

DATASHEETS

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DMS-9245U

SD/HD/UHD H.265(HEVC) support 12ch Encoder/Streamer/Decoder/Recorder

Broadcasting Solution



The rapidly changing era of IP media demands more powerful and efficient solutions. CASTWIN DMS-9245U accepts V/A signal, network stream, NDI, WebRTC, media file, remote screen and voice data with resolution ranging from SD to UHD and performs real-time encoder, streamer, recorder in real-time next generation compression format H.265 (HEVC), H.264 and MPEG-2. It also outputs A/V stream and does file recording after decoding 12 channels real-time stream, NDI, WebRTC, remote screen and voice data.

Multi Function

- 12 channel broadcasting class 4K H.265/264 encoder/stream/recorder equipment with low-latency return signal monitoring and UHD/HD/SD 12-channel decoder equipment with A/V signal output
- Input signal conversion and MXF, AVI, MOV, MP4 etc. file recording support
- Up to UHD resolution of SDI/HDMI/Analog signal Input/Output
- Convenient single device setting and operation management
- Intuitive GUI
- Saving cost of purchase UHD & H.265 support device
- 100% interlocking with other systems due to ISO/IEC ITU-T 13818-2 MPEG2-TS international standard codec support
- VFW/Dshow standard compatibility with existing Capture Devices (Deltacast, Decklink, AJA, Osprey, BlueFish, etc.)
- Direct input of Video/Audio signals does not require any other equipment
- A 100% compatibility with IP Camera, nDVR, WME (Windows Media Encoder), FME (Flash Media Encoder) and other encoders
- Preview generator for real-time input/output source monitoring
- H.265 reduces file storage capacity, reduces real-time stream bandwidth (double compression efficiency compared to existing H.264 format)
- Minimize economic losses due to integrated resolution support
- Facebook, Youtube, Zoom, Skype, Hangouts, etc support
- Multi bitrate streaming/recording, RTMP/HLS streaming engine support

Application

- High-quality broadcast services in low-bandwidth networks
- High-definition broadcast IPTV service
- Government and Parliament Internet Broadcasting
- Professional broadcasting company and in-house broadcasting service
- IPTV N-Screen media service
- Christian and various religious internet broadcasting and IPTV services
- High-quality relay system for live streaming
- Broadcasting service through 4K video decoder
- Linked service with existing broadcasting equipment and broadcasting mobility secure via interworking with SV-MCaster
- Monitoring service through physical source output of input source
- H.265 format-only encoding and decoding service
- Maximize broadcasting service through IP Camera, CCTV, DVR interworking

Features

- SD/HD/4K V/A signal, Network Stream, NDI, WebRTC input/output support and No-delay SV-ScreenCapture S/W support for remote computer screen/voice signal broadcasting
- Video/Audio Lost, Freeze/Black/Still Frame, and Audio Silence Error Detection algorithm; SMTP, Logging, Alarm support
- 12 channels real-time 4K Encoding/Streaming/ Decoding Recording
- Support Delay and TimeShift
- Support MAM(Media Asset Management)
- Chroma 4:4:4
- H.265, H.264 Encoder Parameter setting support
- International standard stream equipment and SV-CloudMedia Platform compatibility
- Resolution 480i/p, 720p, 1080i/p, 2k, 4k, 3D support
- SRT, RTP, UDP, RTMP, HTTP, MMS, MMSH, HTTPS, NDI, WebRTC and SV-Screen Capture S/W support for remote computer screen/audio
- RTMP, UDP real-time stream output
- H.265 (HEVC), H.264, MPEG-2, VP8/9, Divx, Xvid and WMV real time compression/streaming/storage
- Various file storage formats such as MPEG2, MPEG, TS, TP, MKV, AVI, MOV, MP4
- Audio Mixing, 16 channel audio processing
- De-interlacing, Audio monitoring, Aspect setting
- VBR/CBR mode
- Audio level-meter
- SD to UHD up/down scaling
- Change dynamical input/output
- Deltacast, AJA, Decklink, BlueFish Board support
- CUDA, OpenCL, Intel QSV H.264/AVC GPU-accelerated 4K

CASTWIN DMS-9245U

Architecture



CASTWIN DMS-9245U is the best broadcast-quality encoder/decoder system with 12-channel Encoder/Streamer/Decoder/Recorder and Source Preview function supporting UHD resolution and H.265.

CASTWIN SV- DMS-9245U





HEVC Encoding

Chroma Depth 4:2:0 4:2:2(10bit)

Resolutions up to 2160p

Introduction

High Efficiency Video Coding (HEVC) is a new standard for video compression developed by the ISO/IEC 23008-2 and ITU-T H.265. As a Live 4K HEVC Encoder, DME-9824HEVC supports HEVC (H.265) Main 10@L5.1 Video Format, Digital® AC-3, MPEG-1 Layer-II and HE-AAC Audio Format.

Feature

- HDMI v2.0, 4x3G-SDI(SMPTE 424M/425M) or 12G-SDI Video inputs
- 4K Ultra HD 3840x2160 60p supported
- Chroma Depth 4:2:0, 4:2:2(10 bit)
- MPEG-2 TS, MPEG-DASH
- Control and monitoring via web browser, front panel, or SNMP

Competitiveness

- Saving your budget with High Efficient Video Codec taking 50% less bandwidth than an other H.264 Encoder
- Multi input interfaces
- Multiple resolutions and bit rates
- Easy to use with Web GUI
- Able to secure space with compact size for installing
- Enables an enhanced TV viewing experience for consumers with excellent quality

Options

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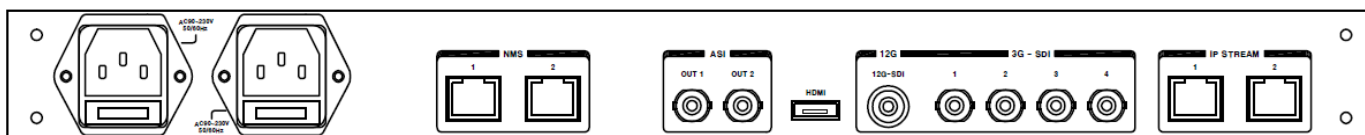
4K HEVC Encoder

DME-9824HEVC

Specifications

	Features	CHARACTER
Video	Input Format	QFHD: 3G-SDI (SMPTE-424M, SMPTE-425M, Quad link) 3G-SDI (SMPTE-424M Single link) HD-SDI (SMPTE-292M, SMPTE-296M, Single link)
	Encoding Format Profile/Level	H.265 / HEVC H.265 : Main4:2:2/10bit, Main10, Main
	Video Resolution	3840x2160 (60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p) 1920x1080 (60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p) 1280x720 (60p, 59.94p, 50p)
	Video Bit-Rate	2 ~ 55Mbps
	Aspect Ratio Latency Video Processing	16:9 ~1s CBR, VBR
Audio	Input(LPCM) Sampling Frequency	Embedded Audio : 5.1ch SMPTE299M/272M) 48kHz
	bitrate	AC3 2ch(128/192/256/384 Kbps), 5.1ch(384/448/640 Kbps) MPEG1 Layer2 64/96/112/128/160/192/224/256/320/384 Kbps AAC_LC 2ch(48 ~ 512 Kbps), 5.1ch(384/448/512/640/768 Kbps) HE-AAC 32 ~ 256 Kbps
	Formats	MPEG-1 LayerII 2ch AAC-LC 2ch, 5.1ch HE-AAC 2ch AC3 2ch, 5.1ch
System	Output Stream Type	MPEG-2 TS (188 byte)
	Output Output Interface Connector TS Bit rate	2 ports DVB-ASI BNC (75 Ω) ~ 60 Mbps
GOP	GOP length	8~248(8 step)
	GOP structure	I/PPPP/IBBBBBBBB
Processing	CTU Size	64 X 64
	CU Size	64 X 64/32 X 32/16 X 16
ETR290	Scene Change Detection	Support
		For No ETR290 entry error when analyzing MPEG TS
IP TS Output	Output	2 ports
	Connector	RJ-45
	Ethernet type	10/100/1000 Base-T
	Stream Protocol	MPEG-2 Transport Stream over UDP / RTP / RTSP / MPEG-DASH
	Broadcasting TS Bit rate	Multicast, Unicast ~ 60 Mbps
Ethernet	Output	2 ports
	Connector	RJ-45
	Interface Type Protocols	10/100 Base-T SNMP
General	Power Requirements	AC 90~230 V, 50/60 Hz
	Power Consumption	Max. 100 W
	Weight	4 Kg
	Operating Temperature Dimensions (W x H x D)	-10 ~ 50 °C 482 x 44 x 483 mm

Configuration



**Encoding & DVB-S/S2 Modulation****Latency** 150ms**Chroma Depth** 4:2:0 4:2:2(10bit)**Resolutions** up to 1080p**L-Band or IF output****Introduction**

DMP-9724SNG is a fully integrated MPEG-2/MPEG-4 AVC (H.264) Encoder with DVB-S/S2 Modulator in a space-efficient 1RU chassis specially designed for teleports and Digital Satellite News Gathering (DSNG) applications.

