SYSTEM 10 PRO

2.4 GHz Digital High-Fidelity Wireless System

audio-technica
Audio-Technica’s System 10 PRO rack-mount digital wireless system provides wireless that’s so simple to use, so dependable, and so automatic, you never have to think about it. Set it up anywhere, turn it on and it’s good to go.

System 10 PRO delivers interference-free operation in the 2.4 GHz range (i.e., outside UHF) with many innovative features for ultimate versatility. The durable half-rack chassis houses two receiver units that can be operated locally or released from the chassis and mounted remotely (100m) via Ethernet cable. Up to five chassis (10 receiver units) can be linked using the RJ12 cable included with each system, creating a stable, multichannel system with the simultaneous use of up to 10 channels.

Like all the products in the System 10 wireless family, the System 10 PRO rack-mount features 24-bit/48 kHz operation, easy setup, clear, natural sound quality, and three levels of diversity assurance: frequency, time and space.
Why is 2.4 GHz WiFi Band OK?
While it is certainly true that there’s a lot of activity within the 2.4 GHz range – WiFi, microwave ovens, etc. – System 10 is a frequency-agile system capable of continually detecting and adjusting its frequency to operate without interference. Both the receiver units and transmitters in System 10 are actually transceivers that are constantly communicating with one another. These transceivers allow System 10 to remain always aware of other 2.4 GHz usage in a given area, automatically changing frequencies to avoid interference.

3 Levels of Diversity Assurance
Like all System 10 products, System 10 PRO provides three levels of diversity assurance: frequency, time, and space. Frequency Diversity sends the signal on two dynamically allocated frequencies for interference-free communication. The system is continuously monitoring the spectrum and can change one or both of the frequencies on the fly if interference is encountered. Time Diversity sends the signal in two time slots to maximize immunity to multipath interference. Space Diversity uses two antennas on each transmitter and receiver unit to compensate for the inherently shorter wavelengths of a 2.4 GHz system, thereby maximizing signal integrity.

Transceivers
All of the System 10 PRO receiver units and transmitters are actually transceivers – each sends and receives signals – that stay in constant communication with one another. This allows the system to change frequencies whenever needed.

Easy To Use
Although the System 10 PRO is a powerful, professional wireless system, the user doesn’t need any kind of technical training to operate it. It is ready to go right out of the box. Adding transmitters or receiver units to the system is also very simple and is covered by easy-to-follow instructions in the user manual. System 10 PRO automatically assigns and changes frequencies, so the user doesn’t need to know anything about available frequencies or how to set them. This is also beneficial for someone intending to travel with their system, since they won’t need to worry about where in the world the system will be used – it will work perfectly fine anywhere.

No Analog Audio Compander
System 10 PRO offers full-bandwidth, high-fidelity audio. There is no analog companding during transmission and reception. System 10 PRO is capable of full-frequency response (20 Hz to 20 kHz), and better-than-CD audio quality of 24-bit/48 kHz.

Pairing Multiple Transmitters to One Receiver Unit
System 10 PRO allows users to pair each receiver unit with multiple transmitters (up to 10). This can be useful for guitarists and other musicians who play multiple instruments – they can affix a paired body-pack transmitter to each instrument, then simply turn the transmitters off and on to switch instruments. This feature might also be beneficial for venues, such as houses of worship, where multiple microphones are used in different locations and/or for different applications: even with one receiver unit the user can employ multiple mics simply by turning one paired mic off and turning another one on.

Plays Well With Existing Systems
As previously mentioned, the System 10 PRO continually monitors activity in the 2.4 GHz range and automatically adjusts its own frequencies to avoid interference. Thus it works perfectly well, straight from the box, in environments with a WiFi network. It is also ideal for adding additional channels on top of an existing UHF wireless setup, since System 10 will not cause any intermod or interference issues when used in tandem with UHF systems. Nor will the existing setup need to be reconfigured, as would be the case if adding additional UHF wireless.
House of Worship

System 10 PRO is easy to install and use, and since each of its receiver units can pair with multiple transmitters, one system will give a house-of-worship plenty of flexibility. The speaker can switch between body pack transmitter with a lavalier mic, a handheld transmitter or desk mount transmitter with gooseneck dependent on the location and application. Affordability also makes the System 10 PRO a wise investment for houses of worship.

