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Picture Adjustment

Adjustments can be made here to the brightness, contrast, hue and saturation of the input video signal.

Date/Time

Set the time here that is used for event logging. If good accuracy is required, then synchronisation with an external NTP time server should be used.

RS232 Port

The RS232 port can be configured for use as either a SIPI command interface or as an IP to RS232 pass through interface.

SIPI allows third party control systems to control the encoder using a simple text based command protocol. Note the same command protocol can be used with IP commands on IP port 2026 or on the USB comms link.

IP Pass through mode allows remote third part control systems bi-directional communications with other equipment local to the encoder, via the encoder's RS232 port.

USB Comms Port

The USB comms port is used as a SIPI command interface only. Connect to the port and type help to see all the commands supported.

IR Blaster 1 & 2

These pages provide a Sky IR remote control simulator. Select the desired Sky handset and press the appropriate button on the remote control. The on-board IR blaster circuit generates that IR keypress from the corresponding IR blaster cable plugged into the encoder. This allows remote (network based) control of a local Sky Settop box.

Note: Other remote control codes can also be simulated via an IP command. Also, MediaStar 780 units will read IR from 3rd party remote controls in real time and transfer that signal across the IP network to the encoder for local re-generation and control of third party A/V devices.

IR Blaster Repeat

This is an IR blaster setup aid. It allows the last transmitted IR code to be repeated every half second for 15 minutes so the optimum position of the IR blaster can be found on the front of the IR receiver (Settop box) with a single person setup.

Network Setup

This is where the IP network address settings of the unit can be setup.

Update Locations

The Encoder will periodically check for software upgrades or new setup configuration files from a specific location on an HTTP server. This menu is where the file locations are specified.

Enablement Code

New functionality can be enabled on the Encoder using a 15 digit enablement code. These codes are unit specific and you must provide the unit's serial number when applying for an upgrade code. Contact your supplier for more details.

This menu also contains controls to reset the Encoder's settings back to defaults or reboot the encoder remotely.

Set Password

The configuration webpages can be protected from unauthorised tampering by setting a password here. If your password becomes lost, contact your supplier with the Encoder's serial number and they can then provide you with an enablement code to clear the password.

SAP

The Encoder can be enabled to periodically produce Session Announcement Protocol messages on the network. These messages allow suitably enabled client software or hardware devices to become aware of the video/audio stream, and then automatically make them available to their users.

SNMP

The Encoder can produce SNMP Trap events when a significant 'event' occurs, for example an over temperature warning. These events are also copied to the on-board event log. The trap destinations and community classification are specified here.

Email Logs

Any new entries in the Event logs can be periodically emailed to a specified recipient. This is to facilitate remote, non-volatile storage of the logs where required, and simple remote problem notification. The Encoder can work with a with a standard SMTP email server.

Event Log

The Event log shows all significant 'events' that the Encoder has seen, this includes stream starting, changes to the encoder configuration etc. The Event log can be downloaded using the on-page URL link.

Locator LEDs

Turning the Locator LED function on, makes the encoder's status led flash between orange and green. This allows a particular physical unit to be located easily, and is especially useful when a number of Encoders are situated together.

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Technical Specifications

System Input

Video Inputs:

- CVBS – PAL, NTSC
- S-Video – PAL, NTSC (via phono connectors)
- Component RGB (SCART) – 480i, 576i
- Component YPbPr, Component RGB (Sync-on-Green) – 480i, 480p60, 576i, 576p50, 720p50/60, 1080i50/60, 1080p50/60 (streamed as 1080p25/30)
- HDMI 1.4 - 480i, 480p60, 576i, 576p50, 720p50/60, 1080i50/60, 1080p50/60 (streamed as 1080p25/30).

De-Interlacing - 480i and 576i inputs can be de-interlaced to 480p30 and 576p25 output streams.

An SD resolution internally generated colour bar stream is also available.

All video inputs are streamed out with the same video resolution, unless otherwise specified.

Audio Inputs:

HDMI – PCM digital stereo 32, 44, 48 kHz sampling.

Analogue – 2.2V pk-pk into 10K Ohms 48 kHz sampling.

