



INS30

**SD Closed Caption and Teletext encoder
with monitoring outputs**

A Synapse® product

Synapse

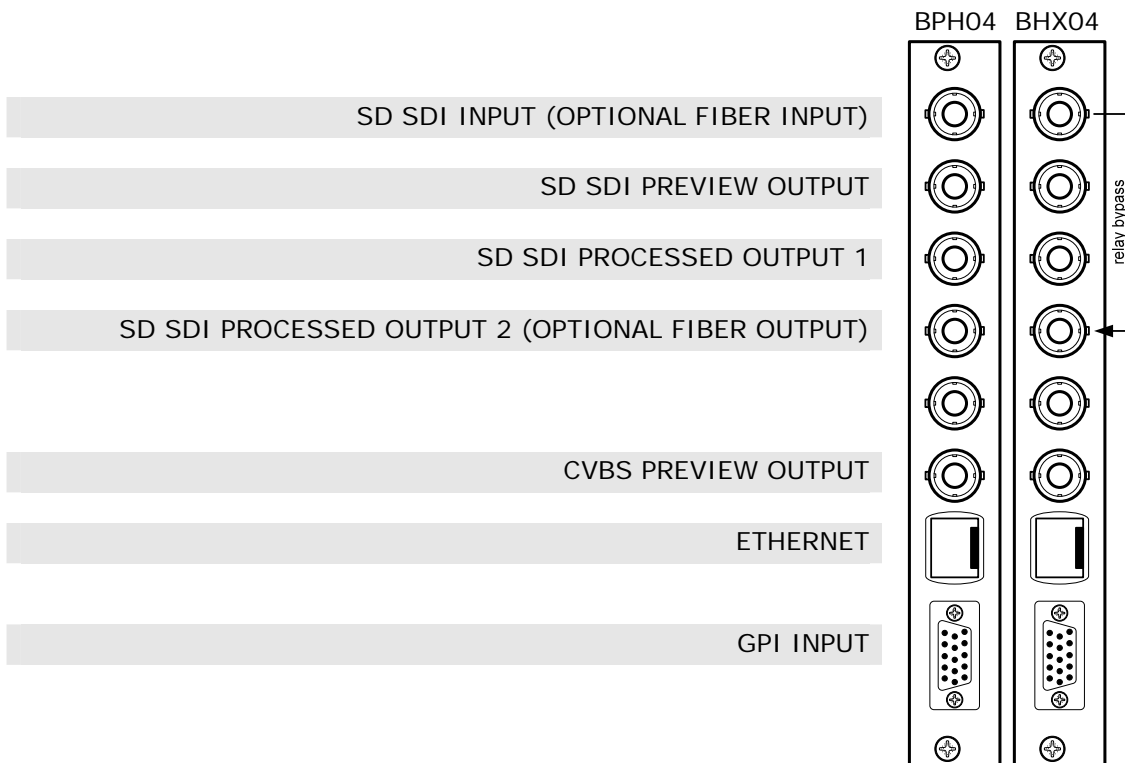
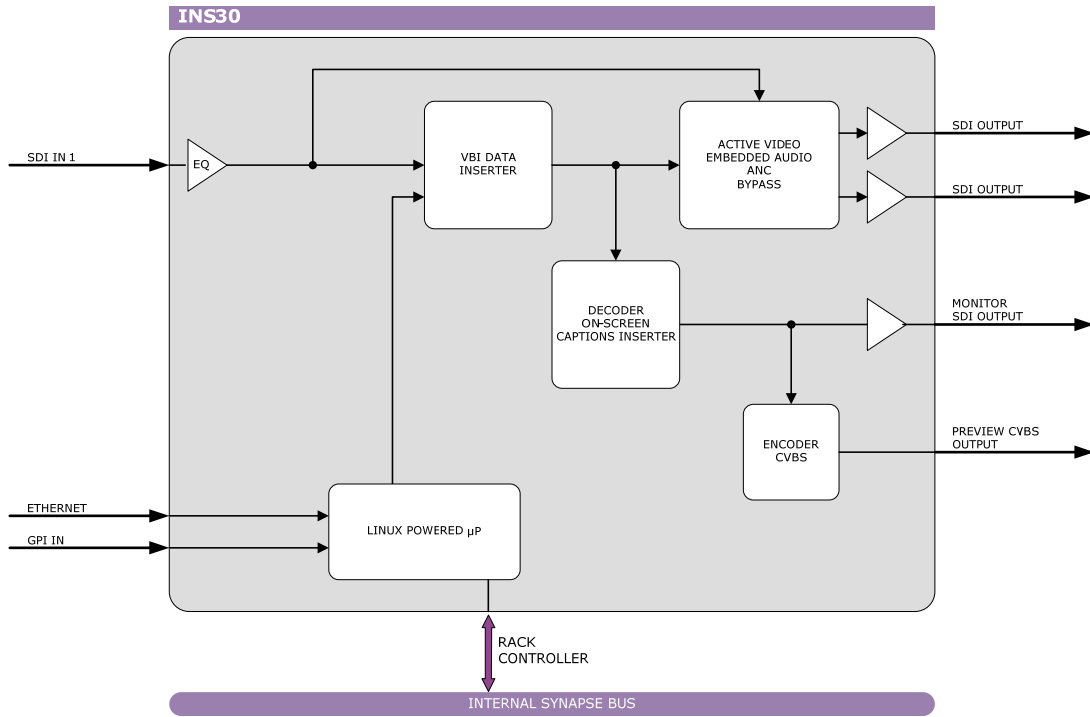


