

Utility Communications DATAx for FOX515/512 Universal data interface

Existing equipment in electrical substations still require many different types of legacy data interfaces. Besides this some applications (e.g. SCADA) ask for special communication network topologies such as point to multi-point or multipoint to multipoint configurations.

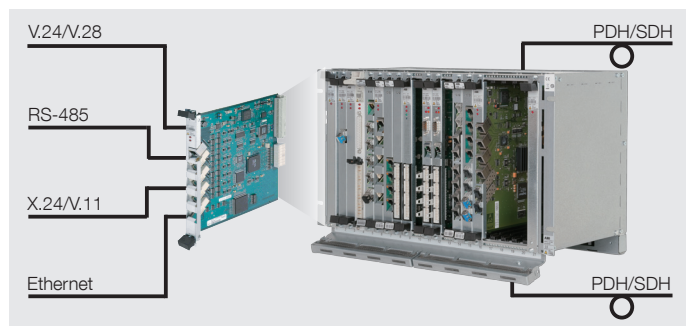
The DATAx module for FOX515 allows to transport data of various applications such as SCADA protocol IEC 60870-5-101, IEC 60870-5-104, event recorders and various other applications. The unit offers V.35, V.24/V.28, X.24/V.11 DCE interfaces, RS485 4-wire bus and an additional Ethernet bridge port (e.g. for future upgrade of SCADA protocol from serial data communication to Ethernet data communication).

The DATAx module also supports typical SCADA system topologies (e.g. point to multipoint) as well as redundant configuration of the same.

DATAx is available in different variants supporting either a specific type of interface (single interface type variant), or every type of interface on the same unit (multi interface type variant).

The single interface type variants support four interfaces of the same type (either V.35, V.24/V.28, or X.24/V.11) plus one Ethernet bridge port.

The multi protocol variant supports four interfaces that are independently configurable as a DCE interface or RS485 4-wire bus. The type of interface is defined via software configuration of the individual port.



Multi interface type variant DATAS



Application

The DATAx module represents the data card for the FOX515. It includes enhanced and utility specific features such as:

- Support of IEC 60870-5-101, IEC 60870-5-104, and other protocols in one single unit
- Integrated Ethernet bridge allows to connect up-to-date Ethernet traffic applications on the same board
- Software programmable version offers high flexibility for small access nodes and future changes
- Interface for RS485 4-wire bus applications available (DATAS/DATA5)
- Point to multipoint configuration for SCADA bus applications
- Multi-master multipoint configuration for SCADA bus applications with 2 SCADA control centers
- Shared protection ring for redundancy of point to multipoint configurations

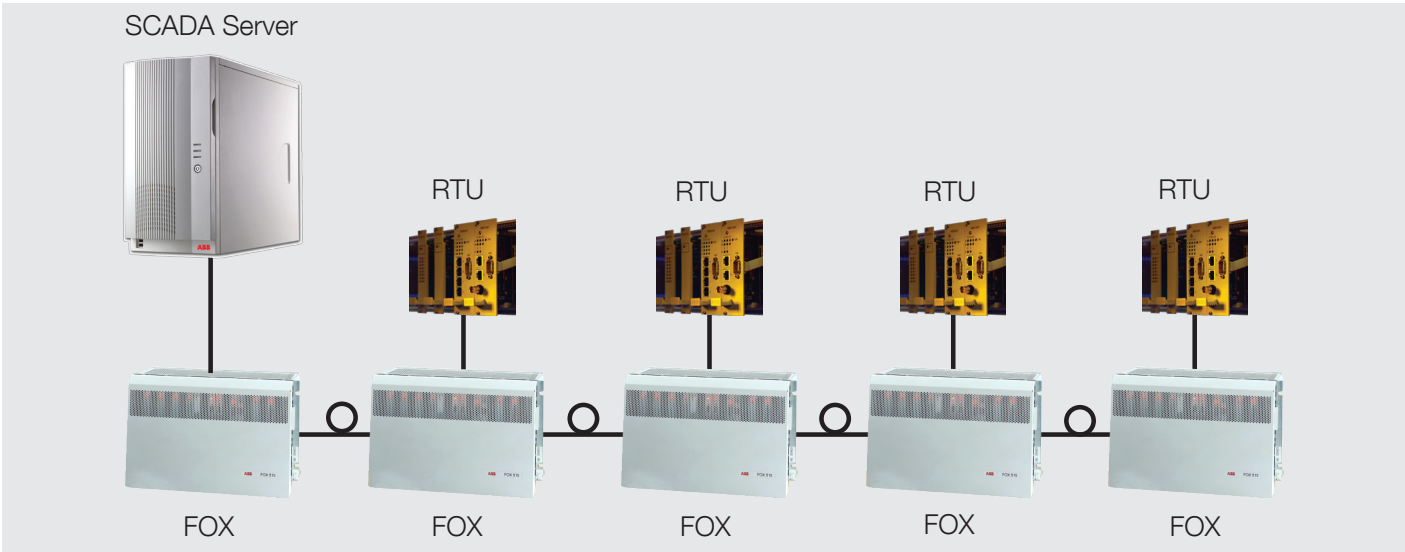
With DATAx the FOX515 platform offers an up-to-date solution for all kinds of data applications. Ensuring interoperability to legacy data modules such as UNIDA provides investment protection of your FOX515 network.

Management System

The FOX515 management and the variety of services are administered centrally by UCST/FOXMAN management system. Operators save cost and accelerate the provisioning process with only one element manager for all service types.

Technical data

Interface type	
DATA4 / DATAR	V.24/V.28, RS232, no/all options
DATA1 / DATAT	X.24/V.11, no/all options
DATA3 / DATAV	V.35, no/all options
DATA5 / DATAS	Programmable as V.24/V.28, X.24/.11, V.35, RS485 (4wire), no/all options
Technical data	
Bitrate	Synchronous and asynchronous:
	0.6 to 38.4 kbit/s in steps of 0.6 kbit/s x 2n (n = 0...6)
	Synchronous:
Options	48, 56, n x 64 kbit/s (n = 1..31)
	1+1 path protection
	Subrate multiplexing
	Point-multipoint
Additional port	Performance monitoring
	10/100 BaseT Ethernet bridge
Number of ports	4 x legacy data ports or 3 x legacy data ports & 1 LAN-port
Module width	1 slot



Point to multipoint application

For more information please contact:

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List of abbreviations	
DCE	Data Communication Equipment
IEC	International Electrotechnical Commission
PDH	Plesichronous Digital Hierarchy
RTU	Remote Terminal Unit
SCADA	Supervisory Control And Data Acquisition
SDH	Synchronous Digital Hierarchy