Encoding and Stream Protocols

Video Encoding:

MPEG 4-10/H.264 MP@L4, CBR/VBR encoding, 1.5 Mbps to 12 Mbps

MPEG-2 MP@ HL, CBR/VBR encoding, 1.5 Mbps to 15 Mbps

Audio Encoding:

MPEG-1 Layer 2 encoding - 64 - 384 Kbps Stereo

AAC LC encoding - 40 - 576 Kbps Stereo

Output Streams:

Multicast/Unicast UDP MPEG2-TS

Multicast RTP video and audio streams (for use with QuickTime© via on-board RTSP server)

Network and Interfaces

LAN:

RJ45 802.3 10/100 Base-T Auto MDIX

Optional 802.3af Power over Ethernet (Class 3)

Static or DHCP IP Address

DSCP stream tagging for QoS

Network Protocols:

UDP, TCP, ARP, DHCP, ICMP, IGMP V3, HTTP, Telnet, SNMP, SAP/SDP, SMTP, DSCP.

USB Comms:

USB 2 type A host port for software upgrades.

USB 1.1 type B port for Serial Comms for external configuration and/or control.

RS232 Port:

Rx, Tx, CTS, RTS up to 115,200 Baud, Configured for SIPI external configuration/control OR IP to RS232 bi-directional pass through for external device control.

Device connected status monitoring.

Configuration and Monitoring

Configuration:

Configuration via on-board display and buttons or via Encoder hosted web pages to a PC/Laptop/Tablet.

Control Interfaces:

SIPI textual based control commands send from 3rd party control systems to the Encoder via RS232, USB comms or IP interface.

Monitoring:

SNMP traps for significant events such a loss of video input or changes in configuration.

On-board Event log with web page download and remote emailing capability.

On-board temperature sensor with over temperature SNMP trap.

RS232 device connected status.

PoE in use status.

Front panel LED indicators and on-board display.

Software Upgradability:

Fully software upgradeable in the field, from digitally signed files only.

Upgrade via USB key in USB host port, or from a remote HTTP server.

Product features are upgradable via unit-specific enablement codes.

IR Blasting

Two IR blasters with a network control interface for remote control of local IR controlled devices.

Generation of IR commands with 30, 33, 36, 38, 40, 56 kHz IR modulation frequencies.

On-board emulation of Sky IR Handsets.

IP control interface and text based commands for third party systems.

SAP Announcements

Generation of Session Announcement Protocol (SAP) media announcements.

Support of custom announcement parameters.

Physical and Power

Physical

215 x 133 x 35 mm (8.5 x 5.3 x 1.4")

500g (1.1lbs)

No moving parts

Power

7W

+5V DC, 2A via an external mains/DC power adapter

802.3af Power over Ethernet (PoE) PD class 3

Environmental

0 - 40ºC (32 - 104ºF) non-condensing, in-door use only

Approvals

FCC, CE class A device

TUV safety certification with CB extensions for USA, Canada, Australia and others.

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Notes

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Regulatory Requirements Notices

EUROPE

Cabletime Limited declare that the products described in this manual conform to the requirements of the following Directives:

- 2004/108/EC EMC Directive
- 2006/95/EC Low Voltage Directive

THE STANDARDS APPLIED ARE:

EN55022:2010	Incorporating corrigendum October 2011: Information Technology Equipment - Radio Disturbance Characteristics
EN55024:2010	incorporating corrigendum October 2011: Information Technology Equipment – Immunity Characteristics
EN61000-3-2 + A1:2008 + A2:2009	Harmonic current emissions
EN61000-3-3:2008:	Voltage fluctuations and flicker
EN60950-1:2006+A11:2009 +A1:2010+A12:2011	Information Technology Equipment. Safety, General Requirements
IEC60950-1:2005+ A1:2009	Specification for safety of information technology equipment, including electrical business equipment, with CB variations for US, Canada, Japan, and Australia

Also: UL60950-1:R:2011-2012, CAN/CSA C22.2 No 60950-1/A1:2011-12

UNITED STATES OF AMERICA

Cabletime Limited declares this equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules Subpart B (15.107, 15.109). These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. This device complies with part 15 of the FCC Rules.

Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

CORRECT DISPOSAL OF THIS PRODUCT

This marking on the product, accessories or literature, indicates that the product and its electronic accessories should not be disposed with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

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