HDMI2QAM

Dual Channel High Definition Encoder
with built-in Multiplexer, QAM Modulator and RF Up-Conversion

The HDMI2QAM is a dual-channel, high and standard definition MPEG 2 broadcast distribution encoder with built in QAM modulation and RF up-conversion.

The HDMI2QAM is a dual-channel, high definition MPEG 2 broadcast distribution encoder with QAM modulation and RF up-conversion built in. Its primary application is for use with clear QAM distribution to ATSC televisions. The HDMI2QAM automatically detects video and audio, encodes, multiplexes and generates program information (PSIP); it then modulates and up-converts two channels for distribution via coax. Closed captioning and support for Emergency Alert (EAS) are standard. Applications include private cable, hospitality, medical, education and cable television.

DOLBY DIGITAL a t s c DVB

applications

- **ATSC Distribution**
- **DVB Distribution**
- **Private Cable**
  - **Hospitality**
  - **Medical**
  - **Education**
- **Cable Television MSOs**

benefits

- **High and standard definition dual encoding:** The HDMI2QAM automatically detects two channels of video and audio via HDMI 1.3, encodes and multiplexes the signal into a multiple program transport stream with either DVB or ATSC table compliance.

- **Automatic video detection:** Video rates are automatically adjusted based on HDMI video input resolution, audio passthrough or encode and QAM modulation target.

- **QAM modulation and RF up-conversion:** For cable television applications, the unit modulates the signal using QAM Annex A and B and up-converts two video and audio services multiplexed on one carrier frequency for distribution via coax networks.

- **ASI and GigE output:** For non-RF applications, the HDMI2QAM delivers ASI (75 Ohm source per EN500083-9) and GigE (MPEG2 or optional RTP multicast transport egress).

- **Program information:** The HDMI2QAM is compliant with the ATSC A69 Program and System Information Protocol (PSIP).

- **Closed captioning and EAS:** Support for closed captioning and Emergency Alert (EAS) is standard.

- **DVB SI:** The HDMI2QAM is compliant with ETSI EN 300 468 Service Information specification.

- **Flexible configuration & control:** Controlling and configuring the HDMI2QAM is easy using the integrated front panel keypad and LCD and web page for configuration and monitoring.

AdvancedDigital Inc.

HDMI2QAM Dual High Definition Encoder/QAM Modulator

Technical Specifications

Automatic Rate Adjustment Range

720 P: 12-23 Mbs
1080i: 14-25 Mbs

(Rates are calculated based on HDMI video input
resolution, video complexity and QAM target)

HDMI Input

Connector:

Interface: HDMI v 1.3a, DVI v1.0, CEA-861-D

Supported Audio:
    Dolby Digital 2.0 (AC3) dual stream encoders included
    MPEG1 Layer 2 dual stream encoders included
    Dolby E, Dolby 5.1 and Dolby Digital 2.0 (AC3) passthrough

CC Input

Connector:
    BNC 75 Ohm

Interface:
    Terminated Input for :
        EIA-608 CC signal reception w/ up convert to EIA-708
            for DTV compliance
        Wide Screen Signaling (WSS)

Emergency Alert System (EAS) Input

Video:
Connector:
    BNC 75 Ohm

Interface:
    Terminated NTSC or PAL D1 Composite Input

Audio:
Connector:
    Vertical dual RCA jack

Interface:
    L & R unbalanced audio channels

EAS Triggering

Interface:
    9-Pin Interface, Front Panel selection or Web-UI configuration.

ASI Output

Connector:
    BNC 75 Ohm

Interface:
    Asynchronous Serial Interface (EN 50083-9)

Packet Format:
    188 byte packets

Data rate:
    up to 210Mbps

Syntax:
    MPTS

IP Output

Connector:
    RJ45 Electrical Ethernet

Interface:
    Internet Protocol

Data Rate:
    up to 210Mbps

Syntax:
    MPTS

RF Output

Connector:
    F-style RF female jack

Frequency:
    50 to 862 Mhz

Bandwidth:
    6 Mhz Annex B
    8 Mhz Annex A

Main Power:
    45 dBmV to 56 dBmV in 1 dB

Monitor Power:
    -10 dBmV from Main

IF Output

Connector:
    F-style RF female/jack

Frequency:
    Selectable 44 MHz (USA) and 36.125MHz (Europe)

Signal Specifications

Modulation Schemes Supported:
    Annex A
    Annex B

MER: 38.0 dB min.

QAM constellations:
    Annex A: 64, 256
    Annex B: 256

Physical

Operating Temp.:
    0 to +50 °C/+32 to +122°F

Power Supply (nominal):
    100 - 240 VAC

Power Consumption (nominal):
    33.6 W (120V @ 280mA)

Weight:
    6 lbs

Measurements (H X W X D)
    1.73" X 19" X 13.322"

User Interface

Front Panel Controls

Browser-based Web Interface

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