About Us

*H*ighness Microelectronics Ltd, has pioneered in offering Digital Imaging solution for over 18 years. Our motto & commitment to make and deliver the best and nothing else, has carved a unique niche for our products. We take pride in being one of the earliest organizations to have set-up Display assembly process in India. However, with changing times and increased focus on localization; *HighnessMicro* is at the heart of India's transforming semi-conductor landscape and with its expansion plans in place, *HighnessMicro* will indigenise manufacturing of TFT-LCD Modules that will resonate in every sense of being a Made in India produce.

HighnessMicro shares a common vision with our country's push and focus on developing an ecosystem for setting semiconductor fabs which in several ways has already announced India's arrival at global stage where it can challenge the supremacy of other countries.
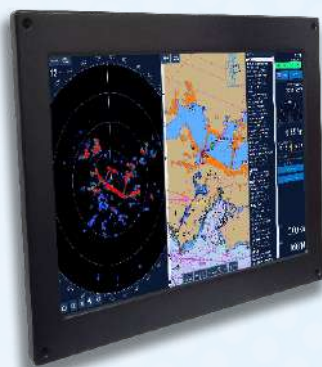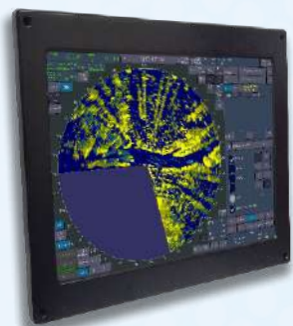
HighnessMicro envisages a clean, green and truly advanced technology coupled with efficient design capabilities to deliver displays and display products that not only meets local requirements but also has appetite to match global standards.

Our in-house Design, Develop, Manufacture, Integrate & Assemble approach makes it possible for us to offer End-to-End solutions thereby making it easier for OEMs and others alike to depend on us to deliver most critical display products.

Made In India
Made by India
Made for India
And beyond

Backlight Type	LED
Color	16.2M / 16.7M / 1.07B
Viewing Angle	178°, 178°
Operating Temp.	-10° to +70°C
Storage Temp.	-20° to +70°C
Input Interface	DP / HDMI / DVI / VGA / CVBS / 3G-SDI
Ruggedization	Copper Tape on the Edges
	EMI Mesh Shielding
Power Input	DC - 12V/24V, AC - 230V
Enclosure Type	Mild Steel / Aluminium
Mounting Type	Front Mounting / Back Mounting / VESA / Wall Mount
Touch Screen Type	Multi-Point Touch Screen
	4/5 Wire Resistive Touch Screen
Surface	Toughened Glass with IP 65 Grade
Touch Screen Bonding Type	Optical Bonding
	Tape Bonding

Size	Resolution	Brightness
10.4"	800 x 600 / 1024 x 768	350~500 cd/m²
15.0"	1024 x 768 / 1600 x 1200	350~500 cd/m²
19.0"	1280 x 1024	350~500 cd/m²
20.1"	1600 x 1200	300~600 cd/m²
21.5"	1920 x 1080	500~1000 cd/m²
23.8"	1920 x 1080	350~500 cd/m²
24"	1920 x 1200	500~1000 cd/m²
55"	1920 x 1080 / 3840 x 2160	500~1000 cd/m²

Display Controller & Embedded Board

Chipset	RTD2797P
Resolution	Up to 4096 x 2160
Interface	LVDS, V by 1
Frequency	31~130KHz
Operating Temp.	-10°~70°C
Storage Temp.	-30~70°C
Terminal Input	HDMI / DP
Terminal Output	DP Port
Power Input	DC - 12V / 24V
Other Features	PIP / PBP (L/R, Top/Bottom) / 4P(4Windows) Function

Processor Type	Rockchip RK3566 Quad Core
Processor Speed	Up to 1.8Ghz
RAM	Up to 4GB
Interface	LVDS / eDP
Storage	EMMC 32GB
Support	Mostly Popular Video & Images Decoding
USB	2.0 / 3.0
Operating System	Debian 10
I/O Port	TTL / RS232 / Debug
Network	Ethernet 10 / 100 Mbps
	Wi-Fi
	Bluetooth
Power Input	DC - 12V
Operating Temp.	-20⁰ ~ 70⁰ C
Storage Temp.	-20⁰ ~ 70⁰ C

Processor Type	Intel i3 / i5 / i7
Processor Speed	Up to 3.00 Ghz
RAM	Up to 32GB
Storage	Up to 2TB (SSD)
USB	2.0 / 3.0
I/O Port	LPT Port & Serial Port,
	MIC and Headphone
Network	Ethernet 10 / 100 Mbps
	Wi-Fi
	Bluetooth
Ruggedization	Copper Tape on the Edges
	EMI Mesh Shielding
Power Input	DC - 12V / 24V, AC - 230V
Enclosure Type	Mild Steel / Aluminium
Mounting Type	VESA / Front Mount /
	Back Mount / Wall Mount
Touch Screen Type	Multi-Point Touch Screen
	4/5 Wire Resistive Touch Screen
Surface	Toughened Glass with IP 65 Grade
Touch Screen Bonding Type	Optical Bonding
	Tape bonding

