

PROD1187 ICU

Integrated Communications Unit

A rugged multi-functional and configurable communications unit for collision awareness, location and heading applications.



Features

- *Modular internal design to maximise configurability and functionality with any three of the following interface options:*
 - *Multiple GNSS options from standard/high to Ultra-high precision with static heading*
 - *Licensed 466MHz UHF radio for RTCM correction factors to support RTK GNSS*
 - *Short-Range Device (SRD) Radio - ordered for specific geographic region*
 - *High accuracy IEEE 802.15.4a ToF equipped*
 - *High accuracy IEEE 802.15.4-2011 UWB equipped*
- *CAN bus IN/OUT communication on 6 pin Deutsch connectors for simple networking*
- *Universal mounting arrangement*
- *With two units linked with a Wabtec CAS-GPS system supports self-test for real-time health monitoring & reporting*

Specifications

Power	6-18Vdc; 9W (Max)
Main interface	2 x Deutsch DT series 6-pin connector – refer connection table
RF Connections	Up to 2x TNC connectors (GPS), 2 x N-connectors (for fixed or remote antennas)
V2V SRD Radio	up to 100mW option
	Operating frequencies 864.5MHz, 866MHz, 869.525MHz, 915-928MHz (depends on Regulatory Authority)
GNSS	The product is offered in three variants: Standard (S), High (H) and Ultra-High (U) Precision

Product variants	Standard (PROD1187-nmS-)*		High Precision (PROD1187-nmH-)*		Ultra-High Precision (PROD1187-nmU-)*	
Rx Channels	72		184		448	
GPS	L1		L1, L2		L1, L2	
GLONASS	L1		L1, L2		L1, L2	
Galileo	E1		E1, E5		E1, E5	
BeiDou	B1		B1, B2		B1, B2	
QZSS	Not applicable		L1, L2		L1, L2	
SBAS	Not applicable		Not applicable		L1	
	Horizontal		Horizontal		Horizontal	
Accuracy (CEP₅₀)	Standalone	2.5m	Standalone	1.5m	Standalone	1.0m
	-	-	-	-	SBAS	0.5m
	-	-	RTK	1.0cm	DGNSS	0.3m
	-	-			RTK	0.5cm
PVT Update rate	10Hz (2 concurrent constellations)		20Hz (2 concurrent constellations)		100Hz/ 50Hz with heading (all constellations)	
Static Heading (1σ)			Better than 1°, 1m separation (requires secondary receiver, using moving-baseline RTK, 8Hz)		0.15°, 1m separation (dual antennas, standalone)	
Enhanced robustness					anti-jamming and monitoring against narrow and wideband interference advanced scintillation mitigation a posteriori multipath estimator for code and phase multipath mitigation superior tracking robustness under heavy mechanical shocks or vibrations	

Size	160 wide x 110 high x 70mm deep (basic), Mounting Footprint 142x64mm (suits 4 x M5 SHCS)
Weight	1kg
IP Rating	IP66
Storage Temp.	-40°C to +85°C
Operating Temp.	-40°C to +75°C

* See part number reference

Markets (Pending Regulatory Approval)

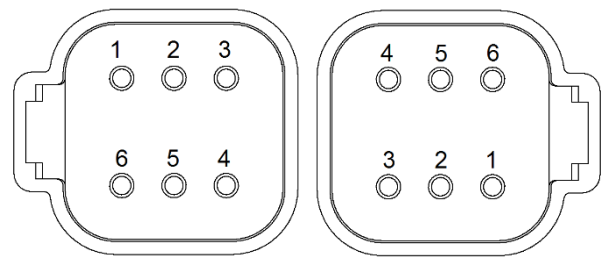
Country	Australia	USA	S/Africa	Canada
Regulatory Authority	ACMA	FCC	ICASA	ISED
Order Code	AUS	USA	ZAF	CAN
Country	Chile	Europe	Brazil	Russia
Regulatory Authority	SUBTEL	CE	ANATEL	ROSSVYAZ
Order Code	CHL	EUR	BRA	RUS
Country	PNG	India	Mexico	Indonesia
Regulatory Authority	NICTA	WPC	IFETEL	POSTEL
Order Code	PNG	IDN	MEX	IND
Country	Peru	Colombia	Ghana	Mozambique
Regulatory Authority	MTC	CRC	NCA	INCM
Order Code	PER	COL	GHA	MOZ
Country	Mongolia			
Regulatory Authority	CRC			
Order Code	MNG			

Part Number Reference

Item #	Description
PROD1187-①②③-Code	Unit can be configured to match individual country requirements
① Radio module 1	V = V2V
② Radio module 2	T = ToF W = Wideband R = RTK
③ GPS type	S = Standard (1 x TNC); H = High precision (1 x TNC); U = Ultra-high precision (2 x TNC) X = no GPS fitted
Examples	PROD1187-VTU-AUS PROD1187-VWX-ZAF

Connections

Pin	Signal	Function
1	PWR	Power
2	CAN_H	CAN bus high
3	CAN_L	CAN bus low
4	GND	Ground
5	PPS+	PPS positive
6	PPS-	PPS negative



Accessories

PROD1182	Power Control Unit
PROD0832	ToF antenna 2.4GHz 3dBi
PROD1196	V2V antenna 865-930Mhz 3dBi
MISC0467	Ultra-high precision GNSS antenna
PROD1190	CAN bus terminator
PROD1188-05RS	Antenna patch cable TNC straight plug to TNC right angle plug
tba	RTK antenna
tba	Pole Mount

Contact

Web	www.wabteccorp.com
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