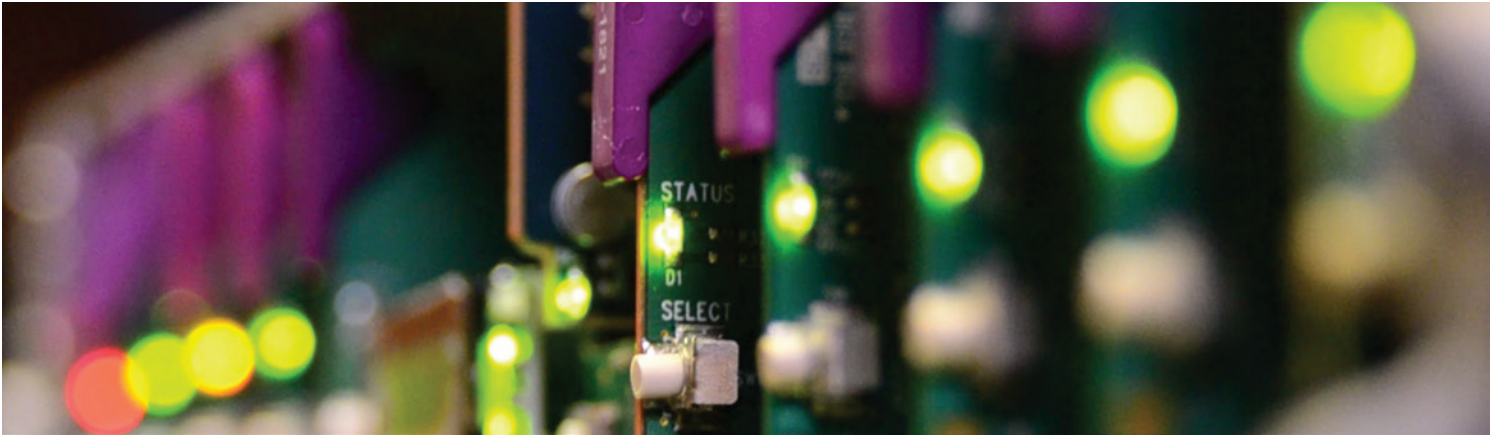


DEC-1003

10-bit Composite to SDI Decoder with Probing Option



Space-saving, modular platform for advanced signal processing.

The DEC-1003 from Grass Valley, a Belden Brand, is a high-quality composite analog video to SDI decoder designed for incoming feed applications.

The DEC-1003 is a 10-bit decoder which offers adaptive filtering, 2D decoding, video proc amp functions, VBI data processing, AGC, input validity and error detection reporting. Frame sync capability with TBC functions is offered as an option.

When combined with one or multiple audio cards, you can select any of the audio channels to embed into the SDI signal. Each audio output channel can be composed of a mix of any two audio input channels.

The DEC-1003 provides streaming of video thumbnails over IP, with an audio level meter and optional waveform/vector IP Scope. This allows the signals being controlled to be monitored more effectively, with operators able to see and hear changes to the signal.

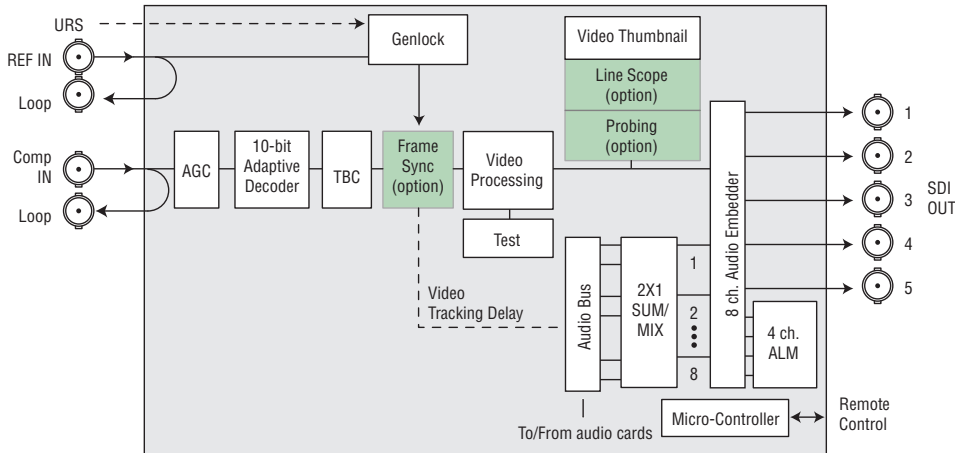
Optional probing functionality allows more advanced signal analysis over IP.



