

Splash

Features and Benefits

General

- Extended warranty available
- Path to future display options (e.g. color and animations)
- Wide viewing angle
- Self illuminating OLED's... no backlight required
- High contrast ratio
- High luminance
- Integrated brightness control
- Custom configurations / button counts available

Reliability

- Well established and tested design
- Fluid protected
- Switches tested to 5 million cycles
- Impact resistant
- Fewer parts

Software

- Resource Builder SW tool for graphic game development
- Software and Firmware maintenance
- Hot Swap capable to change out panel while powered
- Custom configure theme and content with Windows® based Resource Builder
- HID device requires no special drivers
- Protocol handles error checking and acknowledgements

Programmable Button Panel



The Esterline Interface Technologies Programmable Button Panel "patent pending" is a revolutionary step forward in gaming technology. Extended warranty available, fluid protected, impact resistant, and tested to five million cycles. Dynamic content and animation sequencing

can be displayed on each intelligent OLED button.

Coupled with programmable LED's on the perimeter of each button assembly, Gaming OEM's can easily create exciting, interactive content for each button using simple Windows based development tools (Resource Builder).

The Interface Technologies Programmable Button Panel is impact resistant, protected against liquid ingress, and supports multiple button assemblies. Each button assembly incorporates a clear plastic button top over a graphical monochrome OLED display and a translucent bezel. Under the bezel and around the perimeter of each button is an array of eight programmable LED's which is protected by sealing elastomer that acts as both seal, and light defusing layer for LED's.

Each button contains an on-board micro controller and flash memory for local content storage. Each button stores multiple sequences and animations. Buttons are accessed and controlled via a single USB (HID) connection from the Host. No special drivers are required. The USB protocol handles error checking and acknowledgements.

Animation sequences are built, tested, and downloaded to the panel using a simple Windows based software tool called the Resource Builder. The Resource Builder supports 1 to 15 buttons per panel.

SPECIFICATIONS

ELECTRICAL		
Current	60 ma - each additional button	
Voltage	20-28 volts, 210 ma - 1 button	
Hot Swap	LT4256 Hot Swap controller	
USB COMMUNICATIONS		
USB	2.0 HID device	
IMAGE		
	1.1"	1.6"
Resolution	96 x 64	128 x 64
Button image storage (1m per button)	300 images	230 images
Download time	1MB = 60 seconds	256K = 16 seconds
(all buttons at same size downloaded at the same time)	768K = 45 seconds	128K = 8 seconds
	512K = 30 seconds	64K = 4 seconds
OLED		
Rated life	50,000 hours @ 80 cd/m, 50% checkerboard	
Contrast ratio	2000:1	
Viewing angle	160 degrees	
ENVIRONMENTAL		
Operating temperature	-10° to +35° C	
Storage temperature	-40° to +70° C	
Ingress protection	IP x 3	
Impact resistance	2 kg from 4 feet	
VARIOUS		
Bezel dimensions	17.25"(w) x 3.44"(h) 1.25"(d)	
Storage capacity	1MB (per button)	
Mechanical life	5 million cycles @ 1 kg actuation force @ 2 Hz	
Warranty	1 year standard - extended available	

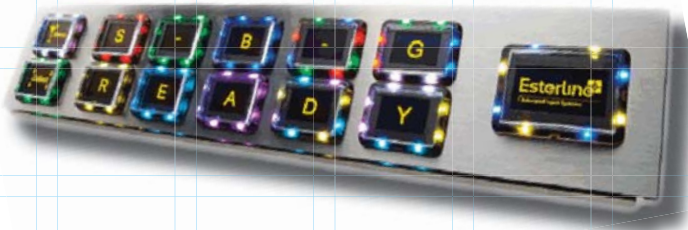


James Industries is the strategic worldwide partner for Esterline Interface Technologies to the gaming industry. James Industries represents Esterline's engineering and manufacturing capabilities of custom user interface and control panel assemblies. James Industries has spent over 35 years developing contacts,

knowledge of markets and relationships within the entertainment vertical market which consists of amusement, gaming, and lottery; manufacturers and operators.

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