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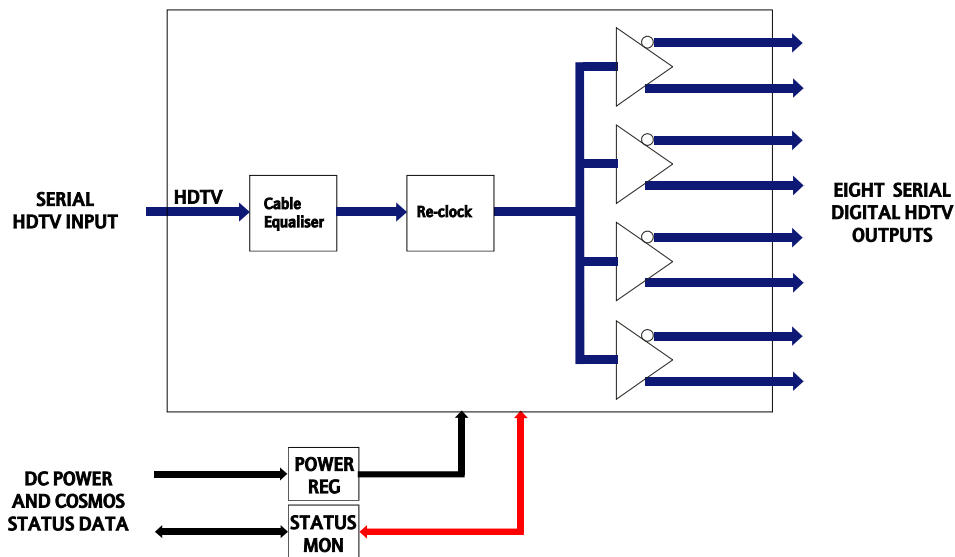
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1 Introduction

The 3402 is an HDTV digital video distribution amplifier designed to be used in the ICON series of 1RU or 3RU frames. It offers up to eight equalised and re-clocked HDTV serial digital outputs and takes both 20mm and 30mm rear connectors. It handles serial digital signals of 1.485Gb/s and 1.485/1.001 Gb/s conforming to SMPTE specification 292M.

The features available are:

- four outputs with the 20mm K3402.2 rear connector
- eight outputs with the 30mm K3402.3 rear connector
- adaptive input equalisation up to 100m of Belden 1494 or equivalent cable
- re-clocking at 1.485Gb/s or (1.485/1.001) Gb/s (automatic)
- COSMOS equipped



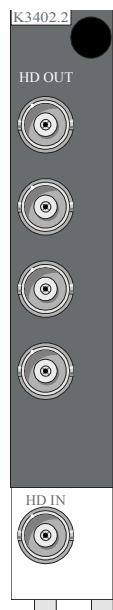
The 3402 HDTV distribution amplifier



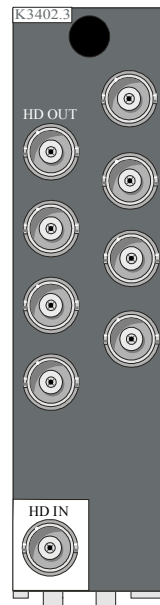
2 Configuration and operation

2.1 Selecting the rear connector

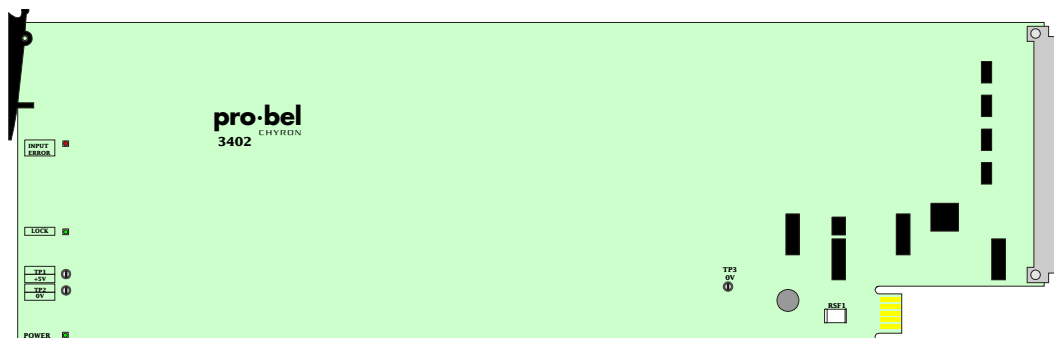
The 3402 may be used with either the 20mm K3402.2 rear connector providing four outputs or the 30mm K3402.3 rear connector providing eight outputs. The 20mm rear connector may be preferred where rack space is scarce.



K3402-2 provides four outputs



K3402-3 provides eight output



The 3402 HDTV distribution amplifier

Please refer to the rackframe manual for help with installing modules and rear connectors into the ICON frame.

2.2 Status monitoring

The module is equipped with the following indicators to provide a means of monitoring operation:

Indicators		
LED	Colour	Function
Input error	Red	No input detected
Lock	Green	Automatic re-clock OK
Power	Green	Power OK

In normal local operation the green Lock LED and the green POWER OK LED should be lit.

2.3 Trouble shooting

The red Input Error LED is lit

- check that a valid HDTV serial digital video signal is connected to the rear connector input BNC

The green Lock LED is not lit

- check that the input signal is a valid serial digital video signal conforming to SMPTE 292M

The green Power LED is not lit

- check mains power to the frame is turned on
- if necessary check the PSU as explained in the power supply section
- check the card is plugged in securely
- check to see if the re-settable fuse has operated. To do this turn the power off, wait for thirty seconds and then restore the power.

3 Status Monitoring

The COSMOS frame interface, if fitted, will provide the following information to the COSMOS status monitoring system:

- Input Error
- Lock error

In addition, the module is programmed with the following information, which can be read by the status monitoring controller:

- module present
- module type
- module bar code
- module issue no

For further details of the Pro-Bel status monitoring system please refer to the COSMOS status monitoring manual.



4 Specification

Inputs

Number and type: One serial digital video input to SMPTE 252M A-M

Impedance: 75Ω unbalanced

Outputs

Number and type: Eight as input equalised and re-clocked, only 4 available with 20mm rear panel

Impedance: 75Ω unbalanced

Performance

Cable equalisation: > 100 metres of Belden 1694

Re-clocking frequencies: 1.485 Gb/s, or (1.485/1.001)Gb/s (automatic)

LED indicators

Input error - red

Lock (PLL locked) - green

Power OK - green



5 **Ordering information**

Part number	Description
ICO-3402-2000	4 output HDTV DA, 20mm
ICO-3402-3000	8 output HDTV DA, 30mm

