



# SPU-006

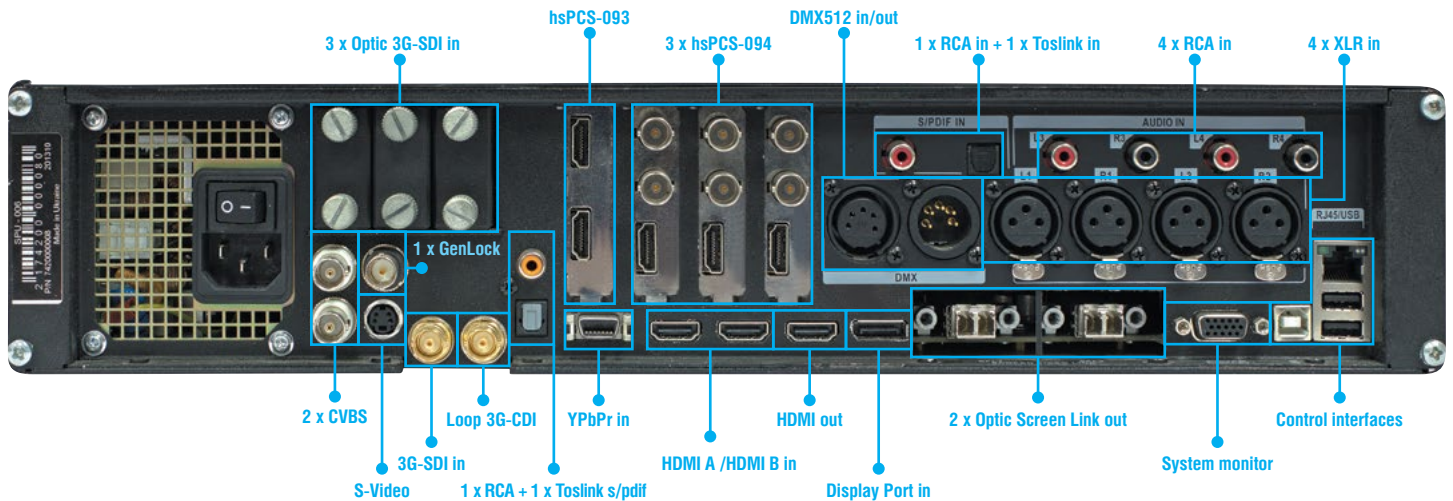
## Multifomat Screen Processor Unit

ERMAC three-level software architecture has revolutionized video processing technology for large-scale LED displays and visualization equipment, combining three different products into a single state-of-the-art solution.

Its versatile design supports all current EKTA screen models, including FrameLED, BladeLED and WOWFloor product lines. SPU-006 processor provides the ultimate solution for controlling EKTA's cutting edge LED video displays.

### FEATURES

- Motherboard and four Add-In-Cards (AiC) 19" rack mounting case
- Five image channels (one motherboard (MB) & four AiC with flexible configurations of new HDMI)
- 3G SDI (copper or on-board fibre input) and Display Port standards
- Five simultaneous image windows with fader and cross-fader between them
- 10 bit processing from 480i to 1080p and 4K resolution
- 18 bit processing for LED-to-LED uniformed corrections, screen brightness adjustment, gamma and color temperature control
- Embedded Intel Atom Based Processor
- Five control interfaces - Integrate Console, System Console, DMX512, Ethernet and Internet WEB-Interface
- Up to 16 various pixel pitch LED screen devices or digital panels in the chain
- Two Fibre Optic (FO) and one HDMI outputs with frame rates of 30; 50; 60; 75; 100; 120 Hz
- 3D ready on board
- Feedback link for:
  - diagnostics module operating parameters (temperature, voltages and current)
  - reading LED parameter measurement tables for LED-to-LED color calibrations
  - reading luminous sensor value for automatic screen brightness control
- Audio IN/OUT and translate audio packets over Fibre Optic



