Hamlet MicroFlex®

HD/SD or SD/CST

Multiformat Hand Held, Waveform, Vector and Audio Monitor



The Hamlet MicroFlex is the world's smallest multi-format multi-standard handheld waveform, vector, audio, and picture monitor.

Using a built-in 3.5" diagonal high quality and brightness TFT display shows the picture in 4:3 or 16:9 formats. Also shows conventional waveform, vector and audio displays together with data analysis.

Easy to plug-in input option modules allow operation in all current formats and enables future standards to be accommodated. There are two modules currently available HD/SD* and SD/Composite*, each also has AES/EBU and Embedded audio capabilities. An external reference is included which doubles up as the AES/EBU input. Audio levels can be shown as stereo bar graphs in a variety of standards, together with a vector phase display. Audio can be monitored on the via headphones. Accurate timing and level measurements can be made with digital cursors. Extensive error monitoring including EDH, colour gamut etc.

Computer downloads and data uploads are via USB. Coloured traces, Line Select, stuck bit detect (no activity on one data line).

It is ergonomically designed machined aluminium case, operating for over 2 hours on 6 x AA batteries or from the supplied 12V power adaptor.

This product contains proprietary patented designs. US 6,493,024B1 GB2329294

Features and Functions

Hand Held Unit

- World's smallest hand held HD, SD, Composite capable measuring and monitoring instrument
- Data and gamut analysis, time code logging of assigned errors
- Easy access to full functionality: Parade (YCrCb), 2H, H, Hmag, 2V, V, Vmag, Full field line select, Bow tie, Ext - ref, HFT™ -(Hands Free Timing™), Filtering
- Coloured displays of waveforms, vectors audio bar graphs and phase display
- Select audio source, bar graph type, peak hold, de-emphasis
- Picture display in 4:3 or 16:9
- Built-in monitoring speaker, output jack
- Operator and factory store and recall presets
- Patented proprietary 10 bit processing of all signals
- Computer remote control, up/downloads data via the USB port or connection via new RJ45 option
- Internal battery or 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*:

- Hard carry case available to hold the unit and its option modules.
- Soft carry case to hold the unit and its option modules.
- RJ45
- * Features available as options (See options list below)



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 \pm 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 \pm 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.

POWER

6 x AA batteries 12Vd.c. @ 500mA max. Mains using included adaptor.

DISPLAY AREAS

Display area is 320x240 pixels (72mm x 54mm).

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: -, h 165mm x w 95mm x d 36mm.

WEIGHT: - 650g

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

MicroFlex

Multiformat hand held, waveform, vector and audio Monitor.

At least one input module required

* Features available as options (see options list below)

OPTIONS	
MF – chassis	MicroFlex chassis
MF - HD/SD	HD and SD SDI input
	module
MF - SD/CST	SD SDI and Composite input
	module
MF - XPSU	External Power Supply
MF - CC	Carry Case

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Hamlet products are Manufactured to ISO9001.2000 and ISO14001 specification. Our most up to date information is available on our web site.

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