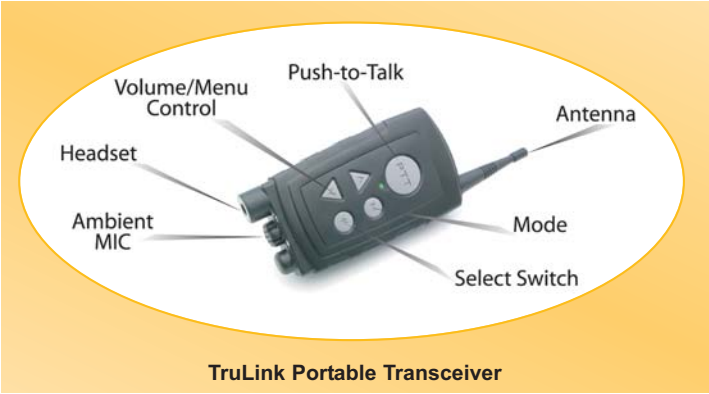
TruLink® with FIPS-140 Option

Wireless Intercommunication System



TruLink Portable Transceiver

TruLink® is the most versatile full-duplex wireless intercom in the world today.

Telephonics' TruLink® wireless intercommunication system enhances communications and increases operator safety where mobility and clear communications are critical for operations.

The most versatile full-duplex wireless intercom in the world today, TruLink operates reliably in high noise environments and provides resistance to shock, vibration, moisture, sand, dust and extreme temperatures.

TruLink extends the range of communications of the wired intercom systems of aircraft, ships and land vehicles. TruLink also acts as a standalone wireless intercom, able to provide group conferencing. The system can interface directly with various radios and provide relay to the wireless users. TruLink is different from traditional 2-way radios in that it allows a group of users full-duplex, two-way communications providing true intercom capability.

Full-Duplex Operation

The TruLink system offers 50 bi-directional channels. Each channel can support 31 users and simultaneous speech for up to 6 operators.

Simple Controls

- NVIS compatible LED for status indication
- Audio tone and "virtual" voice confirmation of mode selection and actuation
- VOX operation for hands-free communication or push-to-talk

Ruggedized

TruLink is built to withstand harsh environments – high noise, multipath, EMI conditions. TruLink is mil-qualified and complies with industrial safety standards.

Versatile

TruLink fulfills a variety of roles for military, commercial aviation and maritime applications. The system can be configured for many types of headsets, depending on the customer's needs. TruLink is compatible with a variety of vehicle intercommunication systems and can also operate as a standalone system.

Applications

Operating Specifications

Frequency:	2.4 GHz
Range:	Up to 1500 ft. (line-of-sight)
Size (PT w/o Antenna):	L6.1/W2.9/D1.9 inches
Weight (PT):	8.5 oz.
Size (AP):	L8.75/W6.25/D2.25 inches
Weight (AP):	2.9 lbs.
Operating Time (PT):	8 hours (3 AA batteries)
Physical Channel Spacing:	300 kHz
3 dB Physical Channel Bandwidth:	192 kHz
Modulation:	π/4 DQPSK
Physical Channel Bit Rate:	384 kbps
Power Level:	100 mW max. EIRP (+20 dBm)
Speech Encoding:	32 Kbit/sec ADPCM
Number of Channels:	50
Number of Users per Channel:	31 (6 simultaneous talkers)
Spread Spectrum:	Frequency hopping/50 Hops Per Second
Operating Temperature:	-40ºC to +55ºC

System Features

System complies with:

MIL-STD-704A	Aircraft Electric Power Characteristics
MIL-STD-810F	Environmental Engineering and Laboratory Tests
MIL-STD-464	Electromagnetic Environmental Effects Requirements
MIL-STD-461E	Control of Electromagnetic Interference Characteristics of Subsystems and Equipment

FIPS-140 Encryption Options:

– FIPS-140-2 Level 1
– NIST Certified No. 1351 and 1352
– Commercial AES 128 Bit Encryption
– Runs on all current TruLink equipment. No new hardware required!
– PC-Based key generator and loader (Windows 2000, XP and Vista).

Automatic Frequency Avoidance:

Adaptive frequency management process finds interference-free frequency.

Automatic Noise Cancellation:

Two-microphone DSP algorithm.

Forward Error Correction:

Suppresses multi-path effects.

For further information contact:

Telephonics Corporation
Communication Systems Division
815 Broad Hollow Road
Farmingdale, NY 11735-3904
(631) 755-7000
Fax (631) 755-7200
www.telephonics.com

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