

ULTRALink



New Technology

ULTRALink is updated technology developed specifically for tactical radio networks. The system allows modern tactical radios to communicate in an IP based network.

Key Features

- Lower Cost
- Fast Fielding
- IP Stack Embedded
- Field Upgradeable
- Ruggedness
- Reliable
- Shortened Lead Times
- Compatible with multiple OS

SOLUTIONS

- Reliability for the C5I platforms.
- Compatibility with existing and legacy radio systems.
- Low Power, flexible technology
- USB High Speed

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 for modern and legacy Tactical Radio systems.

One key feature is a built-in HTML 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 devices such as laptops, tablets, or a Nett Warrior End-User Device (EUD)



Specifications

Processor and Memory Devices

- Zynq-7020 FPGA
- 1 GB DDR3
- 1GB Industrial SD card.

External Interfaces

- USB High Speed
- 4 Channel High Speed serial

Physical

- Dimensions: 2.2 in W x 4.2 in L x 1.0 in H
- Weight: < 7 oz.
- Input Voltage: +5 VDC supplied through USB
- Power Consumption:
 - 1.5W (nominal)
 - 2.0W (maximum)
- Operating Temperature: -35°C to +80°C

Compatible Operating systems

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

USB 2.0 High Speed

- Supports USB speeds up to 480 Mb/s.

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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)

EPLRS, EPLRS VHSIC
JTIDS
MPN
PRC-113
PRC-117F
PRC-148
PRC-150
PRC-152
ARC-210
ARC-231/232
DMR (USC-61(C))
RT-F500 (WagTail)
PR4G (FM 9000)
PSC-5/C/D
RA 180 Modem/Radio
SEM 93
SINGARS ICOM/SIP/ASIP-ADM (FSK)
SINGARS ICOM/SIP/ASIP-
EDM/SDM/X.21(NRZ)
TSEC/KG-84(A), TSEC/KG-84(C)
TSEC/KY-57, TSEC/KY-58
TSEC/KY-99A
WD-1 (2-Wire) Wireline (CDP only)
WD-16 (4-Wire) Wireline (CDP only)

Military Requirements

ULTRALink is ruggedized to meet the harshest environments. Its design allows for the Warfighter to worry about the opposition not the equipment.

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 C to +70 C