# **ATW-1422**

System 20 Digital Wireless System includes ATW-R1440 4-channel receiver and two ATW-T1402 handheld microphone transmitters.





### **Features**



- Digital 24-bit/48 kHz wireless operation for ultimate sound quality and dependable performance
- Plug-and-play operation in the 2.4 GHz range completely free from TV interference
- User can switch between Standard mode (10 channels) and HD mode (20 channels) to minimize latency or maximize channel count, respectively
- Receiver units can be docked in the chassis or mounted remotely (up to 328 feet away) via Ethernet cable for added versatility
- · Up to five chassis can be linked and used simultaneously
- · Each receiver channel can be paired with up to four transmitters, allowing users to instantly switch between different transmitter configurations
- · Chassis' System ID Display shows RF signal level, system ID, transmitter battery level, and system link status
- Each half-rack receiver chassis comes with a short and a long rack ear, and two long ears can be combined as a joining plate to secure two chassis in a full rack space
- · Compatible with Audio-Technica's Wireless Manager software for centralized management of system settings and operations
- · Auto-lock function prevents unintended operations like turning off the power or displaying the channel select screen
- AES128 encryption for security
- · Compatible with Syslog protocol
- · Ability to configure, monitor, and save device settings as projects in Wireless Manager
- · Transmitters and receivers include OLED screens for optimal readout of key settings and alerts
- Water- and sweat-resistant cW-style connector on body-pack transmitter provides secure connection to lavalier mics, headworn mics, and cables with cW-style locking 4-pin connector
- Charging terminals on body-pack and handheld transmitters work with ATW-CHG3/ATW-CHG3a and ATW-CHG3N/ATW-CHG3Na charging docks to recharge NiMH batteries
- Supports mixed output for situations with limited input channels

## **Specifications**



### **Overall System**

| Operating Frequencies                        | 2,402 to 2,480 MHz   |  |
|--|--|--|
| Dynamic Range                                | 120 dB (A-weighted), typical   |  |
| Total Harmonic<br>Distortion                 | < 0.05%, typical   |  |
| Maximum<br>Simultaneous Use<br>(recommended) | Standard: 10 channels HD mode: 20 channels It depends on the region and environment. |  |

| System Frequency<br>Response | 20 to 20,000 Hz<br>Varies depending on the microphone to be installed. |  |
|------------------------------|--|--|
| Delay                        | Standard: 2.8ms<br>HD mode: 6.7ms                                      |  |
| Audio Sampling Rate          | Audio Sampling Rate  Standard: 24-bit/48 kHz HD mode: 24-bit/48 kHz    |  |
| Encryption Method            | AES128   |  |

# Receiver & Transmitter Specifications

#### ATW-R1440

#### ATW-RC14

| External Receiver Unit Port | RJ45  |
|-----------------------------|---|
| NETWORK Port                | RJ45: Fast Ethernet   |
| LINK IN/OUT Port            | RJ12  |
| Output Level                | LINE max: +22 dBu (+20 dBV)<br>LINE Unity: -20 Bu (-22 dBV)<br>MIC max: -12 dBu (-10 dBV)<br>MIC Unity: -50 dBu (-52 dBV)           |
| Power Consumption           | 3.7W  |
| Power Supply                | 12 V DC, 0.5 A (AC adapter)   |
| Operating Temperature Range | 0°C to +40°C (32°F to 104°F)  |
| Dimensions                  | 209.8 mm (8.3") × 165.6 mm (6.5") × 42.5 mm<br>(1.7") (W × D × H)   |
| Weight                      | 740 g (26 oz)   |
| Included Accessories        | AC adapter, AC adapter blade, short rack-mount adapter, long rackmount adapter, fixing screw × 5, link cable (30 cm [12"]), leg × 4 |

#### ATW-RU14

| Modulation Mode | GFSK      |
|-----------------|-----------|
| RF Output Power | 10mW EIRP |

| RF sensitivity              | -90 dBm, typical   |
|-----------------------------|--|
| Antenna                     | 1/2 wave dipole antenna, true diversity                          |
| External Connection Port    | RJ45   |
| Power Supply                | 12 V DC (RC14)   |
| Operating Temperature Range | 0°C to +40°C (32°F to 104°F)                                     |
| Dimensions                  | 86.0 mm (3.4") × 70.2 mm (2.8") × 18.7 mm (0.74")<br>(W × D × H) |
| Weight                      | 77 g (2.7 oz)  |
| Included Accessory          | Unit holder, holder cover, wood screws x 2, antenna x 4          |

