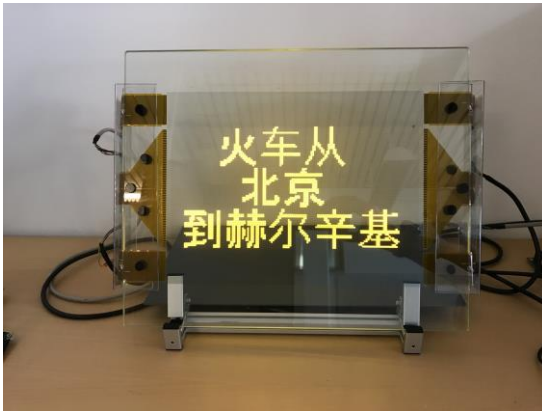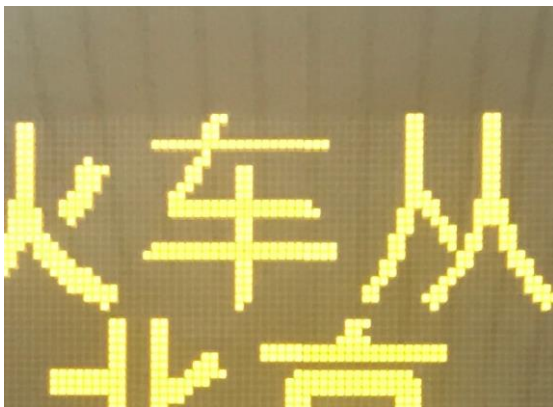# ELT144.72.210-07NC

Large transparent matrix display for in-glass laminated applications

ELT144.72.210 display when laminated. Flex cables shown. Driving electronics bent towards the back.

The seam between the two panels is virtually invisible.

ELT144.72.210-07NC is a lamination proof transparent matrix display. The product consists of two separate glass panels which are fed from the sides. The two panels are usually placed next to each other to create one large display. With skilled lamination, the panels reach a virtually seamless appearance.

The product comes with two display glasses, each capable of showing 72 x 72 pixels. Each panel has three FPCs (also known as flex cables, one for row driving, two for column driving) and driving electronics. The two panels are controlled with a joint control electronics. The display is especially suitable for installations in relatively narrow windows like in vehicle doors (the FPCs and driving electronics can be hidden into the door structure). The product features:

- Two glass panels with 72 x 72 pixels (columns and rows, respectively), jointly capable of 144 x 72 resolution.
- Three FPCs bonded permanently to each of the glass panels, with connection pads in the driving electronics end
- Two driving electronics boards (ECA) with three connectors to FPCs.
- One central controller board connected to the two driving electronics.
- Documentation on the interface/protocol, mechanical and optical characteristics and handling instructions

Thickness of the glass is 0.7mm. There is no cover glass to enable lamination with optically good quality. Pixel pitch is 1.965 mm x 1.965 mm, with 1.49mm x 1.49mm pixel size. Interface of the display controller board is RS485.

Currently the display has no dedicated demo kit product (with which the display can be operated through a PC), instead direct RS485 based input is needed.

ELT144.72.210-07NC Transparent Lamination-Proof Large Matrix Display

Product highlights:

- Enables program-generated, arbitrary information displayed in a laminated setting where feeding from two sides of the display is advantageous.
- Very large pixel size enables observation of the displayed information from far away distances.
- Withstands standard industrial lamination processes.
- Can be viewed outdoors by shadowing direct sunlight.
- Comes with an RS485 interface for excellent data transmission reliability.

Display Technical specifications:

Technology	Inorganic Thin Film Electroluminescence
Color	TFEL-yellow
Pixels	144 columns and 72 rows of square pixels.
Pixel Pitch/Size	pitch 1.965 mm x 1.965 mm, size 1.49mm x 1.49mm
Viewing angle	2x 179°, (two sides - substrate is transparent)
Response time	< 1 ms
Luminance	up to 200 cd/m², depending on content
Contrast	ambient (background lighting) dependent
Transparency when laminated	≥ 70% when laminated properly/with cover glass; depends on the surrounding glazing
Glass panel size	236mm (height) x 2x160mm (320mm, width)
Power	Typical, 20W, abs. max 36W
Temperature	-60 °C to +85 °C
Warranty	3 months; not covering lamination process or laminated product

Ordering Information:

Product	Part number	Features
ELT144.72.210-07NC	TBD	glass, FPCs and driving electronics