CALICO | PRO

VIDEO PROCESSOR

ARCHITECTURAL SPECIFICATIONS
C7-PRO-2200

PRODUCT OVERVIEW

The CALICO PRO Video Processor has been designed from the ground up to achieve superior results for computer graphics, broadcast sources, IP Streams, still images and multimedia clips. Delivering the highest quality, accurate and visually realistic processing of any video irrespective of aspect ratio or resolution, utilizing proprietary 10-bit video processing. No detail is lost in preserving full motion video and image stills from source to display with guaranteed visual perfection right down to pixel level.

Key features and benefits

- Advanced features: Highly flexible platform with an on-board still image store, input and output cropping, keying, and window labels.
- LED Tools: Advanced set up tools, advanced input cropping, custom resolutions, and output mapping make for much more flexible LED set ups.
- Any Output Anywhere: Enjoy complete visual freedom using our independent outputs for even more flexibility for your solution design.
- Canvas Watch: Monitor your expansive LED, edge-blended projection, or display set ups with ease, for complete peace of mind.
- Smart interface: CALICO Studio is a highly intuitive, yet powerful design software for fast, secure, flexible control.
  For custom control set ups, an extensive, real-time API is available and plug-ins are available for popular 3rd party control systems.

Requirement Specification

1. Video processors must include a free 5-year warranty with system support for 5 years after discontinuation of the product. Video processors that do not include a free 5-year warranty with system support for 5 years after discontinuance of the product will not be accepted.

2. Video processors must have an OLED display visible at the front and capable of displaying its IP address and status information. Video processors that do not have an OLED display visible at the front and capable of displaying its IP address and status information will not be accepted.

3. Video processors must use free of charge dedicated configuration software CALICO Studio to specify and set-up the video processor. Video processors that do not use free of charge dedicated configuration software CALICO Studio to specify and set-up the video processor will not be accepted.

4. Video processors must use free of charge dedicated configuration software CALICO Studio that has an offline mode where a set-up can be configured and checked prior to purchase of the hardware. Video processors that do not use free of charge dedicated configuration software CALICO Studio that has an off-line mode where a set-up can be configured and checked prior to purchase of the hardware will not be accepted.

5. The video processors must be able to crop multiple sections from any source and place them anywhere on the output. Video processors that can not crop multiple sections from any source and place them anywhere on the output will not be accepted.

6. The video processor must be able to crop multiple sections from outputs for independent placement on the canvas. Video processors that are unable crop multiple sections from outputs for independent placement on the canvas will not be accepted.

7. The video processor must be able to select a portion of the video canvas on a dedicated display for monitoring or multiviewer purposes. Video processors that can not select a portion of the video canvas on a dedicated display for monitoring or multiviewer purposes will not be accepted.

8. The video processor must be able to display source labels. Video processors that cannot create source labels will not be accepted.

9. The video processor must be able to create free text labels. Video processors that cannot create free text labels will not be accepted.

10. The video processor must be able to create labels using images. Video processors that can not create labels using image will not be accepted.

11. The video processor must be able to create labels from live sources. Video processors that can not create labels from live sources will not be accepted.

12. The video processors must be able to be lock labels to source windows. Video processors that cannot lock labels to source windows will not be accepted.

13. The video processors must be able to dynamically change the label text based on the source selection that is displayed in a locked video window. Video processors that can not dynamically change the label text based on the source selection that is displayed in a locked video window will not be accepted.

14. Video processors must be able to add borders to windows of various widths or colors which can be animated using Presets. Video processors that can not add borders to windows of various widths or colors which can be animated using Presets will not be accepted.

15. Video processors must be able to display various test patterns on all sources or a selection of sources. Video processors that do not to display various test patterns on all sources or a selection of sources will not be accepted.

16. Video processors must be able to switch between sources using cuts, dissolves, fade to black, fade through black, horizontal shrink, vertical shrink and spin. Video processors that do not switch between sources using cuts, dissolves, fade to black, fade through black, horizontal shrink, vertical shrink and spin will not be accepted.

