

RadioCom™

w i r e l e s s i n t e r c o m s



Telex®/RTS®

BTR-600

The Telex® RadioCom™ BTR-500/600 UHF Wireless intercom systems offer the ultimate in reliable, high performance, high fidelity, full duplex communications. Operating in the 520 to 760 MHz range the units operate reliably at distances of over 1,000 feet. Various types of log periodic antennas are available that can increase the effective range to ½ mile or more depending on site conditions.

The BTR-600 series incorporates Auto-switching 2 channel audio operation, permitting the belt pack user to select between 2 separate audio channels of communication. Auto-switching provides the flexibility to create private and party lines within the same belt pack.

The BTR-500/600 series also incorporates two channel frequency agility. The base station and belt pack have two UHF transmit frequencies and two UHF receive frequencies that allow the user to escape frequency interference problems that may arise.

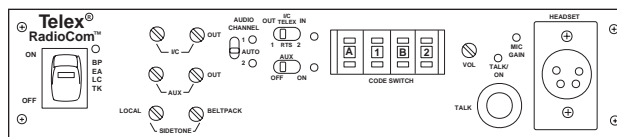
The BTR-500/600 series is perfectly suited for stand-alone (single drop) operation and easily expands up to 16 BTR/TR sets permitting up to 32 discrete full duplex channels. The systems are fully compatible with RTS™ TW and Audiocom™ party line intercoms, as well as RTS Digital Matrix systems and other 4 wire communications systems. The systems easily adapt to other types of party line intercom. The base station also allows connections for auxiliary balanced line level audio input and output.

The BTR-600 series includes a unique patented digital encryption process for those who need secure full duplex communications. The 600 series offers over 65,000 code settings that can be changed on the fly by means of 4 cipher code switches on the units.

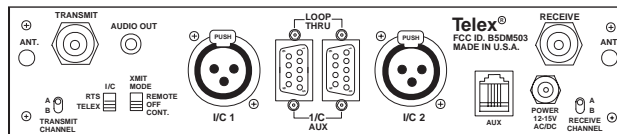


Code Switch:

Allows operator to select up to 65,000 different cipher codes (BTR-600 set only).



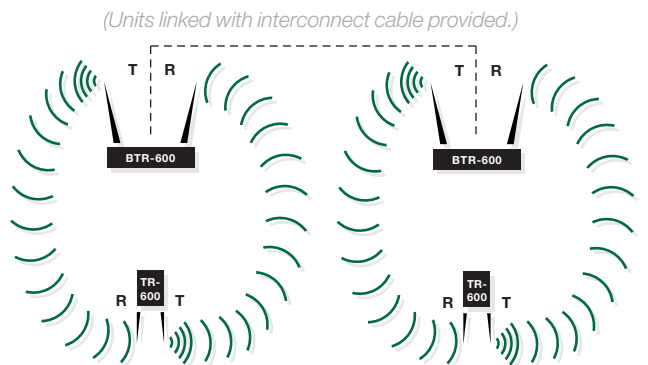
Front



Back



Shown:
National Football League Coaches' System featuring 8 BTR-600 sets and an SC-600 Antenna combiner.



How The System Works:

The BTR-500/600 set provides full duplex communications with a single belt pack transceiver. The BTR-500/600 base station transmits a UHF frequency that the TR-500/600 receives and simultaneously transmits a UHF frequency that the base station receives.

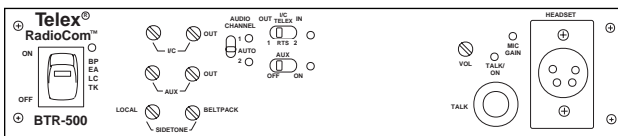
1 to 16 BTR-500/600 sets may be operated simultaneously permitting full duplex communications. Units can be linked together to create private or party line communications (units linked with interconnect cable provided).



