ULTRA*Link*

New Technology

The ULTRALink Tactical Router converts non-standard tactical radios into IP based modems and implements 188-220 protocol for precision fire support.

Key Features

- IP Stack Embedded
- Field Upgradeable
- Government Developed and Owned

- Rugged MIL-STD-810G Design
- Reliable
- Software compatible

SOLUTIONS

- Reliability for the C5I platforms.
- Compatibility with existing communication devices.
- Low Power, flexible technology
- USB 2.0 Compliant

The ULTRALink offers the latest in technology innovations with a Field Programmable Gate Array (FPGA) design. A fully implemented IP stack supporting UDP/TCP data packages to Tactical radio.

One key feature is an HTML GUI interface for easy tactical network configuration.

ULTRALink supports Precision Fires – Dismounted configuration (PF-D), Advance Field Artillery Targeting and Direction System (AFATDS).

Easily connects to Host device such as laptop, tablet, phone, or any Net Warrior applicable device.

Specifications

Processor and Memory Devices
- Zynq-7020 FPGA
- 1 GB DDR3
- 1GB Industrial SD card.

External Interfaces
- USB High Speed
- 4 Channel Legacy Serial

Physical
- Dimensions:2.2 in W x 4.2 in L x 1.0 in D
- Weight: < 7 oz.
- Input Voltage: +5 VDC supplied through USB
- Power Consumption: 1.5W (nom.)
    - 2W (MAX)
- Operating Temperature: -35ºC to +70ºC

Operating Systems
- The internal operating system for Ultralink is Linux based.

Compatible Operating systems
- ULTRALink is compatible with Windows, Linux, and Android operating systems.

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Supported Protocols (Ch 1 to 4)

- ✓ MIL-STD-188-220B (2000, Types 1, 2, 3, 4)
- ✓ MIL-STD-188-220C (2002, Types 1, 2, 3, 4)
- ✓ MIL-STD-188-220D (2005, Types 1, 2, 3, 4)
- ✓ MIL-STD-188-220D change 1(2008, Types 1, 2, 3, 4)
- ✓ Exchange Network Protocol

Modulation (Ch 1 to 4)

CDP - CNR (8K to 32K bps)
CDP - X.25 (2400 to 512K bps)
NRZ for CNR (600, 1200, 2400, 4800, 9600, 16K bps)

Equipment (Ch 1 & 2)

ASIP/1523E
Falcon III AN/PRC-117F
AN/PRC-117G
AN/PRC-152/152A
JEM AN/PRC-148/148B/148C
AN/PRC-150/160
AN/PRC-162WD-1

Supported Waveforms

SINCGARS
UHF SATCOM
DAMA
IW
HF
UHF/VHF LOS AM/FM

Military Requirements

ULTRALink is ruggedized to operate in the harshest environments.

Vibration
- MIL-STD-810G and ITOP-1-2-601
- Tracked vehicle
- Wheeled vehicle
- Dismounted Soldier

*When mounted in proper configuration.

Temperature
- MIL-STD-810G, Method 501.5, Proc. II: Operational High Temperature
- MIL-STD-810G, Method 502.5, Proc. II: Operational Low Temperature
- -35 to +70 C

EMI/EMC
- MIL-STD-461E Army Ground: CS114, CS115, CS116, RE102, RE103 and ESD