

# 9978-ANC-MON • 3G/HD/SD-SDI Ancillary Data Monitoring Probe with Multiple-Protocol Data Payload SDI/HDMI Display and Fault Detection/Forwarding



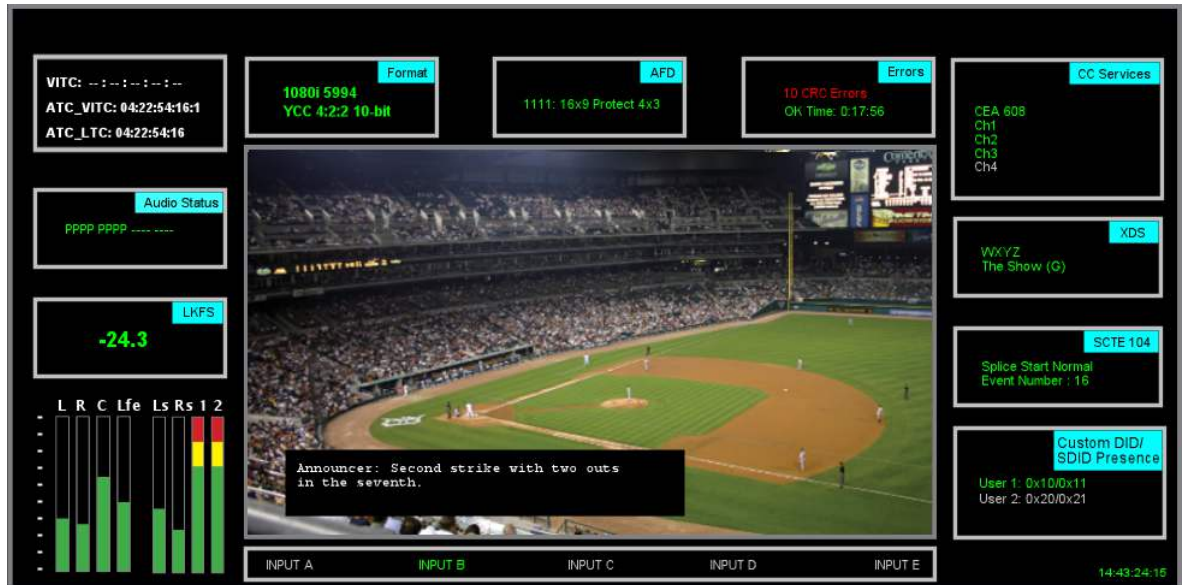
The Cobalt® 9978-ANC-MON 3G/HD/SD-SDI Ancillary Data Monitoring Probe with Multiple-Protocol Data Payload SDI/HDMI Display and Fault Detection/Forwarding provides an easy to use, economical solution that offers comprehensive ancillary data monitoring/"probing" to validate and ensure expected presence and handling of ancillary data in SDI streams.

Unlike expensive and hard to use waveform monitors or typical test systems, the 9978-ANC-MON is an economical openGear®-based solution that provides on-screen burn-in status in "plain language" text and icons. Unlike typical test equipment, the 9978-ANC-MON user interface is designed from the ground up to be used by everyday operations personnel and not just engineers. The status burn-in is available on the card SDI output as well as a convenience HDMI output that can be directly connected to a wall monitor.

In addition to its user interface, the 9978-ANC-MON can integrate with automation systems via its IP and SNMP interfaces. The 9978-ANC-MON is an unprecedented first in the high-density openGear® based card form factor that fits in your existing openGear environment without the need for expensive, delicate, bulky test gear. The 9978-ANC-MON supports and offers monitoring for many data packages such as closed captioning, SCTE 104, 608-XDS, AFD and others, providing not just presence/absence status but also interpreters that parse the payload and display it as a burn-in. Also included standard is a continuously running display of ATSC A/85 LKFS loudness. Full user DashBoard™ or Remote Control Panel remote control allows full status and control access locally or across a standard Ethernet network.

Intuitive layout clearly and simultaneously showing multiple aspects of the input signal and its ancillary data are displayed in real time along with programming.

Conditions for any number of criteria are immediately apparent via color coding to indicate normal operation, errors, ancillary data absence or other errors. No difficult nested menus or difficult to interpret messages.



## FEATURES

Easy to use, economical solution for comprehensive ancillary data monitoring/"probing"

"Plain language" easy to understand status burn-in overlay displayed along with program video makes status monitoring easy. HDMI output allows use with standard consumer monitor panels.

Quality Check provides immediate alert status for quality issues such as black/frozen frame or audio silence. Threshold and hold-off are user configurable.