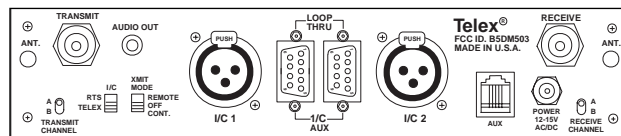
BTR-500 TR-500



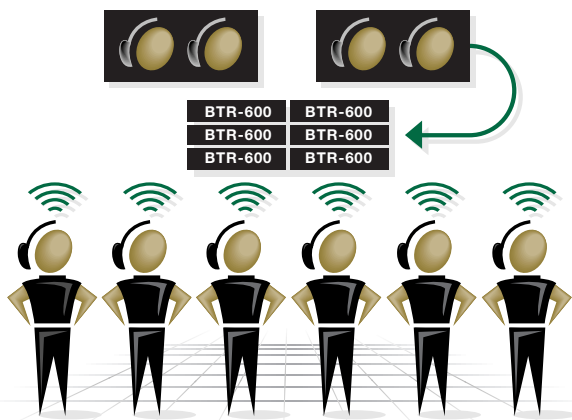
The BTR-500 series includes the BTR-500 frequency agile base station, working with the TR-500 transceiver belt pack. The BTR-500 base station provides full duplex communications with a single belt pack, or can accommodate multiple belt packs operating in push to transmit mode. 16 BTR-600s (or more) may be operated simultaneously, permitting 32 (or more) discrete full duplex channels.



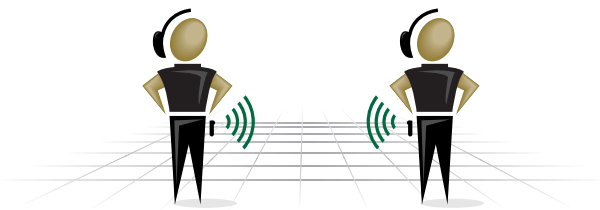
Front



Back



Shown:
6 "drop" system interfaced into wired party line intercom



Mirror Image System:
Belt pack to belt pack

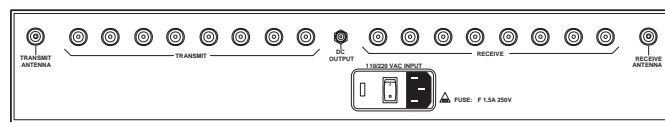
Standard Features

BTR500/600 — TR500/600

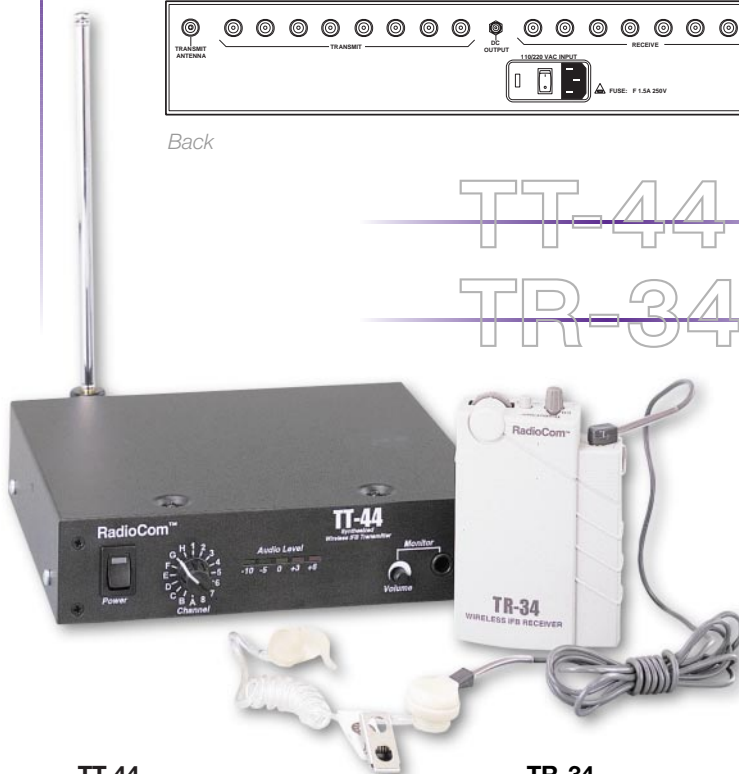
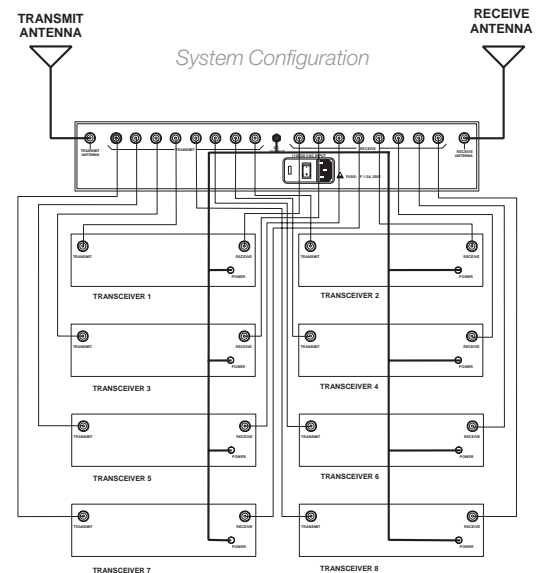
- Full duplex
- 520-760 MHz band
- Two channel Audio auto-switching
- Dual frequency agility
- Modular design 1-16 sets
- All metal, weather-resistant belt pack
- Dual function talk button—momentary or locked on
- Individual level controls-providing unparalleled user flexibility
- Direct interface to RTS TW and Telex Audiocom
- Easily adapts to Clear-Com® systems
- Digital Matrix compatible
- Made in the USA
- 3 year warranty

