CM-244 4-Channel BaseStation

CM-244 4-Channel 2.4GHz BaseStation

The CM-244 is a 4-channel BaseStation operating in the 2.4GHz frequency range that assures uninterrupted and interference-free communication with no coordination required.

DESCRIPTION

The Tempest CM-244 is a 4-channel 2.4GHz Frequency Hopping Spread Spectrum (FHSS) digital wireless intercom BaseStation. The front panel LCD display provides real time status including battery monitoring of active beltbacks and easy access to the hardwire intercom settings and levels. Each BaseStation is capable of Call and Remote Mic Kill.

VERSATILITY

The CM-244 BaseStation connections include a 2-wire interface with M/F 3-pin XLR loop thru and one 4-wire RJ45 port per channel. The 2-wire interface is compatible with Clear-Com,® RTS,® and Telex® intercom systems, and includes an auto-null circuit.

EXPANDABILITY

Utilizing the Tempest system's TDMA technology and proprietary ZSync synchronization, up to 11 CM-244 BaseStations and 55 full-duplex wireless BeltStations (in Normal Mode), either 2-channel or 4-channel BeltStations, can be used simultaneously. By switching to Shared or Split Mode, an unlimited number of BeltStations can be registered to each BaseStation using shared resources.

RF PERFORMANCE

The CM-244 BaseStation is supplied with two whip antennas (RP-TNC RF connector). On the rear is a RJ45 connector for a (optional) remote transceiver. The remote transceiver can be located up to 1500ft (450m) away from the BaseStation over CAT-5/6 cable with no loss of RF signal.

TEMPEST2400 SEAMLESS ROAMING

The CM-244 BaseStations cover large areas with multiple zones by using Seamless Roaming. Seamless Roaming allows one or more Tempest2400 BeltStations to roam between as many as 16 different BaseStations (coverage areas or zones) without any intervention from the end user. BeltStations act as they normally do while roaming and there is no interruption of audio or control when a BaseStation switches from one BaseStation to another.

ZSYNC TECHNOLOGY

ZSync technology provides a zero sync reference that coordinates the hopping patterns of all connected BaseStations. ZSync ensures that there is a fixed relationship between all of the BaseStation radios, irrespective of random time variation in power up sequences.
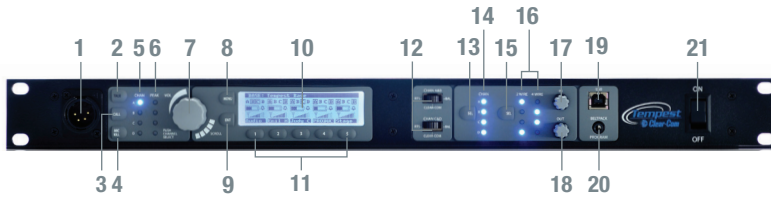
KEY FEATURES AND BENEFITS

- 4-channel digital wireless BaseStation
- 2.4GHz, license free operation
- 2xTX redundant data transmission
- Lost Packet Concealment prevents "clicks" and "pops" when a data packet is lost
- Connect an unlimited number of BeltStations per BaseStation
- T-Desk software enables remote monitoring via LAN interface
- Optional Remote Transceiver extends antenna coverage up to 1500ft (450m) from BaseStation
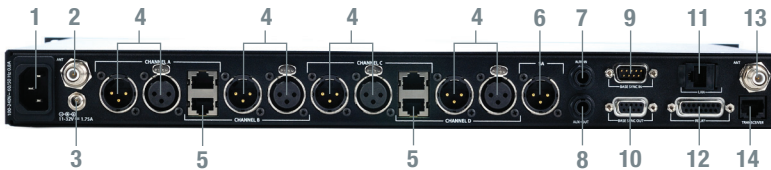
Roaming Features

- BaseStations provide seamless roaming zones
- Supports Normal, Shared and Split Modes
- Scalable architecture allows for seamless linked roaming zones
- Seamless handoffs between roaming zones – automatic

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FRONT PANEL

BACK PANEL

TECHNICAL SPECIFICATIONS

System Specifications

RF Frequency:	2400 to 2480 GHz
RF Scheme:	FHSS with TDMA
Effective Radiated Power:	100mW using 2dBi antenna
Receiver Sensitivity:	-93 dBm for 10^{-5} BER
Radio Certification:	FCC Part 15.247 and ETS 300.328 rules, license free
Transmission Range:	Up to 1,000ft (305m); 500 - 900ft (150 - 275m) typical
Audio Dynamic Range:	>94dB
Audio Frequency Response:	300Hz - 3.8KHz with proprietary audio voice shaping

BaseStation Specifications

Intercom Audio Channels:	4
Full-duplex BeltStations per BaseStation:	5 (in Normal Mode) Half-duplex, Shared
BeltStations per BaseStation:	Unlimited
Number of Antenna Ports per BaseStations:	2
Antenna Connector Type:	RP-TNC
Number of Synchronized BaseStations:	10
BaseStation/BeltStation Pairing:	Mini-jack/cable
Programming Port:	USB
Stage Announce and GPO Closures:	6 relays via DB15
2-wire Intercom Interface:	4 channels via XLR-3F with XLR-3M loop
2-wire Compatibility:	Clear-Com, RTS and balanced compatible
4-wire/Matrix Connection:	4 ports via RJ-45
Aux Input:	1/4" 3-conductor jack accepts -4 to +8dB, balanced, transformer isolated
Aux Output:	1/4" 3-conductor jack nominal -4 to +8dB, balanced, transformer isolated
Stage Announce Output:	XLR-3M, nominal -4 to +8dB, balanced, transformer isolated
Front Panel Headset:	4-pin male XLR
MicrophoneType:	Dynamic or Electret, Auto-Selected

Environmental

-4º – 122º F (-20º – 50º C)

Dimensions

19 in W x 1.76 in H x 12 in D
(483 mm x 44 mm x 190 mm)

Weight

10.5 oz (4.75kg)

Front Panel Legend

1. Local Headset Connector
2. Talk Button
3. Call Button
4. Mic Kill Button
5. Local Headset Channel LEDs A-D
6. Peak LEDs
7. Volume Control
8. Menu Button
9. Enter Button
10. LCD
11. Buttons 1-5
12. 2-Wire Intercom Type Slide Switches
13. Wired Intercom Channel Select Button
14. Channel LEDs
15. 2-Wire/4-Wire Select Button
16. 2-Wire/4-Wire LEDs
17. IN Level Control
18. OUT Level Control
19. USB Connector
20. BeltStation Program Connector
21. Power ON/OFF Switch

Back Panel Legend

1. AC Power Input Connector
2. Antenna Connector
3. DC Power Input Connector
4. Intercom Channel A/B/C/D Connectors
5. RJ-45 4-Wire Intercom A/B/C/D Connectors
6. Stage Announce Connector
7. Aux IN Connector
8. Aux OUT Connector
9. Base Sync IN Connector
10. Base Sync OUT Connector
11. Local Area Network RJ-45 Connector
12. Relay Connector
13. Antenna Connector
14. Remote Transceiver RJ-45 Connector

Notice About Specifications

While Clear-Com makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.

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