17. Video processors must support 10-bit video processing. Video processors that do not support 10-bit video processing will not be accepted.

18. Video processors must support cross conversion of the following source signals: HDMI 1.4, HDMI 2.0, SD-HDI, HD-SDI, 3G-SDI, 12G-SDI and HDBaseT to HDMI 1.4, HDMI 2.0, HD-SDI, 3G-SDI or 12G-SDI. Video processors that do not support cross conversion of the following source signals: HDMI 1.4, HDMI 2.0, SD-HDI, HD-SDI, 3G-SDI, 12G-SDI and HDBaseT to HDMI 1.4, HDMI 2.0, HD-SDI, 3G-SDI or 12G-SDI will not be accepted.

19. Video processors must support up/down conversion of the following signals: HDMI 1.4, HDMI 2.0, SD-HDI, HD-SDI, 3G-SDI, 12G-SDI and HDBaseT to HDMI 1.4, HDMI 2.0, HD-SDI, 3G-SDI or 12G-SDI. Video processors that do not support up/down conversion of HDMI 1.4, HDMI 2.0, SD-HDI, HD-SDI, 3G-SDI, 12G-SDI and HDBaseT to HDMI 1.4, HDMI 2.0, HD-SDI, 3G-SDI or 12G-SDI will not be accepted.

20. Video processors must support network control via RJ45 (IPv4 and IPv6). Video processors that do not support network control via RJ45 (IPv4 and IPv6) will not be accepted.

21. Video processors must support scaling on all outputs. Video processors that do not support scaling on all outputs will not be accepted.

22. Video processors must have no more than typically 1 and maximum 2 frames of latency input to output. Video processors that allow more than typically 1 and maximum 2 frames of latency input to output will not be accepted.

23. Video processors must have eight HDMI 2.0 inputs and four HDMI 2.0 outputs as standard with the optional of adding additional input, output modules. Video processors that do not have eight HDMI 2.0 inputs and four HDMI 2.0 outputs modules will not be accepted.

24. Video processors must provide additional modular output connectivity for either quad HDMI 2.0, eight HDMI 1.4 or quad SD/HD/3G/12G-SDI. Video processors that do not allow for additional modular output connectivity for either quad HDMI 2.0, eight HDMI 1.4 or quad SD/HD/3G/12G-SDI will not be accepted.

25. Video processors must provide additional input modularity for either dual HDMI 1.4, dual HD/4K HDBaseT, quad HDMI 1.4, quad 3G-2DI, media playback/IP decoding or analog/SPDIF audio. Video processors that do not provide for either dual HDMI 1.4, dual HD/4K HDBaseT, quad HDMI 1.4, quad 3G-2DI, media playback/IP decoding or analog/SPDIF audio will not be accepted.

26. Video processors must provide additional input modularity for either quad HDMI 2.0 or quad 12G-SDI. Video processors that do not provide for either quad HDMI 2.0 or quad 12G-SDI will not be accepted.

27. Video processors must support 1080p 120Hz support on all HDMI outputs. Video processors that do not support 1080p 120Hz support on all HDMI outputs will not be accepted.

28. Video processors must accommodate an additional power supply to allow dual-redundant power supply management. Video processors that do not accommodate an additional power supply to allow dualredundant power supply management will not be accepted.

29. Video processors must be able to manage four independent, simultaneous, canvases each of 64,000 x 64,000 pixels within one chassis. Video processors that do not manage four independent, simultaneous, canvases each of 64,000 x 64,000 pixels within one chassis will not be accepted.

30. Video processors must support at least 256 simultaneous video channels. Video processors that do not support at least 256 simultaneous video channels will not be accepted.

31. Video processors must support 1-360° rotation on each video source in 1° increments. Video processors that do not support 1-360° rotation in 1° increments on all video sources will not be accepted.

32. Video processors must support 1-360° rotation in 1° increments on every Output. Video processors that do not support 1-360° rotation in 1° increments on every output will not be accepted.

