

# Apollo IV™ HDMI 4ch/DVB-C 4ch

Real Time Multichannel HDMI to DVB-C or QAM Modulator with MPEG-2 Encoder with 1080i or 720p Support. 4 HDMI Channels In, 4 DVB-C Channels Out. Designed for Real Time MPEG-2 Encoding of Any HDCP Compliant HDMI Signal and Sending it Out Via Built In Frequency Agile DVB-C/QAM Modulator. Output Resolution is 1080i or 720p at 16x9. Designed to Present Information to Many Viewers from a Computer via DVB-C or QAM Tuners Built Into All Televisions! Ideal Product to Present Bus Station Schedules, Class Schedules, or Any Other Information That Originates in a Computer. Supports MPEG-1 Layer II Audio in Via "Dual" Mini DIN Connector.



Front



Back



## Features

- Accepts 720p/1080i/480p/480i HDMI
- Four HDMI inputs, one ASI input
- Four DVB-C or QAM RF outputs (4 carriers combined output -- SPTS)
- Outputs: Supports analog stereo, digital optical, and coax audio inputs
- Encodes HDMI to a high-definition 720p or 1080i MPEG-2 stream
- Outputs a fully frequency agile DVB-C digital cable channel 2-135
- Amplifies for distribution over an on-site broadband cable system with adjustable output level to -29 dBmV, compatible with all cable format broadband systems
- Front-panel buttons and easy to use menus, including inputs, encoding, channel, and RF options.
- Create single-part virtual channels, such as 116, 645 to match Guide channels
- Integrates with RS-232 control and feedback with simple ASCII commands
- Saves power and rack space using efficient design, fan-free cooling, and compact enclosure
- Powers up in less than 4 seconds, no OS overhead
- Includes compact switching power supply
- Ships with 1 RU single rack mount and VGA cable
- Meets RoHS safety and California energy standards
- Free option to drive two to four modulators from a 12 VDC 4A power supply

## Applications

- Engineering labs
- In Store Demos of DVB-C receivers
- Digital signage
- Test equipment for RF modulators
- Hotel and lodging video systems

## Overview

HDMI has quickly become one of the major standards for uncompressed video in the consumer world. Many input devices support HDMI, such as cameras and recorder/players – and many more are yet to come. DVB-C is the universal standard modulation for cable television content delivery. Often people want to share these outputs with many people via DVB-C tuner equipped televisions.

The Apollo IV is an HDMI to DVB-C or QAM modulator with MPEG-2 HD encoding. It accepts four HDMI inputs and one DVB-ASI input. Outputs are four DVB-C or QAM outputs and two DVB-ASI outputs, plus one UDP IP (4xSPTS) port.

The signal sources can be from satellite receivers, closed-circuit television cameras, Blue-ray players, antennas, etc. The output signals can be received by TVs, set-top boxes, etc. The system is operated via front panel controls or remote NMS web-based management.

The Apollo IV is an ideal product to present bus station schedules, class schedules, or any other information that originates in a computer. It is also useful in MDU digital insertion of security cameras for monitoring pools and parking facilities.



Computer Modules, Inc.

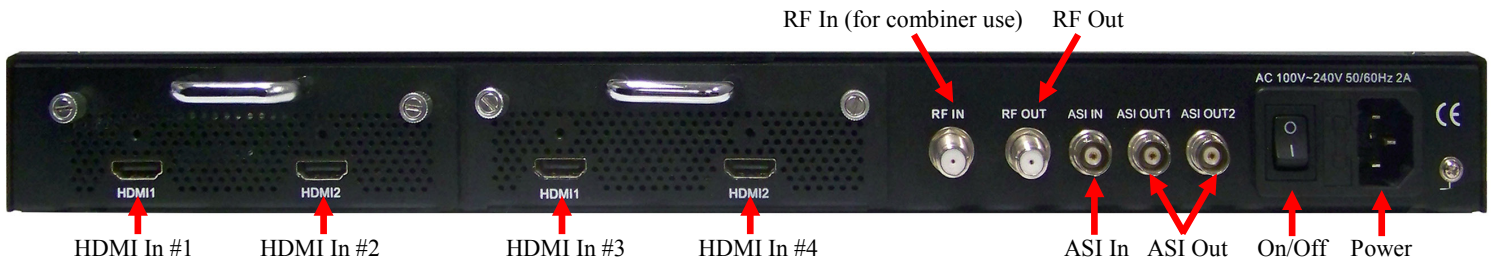
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# Inputs/Outputs