SC-600

The SC-600 Amplified Broadband Splitter-Combiner makes it possible to operate eight UHF wireless intercom base transceivers using only two antennas. In addition to accommodating eight transmit and eight receive antennas, it provides power connection for up to eight base transceivers. It also features a high degree of output isolation—a necessity in multi-frequency systems to prevent intermodulation. It is the ideal compliment to your BTR500/600 UHF Wireless Intercom System.



Back

TT-44
TR-34**TT-44**

The Telex RadioCom TT-44 is a 16 channel synthesized wireless IFB transmitter designed to provide a wireless link to on-air talent in the studio or while you are in the field. Operating in the 64-68 MHz range the units operate reliably at distances of over 750 feet.

The TT-44 transmitter has a 3 pin XLR input on the back of the unit with a selector switch to accept either RTS TW, Telex Audiocom/RadioCom, or other types of wired and wireless intercom input. There is also a 1/4" unbalanced line level signal input jack. The TT-44 offers the flexibility of tuning 8 of its frequencies in the TV channel 3 band and 8 in the TV channel 4 band for ultimate agility while in the field. Up to 5 transmitters will operate simultaneously within the same environment.

TR-34

The TR-34 is a 16 channel tunable talent receiver that is designed to be used with the standard IFB earpieces such as the Telex Telethin announcers earpiece systems or any other 8-500 ohm earphone. The TR-34 features a selectable high frequency boost control to equalize the high frequency loss associated with the use of behind the collar acoustic tubes and earphone drivers. The receiver also features a lighted bezel for easy channel identification and auto power off when the earphone is removed from the jack. The TR-34 operates on two standard AA batteries and will operate for up to 40 hours on alkaline batteries.

Earsets

The Telex earset components are designed for inconspicuous listening for on-camera talent and are used by nearly every major television network. Earset components are made up of interchangeable parts which simply snap together—this allows the users to construct a version that best suits their particular needs.

The earset components shown in the photo (left) include an earmold (available in left or right—small, medium, or large); an acoustic eartube with clothing clip (model ET-2); a Telethin audio driver (model RTV-04 is a 125 ohm driver—other impedance values are available); and a 5 foot, low luster beige cord with 1/8" plug (model CMT-92).

There are other options for the earpiece component—one of which is called an "earcone" (not shown). A complete earset system including one of each size earcone (small, medium, or large) can be ordered as follows: Model CES-2 includes one of each size earcone (BT-2, BT-3, BT-4); an acoustic eartube with clothing clip (model ET-4); a Telethin audio driver (model RTV-04); and a cord with 1/8" plug (model CMT-98).

BTR-200

BTR-200

The Telex RadioCom BTR-200 series is a full duplex VHF highband wireless intercom system (full duplex refers to talk/listen at the same time). Operating in the 150-216 MHz range the units operate reliably at distances of 1000 feet or more.

