COMMERCIAL SPECIFICATIONS
PIXLDRIVE8PRO CONTROLLER V1
(RELEASE Q2 2021)

GENERAL

Product name	PixlDrive8Pro Controller
Description	8 channel PixlBus controller: integrated PSU, KLUSTR and Lucenti technology
PN	

PIXEL OUTPUT

Outputs	8x "Pixlbus" output ports (data + power), 200W/24Vdc per port.
	400 RGBW pixels per port (= 8x BW-100, 16x BW-50, …) @ 50Hz. 3200 RGBW pixels in total. Protocol limit for 400x RGBW on one port is ~60Hz.
	Ports can be individually enabled/disabled.
	Ports support hot-plugging of devices.
Protection on outputs	Overload protection: for sustained load > 200W. Auto cut-off for peak loads.
	Short circuit detection: port will be disabled independent of other ports.
Connector	Plastic M12 4-pin connector, push-lock
Protocol	Proprietary Lucenti "Pixlbus" protocol

DEVICE MODES AND CONTROL PROTOCOLS

Supported device modes	Art-Net I (broadcast) & II, 3, 4 (unicast)
	sACN/E1.31 multicast and unicast
	Effects: Internal library of customizable effects, can run standalone
	Test Patterns: Internal library of test patterns, can run standalone
	Blackout
Supported merging modes (in Art-Net/sACN mode)	HTP
	LTP
	Merge up to 4 sources per protocol per universe
Supported mapping modes	KLSTR: Automatic mapping and configuration
	Merge up to 4 sources per protocol per universe

KLSTR TECHNOLOGY

Discovery	Auto discovery of multiple PixlDrive8Pro controllers and all connected PixlBus devices
	Auto generation of DMX patch
	Easy assignation of Fixture IDs
	Link fixtures to on-board GDTF files.
	Export MVR file from KLSTR application containing all fixtures, GDTF files, fixture IDs and mapping for use in console
Synchronization	
- Network wide (PTP) sync	PTPv2 (IEEE 1588-2008) Frame accurate display of data on all connected controllers and PixlBus devices
- Packet rate and packet sync	Controller can slave to incoming Art-Net or sACN packet rate, or use ArtSync/sACN for controller synchronisation
Monitoring	Monitor multiple devices from one interface
	Get alerts of critical events (e.g. port short circuit, devices that went offline, ...)
	Display sensor data (load per port, temperature, framerate) per controller
Connectivity	IPv6 and IPv4
	Topology overview and configuration
	"Topology redundacy - Spanning tree - Ethernet ports are automically bridged on failing controller"

PIXLBUS TECHNOLOGY

PixlBus protocol	Auto discovery of devices on PixlBus, together with KLSTR discovery this allows for a fully automated setup
	Detailed information about each node/device (UUID, Serial, Versioning, ...)
	All PixlBus devices on one controller are synchronized. Global sync happens through network wide PTP, ArtSync or sACN sync
Virtual Devices (future update)	Virtual devices: create pixel devices that span one or more physical devices - virtual device can take from 1 up to port pixel count of pixels - pixels of virtual devices can be arbitrarily grouped together - virtual devices can be flipped - virtual devices can be masked to black or any other user defined color - virtual mapping can be switched on/off per port

USER INTERFACE

Hardware	
- Display	OLED single color graphical display 1,3"
- Rotary pushbutton	OLED single color graphical display 1,3"
- LEDs Ethernet	Activity + link led
KLSTR Desktop APP	Desktop app for Windows, MacOS and Linux
	Allows full configuration of all parameters in an intuitive interface
Webinterface: Landing page	Link to download KLSTR-CTRL app

CONNECTIVITY

Network	3x Gigabit of which 1x POE (only supplying board to logic board, not to outputs)
Power	TRUEcon 115/230Vac 50/60Hz In/Out

ELECTRICAL

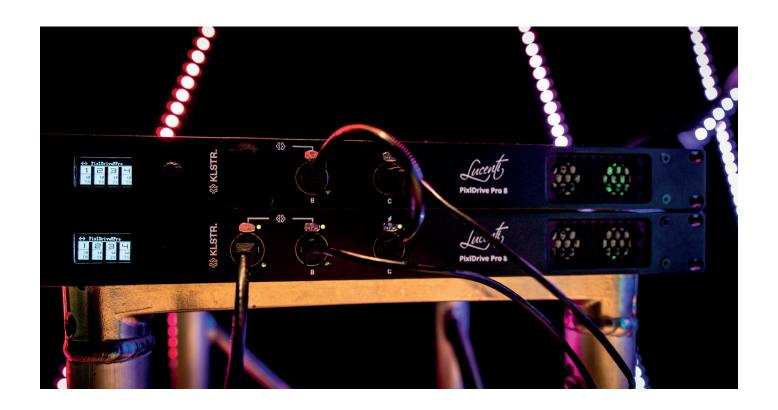|	
Power input	110-240 VAC , 50/60hz
	PoE port for powering logic board (maintainance, log retrieval)
Power supply	1600W/24Vdc, 200W per port
Max operating temperature	min 45 ºC (ambient temperature)
Power distribution board	Separate power distribution and voltage/current sensing board

HOUSING / MECHANICAL

Housing	Metal housing, black powder coating, IP20 rating
Mounting	1U rack mountable, standard 19 inch rack compatible, front and back mounting plates

CABLING CONSIDERATIONS

PixlBus:	- 30M in between controller and first bar and NO cable in between bars. - NO cable in between controller and first bar and 10M in between 8 BW-100 bars. - NO cable in between controller and first bar and 5M in between 16 BW-50 bars. - The cable lengths might be increased when using less bars or not using full output (RGBW@Full) on all bars!
Ethernet:	Max ?? devices daisy-chained/hops