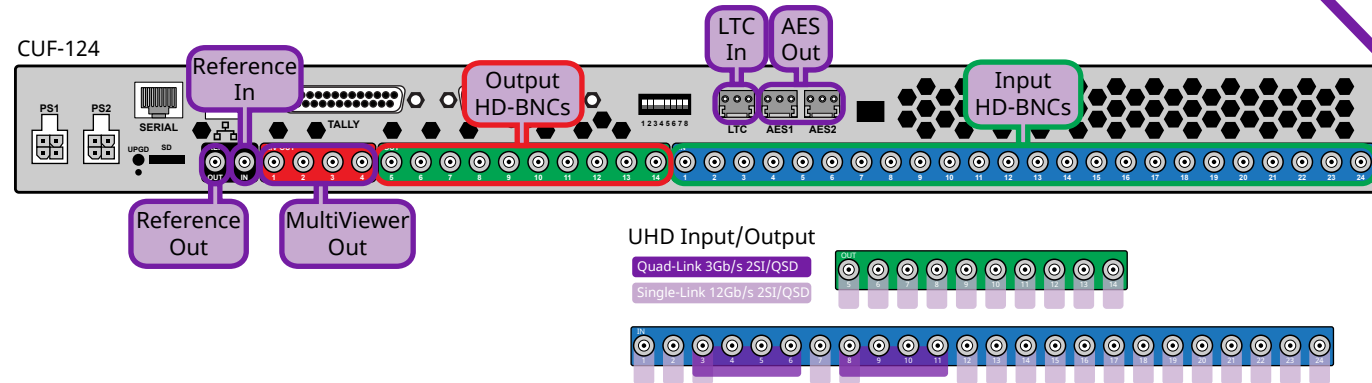


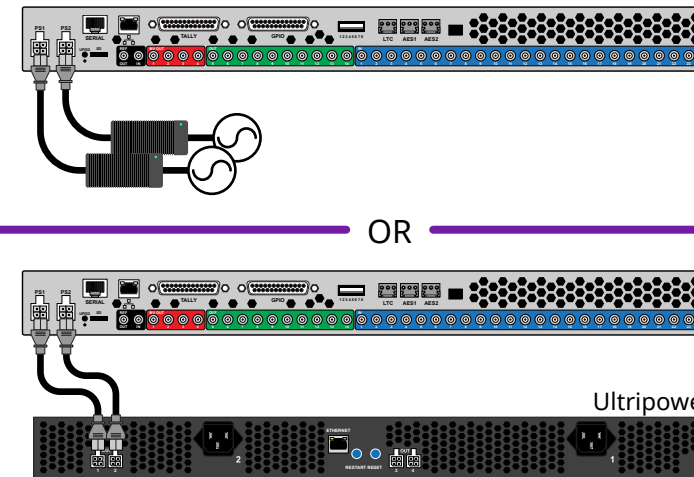
## Audio/Video Inputs/Outputs/Reference



### Notes:

- The I/O MultiViewers are only available on MV OUT 1-2 and the Video Processor MultiViewers are only available on MV OUT 3-4.
- Audio is not embedded in the MultiViewer output.
- Only outputs 5-14 can have a FSFC assigned to them.
- In UHDTV1, only inputs 3-6 and 8-11 can accept Quad-Link 3Gb/s 2SI or QSD. All other inputs can only accept Single-Link 12Gb/s 2SI without FSFC conversion.