DMP-9724SNG provides the professional quality compression at ultra low latency with built-in DVB-S/S2 Modulator and IF/L-Band outputs.

Competitiveness

- Providing your viewers with the best performance compression and flawless picture quality
- Wide use in many projects with high compatibility supporting various formats
- Best choice for broadcasting of racing, sports via real time encoding with ultra low latency at 150ms
- Reduce the cost of transmission as supporting wide range of bit-rate control and advanced video coding techniques
- Able to secure space with compact size for installing

Options

- Select on order: L-Band or IF

Feature

- Component, Composite, HDMI, HD/SD-SDI video inputs
- Ultra low latency as 150ms
- Up to 1080p supported
- 4:2:0, 4:2:2(10bit)
- Digital, Analog and SDI embedded audio(8channel) inputs
- 5.1 channel Dolby Digital (AC-3) encoding support
- 7.1 channel SPDIF audio optical input (pass through)
- Additional 1xASI input for supporting of insertion of externally generated PSIP into the transport stream
- Provides internally generated PSI, PSIP, SI
- Control of Frame rate
- Selectable MPEG-2 HD or H.264 HD real-time video encoding
- Dolby Digital (AC-3), MPEG-1 Layer II, AAC-LC, HE-AAC audio encoding
- CEA-608 input source is converted to 708
- Internally generated TVCT, CVCT, SDT, NIT
- Control and monitoring via web browser, front panel, or SNMP
- 4 channel AES/EBU Digital Audio
- 4 stereo (8channel) Analog input with D-sub type
- Integrated Advanced Scaler function
 - Control of Frame rate, Image enhance
 - Phase Noise, Correction of Color, Control of Gamma
- L-Band Output 950 ~2150 MHz or IF Output 50 ~ 180 MHz
- DVB-S/S2 Modulation
- BISS mode-1 and BISS mode-E and BISS mode-0
- Designed for Teleports, Digital Satellite News Gathering Vehicles
- Operating on either the C, Ku or Ka-bands
- Symbol Rate: 1 baud ~ 50 Mbaud
- Video Confidence Monitoring
- Redundancy as Dual Power

DSNG Encoder

DMP-9724SNG

Specifications

ITEM			CHARACTER	
Video Input	Analog	Input Level	Composite, Component(up to 1080i) 1 Vp-p	
	Digital	Input Level	HDMI, HD-SDI 1000 mVp-p (HDMI) 800mVp-p (HD-SDI)	
	Resolutions		480i29.97, 576i25, 720p50/59.94, 1080i25/29.97, 1080p25/29.97	
	SD Aspect Ratio		4:3, 16:9	
Audio Input	Analog	Input Freq. Range	4 Stereo 20 Hz ~ 20 KHz	
		Impedance	600 Ω	
		Connector	D-SUB 15pin x 2	
	Digital	Input Sampling Rate	4 x AES-EBU, Embedded SDI/HDMI (4 Stereo 8 Channel) 32, 44.1 and 48 KHz	
Video Encoder	Optical	Connector	BNC (75Ω) / HDMI-19PIN	
	Encoding	Input	SPDIF(7.1 Channel) pass through	
	Encoding Rate		MPEG-2 HP@HL, MP@HL, MP@ML H.264 HP@L4, MP@L3	
	Chroma Depth		MPEG-2 : 1.6~50 Mbps , H.264 : 0.6~50 Mbps	
Audio Encoder	PSNR		4:2:0(8bit), 4:2:2(10bit)	
	Bit Rate Mode		38 dB	
	Latency		CBR, VBR 150 ms~	
	Input sampling Rate		32, 44.1, 48 KHz	
Audio Encoder	Output sampling Rate		48 KHz	
	Encoding	MPEG-1 Layer II (2ch) AAC LC (2ch, 5.1ch)	AC-3 (2ch) HE-AAC v1 (5.1ch)	AC-3 Pro (2ch, 5.1ch) HE-AAC v2 (2ch)
	Audio Mix		4 Stereo (8channel) or 5.1ch	
	Bit Rate	AC-3 AC-3 Pro MPEG1 AAC LC HE AAC v2 AC-3 Pro 5.1 AAC LC 5.1 HE AAC v1 5.1	128, 192, 256, 384 KHz 96, 112, 128, 160, 192, 224, 256, 320, 384 KHz 64, 96, 112, 128, 160, 192, 224, 256, 320, 384 KHz 32, 48, 56, 64, 80, 96, 112, 128,160,192, 224, 256, 320,384 KHz 32, 48, 56, 64, 80, 96 KHz 224, 256, 320, 384, 448, 576, 640 KHz 96, 112, 128, 160, 192, 224, 256, 320, 384 KHz 96, 112, 128, 160, 192, 224, 256 KHz	
	Dolby E-Pass Through	*Under the audio input source	of Dolby-E only	
	Delay		-100 ~ 400 ms	
TS Input	Transport Stream	DVB-ASI 1port	DVB-S	Mode code QPSK, 8PSK, 16QAM
	Connector	BNC (75 Ω)		Roll-Off 0.03, 0.05, 0.10, 0.15, 0.20, 0.25, 0.35
	Packet Format	188 Byte		BISS Mode (1, E Injected, E Buried and 0)
	Output Level	800 mVp-p		Symbol Rate 1 ~ 50Mbauds / Step 1 Baud
TS Output	Transport Stream	ASI 2port	DVB-S2	Mode code QPSK, 8PSK, 16APSK, 32APSK
	Connector	BNC (75 Ω)		Roll-Off 0.03, 0.05, 0.10, 0.15, 0.20, 0.25, 0.35
	TS Bit Rate	MPEG-2 : 2.5~60 Mbps , H.264 : 2.5~60 Mbps		BISS Mode (1, E Injected, E Buried and 0)
	Packet Format	188 Byte		Symbol Rate 1 ~ 50Mbauds / Step 1 Baud
Ethernet	Connector	RJ-45	RF Option	Pilot Insertion On / Off
	Interface Type	10/100 Base-T		Operating Mode CCM only
	Protocols	SNMP		Frame Type Normal / Short
				Reverse Spectrum
General	Power Requirements	AC 90~230 V, 50/60 Hz	BUC	Carrier Modulator
	Power Consumption	Max. 100 W		Out Level -26.75 ~+5.00 dBm
	Weight	4 Kg		10MHz Reference clock supports
	Operating Temperature	-10 ~ 50 °C		L-Band 950 ~ 2150 MHz / Step 1 KHz
	Dimensions (W x H x D)	482 x 44 x 483 mm		IF 50~180MHz / Step 1 KHz
				CID support
				Power 12, 18, 24 VDC
				Reference Clock 10 MHz (Internal or External)



High-End Encoding

Latency 150ms

Chroma Depth 4:2:0 4:2:2(10bit)

Resolutions up to 1080p

Introduction

Best performing and fully programmed High-End DME-9724HM Encoder enables to transmit more video and audio channels at the available bandwidth.

Fully supporting up to 1080p, 4:2:2 and 4:2:0, MPEG-2/MPEG-4 AVC (H.264), it delivers the real-time video quality with user-friendly easy to set up front control panel.

