







SPECIFICATIONS - M25M Series

Edition	Platinum Edition		Silver Edition			Research Edition
Configuration	Surface	Embedded	Surface	Node	Embedded	Surface
Model number	WNC-M25MPS3	WNC-M25MPE3	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 ( <a href="http://www.unetstack.net">www.unetstack.net</a> )					
Software interface	UnetStack3 (Java, Groovy, Python, C, Matlab, Javascript), interactive web UI, JSON/TCP					
Hardware interface	Ethernet, power, RS232		Ethernet, power			
Transducer beam pattern	Omnidirectional					
Carrier frequency	24 kHz					
Bandwidth	18 kHz (18 - 36 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.) <1.5 W (sleep mode)		< 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	300 m (Aluminium hull)	2000 m (transducer depth rating)	100 m (Aluminium hull)		2000 m (Transducer depth rating)	100 m (Acrylic hull)
Dimensions	ø 127 x 400 mm	90 x 90 x 180 mm	ø 127 x 280 mm	ø 127 x 700 mm	ø 104 x 147 mm	ø 135 x 400 mm
Weight (in air / water)	6.0 / 2.5 kg	1.0 / n/a kg	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 (acoustic, Ethernet, RS232)		Included (Ethernet)			
Onboard storage	Not available		32 GB			32 GB
Arbitrary waveform transmission & reception	Included					
Qualification testing	MIL-STD-810G, MIL-STD-810E, MIL-STD-461E		Not available			
Optional upgrades						
Low drift clock	Not available		OCXO (25 ppb)			Not available
Hull	Stainless steel, delrin	n/a	Stainless steel, delrin		n/a	Aluminium
Depth rating	up to 2000 m					Not available
Additional storage	Not available		up to 1 TB			Not available
Additional coprocessor	Not available		Available			Not available
Additional interface support	Not available		USB, I2C (for external sensors), RS232			Not available
Accessories						
Data & power cable	25 m underwater cable	1 m Ethernet, power & transducer	25 m underwater cable	5 m underwater cable	1 m Ethernet, power & transducer	25 m underwater cable
Mounting clamps	Optional	n/a	Optional	2x recommended	n/a	Optional

\* Batteries not included