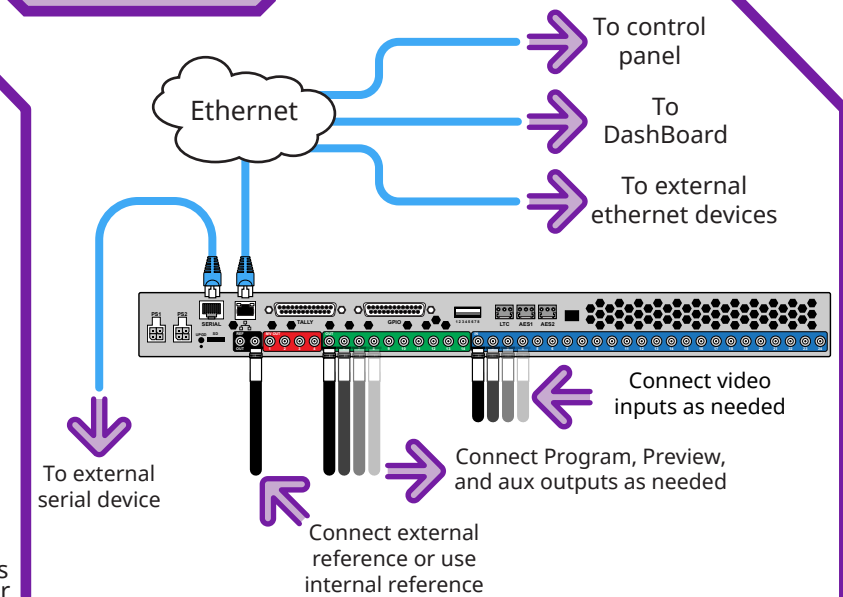
## Power Cabling



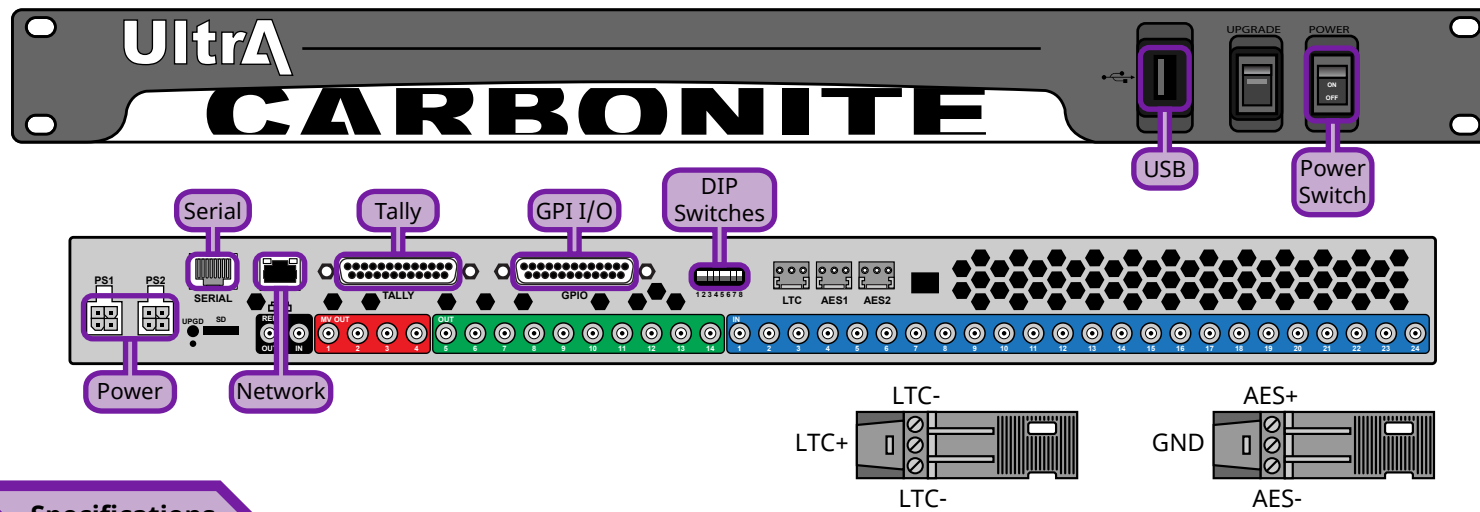
**Note:** It is recommended that you always connect the AC Power Adapter to the device before connecting to Mains Power.



## Control Cabling



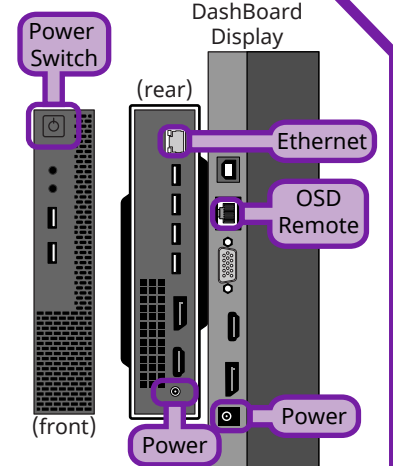
## Ports, Pinouts, and Diagnostics



GPI I/O (female DB25)			
Pin	Signal	Pin	Signal
1	GPI I/O 1	14	GPI I/O 14
2	GPI I/O 2	15	GPI I/O 15
3	GPI I/O 3	16	GPI I/O 16
4	GPI I/O 4	17	GPI I/O 17
5	GPI I/O 5	18	GPI I/O 18
6	GPI I/O 6	19	GPI I/O 19
7	GPI I/O 7	20	GPI I/O 20
8	GPI I/O 8	21	GPI I/O 21
9	GPI I/O 9	22	GPI I/O 22
10	GPI I/O 10	23	GPI I/O 23
11	GPI I/O 11	24	GPI I/O 24
12	GPI I/O 12	25	Ground
13	GPI I/O 13		

