

AV Codec Modular Solutions

PureVu™ CNW22XX Super Low Latency Micro-Mezzanine Modules

Product Brief

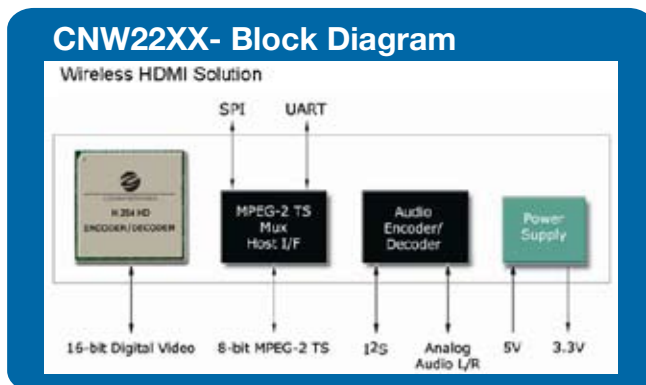


OVERVIEW

The PureVu CNW22XX family of micro-mezzanine modules are ideal for audio and video encoding and decoding, respectively. These modules support the H.264 / MPEG-4 AVC video coding standard for HD video and Dolby® Digital Stereo® as well as PCM audio coding. The CNW22XX encoder module encodes 1920x1088 or 1280x720 HD video in H.264 format. Stereo audio input can be encoded in either Dolby® Digital Stereo® or PCM format. The MPEG-2 Transport Stream output is compliant with the ISO/IEC13818-1 standard. DVB support includes 188 and 204 byte packet formats and DVB service information in compliance with ETSI EN 300 468. The 8-bit TS interface on the encoder and the decoder modules allows for either DVB-ASI or DVB-SPI I/O. The CNW22XX module de-multiplexes and decodes the encoded audio and video streams for playback. Super Low Latency Technology™ or SLL Technology™ guarantees sub frame-rate encode-decode latencies, the lowest in the industry. Other interfaces present on the modules include a SPI and a UART interface. These can be used for an external host processor to control, configure and monitor the modules.

DEVELOPMENT KITS

To accelerate product development around the family of CNW22XX modules a development kit is available consisting of an encoder and decoder module, an encoder and decoder development board, and a PC host interface module. The development boards come with HD-SDI, HDMI and component video I/O interfaces, I2S and analog line level audio I/O interfaces, and DVB-ASI and DVB-SPI Transport Stream interfaces. An onboard, embedded ARM processor facilitates embedded host software development..



ENABLED

SLL Technology



KEY FEATURES

- H.264 / MPEG-4 AVC (Part 10) video encode/decode
- 1080p30/i60 and 720p30/60 support
- Super Low Latency Technology™ for sub 1ms latency
- MPEG-2 TS support
- DVB support
- Dolby® Digital Stereo® and PCM audio encode/decode
- Bite rate control
- SPI and UART host interfaces
- 16-bit BT.709 video interface
- I2S and analog line level audio interfaces
- Ultra compact mezzanine form factor

APPLICATIONS

- Video transmission
- Surveillance
- Wireless VGA
- Tele-Robotics
- Industrial Imaging

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FEATURES

CNW22XX Encoder			CNW22XX Decoder		
INPUT			OUTPUT		
Video	Standard	ITU-R BT.709 ITU-R BT.601	Video	Standard	ITU-R BT.709 ITU-R BT.601
	Format	20-bit Parallel		Format	20-bit Parallel
	Chroma	4:2:2		Chroma	4:2:2
	HD	1080p24/25/30 1080i50/60 720p24/25/30/50/60		HD	1080p24/25/30 1080i50/60 720p24/25/30/50/60
	SD	480p24/30, 576p25 480i60, 576i50		SD	480p24/30, 576p25 480i60, 576i50
	Encoding	H.264/MPEG-4 AVC (Part 10)		Encoding	H.264/MPEG-4 AVC (Part 10)
	Bit Rates	1Mbps - 100 Mbps		Bit Rates	1Mbps - 100 Mbps
	Latency	<2 ms at 1080p30		Latency	<2 ms at 1080p30
Digital Audio	Standard	I ² S	Digital Audio	Standard	I ² S
	Fs	192/96/48/44.1/22.05/32KHz		Format	PCM
	Channels	2		Channels	2
	Coding	Dolby® Digital Stereo® PCM		Coding	Dolby® Digital Stereo® PCM
Analog Audio	Channels	Stereo	Analog Audio	Channels	Stereo
	Level	Line		Level	Line
Output			Input		
Transport	Standard	MPEG-2 TS with DVB support	Transport	Standard	MPEG-2 TS with DVB support
	Format	8-bit parallel		Format	8-bit parallel
Control			Control		
Host I/F	Format	SPI and UART	Host I/F	Format	SPI and UART
Mechanical & Power			Mechanical & Power		
I/O Connector	Type	Mezzanine	I/O Connector	Type	Mezzanine
I & II	Part No.	DF 12-60DS-0.5V(86), Hirose	I & II	Part No.	DF 12-60DS-0.5V(86), Hirose
	Dissipation	6W typical		Dissipation	6W typical
Dimensions	LxWxH	100mm x 55mm x 8mm	Dimensions	LxWxH	100mm x 55mm x 8mm
Power Supply	VDD	5V input, 3.3V output	Power Supply	VDD	5V input, 3.3V output

ORDERING INFORMATION

Device	Part Number	Input	Output	Host IF	Board I/F	LxW	RoHS
Encoder	WW20BACM-P	Video: - 1080p30/i60 - 720p30/60 - 480p30/i60 - 576p25/i50 - BT.1120/ BT.601 Audio: - Stereo analog - Stereo I2S	MPEG-2 TS - 8-bit - DVB support - H.264 video - PCM audio	SPI or UART	Dual 50-pin fine-pitch Hirose connectors	100mm x 55mm	Pb-free RoHS-6
Decoder	WW20BADM-P	MPEG-2 TS - 8-bit - DVB support - H.264 video - PCM audio	Video: - 1080p30/i60 - 720p30/60 - 480p30/i60 - 576p25/i50 - BT.1120/ BT.601 Audio: - Stereo analog - Stereo I2S	SPI or UART	Dual 50-pin fine-pitch Hirose connectors	100mm x 55mm	Pb-free RoHS-6



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