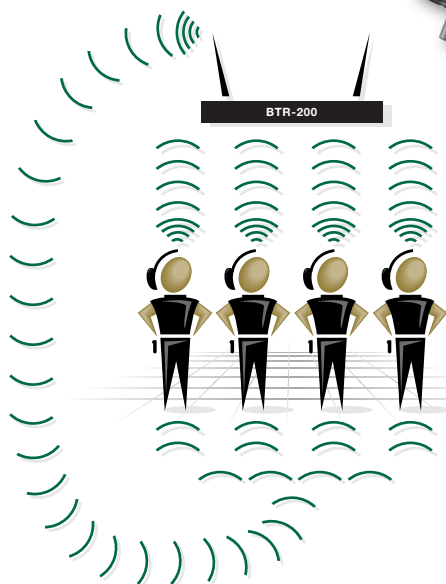
The 200 series is a four channel base station transceiver with unique receive channels allowing four belt pack transceivers to operate in full duplex communications. For convenience in ordering, there are several preselected frequency groups carefully coordinated by the Telex RF engineers for system

compatibility. High selectivity between channels is achieved through an exclusive computer designed IF filter system and a dual conversion IF for greater selectivity and adjacent channel rejection.

The 200 series offers a built-in interface to RTS TW, Audiocom and Clear-Com party line intercoms and can be interfaced into RTS digital matrix using an RTS interface such as model SSA-324.

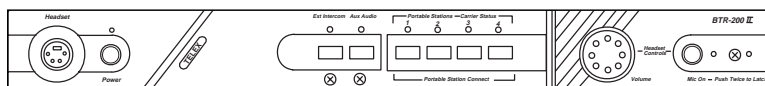


TR-200

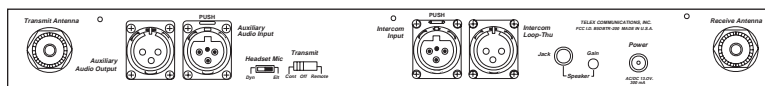


How the System Works:

The BTR-200 base station transmits a common VHF frequency that the TR-200 packs receive; each TR-200 belt pack transmits a unique VHF frequency to the base station. Four TR-200s can operate in full duplex with the BTR-200



Front



Back

Standard Features

BTR-200

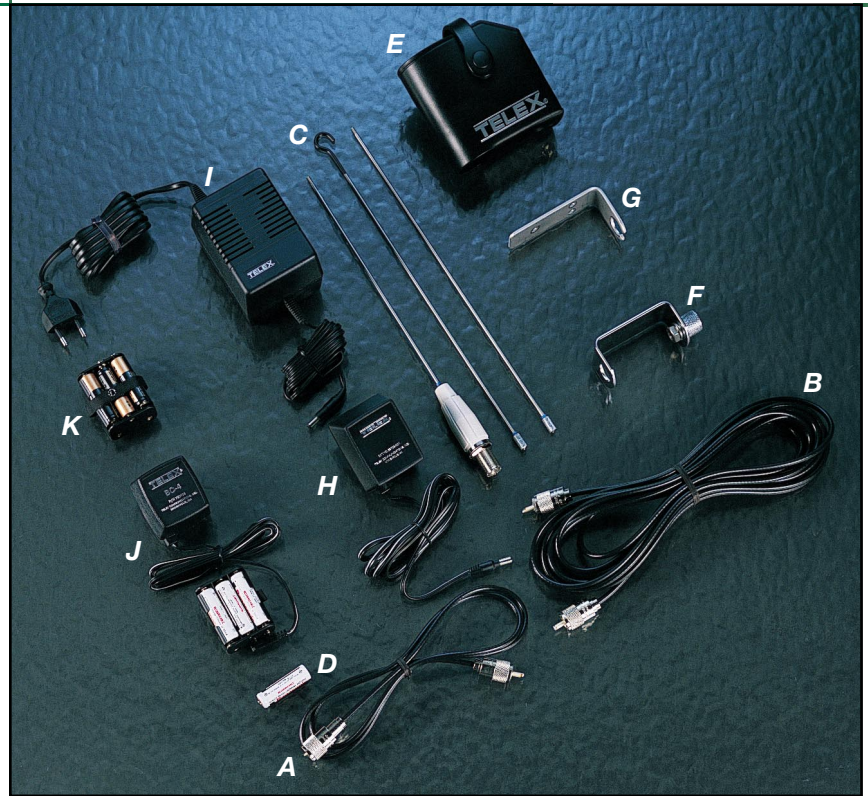
- Full duplex operation
- 150-216 MHz band
- Easily interfaces to RTS TW, Audiocom, and Clear-Com® brand wired intercom systems
- Auxiliary in and out connections

