VIP1920-9C & VIP1970-9C

Flexible High Definition Cable Hybrid Set-tops

High Definition and Standard Definition Video Decoding

Highlights Include:

- High Definition and Standard Definition television in MPEG-2, MPEG-4 (H.264)

- Optional Hard Disk Drive

- System-on-chip 450 DMIPS processor

- 5.1 digital audio

- HDMI connectivity with HDCP support

- Component video (Y Pb Pr) connectivity

- DVR functionality including time shift, recording and viewing separate programs and instant or scheduled recording

- Seamlessly combines TV channels in one channel table regardless of broadcasting method or video format

- KreaTV™ Application Platform as the set-top software provides compatibility with other IP set-top models

- Multiple development environments available for operator-driven functionality and services

- May be used as the home network centerpiece, playing personal media files and showing picture slideshows on the TV set

- Supports feature-rich applications and graphics

- Pre-integrated with leading middleware and conditional access applications

For more information regarding any of these features contact your Motorola sales representative.

The Motorola VIP1900-9C series extends the possibilities for broadband television by combining IPTV with cable broadcasts. Advanced video formats and decoding of High Definition television (HDTV) are supported in all models, whereas a built-in hard disk drive for PVR is available as an option.

The VIP1900-9C series reaches its full functionality thanks to the KreaTV Application Platform – the same set-top software platform used in previous generations of IP-STBs widely deployed among large telecom operators, making the different models compatible and possible to be installed in parallel. A single software platform to maintain and operate means huge savings in time and cost, and still you stay prepared for what the future may bring.

When selecting the VIP1900-9C series, you benefit from years of development, deployment experience and well documented reliability while you embrace the new features and possibilities that new technology brings.

TECHNICAL SPECIFICATIONS

Hardware

Microprocessor:	RISC processor with integrated TV video processing and MPEG decoder, performance 450 DMIPS, 1.2 GFLOPS
Main Memory:	128 MB DRAM 256 MB DRAM (optional)
Video Memory:	32 MB DRAM 64 MB DRAM (optional)
Flash Memory:	Boot flash 4 MB
Application Flash:	32 MB
Accessories:	SRCU, MRCU180, MKB22, USB120IR

Operating System

LINUX®-based OS

Streaming Video

MPEG-1 (SD):	800 kbits/s to 3 Mbits/s, CIF 352x288
MPEG-2 (SD and HD):	Transport stream - PAT, PMT, video and audio streams, constant and variable bit rate, 2-25 Mbps, up to MP@HL 1080i@60 fps
H.264 (SD and HD):	PAT, PMT, video and audio streams, up to 20 Mbps, up to HP@L4.1 (1080i@60 fps)
High Definition video:	1280x720@50 or 60 fps (progressive scan) 1920x1080@50 or 60 fps (interlaced scan)
4:3 and 16:9 video format:	Format detection, scaling to letterbox, center cut-out and SCART signaling

Video On Demand

Interactive Video On Demand (VOD) and Near Video On Demand (NVOD)

Protocol RTSP

Verified compliance with leading video server suppliers

Streaming Audio

Audio Types:	MPEG (Layer 1, 2, 3), PCM, AC3, AAC

Security

SSL:	version 3.0, 64 and128 bits
PKI:	box login, encryption/decryption (Optional)

Macrovision copy protection ver. 7.01 (Optional)

DVB

DVB-C:	[ETSI EN 300 429]
Extra connectors:	2 x DIN Jack for DVB-C input and loop through

Graphics

Computer Graphics:	24 bits/pixel RGB
Resolution:	720x576 pixels (PAL) 720x480 pixels (NTSC) HD Gfx
Video:	24 bits/pixel RGB

Picture-in-Graphics

On Screen Display (OSD)

Alpha blending

Color keying

Graphics accelerator:	2D

Spatial/temporal deinterlacing using motion detection and estimation

Independent flicker filtering of graphics

DVR (VIP 1970 model)

Hard disk drive:	160 GB (other sizes optional)
Recording:	Time shift and scheduled recording
Recording formats:	MPEG-2, H.264
Trick play:	Rewind, fast forward, pause

Front Panel Interfaces

Status indication:	LED
IR-receiver:	Standard
Smartcard reader:	ISO 7816-1/2/3
Display:	Alpha numeric (optional)

Rear Panel Interfaces

Ethernet:	1 x RJ45 10/100 Base-T
Standard definition video:	SCART for RGB, S-video and composite out
High definition video	HDMI with HDCP support, component video (Y Pb Pr)
Auxiliary devices:	SCART (composite in/out and RGB loop through)
Analog stereo:	Left/right RCA stereo connectors
Digital 5.1 sound:	Optical and coaxial S/PDIF
USB port:	Version 2.0
Main power:	Connector and switch

Electrical Requirements

External power supply:	PSU 5.7V (VIP1920 model)
Internal power supply:	110V-240V (VIP1970 model)
Power consumption:	<9 W full load (VIP1920 model) <30 W full load (VIP1970 model, 160GB HDD)

MOTOROLA