Tempest® Wireless Intercom

Tempest® Wireless Intercom Systems

Tempest®2400 Wireless Intercom System provides the most comprehensive set of features ever offered in wireless intercom systems to the global production community.

Tempest Wireless Intercom System is a revolutionary, all digital, 2- or 4-channel audio, wireless intercom system that operates in the 2.4GHz frequency band with up to 5 wireless BeltStations per BaseStation in full duplex, simultaneous operation. New features like Shared and Split Mode offer flexibility by allowing an unlimited number of BeltStations to operate in a Shared Mode.

With Tempest Wireless operating outside of the UHF bands, production teams can now have more UHF wireless microphones, IFB and in-ear monitors with less interference. A total of 10 Tempest BaseStations and Tempest full duplex wireless BeltStations can be operated in close proximity while maintaining excellent system performance. Tempest allows more users than conventional FM wireless systems operating under similar conditions. The 2.4GHz band is approved for non-licensed use in virtually every country.

All Tempest Wireless Intercom Systems feature license-free, patented 2xTX digital frequency hopping technology, compatibility with existing intercom systems, remote antenna options, desktop control of BaseStation and BeltStation functions, flexible power supply options and more.

System at a Glance:

- License free 2.4GHz frequency band operation
- TDMA technology creates a Wi-Fi friendly system
- 2xTX redundant data transmission
- Lost Packet Concealment technology prevents "clicks" and "pops" when a data packet is lost
- Compatible with existing 4-wire matrix, Clear-Com®, RTS®, AudioCom® partyline equipment
- Optional Remote Transceiver extends antenna coverage up to 1500 ft (450 m) from BaseStation
- New Shared and Split Modes offer an unlimited number of BeltStations per BaseStation
- Monitor and Manage system settings from T-Desk configuration software
- System updates downloadable quickly via Internet and USB connection

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Functionality

The Tempest2400 system offers an outstanding range of features and functions that can be configured from the BeltStation or BaseStation user interface or from a PC via the T-Desk configuration software.

Features Include:

- Stage Relay and Stage Announce
- 5 GPO Relay Contacts
- Remote Mic Kill
- Minimum and Maximum volume levels per BeltStation
- Wireless BeltStation Call capabilities
- Battery monitoring via BaseStation, BeltStation or T-Desk application

Tempest2400 BaseStation

The Tempest2400 BaseStation is available in 2-channel (CM-222) or 4-channel (CM-244) systems. Tempest BaseStations are compatible with exisiting 4-wire matrix or 2-wire Clear-Com, RTS or AudioCom partyline intercom systems. The LCD display makes setup easy and efficient while providing real time status of corresponding BeltStations. BaseStations can operate in one of three modes: Normal, Shared or Split. Each BaseStation is equipped with Stage Announce, Auxiliary In/Out and Relay connections. Omni-Directional Whip antennas are provided with each BaseStation; however, an optional Remote Transceiver is available as an accessory to the systems.

Tempest2400 BeltStations

The Tempest BeltStations, available in 2-channel or 4-channel models, are made of a durable, weather-resistant ABS co-polymer blend with a high performance polyurethane overmold. The BeltStations are designed to be both comfortable and rugged in order to withstand the most challenging production environments. BeltStations can operate in either Normal or Shared Mode. Tempest BeltStations are provided with a rechargeable Li-Polymer battery capable of 9+ hours of operation or can be powered by (3) Standard AA alkaline batteries. Each BeltStation has its own user-interface which allows settings to be changed at the BeltStation.

4-Channel BeltStation

The **CP-242** is a 4-channel, full duplex wireless BeltStation that operates in conjunction with the CM-244 BaseStation. Each BeltStation is capable of true dual talk/listen functionality allowing each user to simultaneously monitor and/or talk on two of the four hard-wired channels (A or B and C or D).

CP-242: 4-Channel BeltStation

2-Channel BeltStation

The **CP-222** is a 2-channel, full duplex wireless BeltStation that operates in conjunction with the CM-222 or CM-242 BaseStation. Each BeltStation is capable of true dual talk/listen functionality allowing each user to simultaneously monitor and/or talk on both hard-wired channels (A and B).

CP-222: 2-Channel BeltStation

Modes of Operation

Tempest Wireless BaseStations now offer 3 modes of operation: Normal, Shared and Split Mode.

Normal Mode

In Normal Mode, users can have up to 5 BeltStations per BaseStation. All BeltStations in this mode are in the standard operating mode giving the user control of the channels on which they operate and dual listen/talk functionality at any given time.

- Each BeltStation has dedicated anytime talk back capability

- BeltStation talk buttons may be operated in either momentary or latching mode

- Sidetone may be set individually for each BeltStation from -6dB to -30dB

- Full BeltStation telemetry is available in real-time at the BaseStation and T-Desk; settings can be adjusted from the BaseStation and/or T-Desk
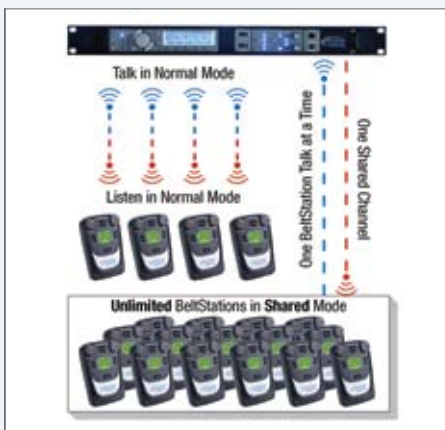
Shared Mode

The Shared Mode utilizes only BeltStations set as Shared, allowing an unlimited number of BeltStations per BaseStation. Only 5 Shared BeltStations can talk at any given time; however, they can control the channels in which they operate.

