

FEATURES

- 1 analogue video, 4 audio and 1 data channel to a 270 Mb/s digital stream suitable for transmission over 270 Mb/s systems, such as digital fibre systems, routers, etc.
- Plug-in Fibre Optic Link boards included.

GENERAL

The ADC-3250/OPT and DAC-3250/OPT form an encoder / decoder pair for converting an analogue video, up to 4 channels of audio and an RS-232 data port to a 270 Mb/s digital signal suitable for transport over ASI/SDI paths.

This allows analogue signals to be passed through purely digital environments such as digital optical links and digital routers and switchers thus simplifying installations that are predominantly digital where some analogue signals still exist.

When used with IRT's fibre mux/demux system, both analogue and digital signals can be sent over the same link.

The ADC-3250/OPT encodes the analogue input signals to a 270 Mb/s digital stream. The inputs can either be a single video, up to 4 channels of audio or a combination of video and audio. There is also an RS-232 data input port, which can be used concurrently with the video and audio or by itself.

The DAC-3250/OPT decodes the 270 Mb/s digital stream to recover the original signals.

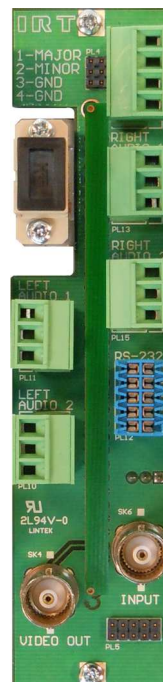
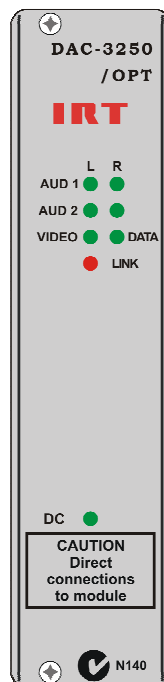
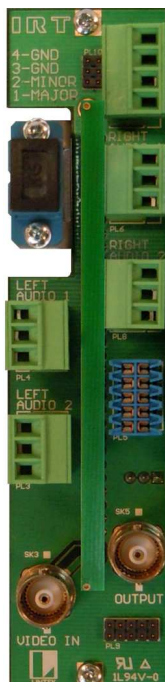
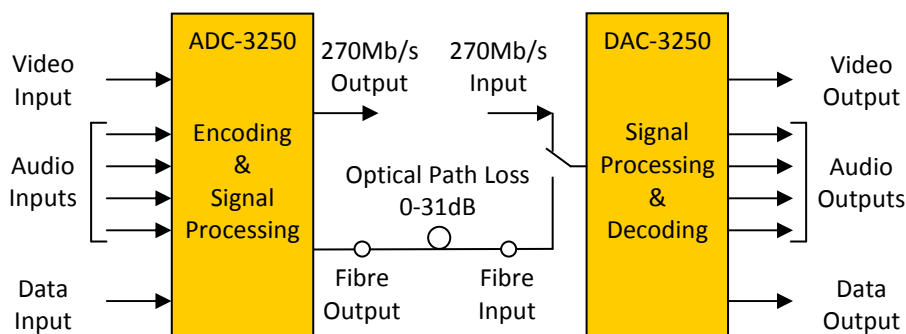
Front panel LED indicators on both units indicate the presence of the analogue and data input signals. The ADC-3250/OPT allows cable equalisation of various lengths by a front panel control. A front panel monitor output aids in setting this correctly.

Plug-in fibre optic boards are included on both the ADC-3250/OPT and DAC-3250/OPT for direct connection to a single mode fibre.

The 270 Mb/s digital signal is of the same data rate as ASI and SDI signals hence its ability to be sent over ASI/SDI paths. Although similar in structure to both ASI and SDI it is neither of these types of signals. Hence the ADC-3250/OPT and DAC-3250/OPT are designed to act as an encoder / decoder pair.

Both the ADC-3250/OPT and DAC-3250/OPT are manufactured on extended Eurocard boards and are suitable for mounting in IRT's 1RU and 3RU Eurocard frames with other analogue or digital modules.

BLOCK DIAGRAM ADC-3250 & DAC-3250 SIGNAL PATH



ADC-3250/OPT & DAC-3250/OPT

TECHNICAL SPECIFICATIONS

ADC-3250/OPT:

Inputs:

| | |
|--------------------|--|
| Type 1 | 1 x Analogue video, 75Ω BNC terminated. |
| Type 2 | 4 x Hi-Z Analogue audio, balanced 3 pin. |
| Type 3 | 1 x RS-232 data (up to 115200 Baud). |
| Video Equalisation | Up to 300 metres, adjustable from front panel. |

Outputs:

| | |
|--------|--|
| Type 1 | 1 x 270 Mb/s fibre optic digital, SC/PC. |
| Type 2 | 1 x 270 Mb/s digital, 75Ω BNC. |

DAC-3250/OPT:

Inputs:

| | |
|--------------|--|
| Type 1 | 1 x 270 Mb/s fibre optic digital, SC/PC. |
| Type 2 | 1 x 270 Mb/s digital, 75Ω BNC. |
| Equalisation | Automatic, up to 300 metres for Belden 8281 or equivalent cable. |

Outputs:

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|--------|--|
| Type 1 | 1 x Analogue video, 75Ω BNC terminated. |
| Type 2 | 4 x Lo-Z Analogue audio, balanced 3 pin. |
| Type 3 | 1 x RS-232 data. |

Optical:

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|--------------------|--|
| Optical path loss | 31 dB maximum. |
| Optical fibre | Designed for use with 9/125 single mode fibre. |
| Optical wavelength | 1310nm ± 30nm. |
| Optical connector | SC/PC. |

Power Requirements:

| | |
|-------------------|---|
| Voltage | 28 Vac CT (14-0-14) or ± 16 Vdc. |
| Power consumption | ADC-3250/OPT < 6.5 VA, DAC-3250/OPT < 11VA. |

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 | Grey background, black lettering & red IRT logo. |
| Front panel | Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals. |
| Rear assembly | 6 HP x 3 U x 220 mm IRT Eurocard. |
| Dimensions | 6 HP x 3 U x 220 mm IRT Eurocard. |
| Supplied accessories | Rear connector assembly. |