

HCP-1801

HD/SD Video Control Probe with Embedded Audio



The HCP-1801 HD/SD control probe integrates many advanced features for monitoring both video and embedded audio signals. It offers complete real-time measurement and analysis of signal parameters, as well as flexible alarm thresholds and user-defined profiles. In addition, the probe functions as a distribution amplifier, with a single input and four HD or SD reclocked outputs.

Used in conjunction with Miranda's iControl, the HCP-1801 allows users to see and hear the signals they are monitoring. The probe generates real-time streaming video and audio level meters for transmission over IP networks. The probe can be used along with a wide variety of Densité Series interfaces and DA's, and allows users to benefit from the extensive flexibility and ease of use so unique to the Densité platform.

■ Key Features and Benefits

Video standard, presence detection and alarming

- ⊕ Video format detection
- ⊕ Video presence/loss
- ⊕ Multi-zone freeze detection
- ⊕ Multi-zone black detection
- ⊕ Luma min and max
- ⊕ White limit max

Closed Captioning presence and validity

- ⊕ CC525 EIA-608-A extract and display
- ⊕ CEA-708-B presence detection of:
 - Primary Caption Service
 - Secondary Language Service
 - Services 3-6

Active Format Description (AFD)

- ⊕ Detection of Active Format Description (AFD) aspect ratio data

Other Ancillary Data detection and identification

- ⊕ SMPTE 12M HD Time Code
- ⊕ Wide Screen Signaling (WSS)
- ⊕ VITC 525/625
- ⊕ Video Line Index (VLI)
- ⊕ Teletext: ETSI EN 3000 706 Pages A, B, C, D data detection

Monitoring of up to 16 audio channels of embedded audio

- ⊕ Signal presence detection
- ⊕ Signal format validation for each AES audio pair: PCM, AC-3 (Dolby™ Digital) or Dolby™ E
- ⊕ Presence control for each AES audio pair
- ⊕ Adjustable level, phase and mono signal alarms

Audio parameter alarming

- ⊕ Loss of sound/audio silence
- ⊕ Audio min and max levels
- ⊕ Overload
- ⊕ Absence of dynamics
- ⊕ Phase alarm
- ⊕ Stereo width
- ⊕ Imbalance

Dolby™ Metadata extract

- ⊕ Program ID

Audio channel status monitoring and identification

- ⊕ Format used
- ⊕ Data type
- ⊕ Emphasis
- ⊕ Lock
- ⊕ Sampling frequency
- ⊕ Channel mode
- ⊕ User bits
- ⊕ Aux bits
- ⊕ Work length

Extensive profile management

- ⊕ Five (5) user-defined profiles can be stored directly in the probe memory
- ⊕ Fully-configurable signal alarm thresholds and sensitivities
- ⊕ Duration adjustable granularity range from 0 to 90 sec.
- ⊕ Number of occurrences within period ranging between 1 min. and 24 hours
- ⊕ Remote configuration with iControl software
- ⊕ For added configuration convenience, the active profile of an HCP-1801 module can be copied to other cards

Transmission over IP for display and listening

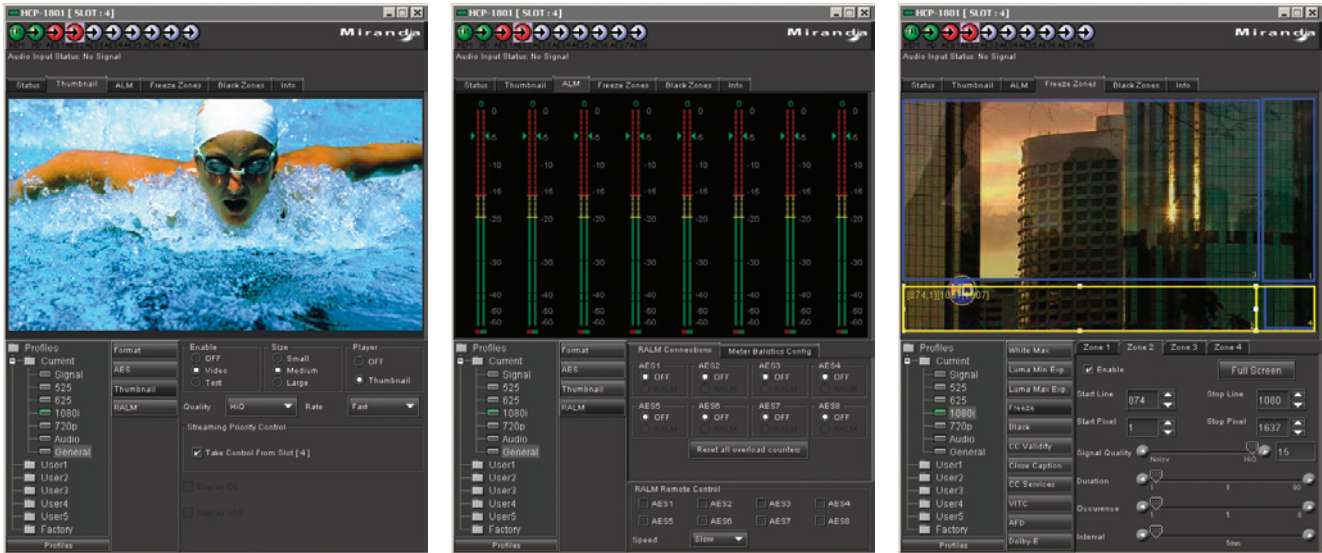
- ⊕ Thumbnails with adjustable picture size, quality and transmission rate
- ⊕ Alarms and status
- ⊕ VITC, Closed Captioning, V-chip, WSS, XDS, AFD, VLI, and Dolby E
- ⊕ Audio level and phase meters on up to 4 simultaneous AES audio pairs
- ⊕ Audio overload counter
- ⊕ Selectable HD or SD video test pattern

