A140

Video & Audio Decoder over IP for HDTV Broadcast and IPTV Distribution

DATASHEET | IP VIDEO ENCODING & DECODING

The world of IPTV has rapidly evolved in its relatively short history - from MPEG-2 to MPEG-4, SD to HD - and a host of other standards and features to support the delivery of TV services over managed broadband networks. With HD capability becoming a requirement of many new deployments worldwide, the A140 allows service providers to deliver a high performing HD set-top box, based on the latest generation STi7105 system-on-chip (SoC), but at a cost-effective price point and without having to deploy an over-featured set-top box.

HIGH DEFINITION

Flat-panel TVs have also rapidly evolved in recent years from standard definition to HD Ready and now Full HD. The A140 can decode resolutions up to 1080i 60Hz but is also able to de-interlace content and display it progressively - such as de-interlacing 1080i to 1080p - to deliver the picture quality your customers expect on their high-end LCD and Plasma TVs.

ADVANCED CODEC SUPPORT

The support of low bitrate advanced video codecs provides operators with the opportunity to grow revenue generating services, while maximising the efficient use of network bandwidth, creating the ability to:

- Reach a greater number of subscribers
- Increase the number of interactive and multicast channels
- Enhance viewing experience with HD channels.

Unique

The A140 is a very compact set-top box, but is able to deliver high performance, along with the required connectivity including; analog AV, HDMI, USB & Digital Audio (S/PDIF).

EXTENSIVE ECOSYSTEM SUPPORT

The A140 is supported by an extensive ecosystem of middleware, browser, conditional access and DRM options required for the widely varying configurations of the IPTV market.

COMPREHENSIVE DESIGN TOOL & SUPPORT

Amino software technology is based on open standards such as Linux and HTML. Application developers for the A140 benefit from the Amino JMACX system which enables full control of the STB functions from the browser. JMACX provides the service operator with a powerful set of HTML and JavaScript extensions which allow simple and highly effective user interface designs to be created or ported. For increased flexibility in creating custom applications ADKs and SDKs are also available.

SOFTWARE UPDATES & MAINTENANCE

The A140 holds a complete software image in on-board flash memory, and is also designed to support secure bootstrap from a multicast server. At any time, a deployed A140 can be upgraded with a new software image via the secure multicast server. The multicast approach ensures that very large numbers of deployed set-top boxes can be upgraded without placing an individual load on the server or the network. For security, software images can be signed with keys unique to each deployment.

P 626 293 3400 E video-sales@emcore.com W www.emcore.com/opticomm

A140

Next generation MPEG-2 and MPEG-4 high definition IP-set-top box

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System Design

Size and weight:
114mm x 100mm x 35mm. 280g
(excluding accessories and packaging)

Inputs:
Ethernet 10/100 BaseT via RJ-45 shielded connector

Outputs:
HDMI 1.3a. (excl. Deep colour and DTS audio) with HDCP. S/PDIF (optical). USB2.0. 10-way Mini-DIN for Composite video, Component (YPrPb),RGB, S-Video and analogue audio. RF Mod and loop through.

Power:
5V DC at 1.5A via external power supply Less than 8W typical usage (external supply input voltage 100-240V AC 50-60Hz, 0.8A max, output 5VDC 3A)

Codecs:
MPEG-2 MP@HL. MPEG -4 pt10 AVC/H.264 HP@L4

Video resolutions:
Decodes up to 720p and 1080i. Displays up to 1080p.

Graphics resolutions:
HD graphics up to 1280x720

Audio:
Stereo audio and Dolby 5.1 surround via S-PDIF and HDMI. Dolby Digital+ pass through to external decoder

Security:
Wide selection of DRM and Conditional Access support. HDCP on HDMI.
Macrovision (optional)
CGMS-A signalling pass through

Memory:
128MB Flash, 256MB RAM

Front panel LEDs:
Power on/IR command received (Red)

Operating environment:
ETS 300-019-1-3 Class 3.1

EMC conformance:
FCC Part 15 class B.
2004/108/EC EN55022

Safety approvals:
CAN/ CSA-C22.2 No. 60950-1-03 EN60950

RoHS:
2002-95-EC

WEEE:
2002-96-EC

Operating temperature:
0˚C (32˚F) to 40˚C (104˚F)

Storage humidity:
5% to 95% RH (non-condensing)

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