Competitiveness

- Providing your viewers with the best performance compression and flawless picture quality
- Wide use in many projects with high compatibility supporting various formats
- Best choice for broadcasting of racing, sports via real time encoding with ultra low latency at 150ms
- Reduce the cost of transmission as supporting wide range of bit-rate control and advanced video coding techniques
- Able to secure space with compact size for installing

Options

- Video Confidence Monitoring
- Redundancy as Dual Power

Feature

- Component, Composite, HDMI, HD/SD-SDI video inputs
- Ultra low latency as 150ms
- Up to 1080p Resolution
- 4:2:0, 4:2:2(10 bit)
- Digital, Analog and SDI embedded audio(8channel) inputs.
- 5.1 channel Dolby Digital (AC-3) encoding support
- 7.1 channel SPDIF audio optical input(pass through)
- Additional 1xASI input for supporting of insertion of externally generated PSIP into the transport stream
- Provides internally generated PSI, PSIP, SI
- Control of Frame rate
- Selectable MPEG-2 HD or H.264 HD real-time video encoding
- Simultaneous outputting of 2xTransport stream (ASI) with UDP/IP or RTP/IP transport stream.
- Dolby Digital (AC-3), MPEG-1 Layer II, AAC-LC, HE-AAC audio encoding
- CEA-608 input source is converted to 708
- Internally generated TVCT, CVCT, SDT, NIT
- Excellent IP converter integrated performance
 - Much lower latency & stable IP output
- Control and monitoring via web browser, front panel, or SNMP
- 4 channel AES/EBU Digital Audio
- 4 stereo(8channels) analog input with D-sub type
- Integrated Advanced Scaler function
 - Control of Frame rate, Image enhance
 - Phase Noise, Correction of Color, Control of Gamma

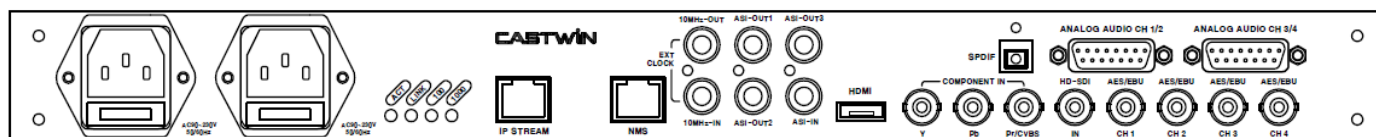
MPEG-2/4 AVC HD Encoder

DME-9724HM

Specifications

	ITEM		CHARACTER
Video Input	Analog	Input Level	Composite, Component(up to 1080i)
	Digital	Input Level	1 Vp-p HDMI, HD-SDI
	Resolutions		1000 mVp-p (HDMI) 800mVp-p (HD-SDI) 480i29.97, 576i25, 720p50/59.94, 1080i25/29.97, 1080p25/29.97
	SD Aspect Ratio		4:3, 16:9
Audio Input	Analog	Input Freq. Range	4 Stereo 20 Hz ~ 20 KHz
		Impedance	600 Ω
		Connector	D-SUB 15pin x 2
	Digital	Input Sampling Rate	4 x AES-EBU, Embedded SDI/HDMI (4 Stereo 8 Channel) 32, 44.1 and 48 KHz
Video Encoder		Connector	BNC (75Ω) / HDMI-19PIN
	Optical	Input	SPDIF(7.1 Channel) pass through
	Encoding		MPEG-2 HP@HL, MP@HL, MP@ML H.264 HP@L4, MP@L3
	Encoding Rate		MPEG-2 : 1.6~50 Mbps , H.264 : 0.6~50 Mbps
	Chroma Format		4:2:0, 4:2:2 (8 bit / 10 bit)
	PSNR		38 dB
Audio Encoder	Bit Rate Mode		CBR,VBR
	Latency		150 ms~
Audio Encoder	Encoding	MPEG-1 Layer II (2ch) AAC LC (2ch, 5.1ch)	AC-3 (2ch) HE-AAC v1 (5.1ch) AC-3 Pro (2ch, 5.1ch) HE-AAC v2 (2ch)
	Audio Mix		4 Stereo (8ch) or 5.1ch
	Bit Rate	AC-3 AC-3 Pro MPEG1 AAC LC HE AAC v2 AC-3 Pro 5.1 AAC LC 5.1	128, 192, 256, 384 KHz 96, 112, 128, 160, 192, 224, 256, 320, 384KHz 64, 96, 112, 128, 160, 192, 224, 256, 320, 384KHz 32,48,56,64,80,96,112, 128,160,192, 224, 256, 320, 384KHz 32, 48, 56, 64, 80, 96KHz 224, 256, 320, 384, 448, 576, 640KHz 96, 112, 128, 160, 192, 224, 256, 320, 384KHz
	Dolby E-Pass Through	*Under the audio input source of Dolby-E only HE AAC v1 5.1	96, 112, 128, 160, 192, 224, 256KHz
	Delay		-100 ~ 400 ms
	Transport Stream		DVB-ASI 1port
	Connector		BNC (75 Ω)
	Packet Format		188 Byte
	Output Level		800 mVp-p
	TS Input		
TS Output	Transport Stream		ASI 3port
	Connector		BNC (75 Ω)
	TS Bit Rate		MPEG-2 : 2.5~60 Mbps , H.264 : 2.5~60 Mbps
	Packet Format		188 Byte
IP TS Output	Output		1 port
	Connector		RJ-45
	Ethernet type		10/100/1000 Base-T
	Stream Protocol		UDP/IP, RTP/IP
	Broadcasting		Multicast, Unicast
Ethernet	TS Bit rate		MPEG-2 : 2.5~60 Mbps , H.264 : 2.5~60 Mbps
	Connector		RJ-45
	Interface Type		10/100 Base-T
	Protocols		SNMP
General	Power Requirements		AC 90~230 V, 50/60 Hz
	Power Consumption		Max. 100 W
	Weight		4 Kg
	Operating Temperature		-10 ~ 50 °C
	Dimensions (W x H x D)		482 x 44 x 483 mm

Configuration





High-End Encoding

Latency 150ms

Chroma Depth 4:2:0 4:2:2(10bit)

Resolutions up to 1080p

Introduction

Best performing and fully programmed High-End DME-9724H Encoder enables to transmit more video and audio channels at the available bandwidth.

Fully supporting up to 1080p, 4:2:2 and 4:2:0, MPEG-2/MPEG-4 AVC (H.264), it delivers the real-time video quality with user-friendly easy to set up front control panel.

Competitiveness

- Providing your viewers with the best performance compression and flawless picture quality
- Wide use in many projects with high compatibility supporting various formats
- Best choice for broadcasting of racing, sports via real time encoding with ultra low latency at 150ms
- Reduce the cost of transmission as supporting wide range of bit-rate control and advanced video coding techniques
- Able to secure space with compact size for installing

Feature

- Component, Composite, HDMI, HD/SD-SDI video inputs
- Ultra low latency as 150ms
- Up to 1080p Resolution
- 4:2:0, 4:2:2(10bit)
- Digital, Analog and SDI embedded audio(8channel) inputs.
- 5.1 channel Dolby Digital (AC-3) encoding support
- 7.1 channel SPDIF audio optical input(pass through).
- Additional 1xASI input for supporting of insertion of externally generated PSIP into the transport stream.
- Provides internally generated PSI and PSIP.
- Various functions with integrated Advanced Scaler.
- Control of Frame rate, Image enhance, Phase Noise, Correction of Color, Control of Gamma
- Selectable MPEG-2 HD or H.264 HD real-time video encoding.
- Simultaneous outputting of 2xTransport stream (ASI) with UDP/IP or RTP/IP transport stream.
- Dolby Digital (AC-3), MPEG-1 Layer II, AAC-LC, HE-AAC audio encoding.
- CEA-608 input source is converted to 708

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Specification

Video Input

Analog Input Level	Component(up to 1080i) , Composite 1 Vp-p
Digital Input Level	HDMI , SDI 1000 mVp-p (HDMI) 800mVp-p (SDI)
Resolutions	480i29.97, 576i25, 720p50/59.94 1080i25/29.97 1080p25/29.97
SD Aspect Ratio	4:3, 16:9

Audio Input

Analog Input	1 stereo
Freq. Range	20Hz ~ 20KHz
Impedance	600 Ω
Connector	Mini XLR
Digital Input	AES-EBU, Embedded SDI/HDMI(8Ch)
Sampling Rate	32, 44.1, 48 KHz
Connector	BNC (75Ω) / HDMI-19PIN
Optical Input	SPDIF(7.1 Channel) (pass through)

Video Encoder

Encoding	MPEG-2 HP@HL, MP@HL , MP@ML H.264 HP@L4, MP@L3
Encoding Rate	MPEG-2 : 1.6~50 Mbps H.264 : 0.6~50 Mbps
Chroma Format	4:2:0 (8bit), 4:2:2 (10bit)
PSNR	38dB
Bit Rate Mode	CBR,VBR
Latency	150ms~

Audio Encoder

Dolby Digital® AC-3(7.1CH)	128, 192, 256, 384 Kbps
MPEG-1 Layer II	192, 224, 256, 320, 384 Kbps
MPEG-4 AAC-LC	32~384 Kbps
MPEG-4 HE-AAC v1	32~192 Kbps
MPEG-4 HE-AAC v2	32~96 Kbps

