arcutronix

FCX10G
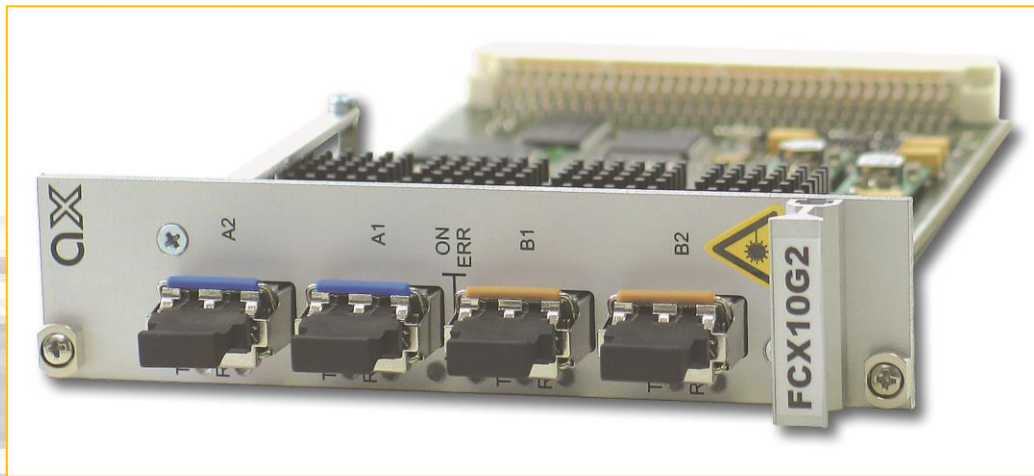## Flexible 8.5-11.3G Multiprotocol Transponder

Introduction

The modular FCX10G is a flexible fibre optic converter and repeater with integrated management for broadband 10Gigabit-Transport. FCX10G has one or two independent channels, each supporting data rates of many 10G-applications including Ethernet, SDH/Sonet and Fibre Channel. Full 3R-Regeneration (reamplification), re-shaping, re-timing) for each channel in both directions making the FCX10G to a unique member of arcutronix Transmission family.

The option to plug on any port a free and individually selectable fibre optic XFP module makes the FCX10G suitable for use in a wide range of applications.

The integrated management facilitates fine-tuning of FCX10G features, performing loops, as well as monitoring the line quality via SNMP, SSH or Web-GUI, based on the XFP's Digital Diagnostic functions.

Access to management functions can be realized via One-slot housing (SHX3) or via system controller (SCX) in 19" racks (SRX).

Features

▸ Channel data rate: 8.5 Gbps – 11.3 Gbps
▸ Fully flexible "any-to-any" color/fibre/budget choice for each port on each channel
▸ Fibre optic 3R Repeater for Long distance Transmission
▸ Color generator for passive CWDM/DWDM Systems
▸ Managed 3R fibre Optic Converter/Repeater with two independent converter channels, each one provided as a XFP slot pair
▸ Selection of multi-mode, single-mode, WDM, CWDM or DWDM for each port individually
▸ Fully protocol transparent
▸ Management via SNMP, SSH and CLI (VT100)
▸ Support of test loops via management
▸ Digital Diagnostic Monitoring (DDM) of the XFP modules
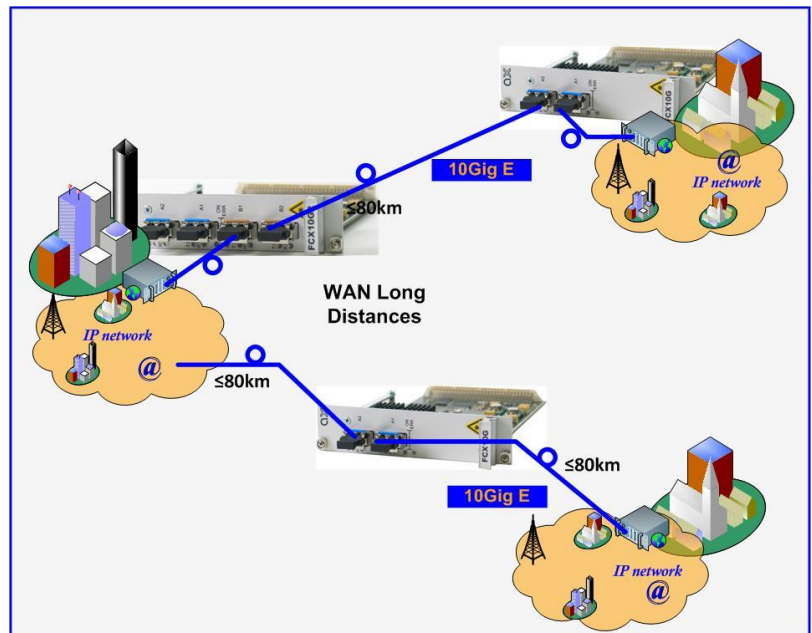
arcutronix

FCX10G
Flexible 8.5-11.3G Multiprotocol Transponder

Application Example

The FCX10G works as a fibre Optic 3R Signal Regenerator for up to two bidirectional fibre optic lines to achieve longer reach (see picture).

Short distance to long distance power adaptation is easily realized to connect standard user's equipment to the central side (see picture).

FCX10G converts optical signals with standard wavelength (e.g. 1310nm SM) into CWDM/DWDM colours and vice versa. Together with a simple passive splitter a WDM solution is build up.

Specifications

Data Rates

- 3R Data Rates 8.5Gbps up to 11.3Gbps
    - 10GbE WAN PHY (9.953Gbps)
    - STM-64 / OC-192 (9953,28Mbps)
    - 10GbE LAN PHY (10.312Gbps)
    - 10GFC (10.518Gbps)
    - OTU2 acc. to G.709 (10709,23Mbps)
    - 10GbE LAN PHY FEC (11.049Gbps)
    - 10GbE OTU2 LAN PHY (11.095Gbps)
    - 10G FC FEC (11.317Gbps)
    - 8G FC (8.5Gbps)
    - 4xInfiniBand (QDR) (10.0Gbps)
    - Optical HDMI 1.3 (10.2Gbps)

Fibre Optic Interfaces

- FCX10G2
    - 2x bidirectional transponder functionality
    - 4x XFP Module Slots
- FCX10G
    - 1x bidirectional transponder functionality
    - 2x XFP Module Slots
- Various pluggable XFP modules
    - No vendor limitation

Management

- SNMP Configuration and Monitoring*
- SSH console*
- Web-Based Management*
- VT100
- Software update via TFTP and VT100

    * via Rack 5Rx10 or SHX3-SC

Environmental

- Operating: 0 to +40°C
- Storage: -25 to +70°C
- Humidity: 5 to 95%, non-condensing

Power

- Input: 5 VDC via Backplane
- Power Consumption: < 2 VA*, overcurrent protected
    - Max power supply: 15W total (incl. XFPs)
- Voltage/Lightning Protection: acc. ITU-T K.20
- Power supply via system rack SRX or housing SHX

    * without plugged XFPs

Physical

- Weight: < 250g
- Dimensions:
    - 130mm H x 30mm W x 190mm D
    - 45mm H x 145mm W x 260mm D (in SHX3)
- 19" rack: 10 slots available in 3RU rack

Specification may change without prior notice. Please refer to www.arcutronix.com for latest data-sheets.

For more information please contact arcutronix GmbH or visit us at www.arcutronix.com.