

FLEXIBLE

The Infinium is a flexible, modular chassis designed to distribute 4K or 1080P seamlessly over an IP Network or Coaxial Cable (with the optional Modulator). With dual redundant power supplies and a variety of modules, the Infinium is ready for any video distribution application you throw at it.

SIMPLE

With the Infinium, we believe 4K video distribution should be comfortable and straightforward. We ensured that installation is a breeze with key features such as hot-swappable cards, and dual power supplies for reliability, and a chassis that has been preconfigured for maximum performance on all IGMP snooping and Jumbo frame enabled networks. Each encoder is powerful and fast responses to resolution changes even over Coax. Providing flexibly with all sources, all resolutions ranging from 480P to 4K and all in between.

AFFORDABLE

Users should have to give an arm and a leg to afford 4K video distribution. At Pro video instruments, we have always strived to provide an affordable product that blows the completion away at always an adorable price, all without sacrificing quality. Each unit comes with a five-year limit warranty

Infinium



Affordable 4K Video Distribution over Everything. Stream to your 4K TVs and devices over existing Coax or IPTV. Live broadcast to over the internet to other clients with ease.

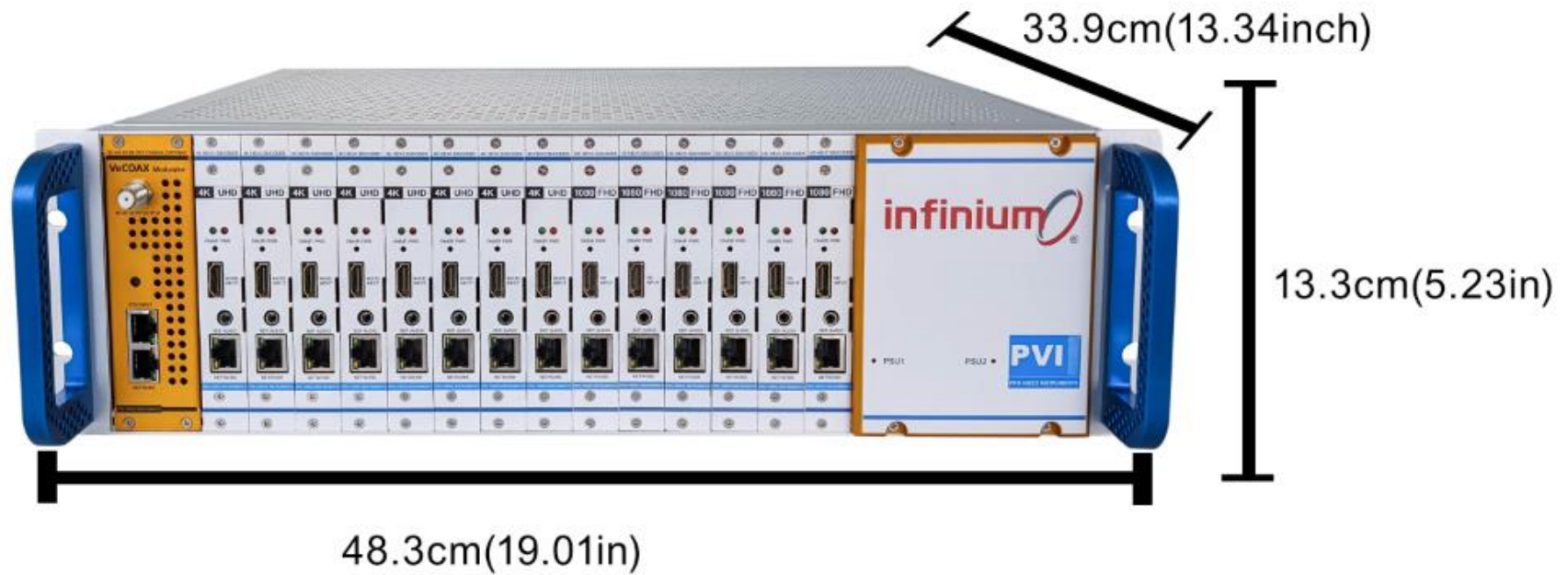
PRODUCT BROCHURE

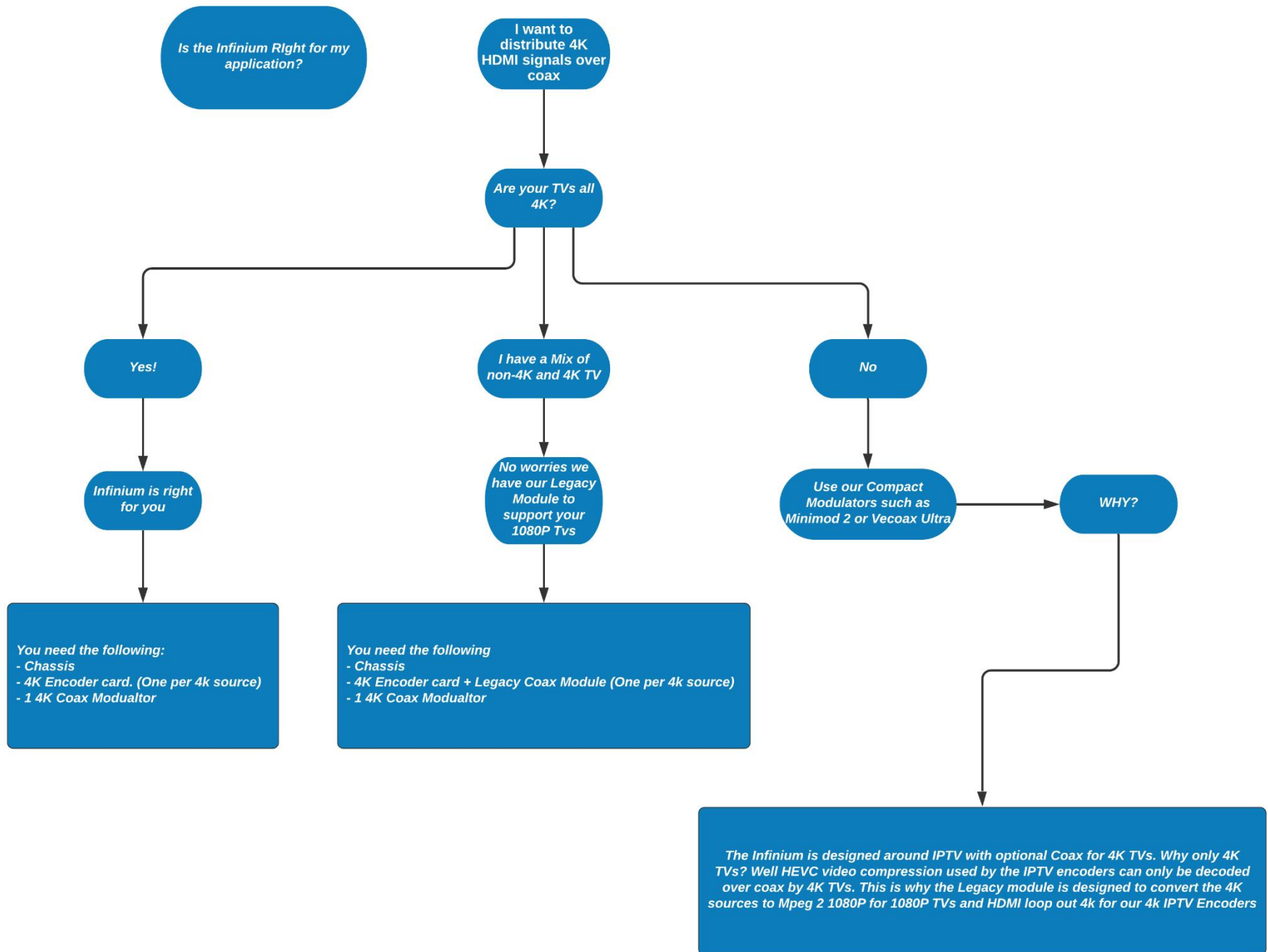
© Pro Video Instruments

PRODUCT FEATURES:

1. Modulate chassis design, Supports Max 14 Channels HDMI input or SDI for encoding over IPTV and Coax(requires optional Coax Modulator).
2. Dual power supply to ensure hardware never stop encoding. User serviceable.
3. Professional, powerful encoding hardware to provide high stability and efficiency.
4. Friendly Web Control UI for each encoder.
5. Supports MPEG-TS / HLS / FLV / RTSP / RTMP(S) / UDP/RTP (Unicast/Multicast)/SRT(secure reliable transport) Stream Protocols and ONVIF support for RTSP.
6. Supports Multi RTMP(S) (Mainstream & Substream) to different Media Streaming Server.
7. Provide custom resolutions, Main Stream Preset Resolutions – 3840 x 2160, 1920x1080, 1680x1200, 1600x900, 1440x1050, 1440x900, 1360x768, 1280x720, 1280x800, 1280x768, 1024x768, 1024x576, 960x540, 850x480, 800x600, 720x576, 720x540, 720x480, 720x404, 704x576, 640x480, 640x360, 480x270, etc.
8. Support Text and image insertion for Stream Logo for both Mainstream & Substream. Optional feature.
9. Automatically detect the input video signals and resolution; Built-in standby screen when no source discovered.
10. User customizable stream options and bitrates. Adaptive and fixed bitrates.
11. Supports External Analog audio input.
12. Supports Audio digital gain.
13. Web GUI firmware upgrade built in to ensure the user can install the latest software when available.
14. Support external control via router port forwarding.
15. Optional 4k/8k Coax Modulator to broadcast streams over coax to any Smart 4K TV(Optional Coax Modulator only works with 4K TVs.)

MEASUREMENT SPECS





PVI infinium™ **HD ENCODER CARD**
PRO VIDEO INSTRUMENTS



- **Entry Level HD H.264 Video Encoder Card Hot-Swappable to INFINIUM Video Distribution Chassis**
- **Compatible with any 1080P HDMI source**
- **Built in On Screen Display system for up to 4 different zones of text,scrolling text, or graphics. Secondary substream available for different resolution streams or RTMP services**
- **Video Compressions: H.264 / MJPG**
- **Audio Compressions: AC3 / MP2 / AAC LC / AAC HE / MP3 / PCM**
- **Protocols: MPEG-TS/ RTMP / M3U8 / HLS / HTTP / UDP / RTP / RTSP – 100MB ethernet server**

PVI infinium™ **HD ENCODER CARD**
PRO VIDEO INSTRUMENTS



- **1080P HD Video Encoder Card Hot-Swappable to INFINIUM Video Distribution Chassis**
- **Compatible with any HDMI HD source**
- **HEVC Mode Saves 4 Times the Bandwidth for More Audience**
- **Can create up to 4 different compression & resolution streams out each with watermarks & logos**
- **Video Compressions: HEVC / H.264 / MJPG** **Audio Compressions: AC3 / MP2 / AAC LC / AAC HE / MP3 / PCM**
- **Protocols: SRT ultra low latency down to 50 msec / RTMP / M3U8 / HLS / HTTP / UDP / RTP / RTSP - 1 gigabit unicast server**

