

Ultralink to Ultrawire Cross-Over (XTU)

Enables communications between Ultrawire logging tools and Ultralink telemetry system.

Applications

- Ultrawire Controller for toolstring communication
- Simultaneous operation with other Ultrawire Logging tools
- Facilitate bi-directional communication between the surface system and individual Ultrawire tools
- Convert high voltage DC power from Ultralink line to supply the low voltage tools on the Ultrawire toolbus

Features and Benefits

- Automatic “plug and play” configuration and start-up
- Selectable Ultralink bit rate to suit varying demands and conditions
- Detailed toolbus error detection and logging to facilitate fault finding
- Facility to monitor the head voltage and internal temperature of the XTU
- Automatic transmission of the tool string configuration to the surface system
- Automatic downlink failure detection triggers reversion to default bit rate
- Automatic generation of a default polling program that enables all the identified tools to share the available bandwidth on the wireline

The **Ultralink to Ultrawire Cross-Over (XTU)** is an intelligent bridge between the Ultrawire toolbus and Ultralink telemetry system; acting as both a communications interface and a programmable logging controller. It also incorporates a DC-DC converter (switch mode power supply) to convert the high voltage on the Ultralink line to power the Ultrawire toolbus.

In its capacity as a logging controller, the XTU polls each tool in the tool string for its data packet, assembling all packets into data frames for transmission to the surface acquisition system. By default, the polling program is automatically generated and executed by the XTU, making logging a very simple process. The polling program can be modified by the logging engineer.

With the XTU010, a feedthrough is provided for passenger tools to be fitted below the Ultrawire toolstring.



Specifications		
	XTU010	XTU011
Temperature rating	350°F (177°C)	
Pressure rating	15,000 psi (103 MPa)	20,000 psi (137.9 MPa)
Tool diameter	1 11/16 in. (43 mm)	
Tool length	18.96 in. (481.7 mm)	18.5 in. (471 mm)
Tool weight	7.5 lbs (3.4 kg)	2.76 lbs (1.25 kg)
Supply voltage	+180 to +400V DC	
Supply current (depends on tool string)	20 mA (No load)	20 mA to 30 mA (No load)
Max. number of tools supported	62 (subject to power requirements)	
Ultrawire to toolbus data rate	500 kbits/s	
Ultrawire toolbus current (max)	1A at 350°F (177°C) 1.5A at ambient temperature	
Ultralink uplink data rates	50, 71, 100, 143 & 200 kbits/s	
Ultralink downlink rate	300 bits/s	
Upper connection	1 3/16" UNF female thread with Dualconn connector	1 3/16" UNF female thread with 4 mm single socket (GO type)
Lower connection	1 3/16" UNF male thread with Dualconn connector	1 3/16" UNF male thread with 4 mm single socket (SX type)
Materials	Corrosion resistant throughout	