BLACK BOX®
NETWORK SERVICES

Black Box Network Services • 464 Basingstoke Road • Reading, Berkshire, RG2 0BG • Tech Support: 0118 965 6000 • **www.blackbox.co.uk** • **e-mail: techhelp@blackbox.co.uk**

G-CONVERTER SYSTEM

Key Features

- ***Holds up to 18 cards from the G-Converter range***
- ***Dual redundant power supply option***
- ***"Hot Swap" replacement of cards***
- ***SNMP management of the whole system from one manger card***

The ultimate solution for cost-effective, reliable G.703 conversion

The Black Box G-Convertor is an extensive chassis based system, for G.703 interface conversion. It consists of an eighteen slot chassis with two power supply options: Either 230 VAC or -48 VDC.

The chassis is a mid-plane style and so each card has two parts to it. The front cards contain the logic. The rear cards present the physical interface to the outside world. The chassis supports SNMP Management through the available management card option.

Front Cards

There are four front cards altogether. One Management card, one unframed (unstructured or unchannelised) for 2.048Mbps, and two n x 64K G.704 cards. There are two styles of front card. One of which only supports SNMP management for configuration, and the other which supports both SNMP and manual configuration. Both of these cards, support all the various interface types.

Rear Cards

There are four rear cards altogether. There are two X.21 interface cards and two V.35 cards, each with the option of 75ohm unbalanced or 120ohm balanced connection. The V.35 cards require the addition of EHU200-V35 cable which carries out the conversion from the DB15 way female connector on the rear of the card, to the 34 way female MRAC connector presented to the world.

Power Supplies

The G-Convertor chassis offers management and resilient power supplies for up to 18 data links. A single PSU will power a fully equipped rack, and if a second PSU is fitted, they will load share while still providing uninterrupted power if one PSU fails.

The management card allows the rack to be configured with a terminal, via Telnet, or via SNMP. SNMP traps may be configured so the rack will notify a remote proxy agent should an alarm condition occur. Power supplies are available in 230 VAC and -48 VDC varieties.

Converter Cards

RMU200 is the 18 card G-Convertor Chassis, including two slots for PSU's, one slot for the SNMP management card, and eighteen interface card slots. The Chassis also provides a VT100 port for basic configuration, and a 10Base-T port for the SNMP management card.

PSU200-230 is the 230Volt AC power supply for the chassis. Up to two of these cards can be fitted together.

PSU200-DC is the -48Volt DC power supply for the chassis. Up to two of these cards can be fitted together.

MTU200CF-N64 is the N x 64K Front card, that supports SNMP configuration. It can fitted in conjunction with any of the rear cards.

MTU200CF-N64M is the N x 64K front card, that supports both SNMP and Manual configuration. It can be fitted in conjunction with any of the rear cards.

MTU200CF-2048 is the 2.048Mbps full bandwidth front card. Since it is a full bandwidth card, there are no options as such to set up.

MTU200CR-X21-75 is the rear X.21 card for the chassis, it presents 75 ohm BNC connectors, and carries the X.21 driver chip set. It presents a DB15 way female for the X.21 port and a pair of BNC's (TX and RX) for the G.703 side.

MTU200CR-X21-120 is the rear X.21 card for the chassis, it presents a 120 ohm RJ45 connector, and carries the X.21 driver chip set. It presents a DB15 way female for the X.21 port and an RJ45 female connector (TX and RX) for the G.703 side.

MTU200CR-V35-75 is the rear V.35 card for

the chassis, it presents 75 ohm BNC connectors, and carries the V.35 driver chip set. It presents a DB15 way female for the V.35 port and a pair of BNC's (TX and RX) for the G.703 side. It requires the EHU200-V35 cable to convert from the DB15 way to a 34 way MRAC or Winchester connector for all external V.35 equipment.

MTU200CR-V35-120 is the rear V.35 card for the chassis, it presents a 120 ohm RJ45 connector, and carries the V.35 driver chip set. It presents a DB15 way female for the V.35 port and an RJ45 female connector (TX and RX) for the G.703 side. It requires the EHU200-V35 cable to convert from the DB15 way to a 34 way MRAC or Winchester connector for all external V.35 equipment.

EHN200-V35 is the cable that has a DB15 male to plug into the rear of the V.35 cards and at the other of the short stub cable, is a female 34 way MRAC or Winchester connector. This cable still presents the cards as a DCE.

