



CableVista CV1100

MPEG to Base Band Video/Audio or RF

The CableVista Edge Decoder performs MPEG decoding, modulation and upconversion for up to 24 NTSC or 12 PAL channels in a compact one RU chassis. A wide variety of output card types can be installed in the same chassis including: baseband NTSC/PAL, RF NTSC/PAL, and RF NTSC with off air reference. The CableVista offers numerous redundancy features, hot-swappable components and configurable software. With the highest degree of flexibility available, the CableVista is the key element in today's digital simulcast network.

Key Features

- Multiple output card types available:
 - MPEG to Base Band (NTSC or PAL)
 - MPEG to RF Channels (NTSC or PAL)
- EAS support as per SCTE 18 (NTSC BB or RF output cards only)
 - Optional firmware load to support SCTE-27 subtitling instead of SCTE- 18 EAS (must be specified at time of order)
- VITS insertion (NTSC BB or RF output cards only)
- Modular chassis fits up to six output cards and can provide:
 - Up to 12 Base Band channels decoded in one RU
 - Up to 24 RF channels decoded in one RU
- (Mixing output cards of different types in a single chassis is also possible)
- Internal CLI tagging (NTSC version only)
- Off Air Reference/Phase Lock (CV1 11 6RF/OAPL)
- GbE redundancy
- ASI inputs
- Configurable output module redundancy available
- GbE or ASI daisy chaining of several CableVista units possible

- All modules and power supplies are hot-swappable
- Field upgradable firmware to incorporate new features
- IGMPv3 support
- Configuration and control via Web page interface (Configuration and control also available though RS232 or SNMP) Field upgradable firmware to incorporate new features)

Optimized for Gigabit Ethernet Networking

- Full line rate GbE video transport allowing full use of GbE links

"Pay as You Grow" Modularity

Modular design allows for more output cards to be added as demand grows

High Availability

- Output cards are hot-swappable allowing installation or replacement on active systems
- Costly service outages are minimized, uptime is maximized
- Enhanced system reliability: redundant GbE ports, cooling fans, dual power supplies

Extremely High Density

- Up to 12 Base Band or 24 RF channels in one RU
- Fully-tested and interoperable with industry-leading networking equipment

Specifications

GBE INPUT

Interface	GbE (1+1 Redundant) SFP module (optical or copper)
Data Rate	1 Gbps
Format	MPEG-2 Transport Streams 188-byte TS Packets Unicast and Multicast

ASI INPUT

Number of Input Ports	Two
Connector	BNC
Data Rate per port	210 Mbps
Packet Data Format	188 or 204 bytes/packet
Standard	EN50083-9

ASI OUTPUT FOR LOOP THROUGH

Number of Output Ports	One
Connector	BNC
Data Rate per port	210 Mbps
Packet Data Format	188 or 204 bytes/packet
Standard	EN50083-9

VIDEO AND AUDIO

Video Format	MPEG-2, MP@ML up to full D1 resolution
Audio Formats	Dolby Digital (AC-3) MPEG-1 layer 2 (Musicam)

MANAGEMENT AND CONTROL

Interface	RJ-45 (10/100 Ethernet) USB (CV1 108+ Console Port)
Protocols	SNMP Web Based Interface DHCP/BootP TFTP IGMPv3 Telnet

POWER

Input Frequency Range	50/60 Hz
Input Voltage Range	100 to 240 VAC
Power Consumption	331 W maximum (decoding of 24 channels)

GENERAL

Chassis Width	19 in (48.2 cm)
Chassis Height	1.75 in (1RU)
Chassis Depth	23 in (58.4 cm)
Weight (fully loaded chassis)	26 lbs (11.7 Kg)
Operating Temperature Range	10°C to 40°C
Humidity Range	10-90% (non-condensing)

Specifications are subject to change without notice.

NTSC

EMERGENCY ALERT MESSAGING

Standard	As per SCTE 18
In-Band Reception	via GbE Input
Out-of-Band Reception	via 10/100 Ethernet
NOTE: If the optional firmware load to support SCTE-27 subtitling is specified at time of order, then SCTE- 18 EAS will be unavailable.	

