System 20 PRO
Digital Wireless System

audio-technica

Overview

The System 20 PRO offers a self-managing, plug-and-play 2.4 GHz system that is scalable to 20 channels and delivers the same dependable, high-quality audio in any environment.

The system has been designed to overcome many challenges of conventional wireless microphones, such as frequency coordination, complex intermodulation calculations, and remote antenna cabling.

Capable of receiving up to four transmitters, receiver units can remain docked in the half-rack chassis or be mounted remotely (up to 100m) via Ethernet cable. Up to five chassis can be linked via an RJ12 cable, creating a stable, multichannel system providing simultaneous use of up to 20 channels. System 20 PRO allows the user to choose between two modes: Standard mode (10 channels) to minimise latency or HD mode (20 channels) to maximise channel count.

Setup and management are controlled via Audio-Technica's Wireless Manager software, and AES128 encryption provides security and reliable operation. The transmitters included in each system are paired and ready to use out of the box, and offer all-day operation on a full charge.

Overall System Specifications

Specification	Details
Operating frequencies	2402 - 2480MHz
Dynamic range	120dB (A-weighted) typical
Total harmonic distortion	< 0.05% typical
Operating range	60m (Open environment with no interfering signals)
System Frequency Response	20 to 20000Hz (Varies depending on the microphone to be installed)
Delay	Standard: 2.8ms, HD mode: 6.7ms
Audio sampling frequency	Standard: 24bit/48kHz, HD mode: 24bit/48kHz
Encryption method	AES128
Max. simultaneous use	Standard: 10 channels, HD mode: 20 channels (Depends on the region and environment)

ATW-T1401

Specification	Details
Modulation mode	GFSK
RF output	10mW EIRP
RF sensitivity	-90dBm typical
Whip antenna	True diversity
Input connection	Four pin locking connector: Pin 1: GND, Pin 2: INST INPUT, Pin 3: MIC INPUT, Pin 4: DC BIAS +10V
Battery	DC3V (2 AA batteries)
Operating temperature	5ºC to +40ºC
Battery Life	AA alkaline batteries: Approx. 15 hours, AA nickel-hydrogen batteries: Approx. 14 hours and 30 minutes, AA lithium batteries: Approx. 29 hours (Varies depending on usage conditions)
Dimensions	63.7mm x 22.7mm x 107.4mm (W x D x H)
Weight	80g (without batteries)

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ATW-T1402

Specification	Details
Modulation mode	GFSK
RF output	10mW EIRP
RF sensitivity	-90dBm typical
Whip antenna	True diversity
Microphone type	Dynamic type
Microphone Directional Characteristics	Hypercardioid
Battery	DC3V (2 AA batteries)
Operating temperature	5°C to +40°C
Battery Life	AA alkaline batteries: Approx. 18 hours, AA nickel-hydrogen batteries: Approx. 16 hours and 30 minutes, AA lithium batteries: Approx. 35 hours (Varies depending on usage conditions)
Dimensions	265.0mm x 53.7mm
Weight	300g
Included accessory	Microphone holder AT8456a, Conversion screw adapter (3/8 - 5/8)

ATW-T1406

Specification	Details
Modulation mode	GFSK
RF output	10mW EIRP
RF sensitivity	-90dBm typical
Whip antenna	True diversity
Maximum input sound pressure level	139dB SPL
Microphone type	Capacitor type
Microphone Directional Characteristics	Cardioid
Operating temperature	5°C to +40°C
Built-in battery	3.7V lithium-ion battery (5.5Wh 1460mAh)
Battery Life	Approx. 12 hours (Varies depending on usage conditions)
Charging time	Approx. 3 hours and 10 minutes (Varies depending on usage conditions)
USB Charging Port	USB Type-C (USB 2.0)
Dimensions	90.5mm x 129.4mm x 31.9mm (W x D x H)
Weight	510g (including battery)
Included accessory	USB power adapter, Blade tip for USB power adapter, USB cable (1.5 m)

ATW-T1407

Specification	Details
Modulation mode	GFSK
RF output	10mW EIRP
RF sensitivity	-90dBm typical
Whip antenna	True diversity
Microphone	Gooseneck microphone support
Phantom power supply	DC24V
Operating temperature	5°C to +40°C
Built-in battery	3.7V lithium-ion battery (5.5Wh 1460mAh)
Battery Life	Without LED: Approx. 12 hours, With LED: Approx. 8 hours (Varies depending on usage conditions)
Charging time	Approx. 3 hours and 10 minutes (Varies depending on usage conditions)
USB Charging Port	USB Type-C (USB 2.0)
Dimensions	90.5mm x 129.4mm x 47.6mm (W x D x H)
Weight	490g (including battery)
Included accessory	USB power adapter, Blade tip for USB power adapter, USB cable (1.5 m)

ATW-R1440

ATW-RC14

Receiver unit external connection port	RJ45
NETWORK Port	RJ45: RJ45 Fast Ethernet
LINK IN/OUT port	RJ12
Output Level	LINE max: +22dBu (+20dBV), LINE Unity: -20dBu (-22dBV), MIC max: -12dBu (-10dBV), MIC Unity: -50dBu (-52dBV)
Power consumption	3.7W
Power supply	DC12V 0.5A (AC adapter)
Operating temperature	0°C to +40°C
Dimensions	209.8mm x 165.6mm x 42.5mm (W x D x H)
Weight	740g
Included accessory	Blade tip for AC adapter and AC adapter, Rack mount adapter (short), Rack mount adapter (long), Fixing screws x 5, Connecting cable (30cm), Rubber feet x 4

ATW-RU14

Modulation mode	GFSK
RF output	10mW EIRP
RF sensitivity	-90dBm typical
Whip antenna	1/2 Dipole Antenna Diversity
External connection port	RJ45
Power supply	DC12V (RC14)
Operating temperature	0°C to +40°C
Dimensions	86.0mm x 70.2mm x 18.7mm (W x D x H)
Weight	77g