SPECIFICATIONS		
Chassis	Motherboard MBE-024 + up to 4 internal expansion cards in 2RU, depth 220 mm	
Front panel	1 x TFT control monitor with touch screen 1 x Status indicator light 1 x Button built-in the computer 1 x System keyboard control 1 x MicroSD system memory card 1 x 3,5 mm mini-jack audio monitoring	
Rear panel	Video input	1 x BNC for external analog sync 2 x BNC Composite video standard PAL, NTSC (only for internal expansion cards) 1x S-Video component video PAL, NTSC (only for internal expansion cards) 1 x BNC 3G/HD/SD-SDI, standard support SMPTE-424M, SMPTE 292M, SMPTE 344M, SMPTE-259M 3 x LC-LC fiber optic connector for SDI (standart SFP) for internal expansion cards and motherboard MBE-024 1 x DFP, YPbPr up to 1080i 8, 10 bit/px color depth (only for internal expansion cards) 2 x HDMI 1.4 * (switched), resolution up to 3840 x 2160 (WUXGA) at 25/30 Hz, 36 bit/px color depth, 297 MHz TMDS clock freq. 1 x DP 1.1 * resolution up to 3840 x 2160 (WUXGA) at 50/60 Hz, 36 bit/px color depth
	Video output	1 x HDMI 1.4* resolution 1280 x 1024, 1440 x 900, 1680 x 1050, 1920 x 1200 x 50/60 Hz at 50/60 Hz, 10 bit color depth 2 x LC-LC 6,25 Gigabit multimode fiber optic connector for screen link, 8,86 MPx max frame out**, 30 bit/px color depth
	Audio input	1 x RCA S/PDIF 1 x TOSLINK S/PDIF 4 x XLR - 2 channel stereo balanced 4 x RCA - 2 channel stereo SDI embedded audio (only for internal expansion cards) HDMI embedded audio DP embedded audio
	Audio output	1 x RCA S/PDIF 1 x TOSLINK S/PDIF Embedded in output optical system interface
	Control interface	1 x USB 2.0 type B 1 x 5-pin XLR DMX512 1 x RJ-45 Ethernet for embedded computer 2 x USB 2.0 type A for embedded computer
hsPCS-094 card		
Rear panel	Video input	1 x HDMI 1.3 * resolution up to 1920 x 1200 (WUXGA) at 50/60 Hz, 24, 30 bit/px color depth, 225 MHz TMDS clock 1 x BNC 3G/HD/SD-SDI, standard support SMPTE-424M, SMPTE 292M, SMPTE 344M, SMPTE-259M 1 x DFP, YPbPr up to 1080i 8, 10 bit/px color depth (optional connector) Up to 2 composite, 1 component video standard PAL, NTSC (connection from motherboard)
	Video output	1 x BNC 3G/HD/SD-SDI, standard support SMPTE-424M, SMPTE 292M, SMPTE 344M, SMPTE-259M
hPCS-093 card		
Rear panel	Video input	1 x HDMI 1.4 * resolution up to 1920 x 1200 (WUXGA) at 50/60 Hz, 36 bit/px color depth, 297 MHz TMDS clock 1 x HDMI 1.4 * resolution up to 3840 x 2160 (WUXGA) at 50/60 Hz, 36 bit/px color depth, 297 MHz TMDS clock (using two boards)
	Video output	1 x HDMI 1.4 * resolution up to 1920 x 1200 (WUXGA) at 50/60 Hz, 36 bit/px color depth, 297 MHz TMDS clock

POWER SUPPLY	DIMENSION (LXWXH)	WEIGHT	OPERATING TEMPERATURE	STORAGE TEMPERATURE
110-240 V AC 50/60 Hz, 90 W max.	44x22.5x8.8	4,065 Kg	0 °C (32 °F) to 40 °C (104 °F)	-10 °C (14 °F) to 50 °C (122 °F)

\*HDCP optional  
\*\*table «Output frame»

Screen frame rate	MPx		
	Clone	Double	HDMI+FO
30	4,43	8,86	-
50	2,65	5,30	1920x1080
60	2,20	4,41	1920x1200
75	1,76	3,46	-
100	1,31	2,56	-
120	1,09	2,05	-