

## BTR-80N

### Narrow Band 2-Channel UHF Synthesized Wireless Intercom System



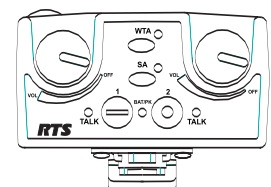
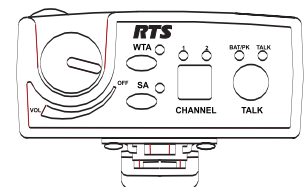
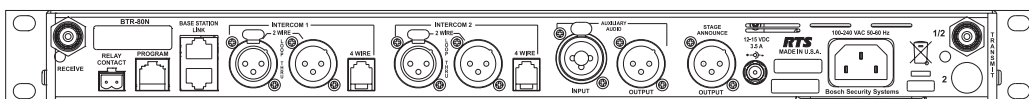
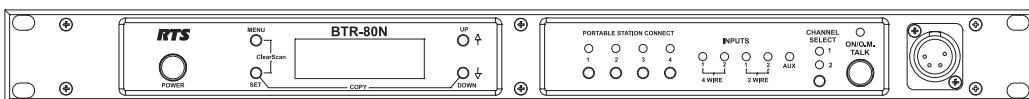
The RTS RadioCom BTR-80N Narrow Band 2-Channel UHF Synthesized Wireless Intercom System is a revolutionary product offered in today's ever-changing and shrinking RF environment. Providing an unprecedented 25kHz of modulated bandwidth, the BTR-80N narrow band system allows more users per channel in the cramped UHF spectrum.

While providing excellent audio performance, the Narrow Band system provides all of the standard features of the RTS RadioCom BTR-800 system, such as DSP digital processing and Intelligent Power Control. Additional features include multiple selectable transmitter power outputs, selectable receiver squelch control, RF meter display on base station and beltpack displays, remote battery indicators on base station display, beltpack battery percentage display, low battery tone indicator on beltpack, AC or DC power input on base station, simultaneous 2-Wire and 4-Wire operation and the ability to expand a system to an unlimited number of users in half-duplex with the First-On-Latch-Out feature. The BTR-80N fits in a standard 19-inch equipment rack and is 1 (1) rack unit high. The TR-80N and TR-82N beltpacks are constructed of durable and lightweight magnesium and provide up to 10-12 Hours of operation on AA alkaline batteries.

## Features

- UHF Operation.
- Frequency agile base station and beltpacks.
- Flexible number of beltpack users per base station.
- 2-Channel intercom.
- Selectable output power.
- User adjustable receiver squelch control.
- RF meter on BTR-80N, TR-80N, and TR-82N.
- Beltpack battery gauge on BTR-80N display.
- Simultaneous 2-wire and 4-wire operation.
- Beltpack low battery indicator with tone warning.
- Beltpack has a battery gauge on BTR-80N display.
- Ability to turn off remote beltpack transmitters from base station.
- BTR-80N is easily adapted for two (2) transmitter output.
- BTR-80N is designed for AC or DC power input.
- Auxiliary audio input is assignable with level control.
- BTR-80N has selectable DC power feed on RX Line.
- Beltpack dark mode (no LEDs on).

## Line Drawings



## Specifications

RF Frequency Range  
(USA): ..... 482–698MHz  
(TV 16 to TV 36 and TV 38 to TV 52)

RF Frequency Range  
(Outside USA): ..... 482–722MHz

BTR-80N Power Requirements: ..... (AC and DC)  
100–240VAC, 50–60Hz  
12–15 Volts DC

TR-80N/TR-82N Power Requirements: ..... 6 AA Cells  
Alkaline (NiMH optional)

Temperature Range: ..... -4°F to 130°F (-20°C to 55°C)

Frequency Response: ..... 200Hz to 4000Hz

4-Wire Input and Output: ..... Level Adjustable  
(2Vrms typical)

AudioCom.RTS 2-Wire Intercom  
Input and Output: ..... Level Adjustable (1Vrms typical)  
Line Impedance 300Ω

