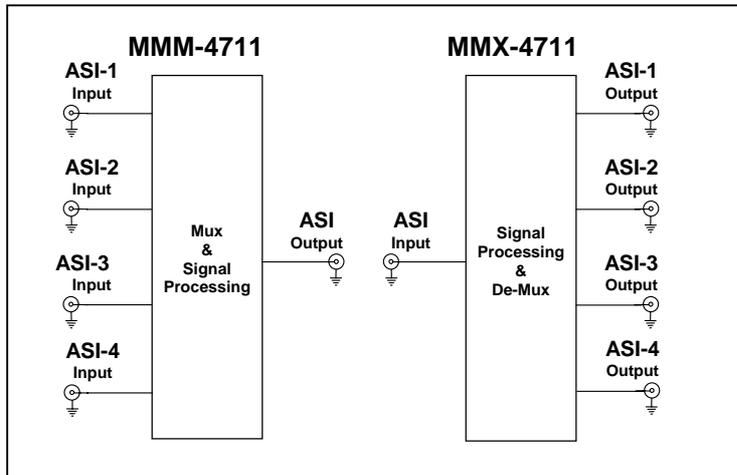


Functional Diagram:



Features:

- Up to 4 ASI streams on one ASI link
- Units may be cascaded to increase the number of ASI inputs
- Recovers transmitted ASI signal without any added PCR jitter and with minimal user setup
- Maintains original ASI rate, packet size & coding (energy dispersal scrambling, interleaving or Reed Solomon bytes)
- Suitable for Single Frequency Networks (SFN)

General:

The MMM-4711 and MMX-4711 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.

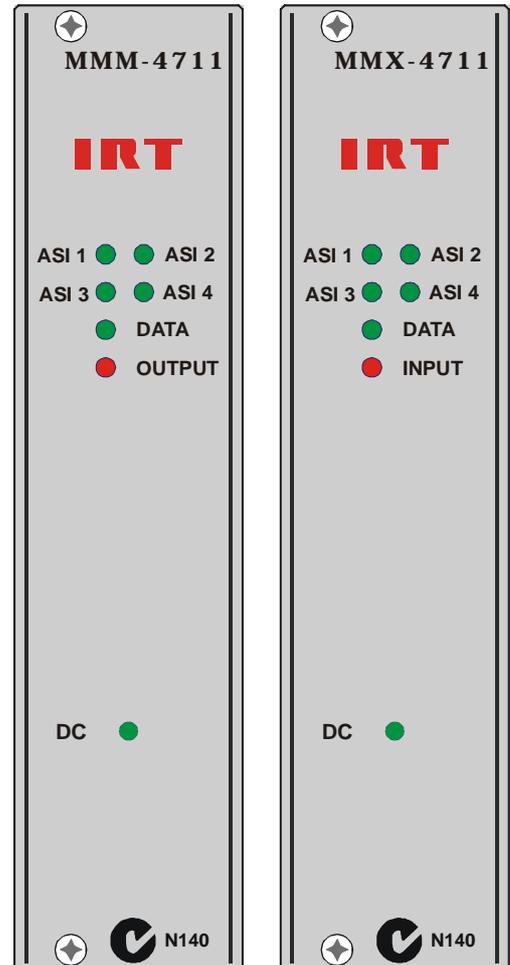
With the MMM-4711 up to four ASI signals can be combined together and converted into a single ASI signal with a settable output payload rate.

The sum of the ASI input payload rates can be anything up to approximately 0.9^* x the set ASI output payload rate. Inputs may be 188 or 204 byte packet lengths, burst or continuous, and may have energy dispersal scrambling, interleaving and/or Reed Solomon bytes included. An individual input may be up to 0.9^* x the full set ASI output payload rate if the other inputs are unused.

The output ASI stream is a valid stream, which complies with all facets of ETR290.

Provided the total sum of the ASI inputs does not exceed approximately 0.9^* x the set output rate, units can be cascaded to increase the number of ASI inputs into a single ASI output.

* $0.95 \times$ with 188 byte inputs, $0.88 \times$ with 204 byte inputs.



