



Features

- Drop-in charging slots for up to 7 microphone transmitters
- Optimized for high capacity NiMH batteries
- Automatic overcharge protection
- Battery analyzer prevents charging of non-NiMH batteries
- Automatic shut-off
- Charging status indicators for each slot
- Six hour recharge time
- RS232 data port for microphone transmitter encryption
- Attractive tabletop design
- Rugged construction
- Universal inline auto-ranging power supply for worldwide use
- Includes 14 NiMH 2700 mAH rechargeable batteries

Description

The Charging Station Encryption Interface (cei007) will charge up to seven Microphone Transmitter Units (mtu101 and/or mtu201) simultaneously while providing a convenient place to store the mtu's when they are not being used. Note: When charging mtu201's, the microphones are unplugged from the bases. The charger is optimized to take advantage of advanced high output NiMH (Nickel Metal Hydride) battery chemistry and incorporates intelligent sensing to prevent accidental charging of alkaline, other non-rechargeable or incompatible batteries. Automatic circuits monitor the batteries throughout the charging process and shut down the charger bay when the charging cycle is complete. A six-hour recharge cycle (from depleted batteries) allows for a maximum number of recharge cycles without undo damage to the battery chemistry. Each cei007 has seven independent charging bays with charging indicators for each bay providing a visual reference to allow the user to see when charging is complete. An inline universal auto-ranging power supply is included with each charger.

Each cei007 includes an RS232 data/encryption port and designated encryption bay. When used with the optional sep128 System Encryption Package, the user can digitally encrypt the system with a user controlled key based on an AES128 bit encryption standard as developed by the U.S. government for protecting sensitive material.

The advanced Sanyo 2700 mAH NiMH rechargeable batteries included with the cei007 use a new structural negative electrode material "Superlattice Alloy" which enables them to have higher capacity and higher performance than other types of rechargeable or standard alkaline batteries. Featuring excellent output characteristics including stable voltage with continuous high-rate current, Sanyo rechargeable batteries are environmentally and economically friendly products that are recyclable and able to be charged/discharged repeatedly without performance degradation. Each cei007 comes with fourteen batteries, enough to power up to seven microphone transmitter units.

A SpectraPulse® system consists of a Digital Receiver Module (drm141), up to 14 Microphone Transmitter Units/Desk Stand Transmitters (mtu101 and/or mtu201) and up to two Audio Control Interfaces (aci707). The system will support up to 14 simultaneous audio channels. An optional seven-space Charging Encryption Station (cei007) and NiMH batteries are available along with System Encryption Package (sep128) software for digitally encrypting the microphone output.

Architect's and Engineer's Specifications

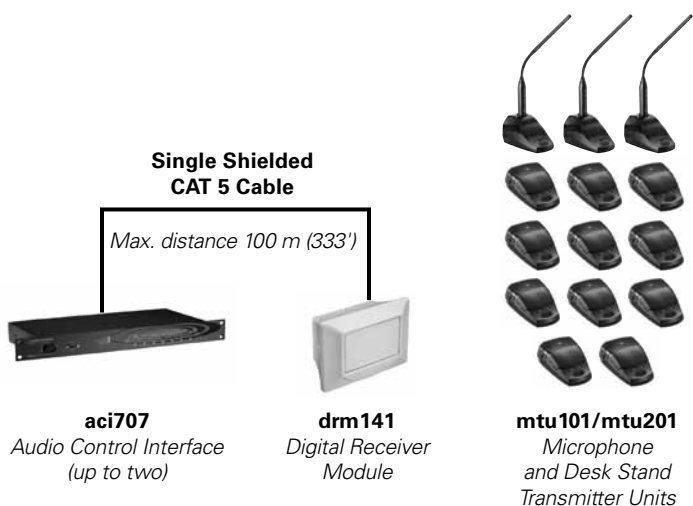
The battery charger/encryption interface shall be designed to charge the microphone transmitter units used as part of a wireless microphone system operating in the 6 GHz band using Ultra Wideband timed pulse technology with a pulse duration of 2 nanoseconds and a UWB rate of 8 mbps. Systems using conventional carrier-based RF or spread-spectrum methods of transmission shall be unacceptable. Each charger/encryption interface will charge up to seven microphone transmitters simultaneously via charging contacts on the microphone transmitters that mate with contacts in each charging bay. Chargers that require the batteries to be removed from the microphones for charging shall be unacceptable. The charger shall be designed to optimally charge 2700 mAH NiMH (Nickel Metal Hydride) batteries. The charger shall be equipped with sensing circuits to prevent charging microphone transmitters containing alkaline, other non-rechargeable or incompatible battery types. Automatic shut off circuits shall be provided for each charging bay to turn off the charging process when the batteries are fully charged. Visual indicators shall be provided for each charging bay to indicate charging status and fully charged conditions. Charging time to charge the batteries from complete discharge to a fully charged state shall be greater than one hour, but it must not exceed six hours. The charger shall be equipped with an RS232 encryption port. When used with the system-specific encryption software package it shall be possible to encrypt the microphones with an AES 128-bit encryption key. A microphone shall be encrypted by dropping it into the dedicated encryption port on the charger, and applying the key using the software on a standard PC.

The charger shall operate on 100-240V, 50/60 Hz AC power with an inline power supply with detachable cable. It shall be freestanding and constructed of high-impact material in an aesthetically pleasing design to blend in with its surroundings. The charger shall have integral rubber feet and all user controls including power switch shall be located on the rear of the unit.

The charger shall include fourteen 2700 mAH Nickel Metal Hydride (NiMH) AA batteries designed to work with the microphone transmitter units. The charger shall be optimized to work with the included batteries. The batteries shall be designed to maintain stable output voltage with continuous high-rate current over the entire discharge/operation cycle for maximum operation time in the microphone transmitter. All components shall comply with RoHS standards.

The charging/encryption interface shall be an Audio-Technica cei007 or equivalent.

System Block Diagram



Each aci707 provides up to seven audio outputs.

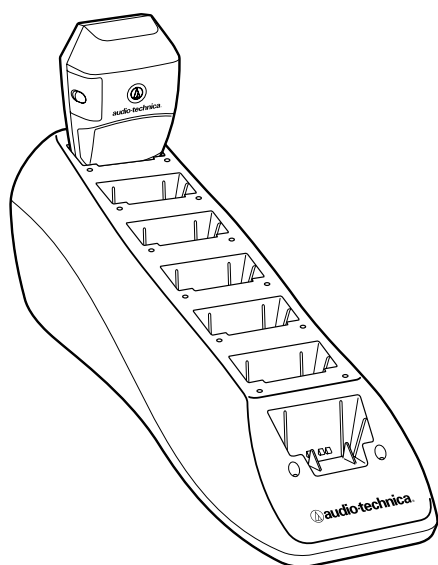
Specifications

Specifications	Overall system
Frequency range	6.100 GHz – 6.600 GHz
Center frequency	6.350 GHz
AD/DA	16 bits
Clock	24.576 MHz
Sampling rate	24 KHz
Pulse duration	2 nanoseconds
Frame length	1 ms
Time slots per frame	15
UWB Rate	8 mbps
Compression	None
Companding	None
Latency	1.1 ms
Average RF power	40 nanowatts
Sync/re-acquisition time	<3 ms
Range	75 feet (20 m)
Simultaneous channels	14
Accessories included	Power supply; 14 rechargeable AA NiMH batteries

Specifications are subject to change without notice.



Charging Detail (with mtu101)



 **audio-technica**

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