

ORDERING

MME/X.21/*/#

Synchronous Modem Eliminator

* Specify data rate:

56 for 56 kbps

64 for 64 kbps

Specify DTE connector:

F for two female connectors

M for two male connectors

P/S-AC/9/500

9 VDC / 90 to 264 VAC, 500 mA power supply

MME/X.21

*Synchronous Modem
Eliminator*

RAD



RAD

data communications

<http://www.rad.com>

Corporate Headquarters

12 Hanechoshet Street

Tel. Aviv 69710, Israel

Tel: (972) 3-6458181

Fax: (972) 3-6498250, 6474436

Email: rad@rad.co.il

U.S. Main Office

900 Corporate Drive

Mahwah, NJ 07430

Tel: (201) 529-1100

Fax: (201) 529-5777

Email: market@radusa.com

225-100-08/00

Specifications are subject to change without prior notice.

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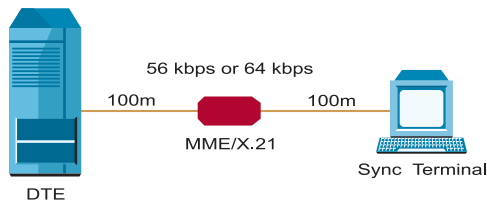
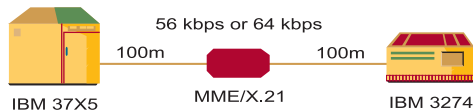
Ph:727-398-5252/Fax:727-397-9610

www.bestdatasource.com

FEATURES

- Synchronous miniature modem eliminator
- Data rates of 64 kbps or 56 kbps
- Range of 100m (330 ft) on each side
- X.21/V.11 interface
- Easy to install and configure
- Miniature, lightweight

APPLICATIONS



DESCRIPTION

- MME/X.21, miniature modem eliminator, replaces two synchronous high-speed modems by providing direct port-to-port connection.
- MME/X.21 operates at data rates of 56 kbps or 64 kbps, connecting two synchronous DTEs at ranges of up to 100m (330 ft) on each side.
- MME/X.21 generates the signal timing required for proper operation of the two synchronous DTEs as well as the Control and Indication signals necessary to emulate half or full duplex operation.
- The Indication signal can be set so that it is constantly ON, or it can be used as a port-to-port handshaking signal where Control on one port is converted to Indication on the other port.
- Physical connection between MME/X.21 and its associated terminal and computer is via two 15-pin X.21 connectors cable, both either male or female.

SPECIFICATIONS

- **Transmission Format**
Synchronous
- **Transmission Mode**
Half or full duplex emulation
- **Data Rates**
56 kbps or 64 kbps (see *Ordering*)
- **Range**
100 m (330 ft) on each side
- **Indication**
Continuous or controlled by the control signal from the DTE
- **Interface**
X.21/V.11
- **Connectors**
Two 15-pin D-type, male or female
- **Power**
An external power supply is required. The MME/X.21 can operate with an external power supply of 9–12 VDC/ 160–200 mA (see *Ordering*).
Connection is via a miniature jack: tip (positive), and sleeve (ground)
- **Physical**
Length: 130 mm / 5.1 in
Height: 30 mm / 1.2 in
Width: 50 mm / 2.0 in
Weight: 100g / 3.5 oz
- **Environment**
Temperature: 0–50°C / 32–122°F
Humidity: Up to 95%, non-condensing

Declaration of Conformity

Mfr. Name: RAD Data Communications Ltd.
Mfr. Address: 12 Hanechoshet St.
Tel Aviv 69710
Israel

declares that the product:

Product Name: MME/X.21

Conforms to the following standard(s) or other normative document(s):

EMC: EN 55022 (1994): Limits and methods of measurement of radio disturbance characteristics of information technology equipment.
EN 50082-1 (1992): Electromagnetic compatibility – Generic immunity standards for residential, commercial and light industry.

Supplementary Information:

The product herewith complies with the requirements of the EMC Directive 89/336/EEC. The product was tested in a typical configuration.

Tel Aviv, March 31st 1996

Haim Karshen
VP Quality

European Contact: RAD Data Communications GmbH,
Berner Strasse 77, 60437 Frankfurt am Main, Germany

INSTALLATION

Caution. Be careful when setting jumpers or performing any actions within the product so that you do not bend or break any components.

Installation of MME/X.21 is straightforward and simple. Follow these steps:

1. Open the unit by pressing the marked places on the sides. If this is difficult, insert a small screwdriver into the slot, where there is a small opening. Lift the handle, gently levering the tip of the screwdriver down. The cover will separate without pressure.

Caution: Do not insert the screwdriver straight into the middle of the slot, as this may break off the prongs which snap the cover together.

2. Configure MME/X.21 according to the desired mode, referring to Figure 1, and Table 1.
3. Close the unit and connect it to the computer and terminal either directly or through an X.21 cable.
4. Connect the external power supply to the unit, and then plug it into the main power supply.

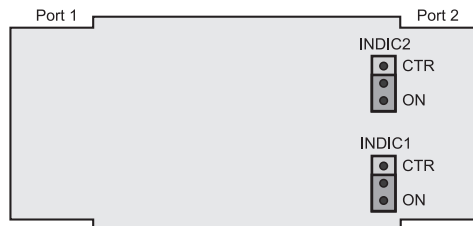


Figure 1. MME/X.21 Jumper Locations

Table 1. Jumper Settings

Jumper	Function	Possible Settings	Factory Setting
INDIC 1	Selects port 1 Indication to be constantly On or controlled by the port 2 Control signal	ON CTR	ON
INDIC 2	Selects port 2 Indication to be constantly On or controlled by the port 1 Control signal	ON CTR	ON

Table 2. X.21 Connector Pinout

Pin	Name	Direction	Function
1		↔	Shield
8	G	↔	Signal Ground
3, 10	C	Input	Control
5, 12	I	Output	Indication
6, 13	S	Output	Signal Timing
2, 9	T	Input	Transmit Data
4, 11	R	Output	Receive Data