Input/output

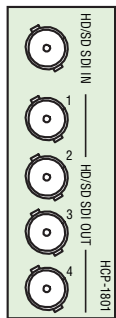
- ⊕ Supports SMPTE 259M-C digital video signal with embedded 272M digital audio in the following formats:
 - HD 1080i (SMPTE 274M) at 59.94 and 50 Hz
 - HD 720p (SMPTE 296M) at 59.94 and 50 Hz
 - SD 525i (SMPTE 125M) at 59.94 Hz
 - SD 626i (ITU-R BT.656) at 50 Hz
- ⊕ One input, four outputs

Remote control and status

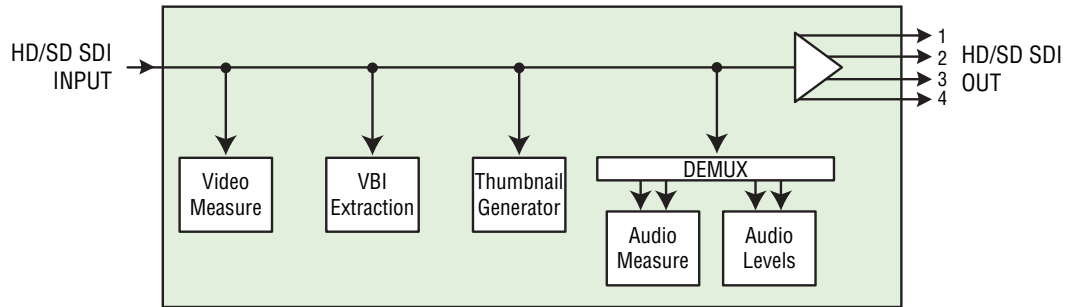
- ⊕ On card status LED
- ⊕ Current and latch status for remote reporting



Probe Control Panels



HCP-1801-SRP



HCP-1801 HD/SD SDI Probe

■ Technical Specifications

VIDEO INPUT

HD SIGNAL: SMPTE 292M (1.485,1.485/1.001 Gbps) with embedded audio (SMPTE 299M)
1080i (SMPTE 274M) at 59.94 and 50 Hz
720p (SMPTE 296M) at 59.94 and 50 Hz

SD SIGNAL: SMPTE 259M-C (270 Mbps) with embedded audio (SMPTE 272M)
525i ((SMPTE 125M) at 59.94 Hz
625i (ITU-R BT.656) at 50 Hz

INPUT CABLE

LENGTH: HD: 110m at 1.485 Gbps (Belden 1694A)
SD: 250 m (850') up to 270Mbps (Belden 1694A)

RETURN LOSS: > 15 dB up to 1.5 GHz

SERIAL DIGITAL OUTPUTS (4)

SIGNAL: Reclocked SMPTE 292M (1.485,1.485/1.001 Gbps) with embedded audio (SMPTE 299M)
Reclocked SMPTE 259M-C (270 Mbps) with embedded audio (SMPTE 272M)

RETURN LOSS: > 15 dB up to 1.5 GHz

ADDED JITTER: < 0.2 UI p-p (WIDEBAND)

PROCESSING PERFORMANCE

SERIAL DIGITAL OUTPUTS (4)

SIGNAL PATH: 10 bits

PROCESSING

DELAY: < 6 ns

POWER: 4W

THUMBNAILS

PICTURE SIZE

HD: 720p: 408 x 240 or 204 x 120 or 102 x 60
1080i: 384 x 270 or 192 x 135 or 96 x 67

PICTURE SIZE (525): 352 X 240 or 176 X120 or 88 X 56

PICTURE SIZE (625): 352 X 288 or 176 X144 or 88 X 72

■ Ordering Information

HCP-1801: HD/SD Serial Digital Video Control Probe with Embedded Audio

Rear Panel: HCP-1801-SRP Single Rear Connector Panel

Housing Frame: Densité, Densité 2

Remote Control: iControl Remote Control and Monitoring

Accessories: Ethernet Controller Card for Densité Frame

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