

SPECIFICATIONS - M25M Series

Edition	Silver Edition			Research Edition
Configuration	Surface	Node	Embedded	Surface
Model number	WNC-M25MSS3	WNC-M25MSN3	WNC-M25MSE3	WNC-M25MRS3
Data rate	Up to 15 kbps (depending on channel conditions and reliability requirements)			Up to 300 bps (depending on channel conditions and reliability requirements)
Operating range	3-5 km (nominal, depending on channel conditions)			1 km (nominal, depending on channel conditions)
Ranging precision	0.1 m			
Doppler resilience	±4 knots or better			
Modulation (software defined)	PSK-OFDM, FH-BFSK			FH-BFSK
FEC (Forward Error Correction)	LDPC, up to 1/6th rate code			
Software framework	UnetStack3 (www.unetstack.net)			
Software interface	UnetStack3 (Java, Groovy, Python, C, Matlab, Javascript), interactive web UI, JSON/TCP			
Hardware interface	Ethernet, power			
Transducer beam pattern	Omnidirectional			
Carrier frequency	24 kHz			
Bandwidth	12 kHz (20 - 32 kHz)			
Source level	185 dB re 1 µPa @ 1 m rms (nominal)			175 dB re 1 µPa @ 1 m rms (nominal)
Power consumption	< 4 W (receive mode, nominal) < 60 W (transmit mode, avg.) < 80 W (transmit mode, max.)			< 4 W (receive mode, nominal) < 25 W (transmit mode, avg.)
Power source	External power: 22-28 V DC (24 V DC recommended)	1.5 V D size battery x 16*	External power: 22-28VDC (24VDC recommended)	
Operating depth	100 m (Aluminium hull)		2000 m (Transducer depth rating)	100 m (Acrylic hull)
Dimensions	ø 127 x 280 mm	ø 127 x 700 mm	ø 104 x 147 mm	ø 135 x 400 mm
Weight (in air / water)	4.0 / 1.0 kg	6.0 / 0.5 kg (without batteries)	1.0 / n/a kg	3.0 / TBC kg
JANUS compatibility	Yes, subject to operating frequency band			
Wake up module	Included (Ethernet)			
Onboard storage	32 GB			32 GB
Arbitrary waveform tx & rx	Included			
Qualification testing	Not available			
Optional upgrades				
Low drift clock	OCXO (25 ppb)			Not available
Hull	Stainless steel, delrin		n/a	Aluminium
Depth rating	up to 2000 m			Not available
Additional storage	up to 1 TB			Not available
Additional coprocessor	Available			Not available
Additional interface support	USB, I2C (for external sensors), RS232			Not available

* Batteries not included