RTS 2-Wire Intercom Input and Output: ..... Level Adjustable  
(0.775Vrms typical)  
Line Impedance 200Ω

Clear-Com TW Intercom  
Input and Output: ..... Level Adjustable (1Vrms typical)  
Line Impedance 200Ω

Auxiliary Audio Input: ..... Adjustable  
(2Vrms typical)

Auxiliary Audio Output: ..... Adjustable  
(2Vrms into 600 Ω)

Stage Announce Output: ..... Adjustable  
(2Vrms typical at rated  
deviation into 600Ω)

Stage Announce Relay: ..... Dry contact, rated at 1 Amp  
24V Max

Transmitter Type: ..... Synthesized Transmitters  
720 channels each

Transmit Power Selectable:  
BTR-80N: ..... 249mW–10mW  
TR-80N/TR-82N: ..... 100mW–5mW

Modulation Type: ..... FM

Deviation: ..... 4kHz

Receiver Type: ..... Triple Conversion Superheterodyne  
Four (4) Independent IF's  
720 Channels Each

RF Sensitivity: ..... <0.6 micro volts for 12dB SINAD

Squelch Threshold: ..... Adjustable

Squelch Quieting: ..... 90dB

Distortion: ..... 1% at full deviation

### Product Dimensions/Weight

BTR-80N: ..... 19.0" W x 1.72" H x 13.8" D  
(48.3cm x 4.4cm x 35.1cm)  
7lb 5oz (3.3kg)

TR-80N: ..... 3.75" W x 5.25" H x 1.65" D  
(9.5cm x 13.3cm x 4.2cm)  
1lb 3oz (540g) with batteries

TR-82N: ..... 3.75" W x 5.25" H x 2.02" D  
(9.5cm x 13.3cm x 5.1cm)  
1lb 5oz (597g) with batteries

### Shipping Dimensions/Weight

BTR-80N: ..... 22.5" W x 5" H x 16.5" D  
(57.2cm x 12.7cm x 41.9cm)  
1lb 3 oz. (5.1kg)

TR-80N: ..... 13.75" W x 3.75" H x 6.5" D  
(34.9cm x 9.5cm x 16.5cm)  
1lb 7oz (.65kg) without batteries

TR-82N: ..... 13.75" W x 3.75" H x 6.5" D  
(34.9cm x 9.5cm x 16.5cm)  
1lb 9oz (.72kg) without batteries

#### CONSUMER ALERT

Most users do not need a license to operate this wireless microphone system.

Nevertheless, operating this microphone system without a license is subject to certain restrictions: the system may not cause harmful interference; it must operate at a low power level (not in excess of 50 milliWatts); and it has no protection from interference received from any other device. Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change.

For more information, call the FCC at 1-888-CALL-FCC (TTY: 1-888-TELL-FCC) or visit the FCC's wireless microphone website at [www.fcc.gov/cgb/wireless-microphones](http://www.fcc.gov/cgb/wireless-microphones).

#### NOTICE:

This wireless microphone system can be configured for both FCC Part 15 (unlicensed) and FCC Part 74 (licensed) operation. When shipped from the factory, this wireless microphone system is configured for unlicensed operation, and will operate at a power level not to exceed 50 milliWatts, which meets FCC Part 15 requirements. If unlicensed users operate this device in excess of 50 milliWatts, harmful interference may result and the unlicensed user will be subject to substantial monetary forfeitures and other FCC sanctions. The wireless microphone system may be operated by holders of a valid FCC license in the Low Power Auxiliary Radio Service under Part 74 of FCC Rules, at power levels between 50 milliWatts and 250 milliWatts.

## Order Information

BTR-80N • Narrow Band UHF Base Station  
TR-80N • Narrow Band UHF 2 Channel Beltpack  
TR-82N • Narrow Band UHF 2 Channel Stereo Beltpack

For ordering information, contact your regional sales representative at:  
<http://rtsintercoms.com/us/intercom/contact>

The specification information is preliminary and is subject to change without notification.  
Brand names mentioned are the property of their respective companies.