (RMS)*:
Horizontal: 0.6 cm + 0.5 ppm
Vertical: 1 cm + 1 ppm

Communications

Bluetooth:	Bluetooth 2.1 + EDR
Wi-Fi:	2.4 GHz, 802.11 ac/a/b/g/n
Cellular Radio:	Integrated, 4G LTE Cat-12 with 3G fallback, global coverage
UHF Radio:	Fully configurable, with TX and RX capability for base and rover or rover and base

Connector Ports

Ethernet 1 & 2:	4 pin, M12 connector(s), D-Code, 100/10 Mbit/s
Power:	3 pin, M12 connector, A-Code, Power input
Serial:	12 pin, M12 connector, A-Code, RS232, RS422, PPS, 5 V power output. Multi-peripheral connector, for optional external modules
Wi-Fi / BT:	RP-SMA connector For external Wi-Fi/BT antenna
UHF:	TNC connector For external UHF antenna
Cell Aux:	SMA connector For external main cellular antenna
Cell Main:	SMA connector For external auxiliary cellular antenna
GNSS:	TNC connector For main external GNSS antenna

CPU System

CPU Module: ARM quad-core 1.2 GHz 64 bit Processor
OS: Linux

Physical

Weight:	1.8 Kg (without mounting fixtures)
Dimensions:	180 x 200 x 50 mm
Material:	Anodized aluminum housing, nitrile rubber, stainless steel screws

Environmental

Operating Temp.:	-40°C ~ +65°C
Storage Temp.:	-40°C ~ +85°C
Waterproof:	IP67
Vibration & Shock Resistance:	BS EN 60068, sinusoidal 10-150Hz 2g, random 20-150Hz 0.02g²/Hz, shock 50G 6ms
Impact:	IK10, 20J impact energy, IEC 62262
Unprotected Drop:	Drop from 1.5 m onto concrete- operational
Humidity:	95% RH, non-condensing

Power

Input Voltage:	10 to 30 V DC
Power Consump.:	35 W max, 15 W nominal
Serial:	Output, 5 V DC, 200 mA, switchable
GNSS:	Output, 5V DC, 100 mA, Antenna Bias

Regulatory

CE, UKCA, FCC, IC, UL/CSA Safety, CB, RCM, RoHS, REACH (some approvals pending)

*Standard open-sky operating conditions (depends on baseline length, multipath environment, number of satellites in view, satellite geometry and ionospheric activity).