MTU200C-SNMP is the SNMP management card to manage and configure all your interface cards. It provides the logic to carry out the required functionality via the 10Base-T port on the rear of the chassis.

RMU200-BF are the front slot blanking plates. One blanking plate is required per empty slot on the front of the chassis.

RMU200-BR are the rear slot blanking plates. One blanking plate is required per empty slot on the rear of the chassis.

MTU200-N64M-UK is the Standalone G-Convertor for use at remote sites. It is a single conversion unit that supports both X.21 and V.35 interfaces. It is mains powered and supports both N x 64K and 2.048Mbps services. It can be configured via the rotary switches on the front of the unit, but also has the ability to be configured to take its speed from the rack at the central site. This feature is exceedingly useful for PTT's and service providers, as it allows the upgrade of all the users bandwidth to be managed centrally. If the unit is used in V.35 mode then the EHU200-V35 cable will also be required.

Features

VT100 Console port – The port is an RS232C / V.24 supervisor port, configured at a speed of 19K2, with no parity, 8 data bits and one stop bit. It is presented as a DB9 way female and pinned as a DCE interface. It supports VT52, VT100, ADDSVP, ADM3A, HI500, N8009 and TVI920 emulations. If you are using a laptop or PC, then you require a straight through DB9 way Male to Female cable such as EDN12H-0010-MF 3.0M long.

Telnet – The 10Base-T port, presented as an RJ45 Female, supports the Telnet protocol for configuration and management purposes. To access the chassis through Telnet, you must first configure the System Name, Location, IP Address, Subnet Mask and Gateway parameters through the VT100 console port. After this, simply Telnet to the specified IP Address and configure the unit as specified in the manual.

SNMP Management - The 10Base-T port, presented as an RJ45 Female, supports the SNMP protocol for configuration and management purposes. To access the chassis through SNMP, you must first configure the System Name, Location, IP Address, Subnet Mask and Gateway parameters through the VT100 console port.

Ordering Information

ITEM	CODE
First order your chassis.....	
G-Converter Chassis, 18-Card	RMU200
Now order a power supply, or for redundancy, specify two power supplies.....	
Power supply for G-Converter Chassis	
230-VAC	PSU200-230
48-VAC	PSU200-DC
Next, select your converter cards. (NOTE: For each conversion, you will need to specify a front converter card and a rear interface card.) For Nx64k service supported by the SNMP management system, select the following cards.....	
G-Converter Front Card Nx64k	
SNMP Configuration	MTU200CF-N64
SNMP + Manual Configuration	MTU200CF-N64M
For a 2.048-Mbps service, order the following card.....	
G-Converter Front Card 2.048 Mbps	MTU200CF-2048
Now, specify the G.703 and DTE interface with your choice of rear card	
G-Converter Rear Card (Order [1] Rear Card with Each Front Card)	
75-ohm BNC X.21	MTU200CR-X21-75
V.35	MTU200CR-V35-75
120-ohm RJ-45 X.21	MTU200CR-X21-120
V.35	MTU200CR-V35-120
For each V.35 rear card, order an adaptor cable.....	
V.35 Adaptor Cable, MRAC F-DB15 M, 1-m	EHU200-V35
For SNMP management or speed control, order.....	
SNMP Management Card for G-Converter Chassis	MTU200C-SNMP
You mau also need.....	
Blanking Plates ([1] per empty slot)	
Front	RMU200-BF
Rear	RMU200-BR
For your remote sites or smaller installations, order.....	
Standalone G-Converter Nx64k X.21/V.35	MTU200-N64M-UK
For V.35, order an adaptor cable.....	
V.35 Adaptor Cable, MRAC F-DB15 M, 1-m	EHU200-V35

Specifications

AC Power supply option: 88-264V 50Hz, Dual redundant hot swappable PSU's with individual IEC power connectors for improved resiliance.

DC Power supply option: 36-72V DC Dual redundant hot swappable PSU's with individual power connectors.

Environment: Operating 0-40°C, 0-90% humidity non-condensing.

Mananger card: V.24 / V.28 Supervisor port for terminal configuration via 9 pin D type. 10 Base-T Ethernet port presented on an RJ-45 connector.

Manager card Indicators: Manager status, Ethernet activity, PSU1 status, PSU2 status, Fan status.

Weight: 120g per card, 4.2Kg for rack and 2xPSU.

Dimensions: 19" x 3U.