Boardroom

System 10 PRO’s remote-mounting feature makes it an ideal choice for boardrooms and other meeting spaces. The chassis can be rack-mounted out of the way in a tech room with a receiver unit remote-mounted in the boardroom. Additionally, the system’s capacity for operating without interference in WiFi zones makes it a dependable choice for any business environment.

Presenters

Presenters who travel from place to place want a wireless system that’s easy to transport, easy to set up and use (without any training or special tech knowledge), is affordable, and provides dependable, high-fidelity audio. The System 10 PRO satisfies on all accounts. It’s priced to fit the budget of individuals, travels easily from place to place, and can be turned on anywhere in the world and provide interference-free digital wireless. It also provides the option for multiple transmitters, so presenters can easily make use of a separate handheld mic, if desired.

Live Sound (Fixed Installation)

System 10 PRO offers high-fidelity digital audio from a rock-solid system that’s incredibly easy to set up and operate. This makes it an ideal fit for fixed-installation wireless applications, such as for live bands and choirs in houses of worship. No special tech knowledge is required to install or use the system.

Live Sound (Touring)

Since the System 10 PRO works anywhere in the world, automatically selecting the best frequencies wherever you take it, it’s a great choice for touring live-sound applications. Set it up at the new location, turn it on, and you have dependable, high-fidelity digital wireless. Plus, it’s a lightweight system, making it easy to pack up and transport to your next location.

Rental

Because of its versatility, ease of operation and ability to work automatically anywhere in the world, the System 10 PRO is the perfect unit to stock for rentals. It can be rented with confidence to anyone, anywhere for any wireless application, with no need to rely on an RF specialist.

Education Facility

Since System 10 PRO has a low cost per channel, installing multiple systems is not cost prohibitive. Additionally, System 10 PRO is easy for everyone to use, so educators won’t need to be trained on the system, but can start using it right away.

Rack Space Efficiency

System 10 PRO lets you fit up to four channels in a single (19”) rack space. Each System 10 PRO dual-channel chassis takes up half a rack space and can be mounted alone using the included mounting brackets and screws. But two chassis can also be fastened together with the joining plate that comes with each system and mounted together into a single rack space, providing very efficient multichannel installation.

Link Function

Up to five chassis (10 receiver units) can be linked using the RJ12 cable included with each system. The RJ12 cable runs from the OUT connector of the first chassis to the IN connector of the second chassis, and so on. (The IN connector of the first chassis and the OUT connector of the last chassis in the chain will remain unused.) While multiple System 10 PRO chassis will work together without linking, this is not recommended. Linking creates a much more stable environment in which receiver units work together, with all receiving, transmitting and frequency allocation coordinated to prevent audio dropouts and enable simultaneous use of up to 10 channels.

Latency

All digital wireless systems have some latency – it’s unavoidable. The important thing is that the gap between the original audio presentation (e.g., voice or instrument) and the reception and broadcast of that audio be so slight as to be imperceptible. With 3.8 ms of latency, System 10 PRO performs far better than accepted standards.
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<td>Body-pack System</td>
<td>ATW-RC13, ATW-RU13, ATW-T1001</td>
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<td>ATW-1302</td>
<td>Handheld System</td>
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<td>ATW-1311</td>
<td>Dual Body-pack System</td>
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<tr>
<td>ATW-1312</td>
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<td>ATW-1322</td>
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<td>ATW-R1310</td>
<td>System 10 Pro Mono Canal</td>
<td>ATW-RC13, ATW-RU13</td>
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<td>ATW-R1320</td>
<td>System 10 Pro Double Canal</td>
<td>ATW-RC13, ATW-RU13 x2</td>
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System Components

Receiver

- ATW-RC13 Receiver Chassis (Front View)
- ATW-RC13 Receiver Chassis (Back View)
- ATW-RU13 Receiver Unit
- AT8690 RU13 Holder
- Rack-mount Adapters
- Joining Plate
- RJ12 Link Cable

Transmitters

- ATW-T1006 Boundary Microphone Transmitter
- ATW-T1007 Microphone Desk Stand Transmitter
- ATW-T1002 Unidirectional Dynamic Transmitter
- AT8456a Quiet-Flex® Stand Clamp
- ATW-T1001 UniPak® Body-pack Transmitter

Rack-mount Adapters