- Local headset connector and volume control on base
- Ability to link two base units together for 8 belt packs in full duplex via auxiliary connections
- Pre-selected frequency groups for convenience in ordering

TR-200

- Lightweight polycarbonate belt pack
- Dual function talk button allows for momentary talk or locked-on hands free talk
- Low battery LED indicator lights continuously when batteries are low. Belt pack operates up to 24 hours with 6 AA Alkaline or up to 10 hours with NiCad rechargeable batteries

- A **CX-4**
Coax antenna cable 4' (1.2m) 50 ohm
- B **CX-25**
Coax antenna cable 25' (7.6m) 50 ohm
- C **UA-58B (shown)**
5/8 wave transmit/receive antenna
Frequency range 154-172 MHz
- UX-58Y (not shown)**
Frequency range 169-185 MHz
- UX-58W (not shown)**
Frequency range 185-200 MHz
- UX-58R (not shown)**
Frequency range 200-216 MHz
- D **NCB-AA**
NiCad AA battery for TR-200 (requires 6)
- E **TRH-1**
Leather swivel holster with belt loop for TR-200
- F **ASA-1**
Mic stand bracket for 5/8 wave antenna
- G **AWB-1**
Wall bracket for 5/8 wave antenna
- H **PA-2**
Power supply for BTR-200 II 120 V
- I **PA-2E**
Power supply for BTR-200 II 240 V
- J **BC-4**
NiCad battery charger; sled for TR-200;
and 6 AA NiCad batteries
- K **BSL-1**
Spare battery sled for TR-200
(batteries not included)



Not shown:
High Performance directional VHF Yagi antennas
 Available in three frequency ranges:
 150-157 MHz, 169-186 MHz, and 204-216 MHz

ALP-1
 High performance log periodic antenna. 165-216 MHz



ALP-450
 Broadband unidirectional log periodic antenna
 Frequency range 450 to 900 MHz



ALP-600
 Broadband bi-directional log periodic antenna
 Frequency range 450 to 900 MHz



ALP-600 Antenna Mast and Bracket Kit
 Four section, clear anodized aluminum
 mast with extended length of 90"
 Aluminum brackets with vertical or
 horizontal mounting capability

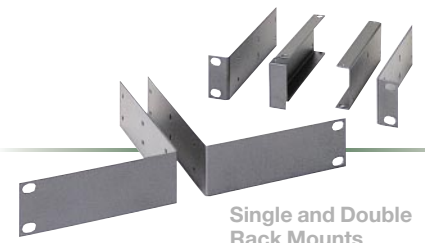
BC-500NM
 Nickel metal battery pack with charger

BP-500NM
 Spare nickel metal battery pack

RMS-BTR
 Single rack mount kit for one BTR-500/BTR-600

RMD-BTR
 Dual rack mount kit for two BTR-500/BTR-600

Not Shown:
BP-500
 Spare battery sled for alkaline batteries
 (batteries not included)



Not Shown:
 CXU-25 UHF Coax Antenna Cable 25'
 CXU-50 UHF Coax Antenna Cable 50'
 CXU-75 UHF Coax Antenna Cable 75'



HR-1



HR-2



PH-4



PH-8



PH-8000



PH-1



PH-2



V-210/V-220

HR-1/HR-2

The HR-1 and HR-2 are medium-weight noise-reduction headsets with dynamic noise cancelling microphones, a noise reduction rating of 21 dB — suitable for use in moderately noisy environments. These models feature a unique headband design that distributes ear cushion pressure evenly over the entire ear with no pressure points, and fold into an extremely compact shape for storage. Straight cord with XLR-4 type plug.

PH-4

Super lightweight, dual-sided for day-long comfort. High quality monaural dynamic earphones with dynamic noise cancelling microphone on adjustable boom. Straight cord with XLR-4 type plug.

PH-8

Super lightweight, single-sided headset for the ultimate in day-long comfort. High quality monaural dynamic earphone with dynamic noise cancelling microphone on adjustable boom that can be bent to practically any position. Straight cord with XLR-4 type plug.