On-screen presence/absence of selected DID/SDIDs

Fully flexible and configurable with user presets to simplify setup

Closed Captioning, SCTE 104, AFD, and 608-XDS monitoring and payload interpret

Full status forwarding to automated systems using IP and SNMP interfaces

Audio level bars display and LKFS numeric display

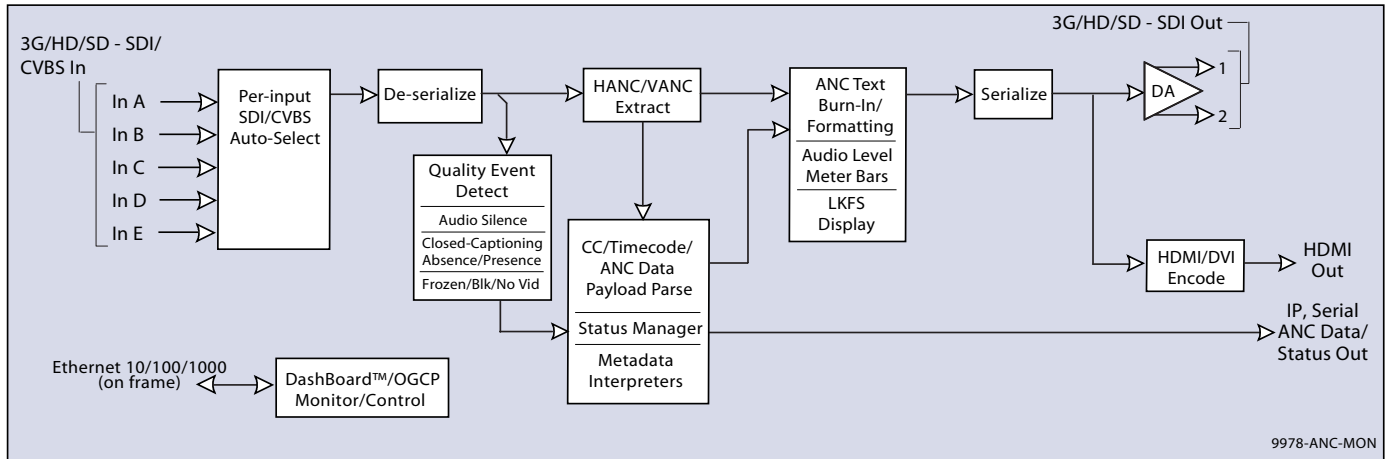
Low-power/high-density design – less than 18 Watts per card

Remote control/monitoring via DashBoard™ software or OGCP-9000 remote control panels

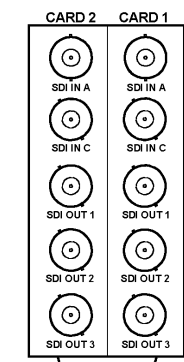
Five year warranty



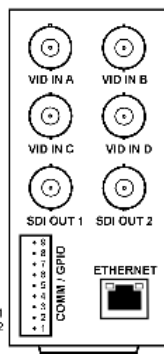
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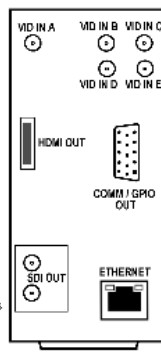
9978-ANC-MON



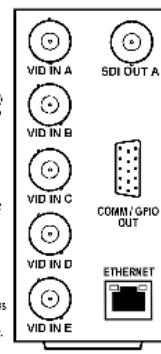
RM20-9978-A/S



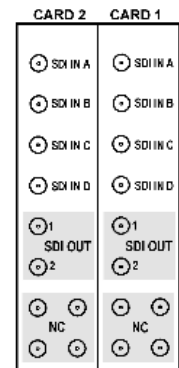
RM20-9978-B



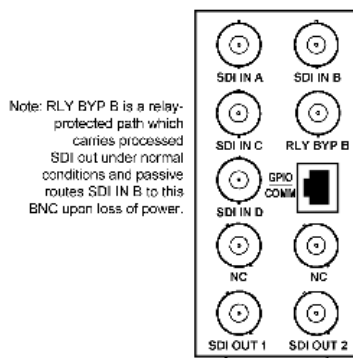
RM20-9978-C-DIN  
RM20-9978-C-HDBNC



RM20-9978-D

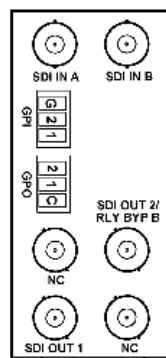


RM20-9978-G/S-DIN  
RM20-9978-G/S-HDBNC

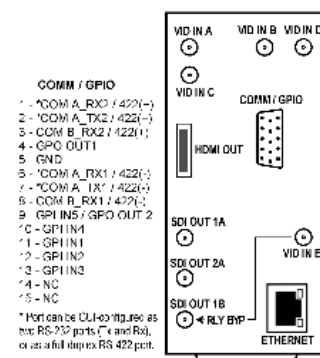


RM20-9978-E

Note: RLY BYP B is the card processed output which uses either input SDI IN A or SDI IN B. This output may be taken to retain selected routing in the event of cover loss regardless of whether a selection was manually invoked or by a unit-detected failover (for example, if an auto-changover from A to B was invoked while active, routing of input B to this output is retained in the event of cover loss).