TS Input

Transport Stream Connector	ASI 1 Port BNC(75Ω)
Packet Format	188 Byte
Input Level	800mVp-p

TS Output

Transport Stream Connector	ASI 2 port BNC(75Ω)
TS Bit Rate	MPEG-2 : 2.5~60 Mbps H.264: 2.5~60 Mbps
Packet Format	188 Byte

IP TS Output

Output Connector	1 Port RJ-45
Ethernet type	10/100 Base-T
Format	UDP/IP, RTP/IP
IP Address Format	Multicast, Unicast
TS Bit rate	MPEG-2: 2.5~60 Mbps H.264: 2.5~60 Mbps
TS Packet Rate	188 Byte

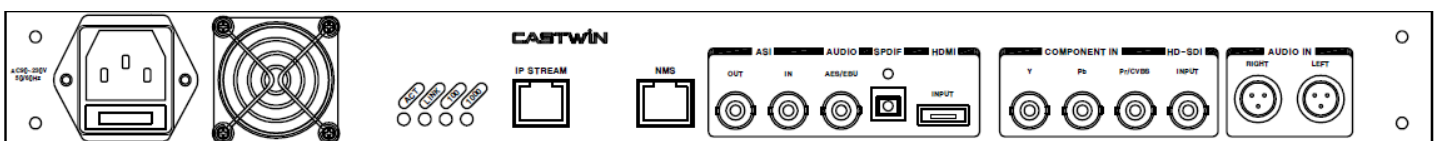
Ethernet

Connector	RJ-45
Interface Type	10/100Base-T
Protocols	SNMP

General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	Max. 100W
Weight	4 kg
Operating Temperature	-10~50°C
Dimension(W x H x D)	482 x 44 x 383 mm

Configuration



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Latency 800ms

Chroma Depth 4:2:0 (8bit)

Resolutions up to 1080p

Introduction

Compact sized 1RU chassis DME-9624H Encoder series provides excellent video quality with low latency. Support of MPEG-2 and MPEG-4 AVC (H.264) in HD and SD allows this Encoder to be configured for a variety applications. Front control panel and Web GUI makes the configuration process easy and fast.

Competitiveness

- Excellent option for operators who competitively pursue the best performing encoding device with high resolution up to 1080p
- Good option for real-time encoding with low latency
- Low cost and High performance
- Able to secure space with compact and light weight design
- Cost effective as offering quick and easy setup
- Preset function

Options

- Video Confidence Monitoring
- Redundancy as Dual Power

Feature

- Component, Composite, HDMI and HD/SD-SDI video inputs
- Low latency as 800ms
- Up to 1080p Resolution
- Digital, Analog and SDI embedded audio inputs
- Additional 1xASI input for supporting of insertion of externally generated PSIP into the transport stream
- Provides internally generated PSI and PSIP
- Video input auto detection
- Various functions with integrated advanced Scaler
- Control of Frame rate, Image enhance, Phase Noise, Correction of Color and Gamma
- Selectable MPEG-2 HD or H.264 HD/SD real-time video encoding
- Simultaneous output of 2xTransport stream (ASI) with UDP/IP or RTP/IP transport stream
- Dolby Digital (AC-3), MPEG-1 Layer II, AAC-LC and HE-AAC audio encoding
- CEA-608 input source is converted to 708
- Internally generated TVCT, CVCT, SDT and NIT
- Integrated excellent IP converter
- CBR or VBR outputs
- Pre-set function
- Excellent IP converter integrated
 - Much lower latency
 - More stable IP output

Specification

Video Input

Analog Input Level	Component(up to 1080i) , Composite 1 Vp-p
Digital Input Level	HDMI , SDI 1000 mVp-p (HDMI) 800mVp-p (SDI)
Resolutions	480i29.97/30, 576i25, 720p50/59.94/60, 1080i25/29.97/30, 1080p25/29.97/30
SD Aspect Ratio	4:3, 16:9

Audio Input

Analog Input	1 Stereo(2channel)
Freq. Range	20Hz ~ 20KHz
Impedance	600 Ω
Connector	Mini XLR
Digital Input	AES-EBU, Embedded SDI/HDMI
Sampling Rate	32, 44.1, 48 KHz
Connector	BNC (75Ω) / HDMI-19PIN
Optical Input	SPDIF(5.1 Channel) (pass through).

Video Encoder

Encoding	MPEG-2 HP@HL, MP@HL , MP@ML H.264 HP@L4 , MP@L3
Encoding Rate	MPEG-2 : 2.0 ~ 17.2 Mbps H.264 : 0.5 ~ 10.0 Mbps
Chroma Format	4:2:0 (8bit)
PSNR	36dB
Bit Rate Mode	CBR, VBR
Latency	800ms~

Audio Encoder

Dolby Digital® AC-3(5.1CH)	128, 192, 256, 384 Kbps
MPEG-1 Layer II	192, 224, 256, 320, 384 Kbps
MPEG-4 AAC-LC	32~384 Kbps
MPEG-4 HE-AAC v1	32~192 Kbps
MPEG-4 HE-AAC v2	32~96 Kbps

TS Input

Transport Stream Connector	ASI 1 Port BNC(75Ω)
Packet Format	188 Byte
Input Level	800mVp-p

TS Output

Transport Stream Connector	ASI 2 port BNC(75Ω)
TS Bitrate	MPEG-2 : 3.1 ~ 20.0 Mbps H.264 : 1.8 ~ 20.0 Mbps
Packet Format	188 Byte

IP TS Output

Output Connector	1 Port RJ-45
Ethernet type	10/100 Base-T
Format	UDP/IP, RTP/IP
IP Address Format	Multicast, Unicast
TS Bitrate	MPEG-2 : 3.1 ~ 20.0 Mbps H.264 : 1.8 ~ 20.0 Mbps
TS Packet Rate	188 Byte

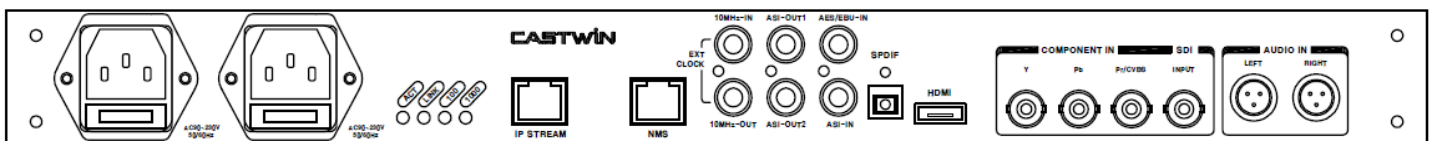
Ethernet

Connector	RJ-45
Interface Type	10/100Base-T
Protocols	SNMP

General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	Max. 100W
Weight	4kg
Operating Temperature	-10~50°C
Dimension(W x H x D)	482 x 44 x 383 mm

Configuration



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MPEG-2 & H.264 SD Encoding

Latency 800ms

Output ASI / IP Stream

Introduction

Standard Definition DME-8624S Encoder with superb video quality and low latency is the perfect choice for customers who expect the high-class product on video/audio quality.

It shows outstanding performance with Analog (composite and component), Digital (HDMI, SDI) inputs and IP/ASI outputs with selectable MPEG-2/MPEG-4 AVC (H.264) compression options.

