CALICO | PRO

1RU VIDEO PROCESSOR SPECIFICATION SHEET

C7-PRO-1200

MAIN FEATURES	
FPGA video processing	CALICO core (patented video processing)
Set up and control Software	CALICO Studio (free download and free to use. From https://tvone.com)
Included inputs and outputs	6x Inputs, 2x outputs (4K60 HDMI 2.0, HDCP 2.2)
Video windows	Up to 256 per system (no canvas restrictions)
Four design canvases (over 16 Gigapixels of design space)	4.1 gigapixels per canvas. Canvases are massive real world design spaces. Place displays and contents freely and accurately.
Field upgradable	Firmware updates using CALICO Studio
Output mapper	32 maps per output (used for DVLED mapping and for monitoring to create virtual outputs)
Input mapper	32 maps per input (create virtual / cropped sources from a single input)
HDR (High Dynamic Range)	HDR10 and HLG (Hybrid Log Gamma) - freely convert any input to any output. Coming with firmware update June 2025
Custom resolution engine	Available for inputs and outputs (with restrictions)
Window source cropping	Any input, max 256 crops / dependent on system bandwidth (live crops from any input source)
Canvas watch	Used for monitoring, multiviewing. Any output including mapped outputs. Any and/or all available outputs can be set to canvas watchers.
Labelling	Max 222 labels, source, text and images (upload images via CALICO Studio for backgrounds, keys, graphics and labels). Labels can be linked to video windows, crops, and outputs
Presets	Up to 500 with effects and transitions
Any output any canvas	Any output including mapped outputs on any canvas in any position and orientation
Internal storage	3GB (images, EDID's, fonts and labels)
Syncronisation	BNC ref input and loop, Framelock to any input video source, synclock using internal clock
Audio	One stereo pair per canvas. Input (44.1kHz and 48kHz) Output (48kHz)
Display agnostic	Designed for DVLED controllers / displays / projectors
1U compact size	Rack mount or desktop (removable rack ears and feet are included)
EDID manager	Up to 20 custom EDID's can be uploaded and applied to inputs in addition to the provided system EDID's
Secure access	User login with 3 levels of access available (Admin / Power-user / User)
Secure connection	HTTPS
Low power consumption	Typically around 120W
OLED display	IP address, device name and status messages (customizable using CALICO Studio, content, brightness and ON/OFF)
Integrated carry handles	Easy rack installation and transport.
Rugged all metal cabinet and chassis	Solid aluminum front panel and powder coated steel cabinet
Front panel illumination	Fully controllable via CALICO Studio (brightness level and ON/OFF)
Designed for continuous use	24/7, 365 days a year operation, with 5-year limited warranty. Perfect for mission critical applications
Smart cooling system	Automatic fan control with option to fix a fan profile if required.
Stainless steel fan filter included	For dusty operating environments. Only requires cleaning periodically, no need to replace, removable from the rear without de-installation.

VIDEO PROCESSING

CALICO video processing	CALICO FPGA core (10-bit)
Parallel processing architecture	Yes
Video / graphics layers	256 (max including video windows, keys, graphics, labels, background images)
Video latency (input to output)	Min 1 frame, max 2 frames regardless of I/O
Up/down/cross conversion	Yes (all inputs and outputs)
Number of canvasses	4
Canvas size	(64,000 x 64,000) pixels per canvas
Keying	Luminance Keying (any layer to layer below / keys cannot be overlapped). Adjustable key-range and focus adjustment
Fading	Fade to Black / fade to transparent
Display size compensation	Yes, different physical sizes in video walls (Physical Mode)
Output rotation	Yes for any outputs, windows and labels (360° rotation 1° increments)
Output mapper	Yes (All outputs)
Projector edge blending	Yes (all outputs)
HDCP key handling	Yes, HDCP 2.2

VIDEO INPUTS

HDMI 2.0	6x 2160p (4096x2160) 60Hz
HDCP	2.2 / 1.4
Chroma sub-sampling (10-bit)	4:2:2
Chroma sub-sampling (8-bit)	4:4:4
Color space	YCbCr BT.601, YCbCr BT.709, RGB, RGB limited range and auto detect

VIDEO OUTPUTS

HDMI 2.0	2x 2160p (3840x2160) 60Hz
HDCP	2.2 / 1.4
Chroma sub-sampling (10-bit)	4:2:2
Chroma sub-sampling (8-bit)	4:4:4
Color space	YCbCr BT.709, RGB, RGB limited range and auto detect

SUPPORTED INPUT RESOLUTIONS
(FOR STANDARD UNIT 6X HDMI 2.0 IN)

720p (1280x720)	50, 59.94, 60Hz
1080i (1920x1080)	50, 59.94, 60Hz
1080p (1920x1080)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60, 100, 119.88, 120Hz
2160p (3840x2160)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz
2160p (4096x2160)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz

SUPPORTED OUTPUT RESOLUTIONS
(FOR STANDARD UNIT 2X HDMI 2.0 OUT)

720p (1280x720)	50, 59.94, 60Hz
1080i (1920x1080)	50, 59.94, 60Hz
1080p (1920x1080)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60, 100, 119.88, 120Hz
2160p (3840x2160)	23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz

IMAGES (BACKGROUNDS / LABELS)

Still Image formats supported (internal image store)	BMP, PNG,JPG,JPEG, TIF, TIFF, PPM, PGM, PBM, HDR
Interfaces	CALICO Studio, File transfer supported (FTP). USB-3 on rear of unit

CONTROL METHODS

Network interface	RJ45 - Gigabit Ethernet
Network standard	IPv4
API protocols	REST using HTTP or HTTPS, CLI using TCP/IP
API specification	Available from https://api.tvone.com/
Control Software	CALICO Studio
Contol App	CALICO Studio Mobile (Android / IOS)
Plug-in's	Q-SYS, Crestron

WARRANTY

Limited warranty	5 years parts and labor

REGULATORY COMPLIANCE

System	FCC, CE, RoHS, UL, UKCA

MECHANICAL

Height	44mm (1.73"), 55mm (2.165") including feet
Width	435mm (17") / including rack ears 482mm (19")
Depth	391mm (15.39")
Weight	4.4kg net (9.7 lbs.)

ENVIRONMENTAL

Operating temperature	32° to 104°F (0° to +40°C)
Operating humidity	10% to 85%, Non-condensing
Storage temperature	14° to +158°F (-10° to +70°C)
Storage humidity	10% to 85%, Non-condensing
Fan noise	Nominal 39.5dBA - max 63dBA (@0.5m)

POWER

Internal PSU	160w
Power consumption	120w nominal
Input voltage	100 to 240v (+/- 10%) AC auto detecting 50/60Hz 1.5 - 0.75A