

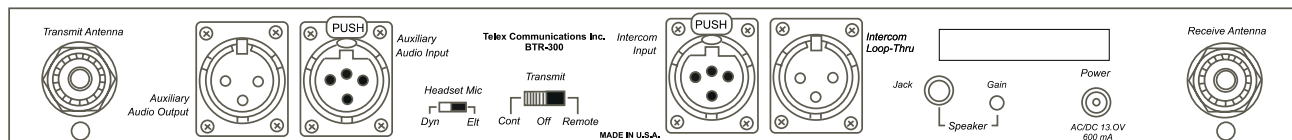
BTR 300

W I R E L E S S I N T E R C O M



The BTR-300 wireless intercom system is the first wireless intercom to be designed specifically with DTV band allocations in mind. Improved front end filtering allows the BTR-300 to be used in RF environments where other wireless intercoms simply can't function. Additional filtering capabilities and unique channel assignments allow up to four base stations and 16 individual belt packs to be used simultaneously. Break the chains of wired communications without breaking the budget. Get the reliable, affordable RadioCom BTR-300.

- **Cost Effective.** The BTR-300 is the most cost effective wireless intercom system available for professional and industrial applications. Now you can actually afford to go wireless on a large scale. No more costly interruptions while new cabling is run for an unexpected production change. Your projects can finally have the communications flexibility and mobility you need, without putting a hole in your budget.
- **Quality Audio.** Unique audio shaping circuitry and superior RF design combine to give the BTR-300 wired intercom quality sound.
- **Front End Filtering.** The BTR-300 utilizes sophisticated "high Q" front end technology to filter out potentially harmful RF signals before they get the chance to cause harmful interference even in hostile RF environments.
- **Band Allocation.** The BTR-300 operates in the High VHF frequency range avoiding most DTV transmissions. In addition, a computerized frequency selection scheme ensures maximum channel operability.
- **Operating Range.** Belt packs can operate at ranges of up to 2000 feet line of sight (belt pack to belt pack), even in hi RF environments where interference plagues other systems.
- **More Belt packs.** With improved front end filtering and an innovative frequency selection plan, the BTR-300 now supports up to four base stations and 16 belt packs in simultaneous operation. That's two times the number previously available.
- **Small, Rugged Belt pack.** The TR-300 belt pack won't drag you down like other bulkier products. Weighing only 13 ounces (with batteries) and measuring only 2 inches in depth, the TR-300 utilizes the latest in polycarbonate resin technology to deliver unparalleled durability while maintaining a lightweight, wearer-friendly package.
- **Extended Battery Life.** Optional NiMH (Nickel Metal Hydride) batteries provide 17 hours of continuous transmit operation. 24 hours of continuous operation is available with alkaline AA's. The longest battery life of any professional wireless intercom available today.
- **In Pack Charging.** Convenient charging jack on the TR-300 belt pack allows optional NiMH batteries to be recharged without removing them from the belt pack. (External charging is also supported.)
- **Ease Of Use.** A new ergonomically designed user interface, with well labeled controls and bright status light indicators enables quick system setup and low learning curves.
- **Compatibility.** Advanced intercom audio interface circuitry allows seamless operation with all major intercom systems.
- **Full Duplex Operation.** No more waiting! Unlike walkie-talkies, individual talk frequencies for each belt pack allow all wireless users to talk and listen simultaneously for more natural communications.



TR-300 Beltpack Transceiver

Overall

Power Requirement:	6 AA Cells (Alkaline, NEDA, MN1500); Nickel Metal Hydride Optional
Typical Battery Life —	
Alkaline (Panasonic® AM-3PI):	24 Hours (Continuous duty with talk light on)
Typical Battery Life —	
Nickel Metal Hydride (Sanyo 1500):	17 Hours (Continuous duty with talk light on)
Current Drain:	Typical 82 mA
Temperature Range:	-4°F to 130°F (-20°C to 55°C)
Dimensions:	4.25"W × 4.125"H × 2.0"D (108 mm × 105 mm × 51 mm)
Weight:	13 oz. with batteries (369 g)
Transmit Antenna:	1/4 wave (supplied)
Receive Antenna:	1/4 wave (supplied)
Type:	FM Superheterodyne, Dual Conversion FM Times Nine Multiplier Transmitter

