

4 ASI to G.703 (DS3) Multiplexer / De-Multiplexer

FEATURES

- Up to 4 ASI and 1 Data stream on one 45 Mb/s G.703 link.
- Input rate stuffing to 45 Mb/s G.703 rate.
- Selectable input maximum data rates.
- Automatic Input equalisation up to 300m.
- Suitable for Single Frequency Network (SFN) use.
- Optional SNMP plug-in monitoring and control module.

GENERAL

The MMM-4230 and MMX-4230 are part of a family of data transcoders for converting between the commonly used MPEG2 Transport Stream formats for video distribution in the broadcast industry.

With the MMM-4230 up to four ASI and one RS422 data signals can be multiplexed together and converted into an framed or unframed DS3 signal for transmission down a single 45 Mb/s G.703 line.

The MMX-4230 converts and demultiplexes the 45 Mb/s G.703 signal back into the original four ASI signals (at their original rates) and the RS422 data signal.

An on board switch on the MMM-4230 sets the maximum data rates for each ASI input allowing the efficient use of the available bandwidth and for protection against overuse of the bandwidth by the other channels. Total maximum data rate up to 43.5 Mb/s is allowed. Temporary packet stuffing is used to automatically bring the rate up to 45 Mb/s.

Inputs are automatically equalised for lengths of up to 300m of Belden 8281 or equivalent cable.

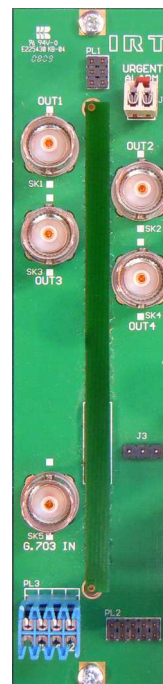
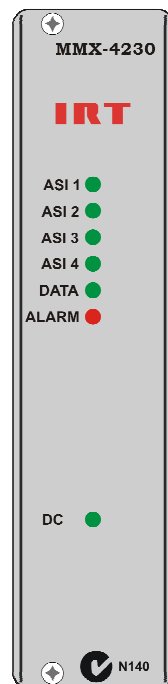
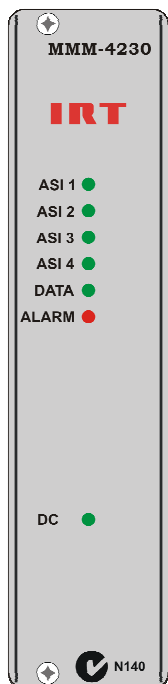
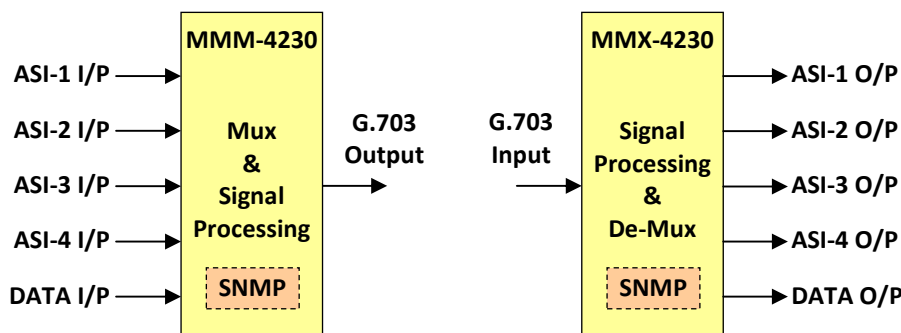
RS422 9600 Baud uni-directional data may also be sent on the same link.

Front panel indication and relay alarm on the MMM-4230 transmitter shows if there is an input data rate violation. Corresponding alarm on the MMX-4230 receiver shows a loss of G.703 input.

An optional Simple Network Management Protocol (SNMP) plug-in module is available for remote monitoring of input and output status, control and alarm states.

The MMM-4230 and MMX-4230 are designed to fit IRT's standard Eurocard frames as well as IRT's 4000 series frame for use with IRT's SNMP system and may be used alongside any other of IRT's analogue or digital Eurocards.

BLOCK DIAGRAM MMM-4230 & MMX-4230 SIGNAL PATH



TECHNICAL SPECIFICATIONS

MMM-4230:

Inputs:

Type 1 4 x ASI-C 75Ω, 800 mVp-p, BNC connector.
Maximum Data Rate 40.1 Mb/s (for 188 byte packet),
 43.5 Mb/s (for 204 byte packet).

| Channel Data Rate Assignments (for 188 byte packet length signals) | I/P1 | I/P2 | I/P3 | I/P4 (Mb/s) |
|---|------|------|------|-------------|
| | 40 | + 0 | + 0 | + 0 |
| | 35 | + 5 | + 0 | + 0 |
| | 30 | + 10 | + 0 | + 0 |
| | 25 | + 15 | + 0 | + 0 |
| | 20 | + 20 | + 0 | + 0 |
| | 30 | + 5 | + 5 | + 0 |
| | 25 | + 10 | + 5 | + 0 |
| | 20 | + 15 | + 5 | + 0 |
| | 20 | + 10 | + 10 | + 0 |
| | 15 | + 15 | + 10 | + 0 |
| | 25 | + 5 | + 5 | + 0 |
| | 20 | + 10 | + 5 | + 5 |
| | 15 | + 15 | + 5 | + 5 |
| | 15 | + 10 | + 10 | + 5 |
| | 10 | + 10 | + 10 | + 10 |

Type 2 RS422 9600 Baud Uni directional.

Output:

Type 1 x G.703, 75Ω BNC connector.
Electrical Characteristics B3ZS encoded.
Data Rate 44.736 Mb/s.

Alarm Output: Contact closure on error, loss of power.

MMX-4230:

Input:

Type 1 x G.703, 75Ω BNC connector.
Electrical Characteristics B3ZS encoded.
Data Rate 44.736 Mb/s.

Outputs:

Type 1 4 x ASI-C 75Ω, 800 mVp-p, BNC connector.
Data Rate same as MMM-4230 input rate.
Type 2 RS-422 9600 Baud Uni directional.

Alarm Output: Contact closure on loss of G.703 input, loss of power.

Power Requirements:

Voltage 28 Vac CT (14-0-14) or ±16 Vdc.
Power consumption 8 VA.

Other:

Temperature range 0 - 50° C ambient.
Mechanical Suitable for mounting in IRT 19" rack chassis with input, output and power connections on the rear panel.
Finish **Front panel** Grey, black lettering & red IRT logo.
Rear assembly Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals.
Dimensions 6 HP x 3 U x 220 mm IRT Eurocard.
Optional Accessories SNMP plug-in module for use with 4000 series frame fitted with SNMP "Agent".