PH-8000

Super lightweight single-sided headset with waterproof microphone and sealed headband that make it a great choice for high-moisture environments. The PH-8000 is ideal for maximum comfort in a low noise environment, or for wearing under a helmet or under hearing protection gear. **Only available with electret type microphone element.**

PH-1

Single-sided headset with foam-filled cushion effectively reduces ambient noise. Dynamic, monaural earphones with dynamic noise cancelling microphone attached to a continuously adjustable ball joint. Five foot straight cord with clothing clip and XLR-4 type plug.

Note:

All RadioCom™ brand base/belt-pack units shown in this catalog require a headset with a female XLR-4 plug.

PH-2

Dual-sided headset with foam-filled cushion effectively reduces ambient noise. Dynamic, monaural earphones with dynamic noise cancelling microphone attached to a continuously adjustable ball joint. Five foot straight cord with clothing clip and XLR-4 type plug.

V-210/V-220

The V-Series headsets are high fidelity, studio quality products that may be tailored to most any need using modular cord sets and microphones. The V-210 is a single-sided headset, the V-220 is dual-sided, and both have a unique ball and socket boom with a hinge on boom's center for extra-flexible mic movement. The V-Series' unique floating earcups adjust to virtually any head size or shape for maximum comfort.

s p e c i f i c a t i o n s

TT-44 Transmitter

RF Frequency Range: 64.5-67.5 MHz
Modulation: F1M ±25 KHz deviation
Signal-To-Noise Ratio: 58 dB (64 dB A weighted)
Maximum Deviation: ±25 KHz
Maximum Rated Power: 50 mW
Audio Input: Balanced XLR-3F 150K ohms, Unbalanced 1/8" Jack 100K ohms/70 MV-7 Volt input range
Antenna Type: 1/4 wave omnidirectional telescoping whip (supplied) or external type (optional)
Audio Controls: Input levels, Intercom select
Power Requirements: 15-24 Vdc or 13 Vac; 115 Vac 60 Hz plug-in wallpack power supply

Dimensions: 7.5" W × 6.815" H × 1.75" D (19.2cm × 19cm × 4.5cm)
FCC ID: B5DM507
Visual Indicators: 5 segment audio level LED, 1 power ON indicator

TR-34 Talent Receiver

RF Frequency Range: 64.5-67.5 MHz
Harmonic and Spurious Emissions: Meets FCC Part 15
Sensitivity: 1.0 μV maximum, 12 dB SINAD 25
Distortion: <2% THD
Audio Output: into 8 Ohms 2.0 V/15 mW, into 32 Ohms 2.0 V/10 mW
Antenna Type: 1/4 wave, in earphone cord
Battery Type: (2) AA Alkaline, or NiCad

Battery Life: 24-40 hours continuous use Alkaline; 10-15 hours continuous use NiCad
Audio Controls: Volume, On/Off high frequency boost control (push On type)
Ear Piece Connector: 3.5mm mini stereo or mono
Channels Tuned: 2 TV Channels: 64.5-65.9 MHz & 66.1-67.5 MHz. (TV-3) 64.5, 64.7, 64.9, 65.1, 65.3, 65.5, 65.7, 65.9. (TV-4) 66.1, 66.3, 66.5, 66.7, 66.9, 67.1, 67.3, 67.5.
Temperature Range: 32°F to 120°F (0°C to 50°C)
Weight: 3 oz. (85g)
Dimensions: 2.7" W × 1" H × 3.750" D (8.7cm × 2.5cm × 9.5cm)
FCC: Part 15
Visual Indicators: Backlit ON/Channel indicator