PVI infinium™ SDI ENCODER CARD
PRO VIDEO INSTRUMENTS



- HD Video Encoder Card Hot-Swappable to INFINIUM Video Distribution Chassis
- Compatible to any HD 3G SDI source
- Can create up to 4 different compression & resolution streams out each with watermarks & logos
- Video Compressions: HEVC / H.264 / MJPG ● Audio Compressions: AC3 / MP2 / AAC LC / AAC HE / MP3 / PCM
- Protocols: SRT ultra low latency down to 50 msec / RTMP / M3U8 / HLS / HTTP / UDP / RTP / RTSP - 1 gigabit unicast server

PVI infinium™ 4K ENCODER CARD
PRO VIDEO INSTRUMENTS

HDMI 2.0b
HD/4K input



- 4K30 HD Video Encoder Card Hot-Swappable to INFINIUM Video Distribution Chassis
- Compatible with any HDMI source up to 2.0b 4K30
- Can create up to 4 different compression & resolution streams out each with watermarks & logos
- Video Compressions: HEVC / H.264 / MJPG
- Audio Compressions: AC3 / MP2 / AAC LC / AAC HE / MP3 / PCM
- Protocols: SRT ultra low latency down to 50 msec / RTMP / M3U8 / HLS / HTTP / UDP / RTP / RTSP - 1 gigabit unicast server