Competitiveness

- Providing your viewers with the best performance compression and flawless picture quality
- Wide use in many projects with high compatibility supporting various formats
- Able to secure space with compact size for installing

Feature

- Component, Composite, HDMI and SD-SDI video inputs
- Low latency as 800ms
- Digital, Analog and SDI embedded audio inputs
- Additional 1xASI input for supporting of insertion of externally generated PSIP into the transport stream
- Provides internally generated PSI and PSIP
- Video input auto detection
- Control of Frame rate, Image enhance, Phase Noise, Correction of Color and Gamma
- Selectable MPEG-2 SD or H.264 SD real-time video encoding
- Simultaneous output of 2xTransport stream (ASI) with UDP/IP or RTP/IP transport stream
- Dolby Digital (AC-3), MPEG-1 Layer II, AAC-LC and HE-AAC audio encoding
- EIA-708 Closed caption insertion via SD-SDI (SMPTE 334)
- Internally generated TVCT, CVCT, SDT and NIT
- Integrated excellent IP converter
- CBR or VBR outputs

Options

- Video Confidence Monitoring
- Redundancy as Dual Power

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Specification

Video Input

Analog Input Level	Component , Composite
Digital Input Level	HDMI , SDI
Resolutions	1000 mVp-p (HDMI) 800mVp-p (SDI)
Aspect Ratio	480i29.97/30, 576i25
	4:3, 16:9

Audio Input

Analog Input	1 Stereo
Freq. Range	20Hz ~ 20KHz
Impedance	600 Ω
Connector	Mini XLR
Digital Input	AES-EBU, Embedded SDI/HDMI
Sampling Rate	32, 44.1, 48 KHz
Connector	BNC (75Ω) / HDMI-19PIN

Video Encoder

Encoding	MPEG-2 MP@ML
	H.264 MP@L3
Encoding Rate	MPEG-2 : 2~15 Mbps
	H.264 : 0.5~15 Mbps
Chroma Format	4:2:0
Bit Rate Mode	CBR, VBR
Latency	800ms~

Audio Encoder

Sampling Rate	32, 44.1, 48KHz
Dolby Digital® AC-3	128,192,256,384 Kbps
MPEG-1 Layer II	192,224,256,320,384 Kbps
MPEG-4 AAC-LC	32~384 Kbps
MPEG-4 HE-AAC v1	32~192 Kbps
MPEG-2 HE-AAC v2	32~96 Kbps

TS Input

Transport Stream Connector	ASI 1 Port
Packet Format	BNC(75Ω)
Input Level	188 Byte
	800mVp-p

TS Output

Transport Stream Connector	ASI 2 port
TS Bit Rate	BNC(75Ω)
	MPEG-2 : 3.8~19 Mbps
	H.264 : 2.5~19 Mbps
Packet Format	188 Byte

IP TS Output

Output Connector	1 Port
Ethernet type	RJ-45
Format	10/100 Base-T
IP Address Format	UDP/IP, RTP/IP
TS Bit Rate	Multicast, Unicast
	MPEG-2 : 3.4~19 Mbps
	H.264 : 2.5~19 Mbps
TS Packet Rate	188 Byte

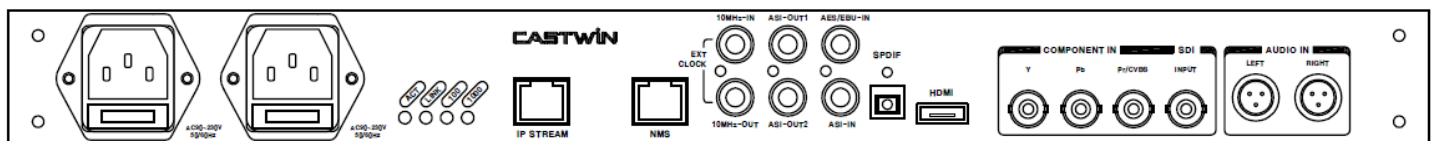
Ethernet

Connector	RJ-45
Interface Type	10/100Base-T
Protocols	SNMP

General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	Max. 100W
Weight	4. Kg
Operating Temperature	-10~50°C
Dimension(W x H x D)	482 x 44 x 383 mm

Configuration



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DVB-S/S2 Receiving

Latency 100ms

Chroma Depth 4:2:0 4:2:2(10bit)

Introduction

Newly released professional IRD is housed in a space-efficient chassis and is able to receive various signals for decompressing.

IRD is perfectly suitable for different kinds of the network and professional applications requiring 4:2:2/4:2:0 decoding solution: broadcast fiber, cable, digital terrestrial, satellite and other distribution networks.

Competitiveness

- Providing your customers with the best performance of decoding and high quality
- Save your cost with various conversion
- Able to secure space with compact and light weight design
- Easy to set-up and control

Feature

- MPEG-2/MPEG-4 AVC (H.264) Decoding
- 4:2:0 and 4:2:2(10bit) Decoding
- Ultra low latency as 100ms
- IP, ASI and RF (DVB-S/S2, ATSC, QAM and DVB-T) inputs
- Composite, Component, HDMI and HD-SDI outputs
- NTSC and PAL video formats
- Aspect ratio conversion for SD (4:3, 16:9)
- Analog 4 stereo outputs
- 8 channel AES/EBU audio input
- Video Scaling (Up/Down/Cross)
- Control and monitoring via Web GUI and Front panel
- BISS descrambling (1 and E)

Options

- DVB-CI

Specification

RF Input

Input Channel	1CH
Impedance	75Ω
Module Option	DVB-S/S2, DVB-C(Annex A, B, C), ATSC

IP Stream Input

No. of Port	1 port
Connector	RJ-45
Format	100/1000BaseT
Max Input rate	188Mbps

ASI Input

DVB-ASI	2 x BNC
SMPTE310M	

Video Decoding

MPEG-2 SD	Profile	MP@ML(4:2:0) / 422@ML (4:2:2)
	Max video rate	80 Mbps
	Video format	480i@29.97 fps/576i@25 fps
MPEG-2 HD	Profile	MP@HL(4:2:0) / 422@HL(4:2:2)
	Max video rate	80 Mbps
	Video format	1080i@29.97 fps/25 fps, 720p@59.94 fps/50 fps
H.264 SD	Profile	MP@L3(4:2:0) / 422HP@L3 (4:2:2)
	Max video rate	80 Mbps
	Video format	480i@29.97 fps/576i@25 fps
H.264 HD	Profile	MP@L4 HP@L4 HP@L4.1(4:2:0) HIGH/HIGH10/HIGH422@4.1 (4:2:2)
	Max video rate	80 Mbps
		50 Mbps CABAC, 85 Mbps CAVLC
	Video format	1080i@29.97 fps/25 fps, 720p@59.94 fps/50 fps
Chroma Format		4:2:0 / 4:2:2 (10bit)
Bit Rate Mode		CBR,VBR
Latency		100ms~

Audio Decoding

Audio Sampling rate	48kHz
MPEG-1 Layer 2	1.0/2.0 decode / pass-through
Dolby® Digital	Pro 2.0/5.1 decode / consumer 2.0 decode Plus 5.1/7.1 decode/5.1 decode &down-min to 2 2.0/5.1 pass-through//plus 5.1/7.1 pass-through E 2.0/5.1/7.1 pass-through
AAC Audio	AAC-LC 2.0/5.1 decode / HE-AAC v1 5.1 decode HE-AAC v2 2.0 decode AAC-LC 2.0/5.1 pass-through

ASI Output

DVB-ASI	2 x BNC
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Video Output

Analog Output	Composite, Component
Digital Output	HDMI x 1, SDI x 2
Resolutions	480i29.97, 576i25, 720p50/59.94, 1080p25/29.97
SD Aspect Ratio	4:3, 16:9

Audio Output

Analog Output	4 balanced stereo pairs
Freq. Range	20Hz ~ 20KHz
Impedance	600 Ω
Digital Output	Embedded SDI/HDMI
Sampling Rate	48 KHz

IP Stream Output

Interface Type	10/100/1000 Base-T
Stream Protocols	UDP/IP, RTP/IP
Broadcasting	Multicast, Unicast

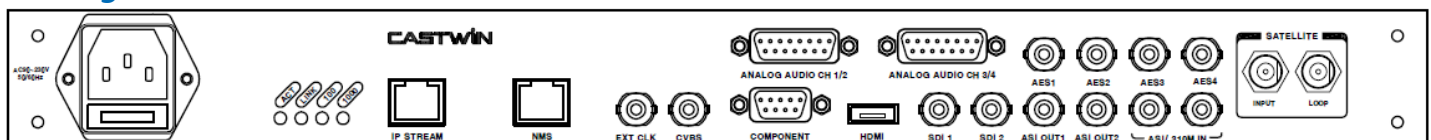
BISS Descrambling

BISS Descrambling	BISS 1 and E
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General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	Max. 100W
Weight	4kg
Operating Temperature	-10~50°C
Dimension(W x H x D)	482 x 44 x 383 mm
Power Requirements	AC 90~230V, 50/60Hz

Configuration



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MPEG-2 & H.264 Decoding

Latency 100ms

Chroma Depth 4:2:0 4:2:2(10bit)

Introduction

High bit rate 1080p professional Decoder is designed to receive broadcast signals using MPEG-2/MPEG-4 AVC (H.264) 4:2:2 or 4:2:0 digital compression technology with low latency as 100 ms.