# Specifications

## Video Encoding

Inputs:	4 simultaneous HDMI inputs
Outputs:	ASI Out (BNC type) 4 DVB-C SPTS Out (RJ45, 100M)
Encoding:	MPEG-2 HD/MPEG-4/H.264 HD
Resolutions:	1920x1080 60p, 1920x1080 50p (for MPEG-4/H.264 only), 1920x1080 60i, 1920x1080 50i, 1280x720 60p, 1280x720 50p, 720x480 60i, 720x576 50i,

## Audio Encoding

Encoding:	MPEG-1 Layer II (MPEG-2 AAC, MPEG-4 AAC available)
Sample Rate:	48 KHz
Bit Rates:	64 kbps, 96 kbps, 128 kbps, 192 kbps, 256 kbps, 320 kbps

## DVB-C/QAM Modulation

Standard:	J.83A, J.83B, J.83C
MER:	≥42dB
RF Frequency:	30~960 MHz, 1 KHz step
RF Output Level:	-30~-10 dbm (81~97 dBμV), 0.1db step
Constellation:	J.83A – 16/32/64/128/256 QAM J.83B, J.83C – 64 QAM/256 QAM
Symbol Rate:	J.83A – 5.000~9.000 Msps adjustable
Bandwidth:	J.83A – 8M J.83B, J.83C – 6M

## System

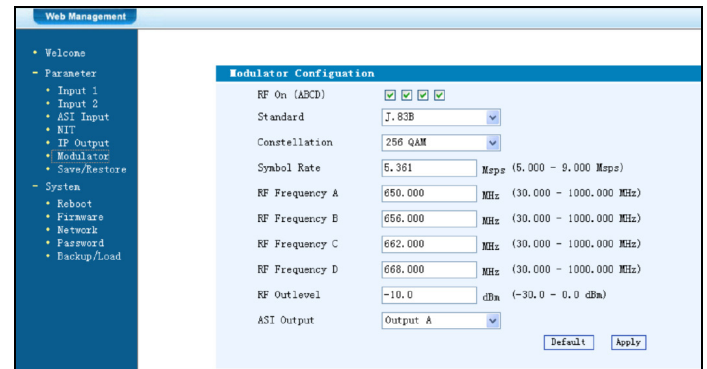
Local Interface:	LCD Front Panel
Remote Management:	Web NMS
NMS Interface:	RJ45, 100M

RF In (for combiner use) RF Out

## Physical and Power

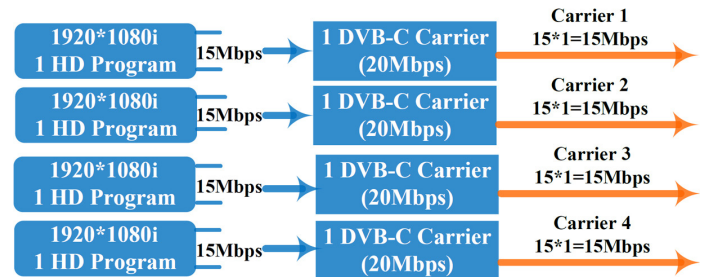
Dimensions:	16.54 x 15.75 x 1.73 inches (W x D x H) 420 x 400 x 44 mm (W x D x H)
Weight:	9.92 lbs (4.5 kg)
Power Supply:	AC 100V~240V
Operating Temperature:	0°C ~ +45°C (32°F ~ 113°F)
Conformities:	FCC, CE, RoHs

# Sample GUI



Modulator Configuration

# Application Example



# Ordering Info

Apollo IV HDMI 4ch/DVB-C 4ch  
Other versions available: HDMI to ISDB-T, HDMI to ATSC (8VSB), HDMI to DVB-T



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