PVI infinium™ HDTV MODULATOR

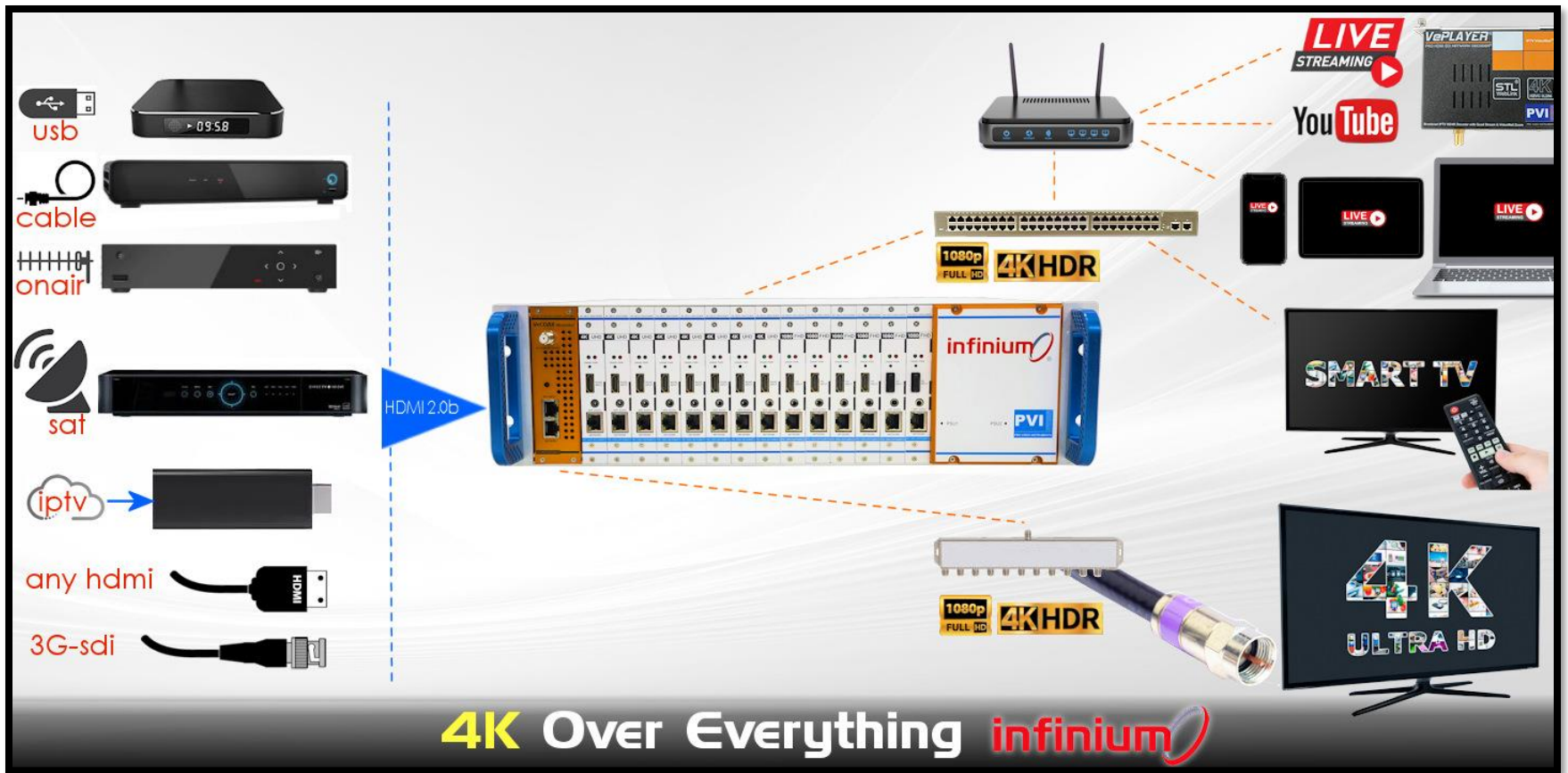


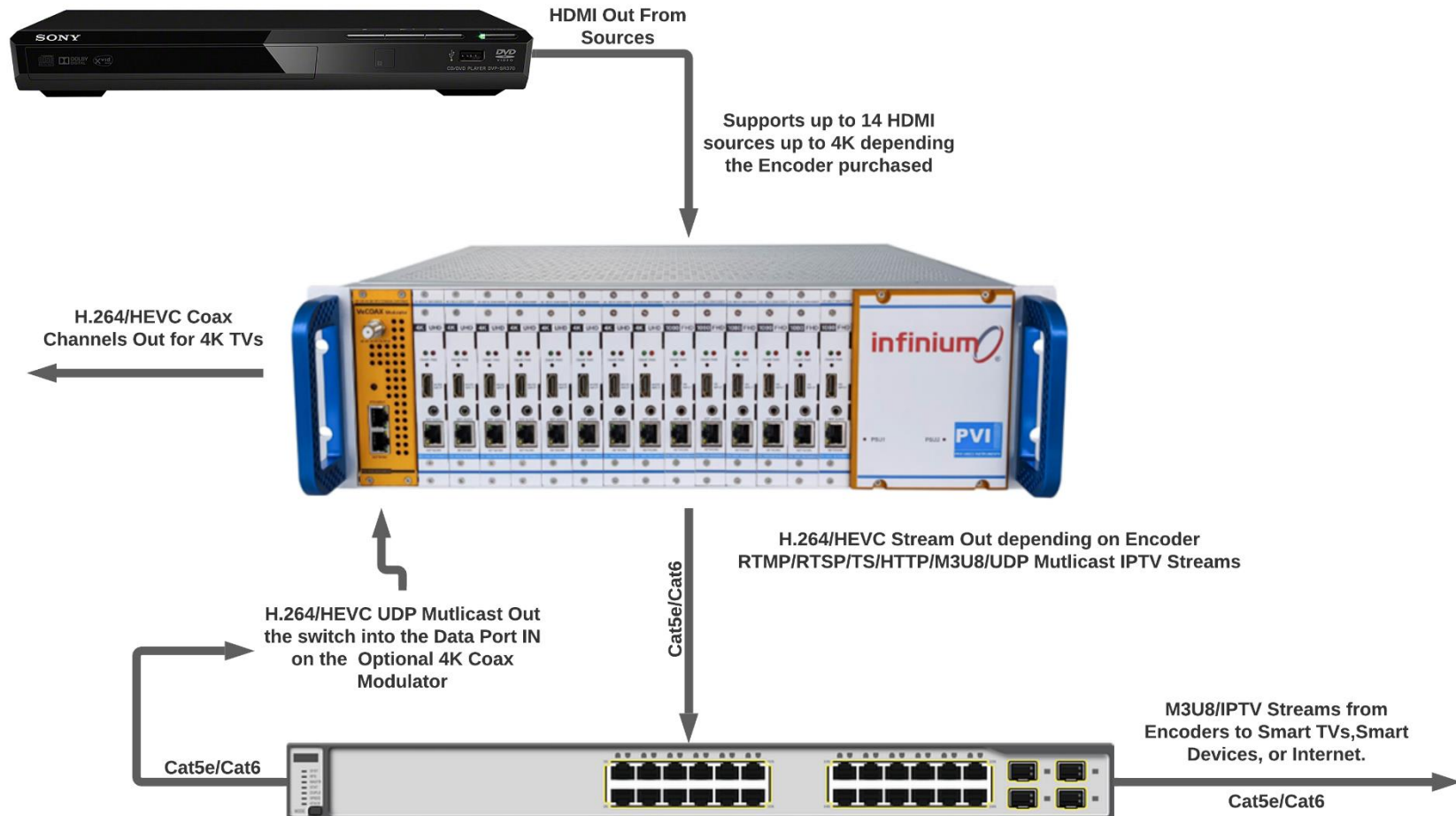
- Add HDMI To COAX QAM or ATSC capabilities to the INFINIUM Chassis using our Award Winning VeCOAX Modulator Technology
- Creates one QAM or ATSC HD TV 1080p television channel over coax out compatible to LEGACY HD-ONLY non-4k older TVs
- HDMI 2.0b 4K INPUT works with any HDMI Video sources up to the newest FULL 4K HDMI 2.0b ones
- SIMULTANEOUS HD + 4K Distribution via the HDMI 2.0b 4K LOOP OUT by combining a second 4K Encoder Module + Optional 4K modulator for 4k Coax out.
- Output 1 CABLE TV or ATSC channel agile 30-1000Mhz with RF Level of +45 dBmV ready to inject to any existing TV coax network