VITS INSERTION

Test Patterns	NTC7 Composite, SMPTE Color Bars, Multiburst, Sin(x)/x, FCC Composite, NTC7 Combination, Modulated Ramp, Black Burst, Shallow Ramp
VBI Lines	17 - 20

CLITAGGING

Modulation Type	AM or Carrier Frequency Offset
AM Modulation Freq.	1 to 30 Hz
Depth of AM Modulation	0 to 90%
Carrier Freq. Range	88 to 900 MHz (CV1146RF only)
Carrier Freq. Offset	-12.5 kHz or -25 kHz
Carrier Freq. Power Offset	-14 dB to 3 dB

CLOSED CAPTION / VBI PROCESSING

Input Format	As per ANSI/SCTE 20 2004 or ANSI/SCTE 21 2001
Closed Captioning Format	As per EIA608 (Line 21)

OPTIONAL CONFIGURATIONS

Dual Power Supplies for Redundancy	-48VDC Power Supply
Output Modules:	Minimum two up to a maximum of six

Any combination of the following
output cards can be used in
the same Cable Vista chassis:

- CV1 120BB
- CV11 16RF/OAPL
- CV1 126RF
- CV1 146RF

PAL B/G

TELETEXT / VBI PROCESSING

Input Format	As per EN 301 775
Teletext (WST-B) Output	As per ITU-R BT 653-2 (Line 7 to 22)
WSS Output	As per EN 300 294

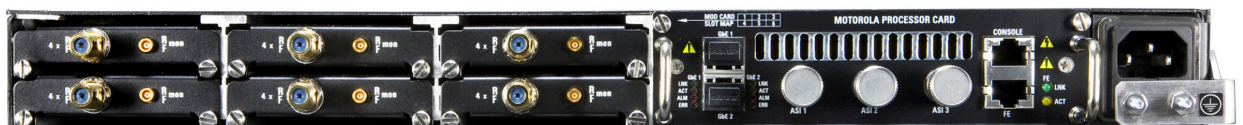
OPTIONAL CONFIGURATIONS

Dual Power Supplies for Redundancy	-48VDC Power Supply
Output Modules:	Minimum two up to a maximum of six

Any combination of the following
output cards can be used in
the same Cable Vista chassis:

- CV1 121BB
- CV1 128RF/PBGN
- CV1 128RF/PBGF

CableVista CV1100 - Rear
(One RU chassis accommodates two to six output cards)



Digital Video / Audio Source Specifications for all Cards

Video Format	MPEG-2, MP@ML, upto full D1 resolution 4:2:0 chroma sampling 4:3 aspect ratio
Video Resolution (NTSC Cards)	720x480, 704x480, 544x480, 528x480, 352x480
Video Resolution (PAL Cards)	720x576, 704x576, 544x576, 528x576, 352x576
Video Bitrate	Up to 15 Mbps
Audio Formats	MPEG1 layer 2 (MUSICAM) Dolby* Digital (AC3)
Audio Bitrate	MPEG Audio 512 kbps max Dolby Audio 512 kbps max
Audio Sample Rates	32 kHz, 44.1 kHz, 48 kHz
Audio Downmix	Multichannel downmix to stereo or mono as necessary

* "Dolby" is a trademark of Dolby Laboratories

CV1146RF



ANALOG RF OUTPUT

RF Channels per Module	4 x NTSC Adjacent frequency channel block
Connector	F-type
Impedance	75 Ohms
Frequency Range	54 to 900 MHz (channel restrictions below 88 MHz. See manual for restrictions)
Level Adjustment Range (wrt block)	50 to 60 dBmV
Attenuation Step Size	0.1dB
In Channel Return Loss	-14 dB (54 to 900 MHz)
Out of Channel Return Loss	-12 dB (20 MHz to 1 GHz)
Inband Carrier to Noise (wrt Block Power)	-71 dBc
Out of Band Carrier to Noise (average wrt Block Power)	-76 dBc
RF Monitor	MCX
RF Monitor Impedance	75 Ohms
Audio	Licensed BTSC/SAP

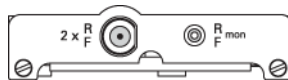
CV1126RF



ANALOG RF OUTPUT

RF Channels per Module	2 x NTSC Adjacent frequency channel block
Connector	F-type
Impedance	75 Ohms
Frequency Range	54 to 900 MHz
Level Adjustment Range (wrt block)	50 to 60 dBmV
Attenuation Step Size	0.1dB
In Channel Return Loss	-14 dB (54 to 900 MHz)
Out of Channel Return Loss	-12 dB (20 MHz to 1 GHz)
Inband Carrier to Noise (wrt Block Power)	-71 dBc
Out of Band Carrier to Noise (average wrt Block Power)	-76 dBc
RF Monitor	MCX
RF Monitor Impedance	75 Ohms
Audio	Licensed BTSC/SAP

CV1128RF/PBGF



ANALOG RF OUTPUT

RRF Channels per Module	2 x PAL B/G Adjacent frequency channel block
Connector	F-type
Impedance	75 Ohms
Frequency Range	54 to 900 MHz
Level Adjustment Range	50 to 60 dBmV (wrt block)
Attenuation Step Size	0.1dB
In Channel Return Loss	-14 dB (54 to 900 MHz)
Out of Channel Return Loss	-12 dB (20 MHz to 1 GHz)
Inband Carrier to Noise (wrt Block Power)	-67 dBc
Out of Band Carrier to Noise (average wrt Block Power)	-72 dBc
RF Monitor	MCX
RF Monitor Impedance	75 Ohms
Audio	Nicam (CV1 128RF/PBGN) FM/FM (CV1 128RF/PBGF)

