

Specifications MTw™ Awinda™

Tracker placement Easy fastening with Velcro straps

nternal sampling rate 1000 Hz

> Latency 30 ms

Buffer tim retransmissions 10

Battery life (continuous use) 6 Hours

Dimensions Tracker 47 x 30 x 13 mm (1.85 x 1.18 x 0.51 in)

> Weight 16 g (0.56 oz.)

Operating remperature range 0°C - 50°C

MTw Awinda

Highly accurate, small and lightweight 3D human wireless motion tracker.

Used in a body area network, these portable and unobtrusive wireless trackers are ideal for developing customized wearable solutions.



Static Accuracy (Roll/ Pitch) 0.5 deg RMS

Static Accuracy (Heading) 1 deg RMS

Dynamic Accuracy (Roll/Pitch) 0.75 deg RMS

Dynamic Accuracy (Heading) 1.5 deg RMS

Communication

Range	Awinda station	Awinda dongle
Open space	Up to 50 m (165 ft.)	Up to 20 m (65 ft.)
Office space	Up to 20 m (65 ft.)	Up to 10 m (33 ft.)
Wireless protocol	Xsens patented Awinda protocol	
Receiver	Awinda Station / Awinda Dongle	

Tracker components

	Angular velocity	Acceleration	Magnetic field
Dimensions	3 axes	3 axes	3 axes
Full scale	± 2000 deg/s	± 160 m/s	± 1.9 Gauss

¹The patented Awinda protocol ensures highly accurate time synchronized data sampling (within ≤10 μs) in all connected MTw's, which is essential for accurate joint angles.





Awinda station

The Awinda Station can receive data from up to 20 MTw's simultaneously

Data from multiple MTw's is time-synchronized to within 10µs Charges up to 6

MTw's simultaneously.

Specifications Awinda™ station

Ambient	-25°C - 80°C	
Specified Performance	0°C - 65°C	
Specifications for non-condensing environment. Avoid wet and humid conditions		
Power Supply	EU/US/UK power adapters provided	
Communication		
Awinda Station	PC Interface: USB	
Physical Properties		
Dimensions (without antenna)	148 x 104 x 31.9 mm (5.8 x 4.1 x 1.3 in)	
Weight	200g (7 oz.)	
Synchronization with third party devices		
4 BNC connectors	– 2 for sync in – 2 for sync out	
TTL pulses	0-3.3V levels	
Software configurable		
Wireless update rates		



Weight 8g (0.28 oz.)

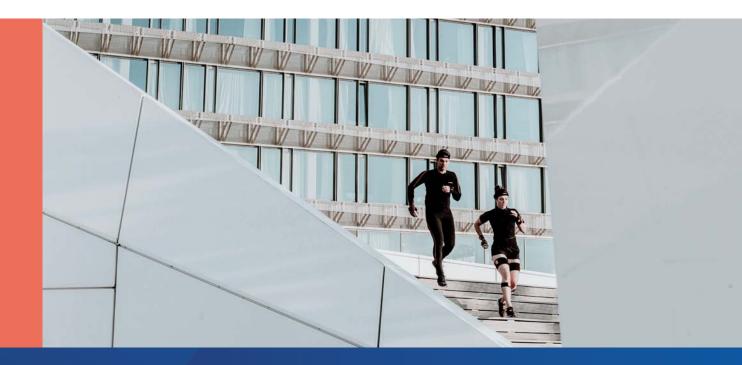
²Max. number of connected MTw's supporte



ABOUT XSENS

Xsens is the leading innovator in 3D motion tracking technology and products. Its sensor fusion technologies enable a seamless interaction between the physical and the digital world in applications such as industrial control and stabilization, health, sports and 3D character animation. Clients and partners include Electronic Arts, NBC Universal, Daimler, Autodesk, ABB, Siemens and various other leading institutes and companies throughout the world. Xsens is part of mCube, the provider of the world's smallest MEMS motion sensors, key enablers for the Internet of Moving Things. Xsens has offices in Enschede, Los Angeles, Shanghai and Hong Kong.

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Xsens Netherlands

Xsens Technologies B.V P.O. Box 559 7500 AN Enschede The Netherlands

Phone: +31 88 97367 00 Fax: +31 88 97367 01 Email: info@xsens.com

Xsens North America Inc

Suite 306
El Segundo, CA 90245
North America

Phone: 310-481-1800 Fax: 310-416-9044 Email: info@xsens.com

Xsens AsiaPac

Unit 208, Bldg 16W Hong Kong Science Park Shatin Hong Kong

Phone: +852 3618 9080 Fax: +852 3705 8994 Email: info@xsens.com Building 1, 2nd Floor
No.333 Huangqing Road
PRC 201899
Shanghai

Phone: +86 021 31760067 Fax: +86 021 31760067 Email: china@xsens.com

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