PVI infinium™ COAX OUT 4K TVs

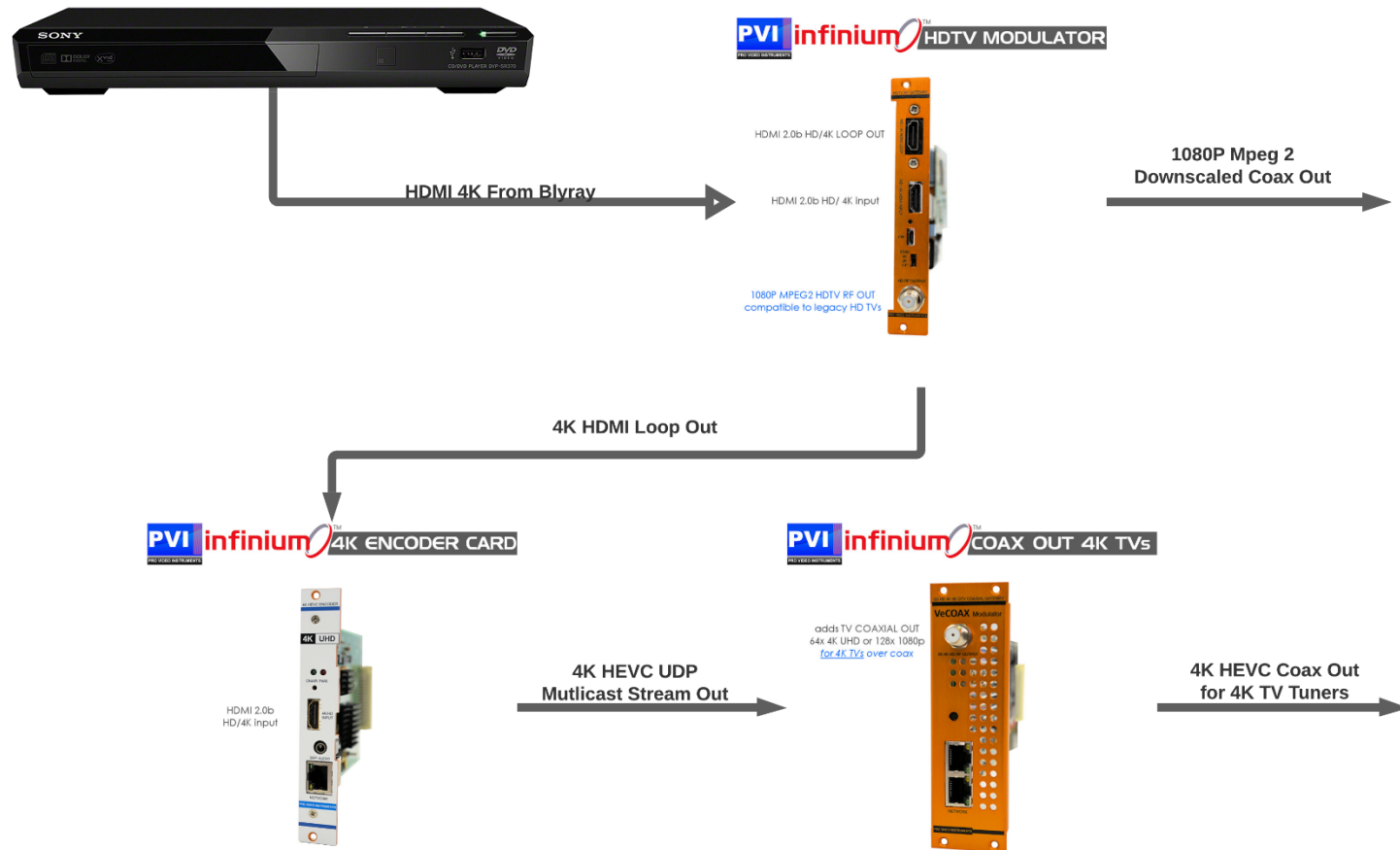


- Add 4K over COAX QAM capabilities to the INFINIUM Chassis using our Award Winning VeCOAX Modulator Technology
- Works with 4K QAM CABLE TVs (results may vary on older 1080P HD only TVs not compatible with H.264 or HEVC video modes)
- Convert up to 64x 4K Encoder Channels or 128 HD H.264/HEVC UDP Multicast encoder channels to equivalent TV coax channels
- Output up to 16 QAM agile adjacent/non adjacent RF carriers 30-1000Mhz adjustable RF Level +10 to +59 dBmV
- Delivers 4K, 1080p, 720, SD Resolutions over existing TV coaxial cables to 4K TVs Only
- Set Channels Names & Numbers





Broadcast 4K sources for 1080P TVs and 4K TVs



HDTV Legacy Coax Module and 4k Encoder cards required for each 4K Source

TECHNICAL SPECIFICATIONS

Input	Up to 14 3G-SDI inputs or 14 HDMI Inputs		
Video	Resolution	Input	3860 *2140P_30(4K30 for 4K Module Only) 1920*1080_60p, 1920*1080_50p,1920*1080_60i, 1920*1080_50i, 1280*720_60p, 1280*720_50P, 720*480_60i, 720*576_50i
		Output	3860 *2140P_30(4K30 for 4K Module Only) 1920*1080_60p,1920*1080_50p, 1280*720_60p,1280*720_50P, 720*576_50p, 720*576_30p, 720*576_25p, 720*480_60p, 720*480_30p, 720*480_25p,320*240_60p,320*240_50p, 320*240_30p, 320*240_25p,320*180_60p, 320*180_50p, 320*180_30p, 320*180_25p,
	Encoding	HEVC H.265 High-Efficiency Encoding or MPEG4 AVC/H.264	
	Encoding	0.5~32Mbps	