Transmit

RF Frequency Range:	150 to 216 MHz
RF Frequency Stability:	Crystal Controlled, 0.005%
RF Power Output:	50 mW Typical
Modulation:	FM, 3000 Hz Deviation, 115 micro-seconds Preemphasis
Modulation Limiter:	Internal Compressor
Modulation Frequency Range:	300 to 5000 Hz ±2 bd
Microphone Audio Input:	30 ohms to 3500 ohms
Microphone Input Sensitivity:	2 mV Dynamic, 4 mV Electret
Radiated Harmonics and Spurious Emissions:	-45 dBC, Exceeds FCC Specifications
FCC Acceptance:	Under Parts 90, 74 and 15

Receive

RF Frequency Range:	150 to 216 MHz
RF Frequency Stability:	Crystal Controlled, 0.005%
Type:	Dual Conversion Superheterodyne, FM
RF Sensitivity:	Less than 0.5 µV for 12 dB SINAD
IF Selectivity:	3 dB at 30 kHz (Ceramic Filters)
Image Rejection:	70 dB or better
Squelch Quieting:	90 dB
Squelch Threshold:	3.0 µV (Internal)
Signal-to-Noise Ratio:	90 dB
Audio Output:	32 mW into 600 ohms (Headset)
Distortion:	Less than 1% at Rated Output

Ordering Information

Model No.	Description	Order by Cat.
BTR-300	Four Channel Base Station	71276-XXXX*
TR-300	Beltpack Transceiver	71227-XXXX*

*Choose desired frequency group by contacting Telex dealer or from chart on Telex Radiocom price sheet; then add appropriate suffix numbers in place of (XXXX).

All specifications are subject to change without notice.

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BTR-300 Four Channel Base Station Transceiver

Overall

Power Requirement:	115 Vac, 60 Hz, 8W (220 Vac, 50 Hz, Model Avail.) or 12 to 15 Vdc (external)
Temp Range:	-4°F to 130°F (-20°C to 55°C)
Dimensions:	15.75"W × 1.75"H × 10.5"D (40 cm × 4.5 cm × 27 cm)
Weight:	4.5 lbs. (2 kg)
Transmit Antenna:	1/4 wave (supplied) S0239 connector on chassis
Receive Antenna:	1/4 wave (supplied) S0239 connector on chassis
Type:	FM Superheterodyne Single IF Receiver FM Times Nine Multiplier Transmitter

Transmit

RF Frequency Range:	150 to 216 MHz
RF Frequency Stability:	Crystal Controlled, 0.005%
RF Power Output:	50 mW Typical
Modulation:	F3, 5000 Hz Deviation, 100 micro-seconds Pre-emphasis
Modulation Limiter:	Internal Compressor
Modulation Frequency Range:	300 to 5000 Hz ±2 db
Microphone Audio Input:	30 ohms to 3000 ohms
Microphone Input Sensitivity:	2 mV Dynamic, 4 mV Electret
Radiated Harmonics and Spurious Emissions:	-45 dBC, Exceeds FCC Specifications
External Audio Input:	Auxiliary & Intercom Inputs
Intercom Output:	330 mVRMS (Low) or 1 VRMS (High) into 300 ohm load typical (at rated deviation)
Auxiliary Output:	2 VRMS into 600 ohm load typical (at rated deviation)

Receive

RF Frequency Range:	150 to 216 MHz
RF Frequency Stability:	Crystal Controlled, 0.005%
Type:	Single Conversion Superheterodyne, FM
RF Sensitivity:	Less than 0.5 µV for 12 dB SINAD
IF Selectivity:	3 dB at 30 kHz (4 pole Monolithic Filters)
Image Rejection:	65 dB or better
Squelch Quieting:	90 dB
Squelch Threshold:	3.0 µV (Internal)
Signal-to-Noise Ratio:	90 dB
Audio Output:	32 mW into 600 ohms (Headset)
Other Audio Outputs:	Speaker, Auxiliary, Intercom
Distortion:	Less than 1% at Rated Output

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