| Overall | BTR-600 Base Station Repeater | BTR-500 Base Station Repeater | BTR-200 II Base Station Repeater | TR-600 Belt Pack Transceiver | TR-500 Belt Pack Transceiver | TR-200 Belt Pack Transceiver |
|--------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------|
| Power Requirements | 115 Vac, 60 Hz, 8W (230 Vac, 50 Hz, Model Avail.) or 12 to 15 V AC/DC (external) | 115 Vac, 60 Hz, 8W (230 Vac, 50 Hz, Model Avail.) or 12 to 15 V AC/DC (external) | 115 Vac, 60 Hz, 8W (230 Vac, 50 Hz, Model Avail.) or 12 to 15 V AC/DC (external) | 6 "AA" Cells (Alkaline) Nickel Metal Hydride optional | 6 "AA" Cells (Alkaline) Nickel Metal Hydride optional | 6 "AA" Cells NickelCad optional |
| Current Drain | | | | 120 mA | 120 mA | 65 mA |
| Temp Range | -4°F to 130°F (-20°C to 55°C) | -4°F to 130°F (-20°C to 55°C) | -4°F to 130°F (-20°C to 55°C) | -4°F to 130°F (-20°C to 55°C) | -4°F to 130°F (-20°C to 55°C) | -4°F to 130°F (-20°C to 55°C) |
| Dimensions | 8.25"W × 1.75"H × 11.25"D (21cm × 4.5cm × 25.6cm) | 8.25"W × 1.75"H × 11.25"D (21cm × 4.5cm × 28.6cm) | 15.75"W × 1.75"H × 10.5"D (40cm × 4.5cm × 27cm) | 4"W × 5 1/4"H × 1 1/4"D (102mm × 149mm × 41mm) | 4"W × 5 1/4"H × 1 1/4"D (102mm × 149mm × 41mm) | 4.25"W × 4.125"H × 2.0"D (108mm × 105mm × 51mm) |
| Weight | 4 lbs. (1.8kg) | 4 lbs. (1.8kg) | 4.5 lbs. (2kg) | 1 lb. 6 oz (625g) with batteries | 1 lb. 6 oz (625g) with batteries | 13 oz (369g) with batteries |
| Transmit Antenna | 1/2 wave (supplied) TNC connector on chassis | 1/2 wave (supplied) TNC connector on chassis | 5/8 wave (supplied) SO239 connector on chassis | 1/2 wave wire (attached) | 1/2 wave wire (attached) | 1/2 wave wire (attached) |
| Receive Antenna | 1/2 wave (supplied) TNC connector on chassis | 1/2 wave (supplied) TNC connector on chassis | 5/8 wave (supplied) SO239 connector on chassis | 1/2 wave wire (attached) | 1/2 wave wire (attached) | 1/2 wave wire (attached) |
| Transmit | | | | | | |
| RF Frequency Range | 520 to 608 and 614 to 760 MHz | 520 to 608 and 614 to 760 MHz | 150 to 216 MHz | 520 to 608 and 614 to 760 MHz | 520 to 608 and 614 to 760 MHz | 150 to 216 MHz |
| RF Frequency Stability | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% |
| RF Power Output | 40 mW Typical | 40 mW Typical | 50 mW Typical | 40 mW Typical | 40 mW Typical | 50 mW Typical |
| Modulation | F-1-E ±32 KHz deviation, 62.5 K baud | F3 40 KHz deviation, 100 micro-seconds Pre-emphasis | F3 4 KHz deviation, 100 micro-seconds Pre-emphasis | F-1-E ±32 KHz deviation, 62.5 K baud | F3 40 KHz deviation, 100 micro-seconds Pre-emphasis | F3 4 KHz deviation, 100 micro-seconds Pre-emphasis |
| Mod. Limiter | Internal Compressor | Internal Compressor | Internal Compressor | Internal Compressor | Internal Compressor | Internal Compressor |
| Modulation Freq. Range | 300 to 4500 Hz ±2 dB | 300 to 8000 Hz ±2 dB | 300 to 5000 Hz ±2 dB | 300 to 4500 Hz ±2 dB | 300 to 8000 Hz ±2 dB | 300 to 5000 Hz ±2 dB |
| Microphone Audio Input | 30 ohms to 3500 ohms | 30 ohms to 3500 ohms | 30 ohms to 3500 ohms | 30 ohms to 3500 ohms | 30 ohms to 3500 ohms | 30 ohms to 3500 ohms |
| Microphone Input Sensitivity | 2 mV | 2 mV | 2 mV Dynamic, 4 mV Electret | 2 mV | 2 mV | 2 mV Dynamic, 4 mV Electret |
| Radiated Harmonics and Spurious Emissions | -45 dBC | -45 dBC | -45 dBC | -45 dBC | -45 dBC | -45 dBC |
