FM1514

AS/400 Active Star

- **Converts daisy chain into star configuration**

- **Twisted Pair, coax or twinax connections**

- **Isolates individual devices for fault tolerance**

- **Extends the range and improves response time**

- **Provides extensive diagnostic features**

The FM1514 custom VLSI based active star, for use in the IBM AS/400 environment, is a highly versatile product. The FM1514 converts a twinax daisy chain into a star topology, up to 7 or 14 connections over twinax, F/O or twisted pair cabling.
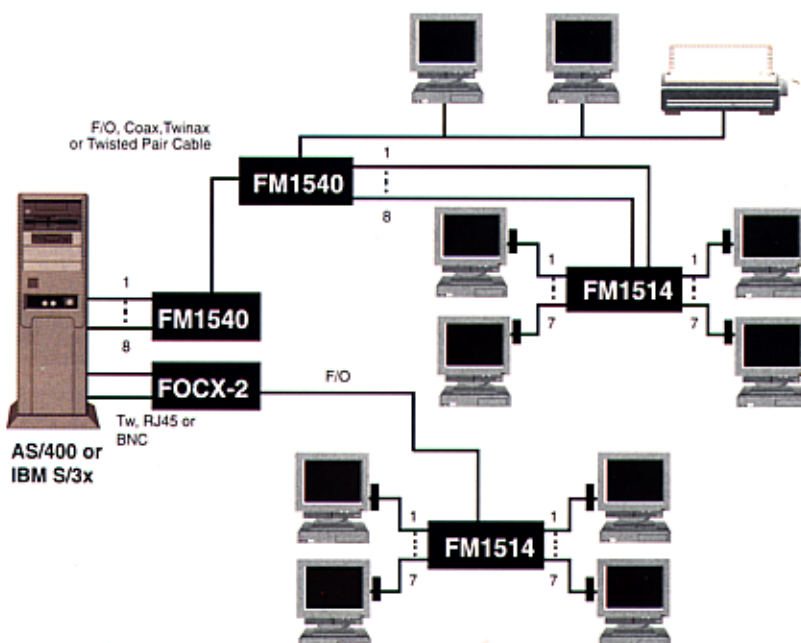
The FM1514 can be attached directly either to the computer output, or to one of the AS/400 distribution products. Using the Active Star, daisy chained S/3X links can

be distributed to as many as fourteen independent devices. Each device can be located up to 1300 meters from the active star.

The FM1514 is fully compatible with the IBM cabling system and is completely transparent to the hardware and software. Either unit can replace the IBM Loop Wiring Concentrator (LWC) increasing distance limitations as specified by IBM, and improving response time.

The FM1514/FR combines the functionalities of an active star with a multiplexer, enabling connections of up to 14 terminals over a single F/O link.

Link and port diagnostics provide rapid fault isolation and serviceability. The Active Star, as opposed to IBM's LWC, isolates each device, so that in the event of a device failure, other systems are not affected.

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Technical Specifications

FM1514 Active Star for AS/400

System Compatibility

Computer models	IBM systems 34/36/38, AS/400
Terminals	IBM 5251, 5252, 3180, 3196, 3197 and various plug-compatible terminals
Printers	IBM 5256 and various plug-compatible printers
Data Rate	1 Mbps

Distances

Cable type	Cable length from Active Star	
	to Processor	to Device
Coax (RG-62A/U), Twinax, or STP (IBM type 1 or 2)	1300m /4300 ft	1300m /4300 ft
UTP (IBM type 3)	700m /2300 ft	700m /2300 ft
FM1514/F to FOCX/F *		
Loss budget for 50/125mm	14dB	
Loss budget for 62.5/125mm	16dB	
Wavelength	850nm	

* transmission distances subject to IBM limitations.

Diagnostics

FM1514	17 LEDs: 1x power, 2 x link transmission and 14 x port activity

Connectors

Port	7/ 14 x RJ45
Link	2 x RJ45, 2 x Twinax, 1 x F/O
Polarity	Pin 4 (+); Pin 5 (-)

Electrical Characteristics

Line Voltage	100-240 VAC
Line Frequency	60/50 Hz
Power Consumption	10 W (max)

Physical Characteristics

Dimensions	43.70 x 25.0 x 4.5 cm/ 17.2 x 9.8 x 1.75 in
Weight	< 3 kg/7 lb.

Environment

Operating Temperature	0^0 to 40^0C (32^0 to 104^0F)
Storage Temperature	-20^0 to 70^0C (-4^0 to 158^0 F)
Relative Humidity (non-condensing)	10-90%

Ordering Information

FM1514/FR/R	Link: F/O + RJ45 Ports: 14 RJ45
FM1514/R/R	Link: RJ45 Ports: 14 RJ45
FR1514/TR/R	Link: 2 Tw + 2 RJ45, Ports: 14 RJ45
FM1514/FR/R-7	Link: F/O + RJ45 Ports: 7 RJ45
FM1514/R/R-7	Link: RJ45 Ports: 7 RJ45
FR1514/TR/R-7	Link: 1 Tw + 1 RJ45, Ports: 7 RJ45

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