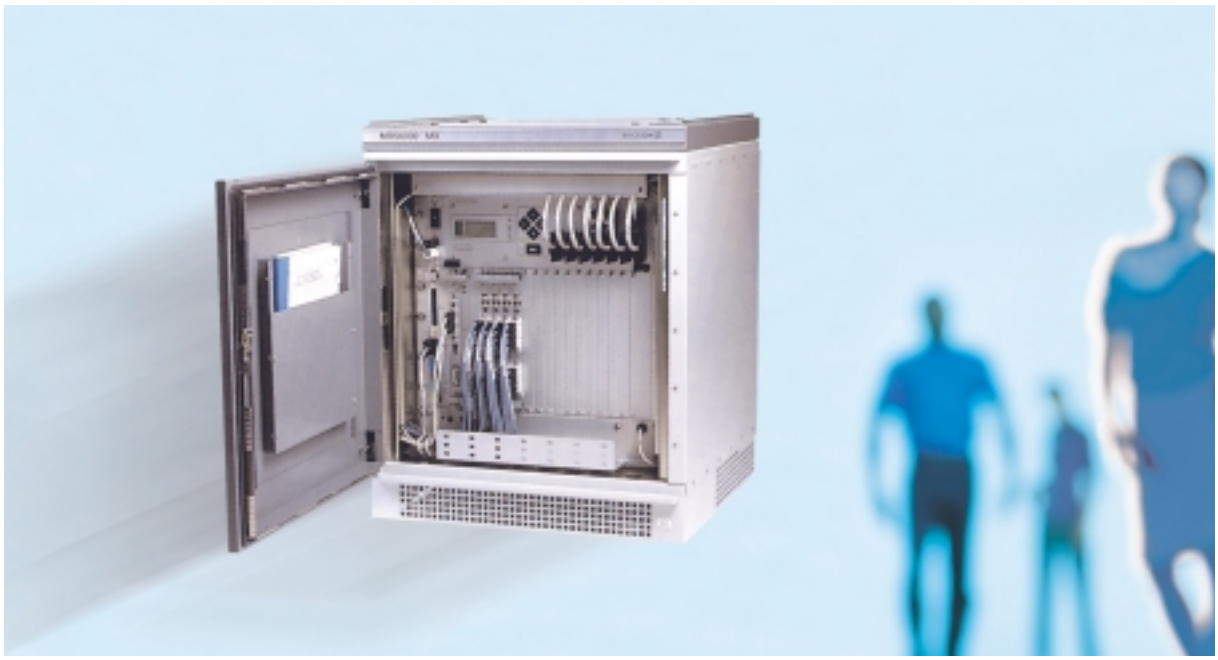
MX
Mobitex Router



The MX Router serves as an area or main exchange unit for Mobitex networks and connects fixed terminals and gateways to the network. Functioning as a scalable packet-switching node for radio base stations and other router units within its branch of the network, the MX Router offers up to 112 physical I/O ports and up to 512 connections to network nodes and fixed terminals. In addition, the unit provides an internal X.25 gateway running on one or more I/O boards and TCP/IP connectivity via an external optional gateway. The MX Router can be quickly and easily installed and is easy to up-grade. Software can be downloaded remotely over the network or on site from a portable PC.

The MX Router holds subscription data for all subscribers currently roamed into its branch of the network. It compiles and forwards billing information and statistics to the Network Control Center (NCC) and stores undelivered data packets in a mailbox for subscribers using this service when used as an area exchange. The MX Router also supervises common alarms for the cabinet, monitors the functional status of its hardware and software and sends status reports to the NCC.

The MX Router guarantees maximum scalability and flexibility in Mobitex networks. It provides redundancy in the case of line or hardware failure and can be configured to achieve line and router redundancy. Employing switching technology and supporting selectable packet switching, the MX Router is ideal for both small private and large public networks and provides the perfect platform for IP connectivity and tomorrow's Internet-enabled Mobitex networks.

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Technical specification – MX

Physical	
Dimensions:	
Height	29.3 inch/745 mm
Width	23.8 inch/605 mm
Depth	31.1 inch/790 mm
Weight	266 Ibs/120 kg (typical configuration)

Power	
Input voltage:	- 48 V DC
Power consumption:	675 W (maximum)

Technical specifications	Standard configuration	Optional configuration
VME Magazine:		
CPU Board	Force 68040	Up to 130 Mbyte (optional RAM board)
VME Hard Disk	1 Gbyte	
RAM Memory	40 Mbyte	
I/O Ports	32 Serial Ports	Up to 112 Serial Ports (optional I/O boards)
Power and Alarm Magazine:		
Alarm Indication Unit (AIU)	16 internal alarms (power, temperature, etc) from the MX and 16 external alarms. Alarms are user configurable with attachable texts. Reconfiguration is possible from the Network Control Center or on-site.	
Fan/Filter Unit	-	

Connections	MX/B as Area Exchange (MOX)	MX/B as Main Exchange (MHX)
Mobitex connections	MHX – Main exchange BAS – Radio base station FST – Fixed terminal	NCC – Network Control Center MHX – Main Exchange MOX – Area Exchange

Interfaces	
Connection	Recommended protocol
MHX-NCC	TCP-IP
MHX-MOX	X.25, transmission rate up to 256 kbps
MOX-BAS	X.25, transmission rate up to 9.6 kbps
MOX-FST	X.25, transmission rate up to 256 kbps
MOX-GW	X.25, transmission rate up to 256 kbps or TCP-IP via External Gateway
Physical interfaces	RS-422 or V24/RS-232C

Capacity	MX as Area Exchange (MOX)	MX as Main Exchange (MHX)
Number of subscribers	150 000	150 000
Packet switching capacity in	”Primary” -100 000 pph ”Enhanced” -250 000 pph ”High” -650 000 pph	”Primary” -100 000 pph ”Enhanced” -250 000 pph ”High” -700 000 pph
Number of packets in mailbox	100 000 text/data and 100 000 status	-
Number of I/O boards	14	13
Number of I/O ports	112	106
Number of connected Base Stations, Exchange nodes and fixed Terminals	512	512 (No fixed Terminals allowed)

Environmental	
Temperature range	5°C – +40°C
Humidity	10 – 90% non-condensing
Cooling	6 filtered fan unit, bottom intake, top exhaust

Major agency compliancies	
Emisson/Susceptibility	89/336/EEC, FCC Part 15 subpart B