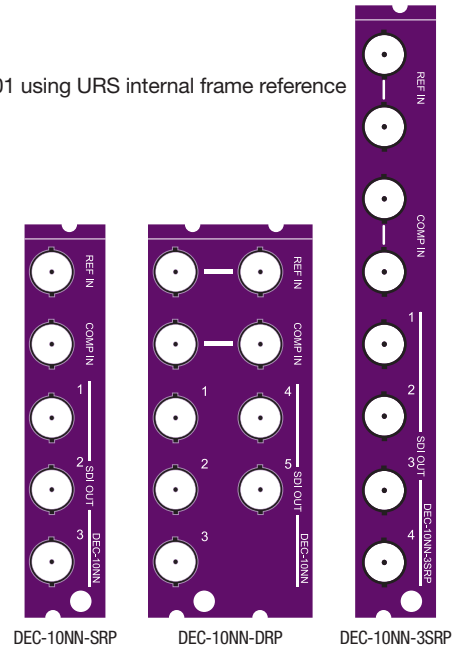
DEC-1003 10-bit Composite to SDI Decoder with Probing Option

KEY FEATURES

- Composite analog video differential input with passive loop-through
- Up to 5 SDI digital video outputs
- Reference input with passive loop through
- 10-bit A to D conversion
- Adaptive decoding
- Video processing control
- Ancillary data blanking or pass-through
- Automatic user calibration of components based on a known test pattern
- Audio embedding of 8 channels (when linked with audio card)
- Frame sync option: timing, full phasing and freeze modes
- Thumbnail generation
- Audio level meta streaming
- Waveform/vector over IP scope option (works with iControl)
- Probing and analysis option
- Parameters for signal probing over IP
 - Black detection
 - Freeze detection
 - Chroma max
 - Luma min, luma max
 - White max
 - Audio level min 8 ch
 - Audio level max 8 ch
 - Audio silence 8 ch
 - Audio overload 8 ch
- Compatible with REF-1801 using URS internal frame reference



DEC-1003 Functional Block Diagram



SPECIFICATIONS

Composite In

Signal:
 NTSC (525/60) SMPTE 170M
 PAL (625/50) ITU-R BT470-6
 PAL-M (525/59.94) ITU-R BT470-6
 SECAM ITU-R BT470-6 with passive loop-through

Return loss: >35 dB up to 5.75 MHz

Coupling: DC

Level: 2 Vp-p max

Impedance: 75Ω bridging

Reference In

Signal:
 NTSC SMPTE 170M / PAL ITU-R BT470-6
 Reference black signal with passive loop-through

Return loss: >35 dB up to 5.75 MHz

SDI Out

Signal (5): SDI SMPTE 259M-C (270 Mb/s) + SMPTE 272M-C

Return loss: >15 dB up to 270 MHz

Jitter: <0.2 UI (0.74 ns) pp (wideband)

Processing Performance

Quantization: 10 Bits

Sampling: 8 fsc (2X oversampling)

Freq. response: ±0.1 dB up to 5.5 MHz

Noise: < -58 dB up to 5,75 MHz (unweighted)

2T K factor: <1 %

Differential gain: <1 %

Differential phase: <1 °

LNL: <1 %

Miscellaneous

Test generator: 75% color bars with 100% white bar

Electrical

Power: 5W



ORDERING

Densité 2 frame	Densité 3 frame	Description
DEC-1003	DEC-1003-3RU	10-Bit composite to SDI decoder
DEC-10NN-SRP		Single rear connector panel with 3 outs
DEC-10NN-DRP	DEC-10NN-DRP-3RU	Double rear connector panel
	DEC-10NN-3SRP	Single rear connector panel with 4 outs

Related products UAP-1783, AAP-1741, DAP-1781

Remote control iControl, iControl Solo, RCP-200

Options	Description
DEC-1003-OPT-FS	Frame sync option for DEC-1003
DEC-1003-OPT-LS	Line Scope over IP option for DEC-1003
DEC-1003-OPT-PROBE	Probing option for DEC-1003



GVB-1-0358A-EN-DS

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