Automotive

Visual & Display Technologies

With the industry incorporating ever more driver information through advanced driver assistance systems together with a car brand's need to create a unique and accessible user-interface, displays have a key role to play in the future of the cockpit design.

Not only are there new possibilities for curved and flexible displays through exciting innovative optical materials but also augmented reality and head-up displays are becoming feasible realities.

What are the key industry trends today?

TFT-Liquid Crystal Display (LCD)

Organic Light Emitting Diode (OLED)

Scanned Laser HUD

Key Features

LCD used in automotive displays where contrast and high- quality color demand was less

LCD long life, low power consumption and high quality imaging favor them in the automobiles

In low ambient conditions OLED achieve higher contrast than LCD

Thinner than LCD and offer wider viewing angles with faster response time

High cost restricts acceptance

Brightness, contrast, good image quality

Less power consumption

Laser light is also polarised which is necessary for reflection

High cost restricts its acceptance in the current market situation

Market Information

Actively used in the market

Most of the OEMs use this technology

Used in ICD HUD

LED Backlit required

Emerging market

BMW, Lexus RX are the OEMs using this technology

Used in ICD, HUD & Headlights

Backlit Not required

Emerging market

Jaguar Land Rover uses this technology

Used in HUD

Backlit not required

"Though OLED possesses several advantages over LCD-TFT displays its market acceptance is curtailed due to high cost."

Source: HMI Trends 2015/16, Frost & Sullivan