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Block schematic & I/O panel



Features

The INS30 is a standalone card that enables closed caption data to be encoded onto a program feed; it will allow the captions to be previewed on the optional monitoring outputs using an On Screen Display (OSD) to simulate the output of a decoder.

Typically this functionality has been serviced by 1RU box, single PSU solutions from specialist subtitling companies, so the modular INS30 should save on rack space, increase reliability and be more cost effective, certainly in multi-channel applications.

- SD-SDI compatible
- Formats:
 - 625/50
 - 525/59.94
- Insert incoming caption data from the NEWFOR protocol in a parallel WST-B or EIA-608 (line 21) format
- Monitor the encoded signal as 'burnt-in' captions or pages over the program stream on SD and CVBS outputs
- Ability to Clear-Caption in the event of a 'hanging' caption.
- Ethernet connector for Caption and Teletext data input
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)
- Optional 1 fiber input (replacing 1 SDI input) or 1 fiber output (replacing 1 SDI output) on I/O panel

Applications

The INS30 will typically be used in applications where closed caption subtitling is required on the program stream as part of the play out process. Generally this will be for live captioning where the program material is not available in time for the captions to be pre-prepared and added to the program material as part of the production process.

The subtitle data stream will normally be generated either from a subtitle preparation workstation directly or from a subtitle transmission product.

Ordering information

Module:

- **INS30:** Closed Caption and Teletext encoder with monitor outputs

Standard I/O:

- **BPH04_INS30:** I/O-panel for INS30
- **BHX04_INS30:** I/O-panel for INS30, with relay bypass

Fiber outputs:

- **BPH04T_FC/PC_INS30:** I/O-panel for INS30 with fiber transmitter on FC/PC
- **BPH04T_SC_INS30:** I/O-panel for INS30 with fiber transmitter on SC

Fiber inputs:

- **BPH04R_FC/PC_INS30:** I/O-panel for INS30 with fiber receiver on FC/PC
- **BPH04R_SC_INS30:** I/O-panel for INS30 with fiber receiver on SC

Specifications

SD Serial Video Input

Standard	625/50 or 525/59.94 SMPTE 259M-C (270Mb/s) with SMPTE 272M embedded audio
Number of Inputs	1
Equalization	Automatic to 100m @ 270Mb/s with Belden 1694A or equivalent cable
Return Loss	> 15dB up to 270MHz

Serial Video Output

Standard	625/50 or 525/59.94 SMPTE 259M-C (270Mb/s) with SMPTE 272M embedded audio
Number of Outputs	3 (1 preview and 2 processed)
Signal Level	800mV nominal
DC Offset	0V \pm 0.5V
Rise and Fall Time	750ps nominal for SD
Overshoot	< 10% of amplitude
Return Loss	> 15dB up to 270MHz
Wideband Jitter	< 0.2UI

Analog Video Output

Standard	PAL (ITU624-4) or NTSC (SMPTE 170M), Component, YC and RGB
Number of Outputs	1
Connector	BNC
Signal Level	1V nominal
Impedance	75 Ohms
Return Loss	> 35dB to 10MHz
Frequency Response	0.5dB to 4.5 MHz
Differential Gain	< 0.6%
Differential Phase	< 0.7°
SNR	> 75dB

Ethernet

Standard	10Base-T, 100Base-Tx IEEE 802.3
Connector	8P8C

Reference Video Input

Standard	PAL (ITU624-4), NTSC (SMPTE 170M)
Number of Inputs	2 on SFR18, 2 on SFR08, 1 on SFR04
Connector	BNC
Signal Level	1V nominal
Impedance	High impedance, with loop for termination
Return Loss	> 25dB to 10MHz

Miscellaneous

Weight	Approx. 250g
Operating Temperature	0 °C to +50 °C
Dimensions	137 x 296 x 20 mm (HxWxD)

Electrical

Voltage	+24V to +30V
Power	<10 Watts