#### ATW-T1401 BODY-PACK TRANSMITTER

| Modulation Mode  | GFSK   |
|------------------|--|
| RF Output Power  | 10mW EIRP  |
| RF Sensitivity   | -90 dBm, typical   |
| Antenna          | True diversity   |
|                  | Four pin locking connector   |
|                  | Pin 1: GND   |
|                  | Pin 2: INST INPUT  |
|                  | Pin 3: MIC INPUT   |
|                  | Pin 4: DC BIAS +10 V   |
| Input Connection | 1  |
| Battery          | 3 V DC (two 1.5 V AA)  |
| Battery Life     | AA alkaline batteries: Approx. 15 hours AA nickel-hydrogen batteries: Approx. 14 hours and 3 minutes |

|                       | AA lithium batteries: Approx. 29 hours  This varies depending on usage conditions. |
|-----------------------|--|
| Operating Temperature | 5°C to +40°C   |
| Dimensions            | 63.7 mm (2.5") × 22.7 mm (0.89") × 107.4 mm<br>(4.2") (W × D × H)                  |
| Weight                | 80g (2.8 oz) ,without batteries  |

#### **ATW-T1402 HANDHELD TRANSMITTER**

| Modulation Mode             | GFSK  |
|-----------------------------|---|
| RF Output Power             | 10mW EIRP   |
| RF Sensitivity              | -90 dBm, typical  |
| Antenna                     | True diversity  |
| Microphone Type             | Dynamic   |
| Microphone Polar Pattern    | Hypercardioid   |
| Battery                     | 3 V DC (two 1.5 V AA)   |
| Battery Life                | Approx. 18 hours (alkaline) Approx. 16 hours 30 minutes (Ni-MH) Approx. 35 hours (lithium) This varies depending on usage conditions. |
| Operating Temperature Range | 5°C to +40°C (41°F to 104°F)  |
| Dimensions                  | 265.0 mm (10") × 53.7 mm (2.1")   |
| Weight                      | 300 g (11 oz), without batteries  |
| Included Accessories        | Mic holder AT8456a, converting thread adapter (3/8" - 5/8")   |

#### ATW-T1406 BOUNDARY MICROPHONE TRANSMITTER

| Modulation Mode | GFSK             |
|-----------------|------------------|
| RF Output Power | 10mW EIRP        |
| RF Sensitivity  | -90 dBm, typical |

System 20 PRO Dual Handheld Microphone System | ATW-1422 | Audio-Technica

| Antenna                            | True diversity   |
|------------------------------------|--|
| Maximum Input Sound Pressure Level | 139 dB SPL   |
| Microphone Type                    | Condenser  |
| Microphone Polar Pattern           | Cardioid   |
| Built-in Battery                   | 3.7V lithium-ion battery (5.5Wh, 1460mAh)  |
| Battery Life                       | Approx. 12 hours This varies depending on usage conditions.                        |
| Charging Time                      | Approx. 3 hours and 10 minutes This varies depending on usage conditions.          |
| USB Charging Port                  | USB Type-C (USB 2.0)   |
| Operating Temperature Range        | 5°C to +40°C (41°F to 104°F)   |
| Dimensions                         | 90.5 mm (3.6") × 129.4 mm (5.1") × 31.9 mm (1.3")<br>(W × D × H)                   |
| Weight (with battery)              | 510 g (18 oz), including battery   |
| Included Accessories               | USB power supply adapter, USB power supply adapter blade, USB cable (1.5 m [4.9']) |

#### ATW-T1407 DESK STAND TRANSMITTER

| Modulation Mode      | GFSK  |
|----------------------|---|
| RF Output Power      | 10mW EIRP                                     |
| RF Sensitivity       | -90 dBm, typical                              |
| Antenna              | True diversity                                |
| Microphone           | Gooseneck microphone supported                |
| Phantom Power Supply | DC24V   |
| Built-in Battery     | 3.7 V lithium-ion battery (5.5 Wh, 1,460 mAh) |

#### System 20 PRO Dual Handheld Microphone System | ATW-1422 | Audio-Technica

| Battery Life                | When using a gooseneck microphone with no LED: Approx. 12 hours When using a gooseneck microphone with an LED: Approx. 8 hours This varies depending on usage conditions. |
|-----------------------------|---|
| Charging Time               | Approx. 3 hours and 10 minutes  This varies depending on usage conditions.  |
| USB Charging port           | USB Type-C (USB 2.0)  |
| Operating Temperature Range | 5°C to +40°C (41°F to 104°F)  |
| Dimensions                  | 90.5 mm (3.6") × 129.4 mm (5.1") × 47.6 mm (1.9")<br>(W × D × H)  |
| Weight                      | 490 g (17 oz), including battery  |
| Included Accessories        | USB power supply adapter, USB power supply adapter blade, USB cable (1.5 m [4.9'])  |