

SMPTE-310 to ASI Network Interface Adapter

FEATURES

- SMPTE-310M to ASI, ASI to SMPTE-310M on the one card.
- Automatic Input equalisation up to 200m.
- ATSC rates of 8 VSB and 16 VSB supported.

GENERAL

The MDC-4910 is part of a family of network interface adapters for converting between the commonly used MPEG2 Transport Stream formats for video distribution in the broadcast industry.

With the MDC-4910 a SMPTE-310M type signal at either 8 VSB (19.393 Mb/s) or 16 VSB (38.785 Mb/s) rate is converted to an ASI type of signal for transport over an ASI link.

The MDC-4910 also does the reciprocal conversion from an appropriate ASI encoded signal back to the original SMPTE-310M signal.

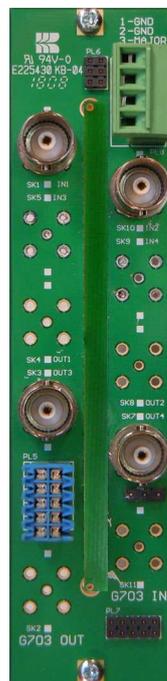
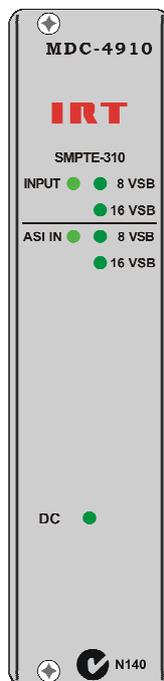
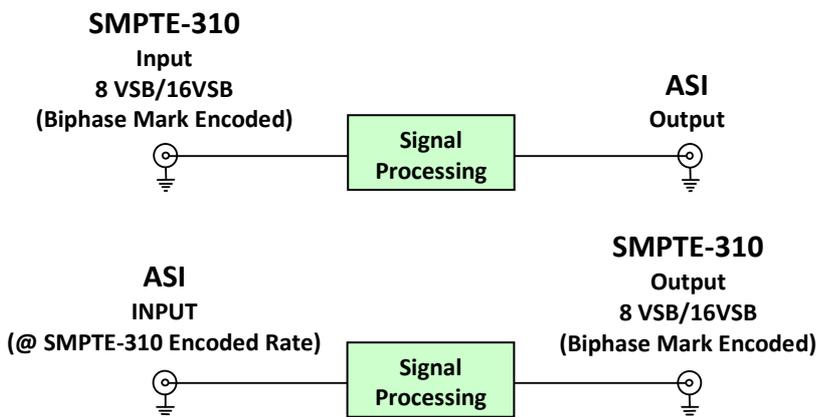
The MDC-4910 can be used at either transmission end or receiving end. Both conversions operate independently from each other allowing the one card to be used in a bi-directional link.

ASI input¹ is automatically equalised for lengths of up to 200m of Belden 8281 or equivalent cable.

Front panel LEDs show when a valid SMPTE-310M signal or ASI signal is present and the rate at which it operates. A relay alarm indicates if there is an input data rate violation.

The MDC-4910 is designed to fit IRT's standard Eurocard frames and may be used alongside any other of IRT's Eurocards, as well as in conjunction with IRT's ASI interface cards.

BLOCK DIAGRAM MDC-4910 SIGNAL PATH



¹ It is recommended that the SMPTE-310 input has a minimal cable length connected between it and the SMPTE-310 source to minimise input jitter (also applicable on output).

TECHNICAL SPECIFICATIONS

Inputs:

Type 1
Data Rate 1 x SMPTE-310M 75Ω, 800 mVp-p, BNC connector.
 Biphase Mark encoded for 8 VSB (19.393 Mb/s), or 16 VSB (38.785 Mb/s).

Type 2
Data Rate 1 x ASI-C 75Ω @ SMPTE-310M encoded rate, 800 mVp-p, BNC connector.
 8 VSB (19.393 Mb/s), or 16 VSB (38.785 Mb/s).

Equalisation² Automatic, better than 200 metres at 270 Mb/s for Belden 8281 or equivalent cable.

Output:

Type 1 1 x 800mVp-p, ASI-C, 75 Ω BNC connector.

Type 2 1 x SMPTE-310M 75 Ω, 800 mVp-p, BNC connector.

Alarm Output:

MAJOR Open circuit on loss of sync on serial (SMPTE-310M) input, or loss of power.
MINOR Open circuit on no valid input ASI stream present, or loss of power.

Power Requirements:

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

NOTE: 2 It is recommended that the SMPTE-310 input has a minimal cable length connected between it and the SMPTE-310 source to minimise input jitter (also applicable on output).