Tally (female DB25)			
Pin	Tally	Pin	Tally
1	Tally 1	14	Tally 14
2	Tally 2	15	Tally 15
3	Tally 3	16	Tally 16
4	Tally 4	17	Tally 17
5	Tally 5	18	Tally 18
6	Tally 6	19	Tally 19
7	Tally 7	20	Tally 20
8	Tally 8	21	Tally 21
9	Tally 9	22	Tally 22
10	Tally 10	23	Tally 23
11	Tally 11	24	Tally 24
12	Tally 12	25	Common
13	Tally 13		

Serial (female RJ-45)	
Pin	RS-422
1	Tx+
2	Tx-
3	Rx+
4	n/c
5	n/c
6	Rx-
7	Ground
8	Ground



## Specifications

SDI Input Formats
480i 59.94Hz
576i 50Hz
720p 50/59.94/60Hz
1080i 50/59.94/60Hz
1080pSF 23.98/24/25/29.97Hz
1080p 23.98/24/25/30/29.97/30/50 (A)/59.94 (A)/60Hz
UHDTV1 23.98/24/25/29.97/30 (Single-Link 12Gb/s 2SI, Quad-Link 3Gb/s 2SI, Quad-Link 3Gb/s QSD)

Default Values	
Frame IP	192.168.0.123
FTP User name	user
FTP Password	password

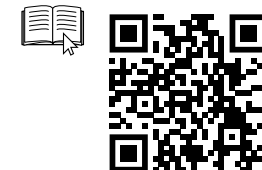
Tally Rating	
Input Voltage:	24VAC (rms) / 40VDC
Maximum Current:	120mA
Impedance:	< 15 ohms

Power	
Consumption	114W 7.6A 15V
Input Voltage	100-120V~ 220-240V~ 47-63Hz

Video Input Specifications	
Equalization (using Belden 1694 cable)	>40m @ 12Gb/s >100m @ 1.5 Gb/s >300m @ 270 Mb/s (5°-40°C)
Impedance	75 ohm, terminating
Video Inputs	SMPTE 259M/292M serial digital (non-looping)
Reference Inputs (non-terminating, looping)	Standard Definition — analog black High Definition — tri-level sync

Video Output Specifications	
Return Loss	< -7.8dB @ 12Gb/s < -15dB @ 1.5Gb/s < -10dB @ 3Gb/s
Rise and Fall Time	27ps +/- 10% (UHD) 800ps +/- 10% (SD) 240ps +/- 10% (HD)
Signal Level	800mV +/- 10%
DC Offset	0 Volts
Overshoot	< 10%
SDI HD Mode	10-bit SMPTE-292M/424M
SDI UHD Mode	SMPTE ST 2082-1:2015 (1:2016)

AES Output Specifications	
Audio Depth	24-bit in HD 20-bit in SD
Channels	1 Stereo Pair
File Format	Multi-Channel Waveform Audio File
Impedance	110 Ohms, differential
Min/Max Output Voltage	1.5/6V peak-to-peak
Swing	
Rise and Fall Times	20ns (typical)
Sample Rate	48kHz
Synchronization	Locked to Video