33. Video processors must be FPGA based, allowing for FW upgrades to add new functionality and features. Video processors that are not FPGA based allowing for FW upgrades to add new functionality and features will not be accepted.

34. Video processors must support different size and resolutions of displays within each set-up. Video processors that do not support different size and resolutions of displays within each set-up will not be accepted.

35. Video processors must support video projector edge-blending on every output. Video processors that do not support video projector edge-blending on every output will not be accepted.

36. Video processors must be HDCP 2.0 and 2.2 compliant with all standard ship, HDMI inputs and outputs. Video processors that are not HDCP 2.0 and 2.2 compliant with all standard ship, HDMI inputs and outputs will not be accepted.

37. Video processors must have a minimum of 500 programmable presets per system. Video processors that do not have a minimum of 500 programmable presets per system will not be accepted.

38. Video processors must provide preset driven transitions. Video processors that do not support preset driven transitions will not be accepted.

39. Video processors must have programmable presets that include the ability to select specific windows and choose between layout only or layout and sources. Video processors that do not have programmable presets that include the ability to select specific windows and choose between layout only or layout and sources will not be accepted.

40. Video processors must support 4K60 video sources. Video processors that do not support 4K60 video sources will not be accepted.

41. Video processors must support 4K60 outputs. Video processors that do not support 4K60 outputs will not be accepted.

42. Video processors must have cooling fans that are automatically and intelligently controlled by detecting changes in temperature of the circuitry inside the unit, helping to keep the unit cool and improve reliability. Video processors that do not have cooling fans that are automatically and intelligently controlled by detecting changes in temperature of the circuitry inside the unit, helping to keep the unit cool and improve reliability will not be accepted.

43. Video processors must support luminance keying for any source window, label or still image. Video processors that do not support luminance keying for any source window, label or still image will not be accepted.

44. Video processors must allow control via 3rd party controllers using freely available API. Video processors that do not allow control via 3rd party controllers using API will not be accepted.

45. Video processors must require no more than 250 watts of power when fully fitted with expansion modules and accessories. Video processors that require more than 250 watts of power when fully fitted with expansion modules and accessories will not be accepted.

46. Video processors must support secure communication HTTPS. Video processors that cannot support secure communication HTTPS will not be accepted.

47. Video processors must support REST API providing multi-user communication to device. Video processors that cannot support REST API providing multi-user communication to device will not be accepted.

48. Video processors must support subscribing to events using WebSocket's providing real time feedback to automatically monitor the operation of the video processor and respond accordingly. Video processors that cannot support subscribing to events using WebSocket's providing real time feedback to automatically monitor the operation of the video processor and respond accordingly will not be accepted.

49. Video processors must support embedded audio through the system from source to display. Video processors that cannot support embedded audio through the system from source to display will not be accepted.

50. Video processors must support the de-embedding of 2 channel audio from any input source and in digital or analog format via an optional audio module. Video processors that cannot support the de-embedding of 2 channel audio from any input source and in digital or analog format via an optional audio module will not be accepted.

51. Video processors must support input and output volume control together with audio mute. Video processors that cannot support input and output volume control together with audio mute will not be accepted.

52. Video processors must support up to up twelve discrete 1080p60 discrete displays with ability to place these displays in any orientation. Video processors that cannot support up to twelve discrete 1080p60 displays, with ability to place these displays in any orientation will not be accepted.

53. Video processors must have set up software that allows for the creation of custom input and output resolutions. Video processors that do not have set up software that allows for the creation of custom input and output resolutions will not be accepted.

54. Video processors must have a provision for a dust filter, either as an optional accessory or provided with the unit, that restricts dust ingress through its cooling fans by using a stainless steel, lifetime use air filter. Video processors that do not have a provision for a dust filter, either as an optional accessory or provided with the unit that restricts dust ingress through its cooling fans by using a stainless steel, lifetime use air filter a provision either as an optional accessory or provided with the unit, that restricts dust ingress through its cooling fans by using a stainless steel, lifetime use air filter will not be accepted.

