

# VDB-811DR-M2-2242-B / VDB-810DR

*u-blox M9V Dead Reckoning GNSS Receiver*



VDB-811DR-M2-2242-B



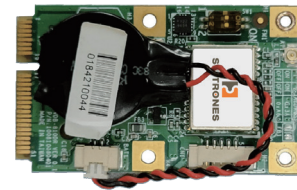
VDB-810DR

- Concurrent Reception of GPS + QZSS, GLONASS, Galileo, BeiDou
- 92-channel u-blox M9 Engine
- Ultra Low Power Digital Accelerometer
- -158 dBm Acquisition & -159 dBm Tracking Sensitivity
- Dead Reckoning Support
- Operating Temp.: -40°C to 85°C

## Specifications



VDB-811DR-M2-2242-B



VDB-810DR

Chipset		
	u-blox NEO-M9V-20B	u-blox NEO-M9V-20B
Channels		
	92-channel	92-channel
Receiver Type		
GPS	L1 C/A	L1 C/A
QZSS	L1 C/A/S	L1 C/A/S
GLONASS	L1OF	L1OF
BeiDou	B1I (1561.098 MHz) only	B1I (1561.098 MHz) only
Galileo	E1B/C	E1B/C
SBAS	L1 C/A: EGNOS, GAGAN, MSAS and WAAS	L1 C/A: EGNOS, GAGAN, MSAS and WAAS
Nav. Update Rate		
	50 Hz (4 concurrent GNSS)	50 Hz (4 concurrent GNSS)
Accuracy		
	1.5 m CEP (with SBAS)	1.5 m CEP (with SBAS)
	2.0 m CEP (without SBAS)	2.0 m CEP (without SBAS)
Horizontal	1.5 m	1.5 m
Vertical	3 m	3 m
Acquisition		
Cold Start	24 s	24 s
Aided Start	3 s	3 s
Hot Start	2 s	2 s
Sensitivity		
Tracking & Nav.	-159 dBm	-159 dBm
Reacquisition	-158 dBm	-158 dBm
Cold start	-147 dBm	-147 dBm
Hot start	-159 dBm	-159 dBm
Dead Reckoning		
	UDR, ADR	UDR

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Interface		
GNSS Chipset	USB 2.0	USB 2.0
2nd Accelerometer	I2C	I2C
External I/O	1 x 1.0 mm 1x4-PIN JST PIN 1: WHEELTICK+ PIN 2: WHEELTICK- PIN 3: FWD+ PIN 4: FWD-	-
Antenna Type	1 x MHF I Supports Active Antenna	1 x MHF I Supports Active Antenna
Protocol		
	NMEA 4.11 (default), 4.10, 4.0, 2.3, and 2.1, UBX	NMEA 4.11 (default), 4.10, 4.0, 2.3, and 2.1, UBX
Power Requirement		
Power Input	3.3 VDC ±10%	3.3 VDC ±10%
External I/O Input	30 VDC ±10% (Max.)	-
Power Consumption	>0.6 watts (w/o active antenna)	>0.5 watts (w/o active antenna)
Environmental		
Operating Temp.	-40 ~ 80°C, ambient w/ air flow 0.6m/s	-40 ~ 80°C, ambient w/ air flow 0.6m/s
Storage Temp.	-40 ~ 80°C	-40 ~ 80°C
Relative Humidity	10% RH – 90% RH (non-condensing)	10% RH – 90% RH (non-condensing)
Compliance		
	CE, FCC Class A, UKCA	CE, FCC Class A, UKCA
Mechanical		
Form-factor	M.2 2242 Key B	PCIe Mini Card Full-Size
Dimensions (L x W x H)	22 x 42 x 8 mm	30 x 51x 10 mm

## Ordering Information

Model Number	VDB-811DR-M2-2242-B	
	VDB-810DR	
Description	VDB-811DR-M2-2242-B	u-blox NEO-M9V-20B w/ ADI ADXL346 M.2 GNSS Module
	VDB-810DR	u-blox NEO-M9V-20B w/ ADI ADXL346 mPCIe GNSS Module
State of Origin	Made in Taiwan	

All specifications are subject to change without notice.