## FrameGlow Diagnostics

**NORMAL:** Frame is operating normally. There are no warnings. Actual color is user selectable.



**BOOTING:** Frame hardware is booting up. (cycle from blue to white)



**BOOTING:** Frame software is booting up.



**UPGRADE:** Frame is being upgraded. (cycle from yellow to white)



**WARNING:** Frame is over-temperature or there is a status warning. (flashing red)

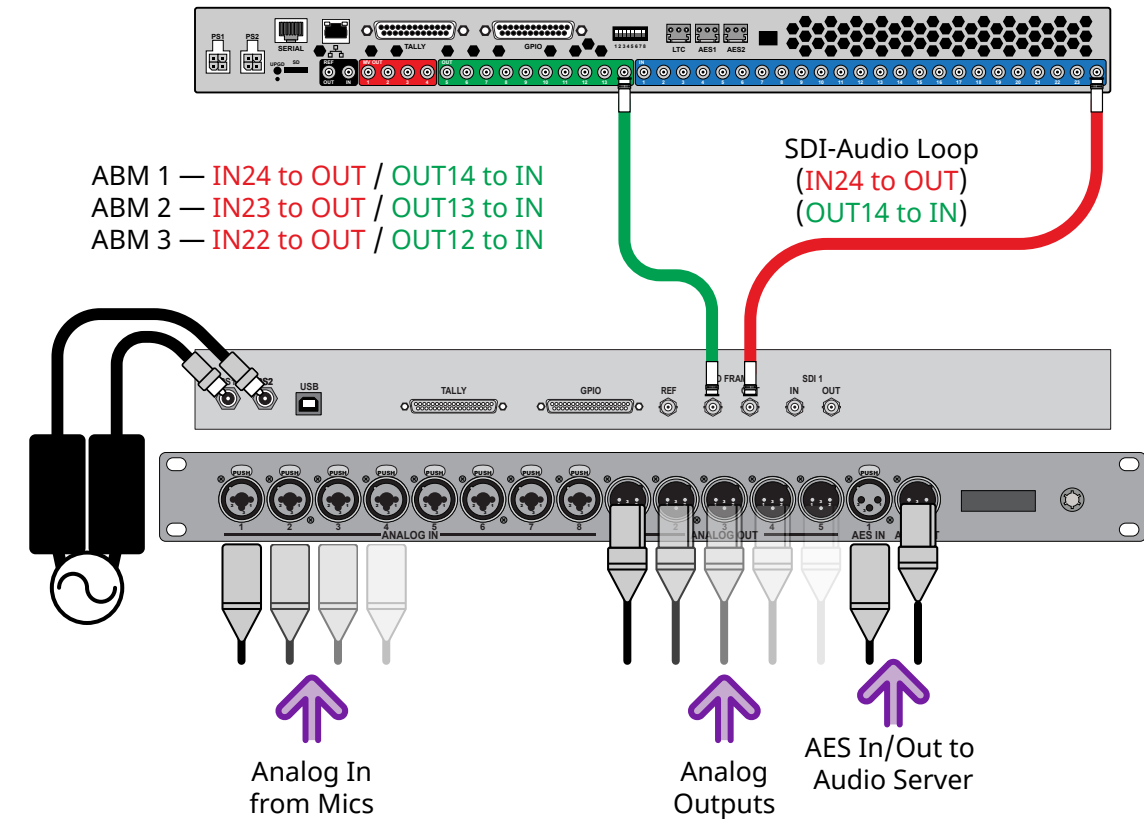


**CRITICAL:** Frame is critically over-temperature. Auto power-down imminent. (solid red)



## 1RU Audio Breakout Module (ABM)

**Note:** Support for the 1RU Audio Breakout Module (ABM) is not available in UHDTV1 at this time.



**Important:** Ensure that Phantom Power is turned off for the Analog Input unless you are connecting a microphone that requires phantom power. Connecting the line out from an audio device to the analog input with phantom power on could damage the audio device and/or the 1RU Audio Breakout Module. For added safety, a TRS phone connector should be used for line in audio sources.



Mains Power

**Note:** It is recommended that you always connect the AC Power Adapter to the device before connecting to Mains Power.

Analog Audio Input Specifications	
Input Impedance	XLR: 2K ohm ¼" Jack: 10K ohm
Maximum Level	+24dBu
Frequency Response	±0.3dB (22Hz to 20kHz @ Fs = 48kHz)
Signal to Noise Ratio	-95dB
"A" weighting	-98dB
CCITT weighting	-107dB
THD	>93dB or <0.002%
Amplitude Linearity	<0.8dB @ -100dBFS
Crosstalk	-94dB

Analog Audio Output Specifications	
Maximum Level	+24dBu
Frequency Response	±0.4dB (22Hz to 20kHz @ Fs = 48kHz)
Signal to Noise Ratio	-103dB
THD	>93dB
Amplitude Linearity	<0.3dB @ -100dBFS
Crosstalk	-106dB (20Hz to 20kHz)

Power Consumption	
Audio Breakout Module	45W 3.75A 12V



Having a problem? Call our free, 24-hour technical support hotline to speak with a live product specialist located right here in our facility.

Tel: (+1) 613 • 652 • 4886  
 Email: techsupport@rossvideo.com