

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 high to Ultra-high precision with static heading*
 - *Short-Range Device (SRD) Radio - ordered for specific geographic region*
 - *High accuracy IEEE 802.15.4a ToF equipped*
 - *Optional 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, 902-928MHz (depends on Regulatory Authority)			
GNSS	The product is offered in two variants: High (H) and Ultra-High (U) Precision			
Product variants	High Precision (PROD1187-nmH-)*	Ultra-High Precision(PROD1187-nmU-)*		
GNSS antenna connections	1xTNC	2xTNC		
Rx Channels	184	448		
GPS	L1, L2	L1, L2		
GLONASS	L1, L2	L1, L2		
Galileo	E1, E5	E1, E5		
BeiDou	B1, B2	B1, B2		
QZSS	L1, L2	L1, L2		
SBAS	Not applicable	L1		
Accuracy (CEP₅₀)	Horizontal			
	Standalone	1.5m	Standalone	1.0m
	-	-	SBAS	0.5m
	RTK	1.0cm	DGNSS	0.3m
			RTK	0.5cm
PVT Update rate	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 +60°C			
Operating Temp.	-40°C to +60°C			
Operating Humidity	5% to 95% RH			
*	See part number reference			

Markets (Pending Regulatory Approval)

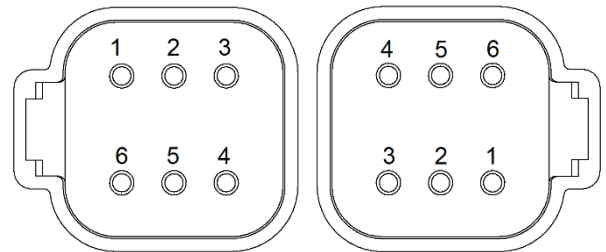
Country	Australia	USA	S/Africa	Canada
Regulatory Authority	ACMA	FCC	ICASA	ISED
Order Code	AUS	USA	ZAF	CAN
Country	Chile	Europe	Brazil	Russia
Regulatory Authority	SUBTEL	CE	ANATEL	ROSSVYAZ
Order Code	CHL	EUR	BRA	RUS
Country	PNG	India	Mexico	Indonesia
Regulatory Authority	NICTA	WPC	IFETEL	POSTEL
Order 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
③ GPS type	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
PROD1222	GNSS antenna – dual band
MISC0467	GNSS antenna – triple band
PROD1190	CAN bus terminator
PROD1188-05RS	Antenna patch cable TNC straight plug to TNC right angle plug
MISC0491	Pole Mount
STEE0769	Mount plate

Contact

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