55. Video processors must have integrated internal media file storage of at least 3 Gb for still image and label template storage. Video processors that do not have integrated internal media file storage of at least 3 Gb for still image and label template storage will not be accepted.

56. Video processors must support IP video decoding of H.264 (Main, High), MPEG4, H.265/HEVC (Main). Video processors that do not support IP video decoding of H.264 (Main, High), MPEG4, H.265/HEVC (Main) will not be accepted.

57. Video processors must be able to copy media from an external USB 3.0 storage device to internal memory for playback and be able to play media files directly from an external USB 3.0 storage device. Video processors that cannot copy media from an external storage device to internal memory for playback and be able to play media files directly from an external storage device will not be accepted.

58. Video processors must support IP video decoding of H.264 (Main, High), MPEG4, H.265/HEVC (Main) using an additional module. Video processors that do not support IP video decoding of H.264 (Main, High), MPEG4, H.265/HEVC (Main) will not be accepted using an additional module.

59. Video processors must support at least 4 streams of IP video up to 50Mbit H264, 25Mbps H265 per stream (dual stream) in a single chassis using an additional module. Video processors that do not support at least 4 streams of IP video up to 50Mbit H264, 25Mbps H265 per stream (dual stream) in a single chassis using an additional module will not be accepted.

60. Video processors must support IP resolutions up to 3840x2160/30fps using an additional module. Video processors that do not support IP resolutions up to 3840x2160/30fps using an additional module will not be accepted.

61. Video processors must support RTSP, RTMP, HTTP, MPEG-TS Unicast Streams using an additional module. Video processors that do not support RTSP, RTMP, HTTP, MPEG-TS Unicast Streams using an additional module will not be accepted.

62. Video processors must support RTSP, MPEG-TS Multicast Streams using an additional module. Video processors that do not support RTSP, MPEG-TS Multicast Streams using an additional module will not be accepted.

63. Video processors must have internal media file storage of at least 128 Gb using a single expansion module. Video processors that do not have internal media file storage of at least 128 Gb using a single expansion module will not be accepted.

64. Video processors must be able to playback file types mp4, mov, mkv, m4v, ts, mts, m2ts, mt2, mpeg2 from memory provided by a single expansion module. Video processors that cannot playback file types mp4, mov, mkv, m4v, ts, mts, m2ts, mt2, mpeg2 from memory provided by a single expansion module will not be accepted.

65. Video processors must be able to copy media from an external storage device to internal memory for playback and be able to play media files directly from an external storage device using an additional expansion module. Video processors that cannot copy media from an external storage device to internal memory for playback and be able to play media files directly from an external storage device using an additional expansion module will not be accepted.

66. Video processors must have FCC, CE, RoHS, ULc compliance. Video processors that do not have FCC, CE, RoHS, ULc compliance will not be accepted.

CALICO PRO Chassis and Modules

Part Number	Description
C7-PRO-2200	Chassis with eight HDMI 2.0 inputs, 4 HDMI 2.0 outputs with slots available for three additional optional module.
C7-PRO-2U-FILTER	Air Filter
C7-PRO-12GSDI-4IN	Quad 12GSDI Input module
C7-PRO-12GSDI-4IN	Quad 12GSDI Output Module
C7-PRO-3GSDI-4IN	Quad 3GSDI Input Module
C7-PRO-400RPS	400W Power Supply
C7-PRO-AUD-2IN-4OUT	Audio In-Out Module
C7-PRO-HDBT-4K2IN	Dual HDBT Input Module
C7-PRO-HDMI-2K4IN	Quad 2K Input Module
C7-PRO-HDMI-2K8OUT	8x HD Output Module
C7-PRO-HDMI-4K2IN	Dual 4K Input Module
C7-PRO-HDMI-4K4IN	Quad HDMI 4K60 In
C7-PRO-HDMI-4K4OUT	Quad HDMI 4K60 Out
C7-PRO-MEDIA	Dual AVIP and Media Playback Module