Feature

- MPEG-2/MPEG-4 AVC (H.264) Decoding
- 4:2:0 and 4:2:2(10bit) Decoding
- Ultra low latency as 100ms
- IP, ASI inputs
- Composite, HDMI and HD/SD-SDI outputs
- NTSC and PAL video formats
- Control and monitoring via Web GUI and Front panel

Competitiveness

- Providing your customers with the best performance of decoding and high quality
- Able to secure space with compact and light weight design
- Easy to set-up and control

Options

Input- DVB-ASI, IP Stream

Output – HDMI, HD-SDI, Composite, Component(Optional)

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Specification

TS Input

Transport Stream	DVB-ASI 1 port
Packet Format	188 Byte
Connector	BNC(75Ω)
TS Bit Rate	MPEG-2 : 2.5~55 Mbps H.264 : 2.5~55 Mbps

IP TS Input

IP Stream	1 port
Connector	RJ-45
Ethernet type	10/100/1000 Base-T
Format	UDP/IP, RTP/IP
IP Address Format	Multicast, Unicast
TS Bit Rate	MPEG-2 : 2.5~55 Mbps H.264 : 2.5~55 Mbps

Video Decoder

Decoding	MPEG-2 HP@HL, MP@HL, MP@ML H.264 HP@L4, MP@L3
Chroma Format	4:2:0, 4:2:2 (10bit)
Bit Rate Mode	CBR,VBR
Latency	100ms~

Audio Decoder

Sampling Rate	32, 48KHz
Dolby Digital® AC-3(5.1CH)	128,192,256,384,448,512,576,640 Kbps
MPEG-1 Layer II	192,224,256,320,384 Kbps
MPEG-4 AAC-LC	32~384 Kbps
MPEG-4 HE-AAC v1	32~192 Kbps
MPEG-4 HE-AAC v2	32~96 Kbps

Video Output

Analog Output	Composite, Component(option)
Digital Output	HDMI, SDI
Resolutions	480i29.97, 576i25, 720p50/59.94, 1080i25/29.97, 1080p25/29.97
SD Aspect Ratio	4:3, 16:9

Audio Output

Analog Output	1 Stereo
Freq. Range	20Hz ~ 20KHz
Impedance	600 Ω
Digital Output	Embedded SDI/HDMI (4stereo 8ch)
Sampling Rate	32, 48 KHz
Optical Input	SPDIF(7.1Channel) Pass Through

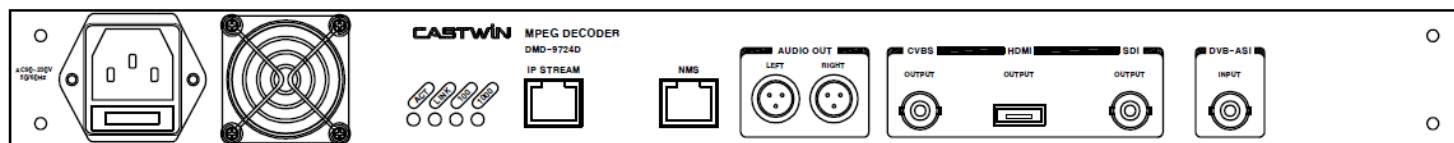
Ethernet

Interface Type	10/100Base-T
Protocols	SNMP

General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	Max. 100W
Weight	4kg
Operating Temperature	-10~50°C
Dimension(W x H x D)	482 x 44 x 383 mm
Power Requirements	AC 90~230V, 50/60Hz

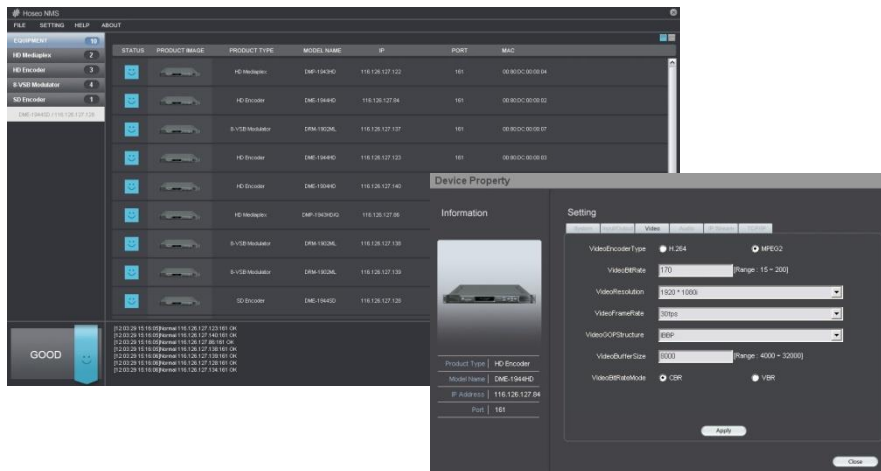
Configuration



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Introduction

CASTWIN's NMS offers optimized solution which is very adaptable for various devices. It provides user friendly interface and convenience in order to integrative manage the number of devices easily. Also, it offers Fast-analyzing function to respond for any occurred problem immediately. It uses convenient managing tool set so that it let users manage for CASTWINs. Additionally, it offers warning and notice solution for various cases.

Feature

- Realize high advanced network monitoring
- Monitoring operation status
- Convenient Tab for searching
- Sensing for any occurred problem from devices
- Management of error, function, solution
- Management of data upon occurred error, fluctuation
- Monitoring entire network of CASTWIN
- Prompt access via Web GUI
- Perfect and fast control
- Standard up-grade & maintenance

Competitiveness

- CASTWIN's NMS offers optimized solution to prevent from inconvenience with un-necessary function, inaccurate data, bug etc after set-up.
- CASTWIN's NMS is much easier to use and install for users compared to other existing NMS.
- Cost effective solution by easy installation and reduction of labor cost
- Enable users to better manage the network and quality of service combined with lower operational costs

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Introduction

DSM-1903OEM works professionally performing module based on the DVB-S, DVB-S2, DVB-S2X standard. It is compatible with any kind of DSNG devices.

Feature

- DVB-S/S2/S2X DSNG Modulation
- DVB-MPEG-TS over ASI
- DVB-MPEG-TS over IP
- L-Band Output 950 ~ 2150MHz Step 1Hz
- IF Output 50 ~180 MHz Step 1Hz
- External 10 MHz input for external clock synchronization
- Internal 10 MHz Reference Frequency
- Symbol Rate 1 ~ 50 Mbaud
- RS232 control port with SCPI protocol
- HTTP over Ethernet (web browser)
- Block Up Converter (BUC)

Competitiveness

- Professional RF signal performances
- DSNG Applications
- Excellent RF out
- Satellite Distribution
- Satellite Contribution
- Easy integration for any DSNG devices

Options

- Output : L-band or IF-band Select
- BUC(Block Up Converter) : 12V, 18V, 24V

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Specification

RF

L-band	Connector SMA 50Ω 950 MHz to 2150 MHz, 1Hz steps -24.5 dBm to +7.00 dBm, 0.25db steps
IF-band	Connector SMA 75Ω 50 MHz to 180 MHz, 1Hz steps -26.75 dBm to +5.00 dBm, 0.25db steps
SNR	> 40 dB @ 0 dBm -16 APSK - 30 Mbaud
Shoulders Rejection	< -50dB @ 0 dBm & f/fN=1.5 for roll off 20%
Spurious	950 to 2150 MHz -60 dBc outside the useful band

DVB-S

Mode Code	
Outer/Inner FEC	Reed Solomon/Viterbi
QPSK	1/2, 2/3, 3/4, 5/6, 7/8
8PSK	2/3, 5/6, 8/9
16QAM	3/4, 7/8
Roll-Off	0.35 (DVB-S/DSNG Standard)
BISS	Mode (1, E Injected, E Buried and 0)
Symbol Rate	1 ~ 50 Mbauds

DVB-S2

Mode Code	
Outer/Inner FEC	BCH/LDPC
QPSK	1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
8PSK	3/5, 2/3, 3/4, 5/6, 8/9, 9/10
16APSK	2/3, 3/4, 4/5, 5/6, 8/9, 9/10
32APSK	3/4, 4/5, 5/6, 8/9, 9/10
Roll-off	0.35, 0.25, 0.20, 0.15, 0.10, 0.05, 0.03
BISS	Mode (1,E Injected, E Buried and 0)
Symbol Rate	1Mbaud to 50Mbauds, 1 baud steps
Pilot Insertion	
Operation Mode	CCM Only
Frame Length	Short (16 200) & Normal (64 800)
PL Scrambling codes	0 ~ 262141 (DVB-S2 Standard)
Pilot Insertion	O