RM20-9978-F



RM20-9978-H-DIN  
RM20-9978-H-HDBNC

**Note:** Some rear module illustrations may show GPIO/COMM connections. These connections/functions are reserved and currently NC for this model.

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## SPECIFICATIONS

Note: Inputs/outputs are a function in some cases of rear I/O module used.

### Power

< 18 Watts

### Video Input/Outputs

Video Inputs: (5, max) 75Ω BNC; auto-detect/setup for 3G/HD/SD-SDI or CVBS

SDI Outputs: (4) 75Ω BNC (rear module determines number of outputs)

HDMI Output: (1) HDMI output with audio embedding

SDI Formats Supported: SMPTE 259M, SMPTE 292M, SMPTE 424M

SDI Receive Cable Length: 3G/HD/SD: 120/180/320 m (Belden 1694A)

SDI Return Loss: >15 dB up to 1.485 GHz; >10 dB up to 2.970 GHz

## ORDERING INFORMATION

**9978-ANC-MON** 3G/HD/SD-SDI Ancillary Data Monitoring Probe with Multiple-Protocol Data Payload SDI/HDMI Display and Fault Detection/Forwarding

**RM20-9978-A/S** 20-Slot Frame Rear I/O Module (Split; supports 2 cards) (2) 3G/HD/SD-SDI Input BNCs, (3) 3G/HD/SD-SDI Processed or Reclocked Output BNCs (connections are per each Card 1 / Card 2 connector bank)

**RM20-9978-B** 20-Slot Frame Rear I/O Module (Standard Width) (4) 3G/HD-SD-SDI Input BNCs, (2) 3G/HD/SD-SDI Output BNCs, Ethernet Port

**RM20-9978-C-DIN** 20-Slot Frame Rear I/O Module (Standard Width) (5) 3G/HD-SD-SDI/CVBS Inputs, (2) 3G/HD/SD-SDI Outputs, HDMI Output, Ethernet Port (all coaxial connectors DIN 1.0/2.3)

**RM20-9978-C-HDBNC** 20-Slot Frame Rear I/O Module (Standard Width) (5) 3G/HD-SD-SDI/CVBS Inputs, (2) 3G/HD/SD-SDI Outputs, HDMI Output, Ethernet Port (all coaxial connectors HD-BNC)

**RM20-9978-D** 20-Slot Frame Rear I/O Module (Standard Width) (5) 3G/HD-SD-SDI/CVBS Input BNCs, (1) 3G/HD/SD-SDI Output BNC, Ethernet Port

**RM20-9978-E** 20-Slot Frame Rear I/O Module (Standard Width) (4) 3G/HD/SD-SDI Input BNCs, (2) 3G/HD/SD-SDI Output BNCs, (1) 3G/HD/SDI Output BNC (with relay bypass failover)

**RM20-9978-F** 20-Slot Frame Rear I/O Module (Standard Width) (2) 3G/HD/SD-SDI Input BNCs, (1) 3G/HD/SD-SDI Processed Out BNC w/ Latching Input Select/Bypass, (1) 3G/HD/SD-SDI Processed Output BNC

**RM20-9978-G/S-DIN** 20-Slot Frame Rear I/O Module (Split; supports 2 cards) (4) 3G/HD/SD-SDI Inputs, (2) 3G/HD/SD-SDI Outputs (Connections are per each Card 1 / Card 2 connector bank; all coaxial connectors DIN1.0/2.3)

**RM20-9978-G/S-HDBNC** 20-Slot Frame Rear I/O Module (Split; supports 2 cards) (4) 3G/HD/SD-SDI Inputs, (2) 3G/HD/SD-SDI Outputs (Connections are per each Card 1 / Card 2 connector bank; all coaxial connectors HD-BNC)

**RM20-9978-H-DIN** 20-Slot Frame Rear I/O Module (Standard Width) (5) 3G/HD-SD-SDI/CVBS Inputs, (2) 3G/HD/SD-SDI Outputs, (1) 3G/HD/SD-SDI Output with Relay Bypass Protect, HDMI Output, Ethernet Port (all coaxial connectors DIN 1.0/2.3)

**RM20-9978-H-HDBNC** 20-Slot Frame Rear I/O Module (Standard Width) (5) 3G/HD-SD-SDI/CVBS Inputs, (2) 3G/HD/SD-SDI Outputs, (1) 3G/HD/SD-SDI Output with Relay Bypass Protect, HDMI Output, Ethernet Port (all coaxial connectors HD-BNC)