- Shared BeltStations are physically no different than a Normal BeltStation

- All Shared BeltStations:
  - Are inherently full duplex (talk/listen at the same time)
  - Can easily be set into Shared Mode instead of Normal Mode from BeltStation menu
  - Operate in momentary talk mode
  - Feature Stage Announce, Wireless ISO and Relays

Split Mode

In Split Mode, users are operating in a combination of the other two modes: Normal and Shared Modes. This mode offers the use of 4 BeltStations (per BaseStation) that utilize the standard anytime talk back capability and allows an unlimited number of Shared BeltStations to operate on the final slot.

- Unlimited number of Shared BeltStations may be used in addition to the 4 full duplex BeltStations operating in Normal Mode

- BeltStations are inherently full duplex (talk/listen at the same time)

T-Desk Software

The Tempest Wireless Intercom System is supplied with T-Desk, a PC-based desktop application for monitoring and managing the equipment in a wireless network. Not only does T-Desk simplify the configuration and management process, it provides ultimate flexibility by allowing these functions to be performed from a remote location via a LAN (Local Area Network) connection. It provides an intuitive, self-evident method of optimizing multiple Tempest BaseStations and their associated BeltStations.
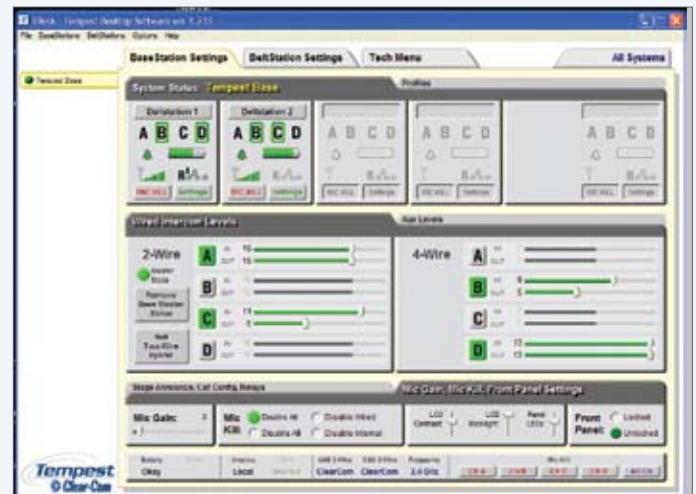

Tempest T-Desk: Profiles Screenshot

Benefits:

- Real time system monitoring and management

- Load and Save BeltStation profiles

- Visually friendly and easy to use interface

- 2-wire/4-wire and Auxillary level control

- Mic Kill functionality

- Battery alert status

Tempest T-Desk: BeltStation Screenshot

Tempest T-Desk: BaseStation Screenshot

Accessories

T-BC5: 5-Bay Battery Charger

Tempest 5-bay battery charger for charging Lithium-Polymer batteries outside of the BeltStation.

*Charger and batteries sold separately

T-LP1: Lithium-Polymer Battery

Tempest 3.6VDC, 2000mAh rechargeable Lithium-Polymer battery. The T-LP1 provides up to 9 hours of active use.

CCT-RT: Remote Transceiver

Tempest Remote Antenna Transceiver is powered by Tempest BaseStation via CAT-5 cable up to 1500 feet (457 meters).

* Includes 15 ft (4.5 m) CAT-5 cable and two whip antennas.

CCT-DAKIT1: Directional Antenna Kit

9 dBi directional antenna kit:
(2) 9 dBi directional antennas (w/mounting brackets), (1) L-bracket
(w/ (2) 5/8" (15.9 mm) dia. mounting posts), (2) 10 ft (4.5 m) coax cables,
(1) Bogen "C" clamp.

* Not available in EU countries.

Tempest® Wireless Intercom Systems

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

Specifications	Tempest BaseStation	
Model number	CM-244	CM-222
Intercom Audio Channels	4	2
No. of Antenna Ports per BaseStation	2	1
Antenna Connector Type	RP-TNC	
No. of Shared BeltStations	Unlimited	
No. 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	2 channels via XLR-3F with XLR-3M loop	
2-Wire Intercom Compatibility	Clear-Com, RTS and balanced compatible	
4-Wire/Matrix Connection	2 ports via RJ-45	
Aux Output	1/4" 3-conductor jack nominal -4 to +8dB, balanced, transformer isolate	
Front Panel Headset	4-pin male XLR	
Microphone Type	Dynamic or Electret, Auto-Selected	
Weight	10.5 lb (4.75 kg)	
Environmental	-4˚ – 122˚ F (-20˚ – 50˚ C)	
Dimensions	19 in. W x 1.75 in. H x 12 in. D (483 mm x 44 mm x 305 mm)	

Specifications	Tempest BeltStation	
Model number	CP-242	CP-222
Intercom Audio Channels	4	2
Headset Connector	4-pin male XLR	
Microphone Type	Dynamic or Electret, Auto-Selected	
Antenna Internal	+2 dBi patch	
Charger Input	100-240V, 0.3A, 50-60Hz	
Charger Output	5V, 1.25A	
Battery Charging	via mini USB connector using supplied charger	
Battery Life, Rechargeable Lithium-Polymer	Up to 9+ hours	
Charge Time, Rechargeable Lithium Polymer	2 3/4 hours in BeltStation; 2 1/2 hours in charger (from empty)	
Alternative Power	3 Standard AA alkaline cells	
Battery Life, Alkaline	3 Standard AA alkaline cells	
Weight	14.3 oz (0.41 kg)	
Environmental	-4˚ – 122˚ F (-20˚ – 50˚ C)	
Dimensions	4.0 in W x 6.1 in H x 1.75 in D (102 mm x 156 mm x 44.5 mm)	

Clear-Com®
COMMUNICATION SYSTEMS

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