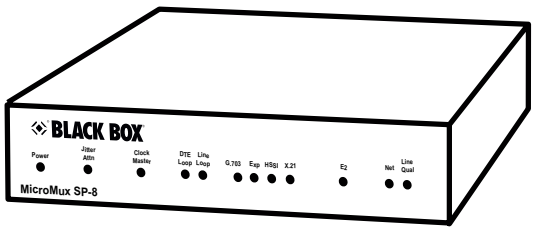
Micromux SP-8 G703/HSSI



An interface converter for HSSI to unstructured G.703/E2

Key Features:

- 8-Mbps G.703 (E2) - HSSI
- 8-Mbps G.703 (E2) - X.21
- 8-Mbps HSSI - X.21
- Easy configuration

Overview:

The MicroMux SP-8 interface converter is a cost-effective solution for connecting data communications equipment to 8-Mbps leased line private circuits. The SP-8 is designed to enable the connection of data communications systems to carrier services, or private services, such as microwave links, that are presented as G.703 at 8448kbit/s.

The MicroMux SP-8 addresses the problems encountered with datacomms equipment that do not have an E2 dual coax interface built in - HSSI interfaces are typically used on equipment running at speeds greater than 2-Mbps. This fact produces a mismatch of interfaces between the equipment and the NTU which the SP-8 solves by providing both X.21 and HSSI interfaces. Installation is effortless, and the interfaces are configured via switch banks on the real panel, and the status of the SP-8 is shown via a number of LEDs on the front panel.

Typical Application:

Connect your router to 8-Mbps E2 lines.

Technically Speaking:

X.21 is the de facto standard for WAN leased line connection at 64 kbps, largely due to the popularity of 64k leased line services throughout Europe. At higher speeds, such as 2048 kbps, the WAN service is provided as G.703. To convert the G.703 to an X.21 interface presentation to the data terminal equipment (DTE), an interface converter is often used.

The maximum cable length of an X.21 data cable is a function of the data rate. At 2048 kbps, the maximum recommended cable length is 5 metres.

The X.21 standard defines a single timing signal from the data communications equipment (DCE) to the DTE, Tx and Rx data pairs, and two handshake signals: "control" from DTE to DCE and "indicate" from DCE to DTE. There's an addition timing signal definition, similar to terminal timing on EIA 449, but in practise this isn't used.

The HSSI (High Speed Serial Interface) specification was originally defined in 1989 by Cisco Systems and T3plus Networking. At speeds above E1/T1 data rates, the limitations of X.21 and other conventional

EIA 422/499 interfaces become apparent. The key difference is that HSSI uses ECL levels for signalling rather than the conventional levels of X.21 and the EIA standards.

The maximum length of an HSSI cable is 15 metres at a data rate of 52 Mbps. However, most HSSI cables are limited to 2 metres, because the data usually has to pass between a router and an interface converter.

The HSSI standard is more like the EIA 530 standard in terms of the signal pairs defined. HSSI has three timing (clock) signals: receive timing, send timing, send timing and terminal timing. It also has the customary Tx and Rx data and, like X.21, two handshake signals: terminal equipment available (TA) and communications equipment (CA). In addition, HSSI has a pair of loopback conditions from the DCE – for example, local DTE loopback and remote line loopback.

The Complete Package:

- Micromux SP-8
- User Guide
- Mains lead

Specifications:

Speed – 8 Mbps E2-HSSI, E2-X.21, X.21-HSSI
Synchronisation – Recovered from G.703 or internal
Controls – Local loopback; DIP switch and jumper configuration
Connectors – (1) 50-pin Micro D F (HSSI); (2) BNC (G.703, 75-ohm); (1) DB15 F (X.21)
Indicators – (12) LEDs: Power, Jitter, Clock, Master, DTE Loop, Line Loop, G.703, EXP, HSSI, X.21 E2, Net,
Line Qual
Power – 80-250 VAC, 50/60 Hz (internal); DC power optional
Temperature (operating) – 5-45°C
Humidity – 10-90% (non-condensing)
Size – 4.6H x 17W x 25.2D cm
Weight – 2 kg

Product Name:	**Order Code:**
Micromux SP-8	MTU9002-R2