Hamlet Digi Scope ™   DS9000 HD/SD or SD/CST

MEASUREMENT AND MONITORING OF ALL HD, SD AND COMPOSITE SIGNALS. EMBEDDED, AES/EBU AUDIO AND EXTERNAL REFERENCE INCLUDED. A MODULAR APPROACH USING PATENTED "ALL DIGITAL" PROCESSING.

Measurement and monitoring of all HD, SD and Composite signals. Embedded, AES audio External reference included. Uses Patented "all digital" processing.

The Digi Scope DS9000 is a 1U rack mountable, low power device with DVI and XVGA outputs for use on external displays which is an ideal alternative to, and/or replacement for broadcast measuring devices in production or engineering environments. Especially where repetitive monitoring or measurements need to be made. Areas such as, master control, pre or post production, remote sites and OB vehicles. Indeed anywhere serial digital signals or multi-format measurement is required. The DS9000 is a modular instrument so it is easy for the user to upgrade at any time.

The DS9000 unit is capable of HD SDI, SD SDI and composite video signals and audio in its embedded, or AES/EBU formats. For analysis, measurement and monitoring. There is a headphone socket on the front so the decoded audio can be monitored.

This product contains proprietary patented designs.

Features and Functions

Rack Unit
- Worlds first modular HD/SD SDI /composite 1U rack measuring instrument
- Easy access to full waveform and vector functionality: Parade (YCrCb), 2H, H, Hmag, 2V, V, Vmag, Full field line select, Bow tie, Ext - ref, HFT™ - (Hands Free Timing™) and Filtering
- V, H and Phase cursors for accurate measurement & reporting
- Data and gamut analysis, time code logging of assigned errors
- Coloured displays of waveforms, vectors, audio bar graphs and phase display
- Select audio source, bar graph type, peak hold, de-emphasis
- Split tile layout, picture display in 4:3 or 16:9
- Three input module slots
- Output to DVI or XVGA monitor, Audio output jack
- Operator and factory store and recall presets
- Patented proprietary 10 bit processing of all signals
- Computer remote IP control via, up/downloads data via USB/RJ45
- 12 VDC powered, mains adapter included

Module Options:
HD/SD*
- Input BNC.
- Loop Out BNC.
- Ext Ref. / AES input BNC.
- Auto sensing of HD and SD formats.
- Audio decode.

SD/Composite*
- Input BNC.
- Loop Out BNC.
- Ext Ref. / AES input BNC.
- Audio decode.

Other Options*:
- RJ45

HAMLET®
EXCELLENCE IN VISION

TECHNICAL SPECIFICATION

INPUTS WITH SDI-CST MODULE
INPUT
BNC connector.
> Input impedance 75 ohms. Max d.c. +/- 10V.
> SMPTE 259M serial digital at 800mV p/p.
> Auto equalised up to 350 metres of cable at 270mb/s. PAL or NTSC composite video 0.5 to 2.0V p/p.

SDI output.
> BNC connector. Output impedance 75 ohms. Equalised version of the serial digital input.

Ext-ref / AES input.
> BNC connector. Input impedance 75 ohms. Max dc +/- 3 volts. Video 0.5 to 2.0V p/p.
> Digital Audio min 150mV p/p, max 3V p/p conforming to S/PDIF, AES3, IEC60958 or EIAJ CP1201.

INPUTS WITH HD-SD MODULE
SD/HD digital input.
> BNC connector. Input impedance 75 ohms.
> Max d.c. +/- 10V.
> SMPTE 259M serial digital at 800mV p/p.
> SMPTE 292M high definition serial digital at 800mV p/p.
> Auto equalised up to 350 metres of cable at 270mb/s.
> Auto equalised up to 140 metres of cable at 1.485Gb/s.

SD/HD digital output.
> BNC connector. Output impedance 75 ohms. Equalised version of the serial digital input.

Ext-ref / AES input.
> BNC connector. Input impedance 75 ohms. Max dc +/- 3 volts. Video 0.5 to 2.0V p/p.
> Digital Audio min 150mV p/p, max 3V p/p conforming to S/PDIF, AES3, IEC60958 or EIAJ CP1201.

WAVEFORM MONITOR
Response Flat is +/- 0.5% 50Hz to 5.5MHz.
Low Pass is -3db @ 1.5MHz, -60db @ 6.75MHz.
Timebase H, 2H and Hmag (x5). V, 2V and Vmag.
Line select is any line from the frame.
Parade is a 3H display of input or filter parade.

VECTOR MONITOR
Video Traditional component or composite display.
Component accuracy 0.2%. Bandwidth 3.375MHz.
Composite accuracy 1%. Bandwidth 1.3MHz.

AUDIO MONITOR
Audio Stereo phase display of left or right audio pair.
Phase accuracy 2 deg.

OUTPUTS
Output to DVI or XVGA monitor, Audio output jack, USB's and RJ45

AUDIO MONITOR
Accuracy Better than 0.1db over full scale range.
Characteristics BBC, EBU, Digital, DIN, Nordic and VU.

AUDIO MONITORING OUTPUT
3.5mm stereo jack.

ENVIRONMENT
Indoor and Out door use, 5 to 45 deg.C. Ambient to 2,000m.
Max humidity 80% to 31 deg.C decreasing to 50% at 40 deg.C.
Overvoltage category 2. Pollution degree 1.

PHYSICAL

DIMENSIONS: - 490mm x 250mm x 45mm.

WEIGHT: - 3Kg.

WARRANTY: - 1 Year.
Extendable free on registration: - To 2 Years
By using the service area of our web site
http://www.hamlet.co.uk/serv.html

AVAILABLE MODULES*
High Definition/Standard Definition Serial Digital input module (all current standards using one BNC) with embedded audio decoder. HD/SD SDI loop out BNC and Ext reference in BNC. {MF- HD/SD}.

Standard Definition SDI and Analog composite module, with embedded audio decoder. {MF – SD/CST}.

ORDERING INFORMATION

DS9000 DIGI SCOPE
For operational areas where engineering features are required. On screen SDI analyser, waveform, vectorscope

At least one input module required

* Features available as options (see options list below)

OPTIONS	
DS – chassis	Digi Scope DS9000 chassis
DS – HD/SD	HD and SD SDI input module
DS - SD/CST	SD SDI and Composite input module

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