The MMX-4711 separates the combined ASI signal back into the original four ASI signals (at their original rates and without any modification of the stream, or stream timing). If more than one MMM-4711 has been cascaded then the MMX-4711's cascade in the reverse order.

Inputs are automatically equalised for lengths of up to 250m of Belden 8281 or equivalent cable.

Front panel indication and relay alarm on the MMM-4711 transmitter shows if there is an input data rate violation. Corresponding alarm on the MMX-4711 receiver shows a loss of ASI input.

The MMM-4711 and MMX-4711 are designed to fit IRT's standard Eurocard frames and may be used alongside any other of IRT's analogue or digital Eurocards.

Technical Specifications

MMM-4711:

Inputs:

Type

4 x ASI-C 75Ω, 800 mVp-p, BNC connector.

Maximum Data Rate

Sum total less than 0.95 x selected output rate with 188 byte signals, or less than 0.88 x selected output rate with 204 byte signals.

Output:

Type

2 x ASI-C 75Ω, 800 mVp-p, BNC connector, Continuous or Burst (settable).

Payload Rate

Switch Settable

10 Mb/s;
34.368 Mb/s (equivalent to E3 rate);
44.736 Mb/s (equivalent to Unframed DS3 rate);
44.210Mb/s (equivalent to Framed DS3 rate);
80 Mb/s;
110 Mb/s;
148 Mb/s (suited for STM-1); and
213 Mb/s.

Alarm Output:

MAJOR

Open circuit on sum of ASI input payload rates in excess of set ASI output payload rate, or loss of power.

MINOR

Open circuit on no valid input ASI streams present, or loss of power.

MMX-4711:

Input:

Type

ASI-C 75Ω, 800 mVp-p, BNC connector.
(Equivalent to MMM-4711 output rate).

Outputs:

Type

4 x ASI-C 75Ω, 800 mVp-p, BNC connector.

Data Rate

Same as MMM-4711 input rate.

Alarm Output:

MAJOR

Open circuit on no valid ASI input present, or loss of power.

MINOR

Open circuit on no valid output ASI streams present, or loss of power.

Power Requirements

Power consumption

28 Vac CT (14-0-14) or ±16 Vdc.
6 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, silk-screened black lettering & red IRT logo.

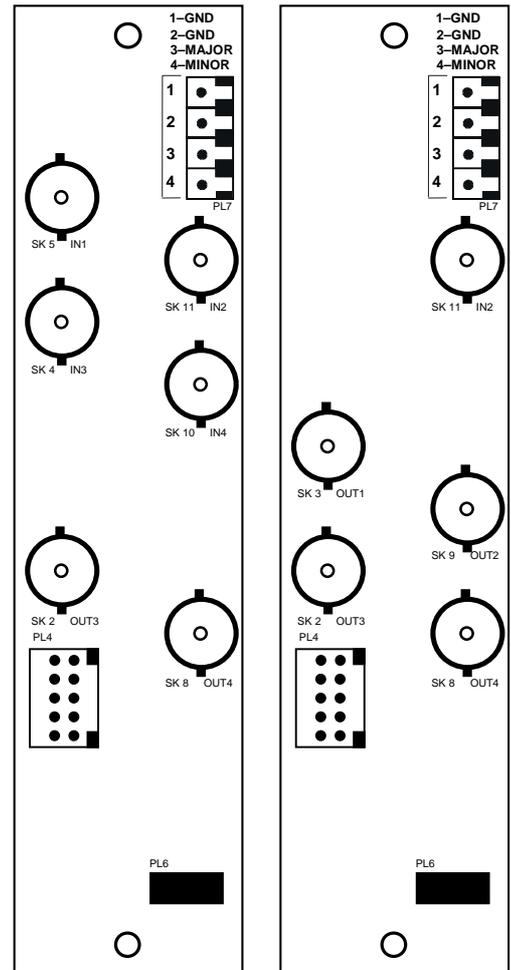
Rear assembly

Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals.

Dimensions

6 HP x 3 U x 220 mm IRT Eurocard.

Due to our policy of continuing development, these specifications are subject to change without notice.



Detailed specifications available from:

Manufacturer:

IRT Electronics Pty Ltd

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