CV1128RF/PBGN



ANALOG RF OUTPUT

RRF Channels per Module	2 x PAL B/G Adjacent frequency channel block
Connector	F-type
Impedance	75 Ohms
Frequency Range	54 to 900 MHz
Level Adjustment Range	50 to 60 dBmV (wrt block)
Attenuation Step Size	0.1dB
In Channel Return Loss	-14 dB (54 to 900 MHz)
Out of Channel Return Loss	-12 dB (20 MHz to 1 GHz)
Inband Carrier to Noise (wrt Block Power)	-67 dBc
Out of Band Carrier to Noise (average wrt Block Power)	-72 dBc
RF Monitor	MCX
RF Monitor Impedance	75 Ohms
Audio	Nicam (CV1 128RF/PBGN) FM/FM (CV1 128RF/PBGF)

CV1116RF/OAPL



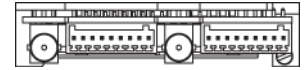
ANALOG RF OUTPUT

RF Channels per Module	1 x NTSC
Connector	F-type
Impedance	75 Ohms
Frequency Range	54 to 900 MHz
Level Adjustment Range	50 to 60 dBmV (wrt block)
Attenuation Step	Size 0.1dB
In Channel Return Loss	-14 dB (54 to 900 MHz)
Out of Channel Return Loss	-12 dB (20 MHz to 1GHz)
Inband Carrier to Noise (wrt Block Power)	-71 dBc
Out of Band Carrier to Noise (average wrt Block Power)	-76 dBc
RF Monitor	MCX
RF Monitor Impedance	75 Ohms
Audio	Licensed BTSC/SAP

OFF AIR CHANNEL INPUT

Connector	MCX
Impedance	75 Ohms
Input Frequency Range (locks to input reference frequency)	Ch 2 thru Ch 13

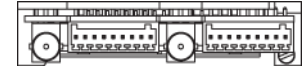
CV1120BB



ANALOG BASE BAND OUTPUT

Channels per Module	2 x NTSC Base Band
Video Connector	BNC
Audio Connector	Terminal Strip
Primary Audio	Two channel stereo
Secondary Audio	Monaural; intended for SAP

CV1121BB



ANALOG BASE BAND OUTPUT

Channels per Module	2 x PAL B/G Base Band
Video Connector	BNC
Audio Connector	Terminal Strip
Primary Audio	Two channel stereo
Secondary Audio	Monaural; intended for SAP

Specifications are subject to change without notice.

Model	Description	Motorola Part Number
CV1116RF/OAPL	Off Air Phase Lock Output Module, NTSC, 54-900 MHz	549781-001-00
CV1126RF	2-carrier RF Output Module, NTSC, 54-900 MHz	549939-001-00
CV1146RF	4-carrier RF Output Module, NTSC, 54-900 MHz	549940-001-00
CV1126RF/K+	2-carrier RF Output Module, NTSC, 54-900 MHz, Korean Audio	581937-001-00
CV11S.1AC.NTSC.6QRF	Non-Redundant Chassis Assembly - AC (Chassis, Fan Assembly, Processor Card, Power Supply), 6-4 Channel RF Output Modules	549283-001-00
CV11S.1DC.NTSC.6QRF	Non-Redundant Chassis Assembly - DC (Chassis, Fan Assembly, Processor Card, Power Supply), 6-4 Channel RF Output Modules	549284-001-00
CV11S.R.2AC.NTSC.6QRF. SCTE 27	Redundant Chassis Assembly - AC (Chassis, Fan Assembly, Processor Card, Power Supplies), 6-4 Channel RF Output Modules, SCTE 27	583160-001-00
CV11S.R.2AC.NTSC.6QRF	Redundant Chassis Assembly - AC (Chassis, Fan Assembly, Processor Card, Power Supplies), 6-4 Channel RF Output Modules	549285-001-00
CV11S.R.2DC.NTSC.6QRF	Redundant Chassis Assembly - DC (Chassis, Fan Assembly, Processor Card, Power Supplies), 6-4 Channel RF Output Modules	549286-001-00
CV11S.R.2DC. DF.NTSC.6QRF	Redundant Chassis Assembly - DC (Chassis, Fan Assembly, Processor Card, Power Supplies, Dual Feed), 6-4 Channel RF Output Modules	553991-001-00
CV1120BB	2-carrier Baseband Output Module	557400-001-00

Many other configurations are available, please contact your Motorola representative for details.



MOTOROLA

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