



## HMI FOR AIRCRAFT INTERIORS

# ENHANCING THE PASSENGER EXPERIENCE



# ENHANCING THE PASSENGER EXPERIENCE THROUGH HMI TECHNOLOGY

Airlines are constantly challenged to enhance the passenger experience through technology, especially in seat controls, signage and ambience. TT Electronics aircraft interior solutions are driven by light-guide technology providing high impact cabin interfaces and illumination, combining capacitive touch, secret-until-lit and mood lighting solutions.

For over 30 years aircraft interior partners have trusted TT. Since we provided passenger control units (PCUs) for the world's first lie-flat beds that debuted in the 1990s we have worked with our aircraft interior partners to develop innovative and sustainable solutions. Our designs and certified products are currently flying with the world's major airlines cabins, including business and first class.

Our solutions incorporate the latest HMI technologies including capacitive switch technology, back-lit capacitive switch controls, thin-film backlighting using LED illumination and traditional membrane switches.

Our in-house design and engineering team can work with you to develop innovative and functional designs. Fully managed from concept to delivery, we provide full certification and qualification testing.



## TECHNOLOGY

- ✓ Mechanical - Plastic, Metal or Silicone Rubbers Keys and Housing
- ✓ PCAP and Membrane
- ✓ High Quality Backlighting
- ✓ Homogenous, RGB or RGBW, PWM Controlled

## CONNECTIVITY

- ✓ CanBus, RS485, I/O
- ✓ Pigtail or In-Line Connectors

## FULLY MANAGED FROM CONCEPT TO DELIVERY

## INNOVATIVE & FUNCTIONAL DESIGNS



## CERTIFICATION

- Fully qualifiable LRU
- DO160, DO178 Level E, Boeing and Airbus



## DESIGN AND PRODUCTION

AS 9100 D, ISO 9001, ISO 14001, SC21



# PASSENGER CONTROL UNITS (PCUS)

Passenger control units (PCUs) are designed to the customer's requirement using proven interface solutions including traditional membrane keypads, PCAP and touchscreen panels, capacitive switching and our patented backlighting technology which is lightweight and space-saving making it ideal for control panel applications on aircraft.

We provide fully interactive electronic panels for first and business class seating as well as passenger information panels throughout the aircraft including innovative switch solutions for cabin window shades.

## FULLY INTERACTIVE CONTROL PANELS



# CABIN SIGNAGE

We design and manufacture a range of cabin signage solutions incorporating simple white-only LED lighting to advanced colour shifting technology, enhancing the passenger experience and providing energy efficient solutions for the aircraft.

High quality signage using our patented low-profile thin-film backlighting technology deliver clear information to passengers and crew. LED indicators or information signs inform passengers and flight attendants to return to their seats, fasten their seat belts or advise 'lavatory occupied' for example. We manufacture information panels with additional features for specific areas of the aircraft including lavatories and galley ways.

## SOLUTIONS

- ✓ Return to Seat (RTS)
- ✓ Attendant Call Button (ACB)
- ✓ Illuminated Seat Indicators



# CABIN MOOD LIGHTING

Designed to create an enhanced passenger ambience and in-flight experience, LED based mood lighting is a fundamental design element that can be personalized through colour, intensity, zoning and transitions.

Our lightweight and highly flexible mood lighting solutions incorporate single colour and RGB mood lighting for aircraft cabins and communications with the ECU controlled with a variety of interfaces.



# FLEXIBLE LIGHT STRIP

Flexible LED lighting strips by TT Electronics provide a power efficient, robust and certifiable solution in white or RGB multi-coloured options that bend around a 75mm radius. The perfect blend of form and function for aircraft interior mood lighting and signage solutions.

## APPLICATIONS

- ✓ RSIP Panels
- ✓ Accent Lights
- ✓ Flexible & Rigid Mood lights
- ✓ Stowage Lights
- ✓ Galley Lights
- ✓ Fridge Lights
- ✓ Mirror Lights
- ✓ Logo Lighting

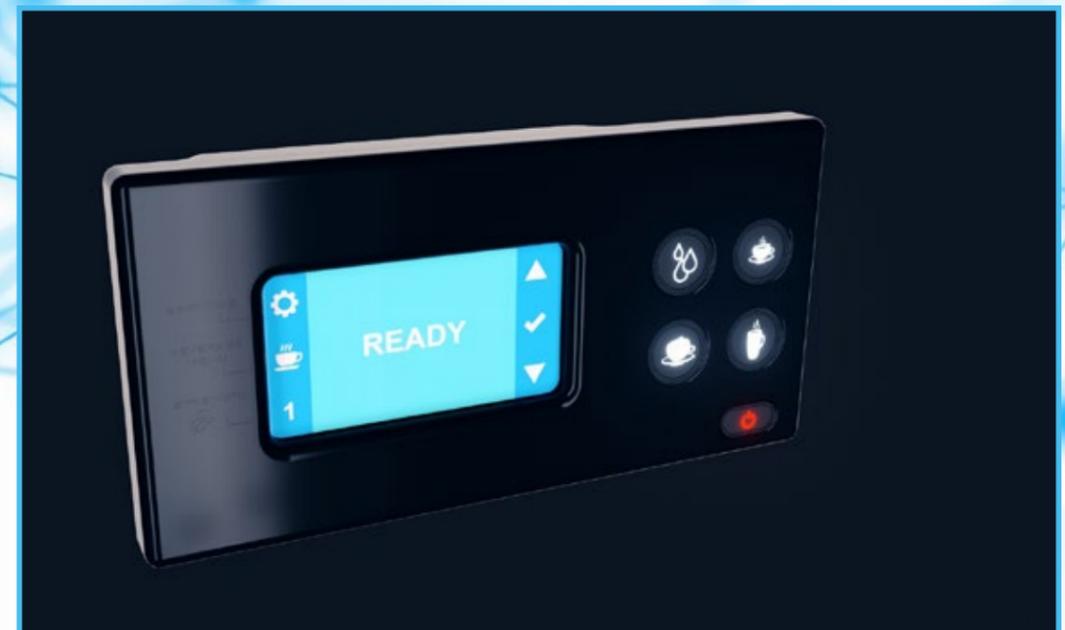
## FEATURES

- ✓ Single colour or RGB-W
- ✓ Complex curves achieved by tooling arc shaped strips
- ✓ Weight and power saving
- ✓ Low maintenance
- ✓ Minimum bend radius 50mm
- ✓ Tested for fire (smoke density and toxicity), temperature and ESD immunity
- ✓ Interface RS485 – CanBus

# GALLEY INTERFACES

We provide enhanced control panel and illumination solutions for aircraft galleys.

Our thin film backlighting and capacitive switching technologies deliver simple, clean and functional designs for galley and business class bar areas including refreshment makers, bar counters and cocktail tables.



## ABOUT TT ELECTRONICS PLC

TT Electronics is a global provider of engineered electronics for performance critical applications. TT solves technology challenges for a sustainable world. TT benefits from enduring megatrends in structurally high-growth markets including healthcare, aerospace, defence, electrification and automation. TT invests in R&D to create designed-in products where reliability is mission critical. Products designed and manufactured include sensors, power management and connectivity solutions. TT has design and manufacturing facilities in the UK, North America, Sweden and Asia.

For more information about TT Electronics, visit [www.ttelectronics.com](http://www.ttelectronics.com)

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