| External Audio Input | Auxiliary & Intercom Inputs | Auxiliary & Intercom Inputs | Auxiliary & Intercom Inputs | | | |
| FCC | Type accepted under FCC Part 74 | Type accepted under FCC Part 74 | Type accepted under FCC Parts 74 and 90 | Type accepted under FCC Part 74 | Type accepted under FCC Part 74 | Type accepted under FCC Parts 74 and 90 |
| Receive | | | | | | |
| RF Frequency Range | 520 to 608 and 614 to 760 MHz | 520 to 608 and 614 to 760 MHz | 150 to 216 MHz | 520 to 608 and 614 to 760 MHz | 520 to 608 and 614 to 760 MHz | 150 to 216 MHz |
| RF Frequency Stability | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% | Crystal Controlled, 0.005% |
| Type | Single Conversion Superheterodyne, FM | Single Conversion Superheterodyne, FM | Dual Conversion Superheterodyne, FM | Single Conversion Superheterodyne, FM | Single Conversion Superheterodyne, FM | Dual Conversion Superheterodyne, FM |
| RF Sensitivity | <0.7 μV for 12 dB SINAD | <0.7 μV for 12 dB SINAD | <0.5 μV for 12 dB SINAD | <0.7 μV for 12 dB SINAD | <0.7 μV for 12 dB SINAD | <0.5 μV for 12 dB SINAD |
| IF Selectivity | 3 dB at 230 KHz (Ceramic Filter) | 3 dB at 150 KHz (Ceramic Filter) | 3 dB at 30 KHz (4 pole Monolithic Filters) | 3 dB at 230 KHz (Ceramic Filter) | 3 dB at 150 KHz (Ceramic Filter) | 3 dB at 30 KHz (Ceramic Filter) |
| Image Rejection | 70 dB or better | 70 dB or better | 70 dB or better | 70 dB or better | 70 dB or better | 70 dB or better |
| Squelch Quieting | 67 dB | 65 dB | 90 dB | 67 dB | 65 dB | 90 dB |
| Squelch Threshold | 3.0 μV (Internal) | 1.5 μV (Internal) | 1 μV (Internal) | 3.0 μV (Internal) | 1.5 μV (Internal) | 3.0 μV (Internal) |
| Signal-to-Noise Ratio | 55 dB | 63 dB | 90 dB | 55 dB | 63 dB | 90 dB |
| Audio Output | 32 mW into 600 ohms (Headset) | 32 mW into 600 ohms (Headset) | 32 mW into 600 ohms (Headset) | 32 mW into 600 ohms (Headset) | 32 mW into 600 ohms (Headset) | 32 mW into 600 ohms (Headset) |
| Other Audio Outputs | Audio, Auxiliary, Intercom Aux in-out/four wire/IC 2 chnl | Audio, Auxiliary, Intercom Aux in-out/four wire/IC 2 chnl | Speaker, Auxiliary, Intercom | | | |
| Distortion | <3.5% at Rated Output | <1% at Rated Output | <1% at Rated Output | <3.5% at Rated Output | <1% at Rated Output | <1% at Rated Output |
| FCC | Notification under FCC Part 15 | Notification under FCC Part 15 | Notification under FCC Part 15 | Notification under FCC Part 15 | Notification under FCC Part 15 | Notification under FCC Part 15 |

SC-600

Frequency Range: 520-760 MHz
Antenna Connectors: Standard TNC receptacles
AC Power Input: 110/220 VAC 50/60 Hz, 130 VA
DC Power Output: 15 VDC 1.3 A
Dimensions: 3.5" H × 17" W × 12.5" D (88.9mm × 431.8mm × 317.5mm)
Weight: 15 lbs.

Splitter

3rd Order Intercept Output: >28 dBm
Net Gain: >2 dB
Noise Figure: <4 dB
Output Isolation: >20 dB

Combiner

Net Gain: 0 dB
Noise Figure: 10 dB Typ
3rd Order Intercept Output: -55 dBm @ +13 dBm Input, each transmitter



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 Northern Europe – Tel: 49 6172 483 160, Fax: 49 6172 483 161 • Southern Europe & Franco Africa – Tel: 433 1 6446 7683, Fax: 33 1 6446 7585
 UK & Anglo, Africa – Tel: 44-1-908-690-880, Fax: 44-1-908-694-020 • Singapore & Asia – Tel: 65-746-8760, Fax: 65-746-1206