DVB-S2X

Mode Code	
Outer/Inner FEC	BCH/LDPC
QPSK	1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 13/45, 9/20, 11/20, 11/45, 4/15, 14/45, 7/15, 8/15, 32/45
8PSK	3/5, 2/3, 3/4, 5/6, 8/9, 9/10, 23/36, 25/36, 13/18, 7/15, 8/15, 26/45, 32/45
8PSK-L	5/9, 26/45
16APSK	2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 26/45, 3/5, 28/45, 23/36, 25/36, 13/18, 7/9, 77/90, 7/15, 8/15, 26/45, 3/5, 32/45
16APSK-L	1/2, 8/15, 5/9, 3/5, 2/3
32APSK	3/4, 4/5, 5/6, 8/9, 9/10, 32/45, 11/15, 7/9, 2/3, 32/45
32APSK-L	2/3
64APSK	11/15, 7/9, 4/5, 5/6
64APSK-L	32/45
128APSK	3/4, 7/9
256APSK	32/45, 3/4
256APSK-L	29/45, 2/3, 31/45, 11/15
PL Scrambling Codes	0 ~ 262141 (DVB-S2 Standard)
Operation Mode	CCM only
Frame Length	Short(16 200) & Normal(64 800)
Pilot Insertion	O
Symbol Rate	1Mbaud to 50Mbauds, 1 baud steps
Roll-off	0.35, 0.25, 0.20, 0.15, 0.10, 0.05, 0.03

General

Power Supply	12VDC - 30W 24VDC - 60W (Selecting BUC option)
Weight	0.9 Kg
Dimensions	220 x 110 x 44 (L x l x H)



Introduction

Professionally performing device based on DVB-S/S2/DSNG standard Modulation DSM-1903ML Modulator shows superior quality in modulation of MPEG transport stream DVB-ASI signal to excellent RF output with adjustable frequency and output level.

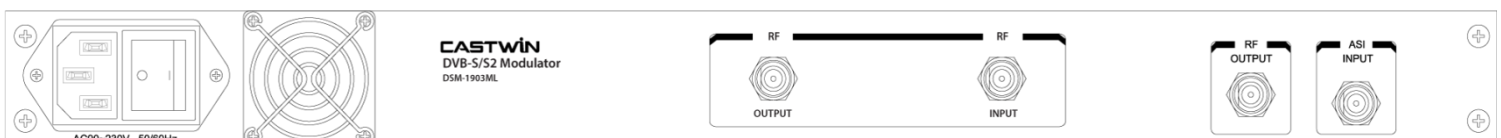
Feature

- Transport Stream : DVB-ASI
- L-Band Output 950 ~ 2150MHz Step 1Hz
- IF Output 50 ~180 MHz
- ASI input transport stream
- Excellent RF output
- DVB-S/S2/DSNG Modulation
- User adjustable output level and frequency
- Front panel control
- Shoulders Rejection : < -50dB @ 0 dBm & f/fN=1.5 for roll off 20%
- Frequency: 54 ~ 1002MHz
- Output Level: 55±5 dBmV
- Spurious: ≤ -65dB
- External: 10 MHz input for RF Synchronization

Competitiveness

- Retain your viewers with optimized modulator for ATSC(8-VSB)
- Cost reduction for installing with simple set-up and operation
- Stable output with hybrid AMP integrated
- Secure more space with compact and light weight design

Configuration



Specification

DVB-S

Mode Code	
QPSK	1/2, 2/3, 3/4, 5/6, 7/8
8PSK	2/3, 5/6, 8/9
16QAM	3/4, 7/8
Roll-Off	0.20, 0.25, 0.35
BISS	Mode (1, E Injected, E Buried and 0)
Symbol Rate	1 ~ 50 Mbauds

DVB-S2

Mode code	
QPSK	1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
8PSK	3/5, 2/3, 3/4, 5/6, 8/9, 9/10
16APSK	2/3, 3/4, 4/5, 5/6, 8/9, 9/10
32APSK	3/4, 4/5, 5/6, 8/9, 9/10
Roll-off	0.20, 0.25, 0.35
BISS	Mode (1, E Injected, E Buried and 0)
Symbol Rate	1baud ~ 50Mbauds
Pilot Insertion	
Operation Mode	CCM Only
Frame Type	Normal / Short

RF

Shoulder Rejection	< -50dB @ 0 dBm & f/fN=1.5 for roll off 20%
Tilt Correction	-0.040 ~ 0.040 dB/MHz
External	10 MHz input for RF synchronization
Spurious	< -65 dB
RF Power	-30.00 ~ +5.00 dBm Step 0.1dB
L-Band	950 ~2150 MHz
IF	50 ~ 180MHz

General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	13W
Weight	3Kg
Dimensions	482 x 44 x 383 mm

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Introduction

Professionally performing device based on selectable ATSC (8-VSB), QAM, or DVB-T standard modulation DVM-1903ML Modulator shows superior quality in modulation of MPEG transport stream DVB-ASI signal to excellent RF output with adjustable frequency and output level.

Feature

- ASI input transport stream
- Excellent RF output
- 8-VSB(ATSC)
- User adjustable output level and frequency
- Front panel control
- PCR Jitter: $\leq \pm 200$ ns
- Group Delay as ± 20 ns
- Phase Noise VHF -105 dB@20KHz, UHF -103 dB@20KHz
- Frequency: 54 ~ 1002MHz
- Output Level: 55 ± 5 dBmV
- Spurious: ≤ -63 dB
- MER After Equalizer: 42dB
- Highly advanced fine-tuning

Competitiveness

- Retain your viewers with optimized modulator for ATSC(8-VSB)
- Cost reduction for installing with simple set-up and operation
- Stable output with hybrid AMP integrated
- Secure more space with compact and light weight design

Specification

Digital Input

Transport Stream	DVB-ASI
Connector	BNC (75Ω)
Coding	ITU-T (J.83) Annex D
Bit Rate	19.393 Mbps
Packet Format	188Byte
Symbol Rate	10.762 Msymbol/s
Modulation	8-VSB

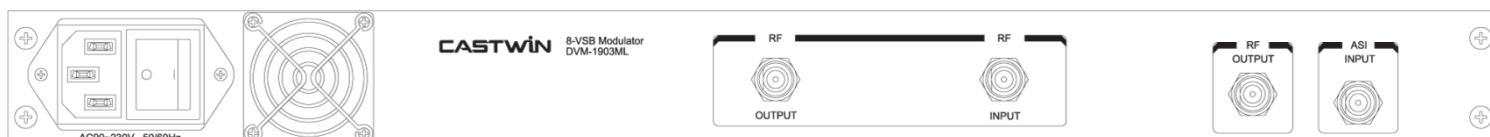
RF Output

Frequency Range	54~1002MHz
Impedance	75Ω
Output Level	50 ± 5 dBmV
Level Control Range	0~-15dB
Bandwidth	6MHz
MER After Equalizer	≥ 42 dB
MER Before Equalizer	≥ 37 dB
Phase Noise	VHF -105 dB@20KHz UHF -103 dB@20KHz
Adjacent Channel Carrier Attenuation Characteristic	≥ 45 dB (Out-of-band)
Spurious	≤ -63 dB
Return Loss	≥ 17 dB
Group Delay	± 20 ns
Frequency Response	± 0.5 dB
Frequency Tolerance	± 2 ppm
PCR Jitter	$\leq \pm 200$ ns

General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	13W
Weight	3Kg
Dimensions	482 x 44 x 383 mm

Configuration



Head Office / Laboratory

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Introduction

As a QAM modulator, it shows professional performance for received transport stream signal to output as frequency band for suitable CATV band transmission. It is also easy to select frequency band via front control panel.