	Bit-rate	
	Rate Control	CBR/VBR
Audio	Encoding	Advanced Audio Coding (AAC), High-Efficiency Advanced Audio Coding(AAC-HE), Low Complexity Advanced Audio Coding(AAC-LC), MP3, MPEG-2, Dolby Digital AC3 (2.0) encoding
	Sampling rate	44.1khz/48KHz
	Resolution	24-bit
	Bit-rate	12Kbps-640kbps
Stream output	MPEG-TS, HTTP Live Streaming (HLS), Adobe Flash (FLV), Real-Time Streaming Protocol (RTSP), Real-Time Messaging Protocol Locally (RTMP Pull), Real-Time Messaging Protocol Publishing (RTMP Push), SRT (Secure Reliable Transport), UDP/RTP Multicast.	
System function	Main Stream, 3 Sub streams, 4 Zone On-Screen Display Function for Logo or Text per Stream, Multi-Format simultaneous streaming.	
Miscellaneous	Dimension (W×L×H)	19.01 in X 13.34 in X 5.23in (483mm × 300mm × 44.5mm) 4RU Rack space required per Chassis
	Approximate weight	7.5kg (16.5lbs)

	Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz Up to 300 Watts Max BTU Output 1023 ~ BTU/hr (results vary depending on setup)
	Environment	-10~70°C(working) ; -20~80°C (Storage)

Optional 4K/8K Coaxial Gateway (Modulator) - 4K TVs Only

Modulation	DVB-C	QAM Channel: 16 non-adjacent carriers' output (maximum bandwidth between carriers 192MHz)	
		Standard: EN300 429/ITU-T J.83A/B/C	
		MER: $\geq 40\text{db}$	
		RF frequency: 50~960MHz, 1KHz step	
		RF output level: -20~+10dbm, 0.1db step	
		Symbol Rate: 5.0Msps~7.0Msps, 1ksps stepping	
			J.83A
			J.83B/C
		Constellation	16/32/64/128/256QAM
			Useful Bitrate 0.2 Mbps ~ 39.5 Mbps
		Bandwidth	8M
DVB-T		Standard	EN300744
		FFT mode	2K, 4K, 8K
		Bandwidth	6M, 7M, 8M
		Constellation	QPSK, 16QAM, 64QAM

			Useful Bitrate 0.2 Mbps ~ 31.5 Mbps
		Guard Interval	1/4, 1/8, 1/16, 1/32
		FEC	1/2, 2/3, 3/4, 5/6, 7/8
		MER	≥42 dB
		RF frequency	50~960MHz, 1KHz step
		RF out	8 non-adjacent carriers' output (maximum bandwidth 192MHz)
		RF output level	-20~+10 dBm, 0.1db step
	ATSC	Standard	ATSC A/53
		Bandwidth	6M
		Constellation	8VSB Useful Bitrate 0.2 Mbps ~ 19.3 Mbps
		FEC	RS (208 188)+Trellis
		MER	≥40dB
		ACL	-55 dBc
		RF frequency	50~960MHz, 1KHz step
		RF out	8 non-adjacent carriers' output (maximum bandwidth 192MHz)

		RF output level	-20~+10dbm (for all carriers), 0.5db stepping
	ISDB-T	Standard	ARIB STD-B31
		Bandwidth	6M
		Constellation	QPSK, 16QAM, 64QAM – Useful Bitrate 0.3 Mbps ~ 23.234 Mbps
		Guard Interval	1/32, 1/16, 1/8, 1/4
		Transmission Mode	2K, 4K, 8K
		Code rate	1/2, 2/3, 3/4, 5/6, 7/8
		MER	≥40dB
		RF frequency	50~960MHz, 1KHz step
		RF out	6 non-adjacent carriers' output (maximum bandwidth 192MHz)
		RF output level	-20dBm~+10dBm, 0.1dB stepping