Feature

- ASI input transport stream
- Excellent RF output
- Supports QAM modulation
- Supports PCR re-stamping function
- User adjustable output level and frequency
- Front panel control
- QAM Modulation setting (64, 256QAM)
- PCR Jitter: $\leq \pm 200$ ns
- Group Delay as ± 20 ns
- MER After Equalizer: 42dB
- Phase Noise: VHF -105 dB@20KHz, UHF -103 dB@20KHz
- Frequency: 54 ~ 1002MHz
- Output Level: 55 $\pm$ 5 dBmV
- Spurious: ≤ -63 dB

Competitiveness

- Hi-dense modulating for QAM(Annex A, B and C)
- Advanced coding as ITU-T(J.83) Annex A, B and C
- Cost effective with simple set-up and operation
- Hybrid AMP integrated

Specification

Digital Input

Transport Stream	ASI
Connector	BNC (75 Ω)
Coding	ITU-T (J.83) Annex A, B and C
Bit Rate	1~52 Mbps
Packet Format	188 Byte
Symbol Rate	1~7Mbps
Modulation	64,256 QAM

RF Output

Frequency Range	54~1002MHz
Impedance	75 Ω
Output Level	50 $\pm$ 5 dBmV
Level Control Range	0~-15dB
Bandwidth	6MHz : Annex B and C 8MHz : Annex A
MER After Equalizer	≥ 42 dB
MER Before Equalizer	≥ 37 dB
Phase Noise	VHF -105 dB@20KHz UHF -103 dB@20KHz
Adjacent Channel Carrier Attenuation Characteristic	≥ 45 dB (Out-of-band)
Spurious	≤ -63 dB
Return Loss	≥ 15 dB
Group Delay	± 20 ns
Frequency Response	± 0.5 dB
Frequency Tolerance	± 2 ppm
PCR Jitter	$\leq \pm 200$ ns

General

Power Requirements	AC 90~230V, 50/60Hz
Power Consumption	13W
Weight	3Kg
Dimensions	482 x 44 x 383 mm

Configuration



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Introduction

DIC-500 is a complete cost-effective solution to transform IP to ASI and backwards ASI to IP with GigE interface just in one device.
Hi-class front VFD makes it easy to set-up and operate.

Feature

- Converts MPEG-2/4 AVC TS over IP networks to DVB-ASI
- Converts MPEG-2/4 AVC TS as DVB-ASI to IP
- Input: 1 x DVB-ASI and 1 x GigE IP
- Output: 1 x DVB-ASI and 1 x GigE IP
- 7 TS from IP [MPTS (7TS), SPTS]
- 216 Mbps bitrate of DVB-ASI
- Zero latency
- Unicast and Multicast IP addressing

Competitiveness

- Excellent tunneling of ASI signals over the TCP/IP network
- User can customize all monitoring and switching rules to meet Broadcast, Cable, Satellite, and IPTV needs

Applications

- Autonomous IP to ASI gateway
- With DIC-500 Tunneling of ASI signals over LAN, WAN or the internet
- Remote ASI output adapter for server based data inserters, stream servers, multiplexers and similar systems

Specification

KEY ATTRIBUTES

GigE Port	Physical Layer	IEEE 802.3a
	Data rate	10/100/1000
	Connector	RJ-45
ASI Port	Physical Layer	DVB-ASI (coax)
	Connector	75Ω BNC(2x)
	Ts bitrate	< 214 Mbit/s
Transport	TS per IP	1~7
	Encapsulation	UDP or RTP
	FEC	SMPTE 2022
IP to ASI latency		10ms
Jitter tolerance range		1~120ms

* Under IP→ASI mode, recommended minimum bitrate is 2.5Mbps

* It is designed for L2

CONTROL

IP-address assignment	DHCP or static
Multicast support	IGMP v2
Front panel control	

GENERAL

Power Requirements	DC 5V 2A
Weight	0.5kg
Dimensions(W x L x H)	148 x 170 x 35 mm

Option

- SNMP (Web browser control)

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Analog to SDI



ATS-500

Introduction

It is highly performing Analog to HD/SD-SDI converter for converting from component or composite analog video signal to SDI with stereo audio.

Feature

- Input : Component, Composite, Analog L/R
- Output : HD/SD-SDI

Competitiveness

- Compact size and light weight
- Simply easy to use
- Fully compatible with all your SD and HD devices.

Specification

Video Input

Analog Input	Composite, Component 480i(29.9/30)
Resolutions	576i(25) 720p(50/59.94/60) 1080i(25/29.97/30)
Impedance	75Ω
Aspect Ratio	4:3, 16:9

Audio Input

Analog Input	Stereo
Frequency Range	20Hz~20KHz
Impedance	600Ω
Connector	6.35mm Phone Jack

Video Output

Digital Output	HD/SD-SDI
Impedance	75 Ω
Aspect Ratio	4:3, 16:9
Compliance	SMPTE-259/272/274/292/296/299
Data Rates	SD-SDI : 270Mbps HD-SDI : 1.5Gb/s
Video Rates	4:2:2, 4:4:4
Color Space	YUV

General

Power Requirements	DC 12V 1A
Weight	0.22Kg
Dimensions	110x90x28 mm

SDI to Analog



STA-500

Introduction

It is superior to convert from SDI to Analog video out.

Feature

- Input : HD/SD-SDI inputs
- Output: Component, Composite and HD/SD-SDI
- Stereo L/R Audio output, AES EBU output
- SDI loop through output

Competitiveness

- Compact size and light weight
- Simply easy to use
- Fully compatible with all your SD and HD devices.

Specification

Video Input

Digital Input	HD/SD-SDI
	480i(29.9/30), 576i(25)
Resolutions	720p(50/59.94/60), 1080i(25/29.97/30)
	1080p(23.98/24/25/29.97/30)
Impedance	75Ω
Aspect Ratio	4:3, 16:9

Audio Input

Digital Input	HD/SD-SDI(Embedded)
Sampling Rate	48KHz
Connector	BNC (75Ω)

Video Output

Digital Output	HD/SD-SDI(Loop Through)
Analog Output	Composite, Component
	480i(29.9/30), 576i(25)
Resolutions	720p(50/59.94/60), 1080i(25/29.97/30)
	1080p(23.98/24/25/29.97/30)
Output level	1.0 Vpp
Aspect Ratio	4:3, 16:9

Audio Output

Digital Output	AESEBU
Sampling Rate	48KHz
Analog Output	Analog Audio
Frequency Range	20Hz~20KHz
Impedance	600Ω
Connector	6.35mm Phone Jack

General

Power Requirements	DC 12V 1A
Weight	0.22Kg
Dimensions	110x90x28 mm

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STH-500 / HTS-500

SDI to HDMI



STH-500

HDMI to SDI



HTS-500

Introduction

It is superior to convert from SDI to HDMI video out with embedded HDMI audio

Feature

- Input : Embedded 3G/HD/SD-SDI
- Output : HDMI
- HDMI V1.4 standards
- SDI loop through output
- Firmware upgrade and configuration via USB port

Specification

Video Input

Digital Input	3G/HD/SD-SDI
	480i(29.9/30), 576i(25), 720p(50/59.94/60)
Resolutions	1080i(25/29.97/30)
	1080p(23.98/24/25/29.97/30/50/59.94/60)
Impedance	75Ω
Aspect Ratio	4:3, 16:9

Audio Input

Digital Input	Embedded SDI
Sampling Rate	48KHz
Connector	BNC (75Ω)

SDI

Compliance	SMPTE-259/272/274/292/296/299/424/425
Data Rates	SD-SDI : 270Mbps
	HD-SDI : 1.5Gb/s & 3Gb/s
Video Rates	4:2:2, 4:4:4
Color Space	YUV

HDMI

Color Precision	4:2:2, 4:4:4
Version	V1.4 Standard

Video Output

Digital Output	HDMI
Aspect Ratio	4:3, 16:9

General

Power Requirements	DC 12V 1A
Weight	0.22Kg
Dimensions	110x90x28 mm

Introduction

It is superior to convert from HDMI to SDI video out with embedded SDI audio.

Feature

- Input : HDMI
- Output: 3G/HD/SD-SDI
- HDMI V1.4 standards
- Firmware upgrade and configuration via USB port

Specification

Video Input

Digital Input	HDMI
	480i(29.9/30), 576i(25), 720p(50/59.94/60)
Resolutions	1080i(25/29.97/30)
	1080p(23.98/24/25/29.97/30/50/59.94/60)
Aspect Ratio	4:3, 16:9

Audio Input

Digital Input	Embedded HDMI
Sampling Rate	32,44.1,48KHz
Connector	HDMI-19PIN

SDI

Compliance	SMPTE-259/272/274/292/296/299/424/425
Data Rates	SD-SDI : 270Mbps
	HD-SDI : 1.5Gb/s & 3Gb/s
Video Rates	4:2:2, 4:4:4
Color Space	YUV

HDMI

Color Precision	4:2:2, 4:4:4
Version	V1.4 Standard

Video Output

Digital Output	3G/HD/SD-SDI
Impedance	75 Ω
Aspect Ratio	4:3, 16:9

General

Power Requirements	DC 12V 1A
Weight	0.22Kg
Dimensions	110x90x28 mm

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