Size	Resolution	Brightness
10.4"	800 x 600 / 1024 x 768	350~500 cd/m²
12.1"	1024 x 768 / 1280 x 800	350~500 cd/m²
15.0"	1024 x 768 / 1600 x 1200	350~500 cd/m²
18.5"	1366 x 768 / 1920 x 1080	500~700 cd/m²
19.0"	1280 x 1024	350~500 cd/m²
21.5"	1920 x 1080	300~1000 cd/m²
23.8"	1920 x 1080	350~500 cd/m²

Industrial Display with Embedded Board

Processor Type	Quad Core Cortex-A17
Processor Speed	Up to 1.8Ghz
RAM	Up to 4GB
Storage	Up to 2TB (SSD)
USB	2.0
I/O Port	UART, TTL, Serial
Network	Ethernet 10 / 100 Mbps
	Wi-Fi
	Bluetooth
Ruggedization	Copper Tape on the Edges
	EMI Mesh Shielding
Power Input	DC - 12V / 24V, AC - 230V
Enclosure Type	Mild Steel / Aluminium
Mounting Type	VESA / Front Mount /
	Back Mount / Wall Mount
Touch Screen Type	Multi-Point Touch Screen
	4/5 Wire Resistive Touch Screen
Surface	Toughened Glass with IP 65 Grade
Touch Screen Bonding Type	Optical Bonding
	Tape Bonding

Size	Resolution	Brightness
10.4"	800 x 600 / 1024 x 768	350~500 cd/m²
12.1"	1024 x 768 / 1280 x 800	350~500 cd/m²
15"	1024 x 768 / 1600 x 1200	350~500 cd/m²
18.5"	1366 x 768 / 1920 x 1080	500~700 cd/m²
19"	1280 x 1024	350~500 cd/m²
21.5"	1920 x 1080	300~1000 cd/m²
23.8"	1920 x 1080	350~500 cd/m²

| Backlight Type	LED
Color	16.2M / 16.7M / 1.07B
Viewing Angle	178°, 178°
Operating Temp.	-20° to +70°C
Storage Temp.	-20° to +70°C
Input Interface	DP / HDMI / DVI / VGA / CVBS / 3G-SDI
Ruggedization	Copper Tape on the Edges
	EMI Mesh Shielding
Power Input	DC - 12V/24V, AC - 230V
Enclosure Type	Mild Steel / Aluminium
Mounting Type	VESA / Wall Mount
Touch Screen Type	Multi-Point Touch Screen
	4/5 Wire Resistive Touch Screen
Surface	Toughened Glass with IP 65 Grade
Touch Screen Bonding Type	Optical Bonding
	Tape Bonding

Size	Resolution	Brightness
10.4"	800 x 600 / 1024 x 768	350~500 cd/m²
15.0"	1024 x 768 / 1600 x 1200	350~500 cd/m²
15.6"	1024 x 768	350~500 cd/m²
18.5"	1366 x 768 / 1920 x 1080	500~700 cd/m²
21.5"	1920 x 1080	300~1000 cd/m²
23.8"	1920 x 1080	350~500 cd/m²
27"	1920 x 1080	500~900 cd/m²
32"	1920 x 1080 / 3840 x 2160	500~1000 cd/m²
43"	1920 x 1080 / 3840 x 2160	700~1000 cd/m²
55"	1920 x 1080 / 3840 x 2160	500~1000 cd/m²
65"	1920 x 1080 / 3840 x 2160	500~1000 cd/m²

Touch Monitor

Backlight Type	LED
Color	16.2M / 16.7M / 1.07B
Viewing Angle	178°, 178°
Operating Temp.	-10° to +70°C
Storage Temp.	-20° to 70°C
Input Interface	DP / HDMI / DVI / VGA
Ruggedization	Copper Tape on the Edges
	EMI Mesh Shielding
Power Input	DC - 12 / 24V, AC - 230V
Enclosure Type	Mild Steel
Mounting Type	VESA Mount
Touch Screen Type	Multi-Point Touch Screen
Touch Screen Bonding Type	Optical Bonding
	Tape Bonding

Size	Resolution	Brightness
15.6"	1920 x 1080	280~350 cd/m²
18.5"	1366 x 768 / 1920 x 1080	350~500 cd/m²
21.5"	1920 x 1080	150~300 cd/m²
23.8"	1920 x 1080	150~300 cd/m²
27"	1920 x 1080	250~300 cd/m²

Conventional Dimming | Local Dimming

Edge LED | Edge LED | Direct-lit | Full-array
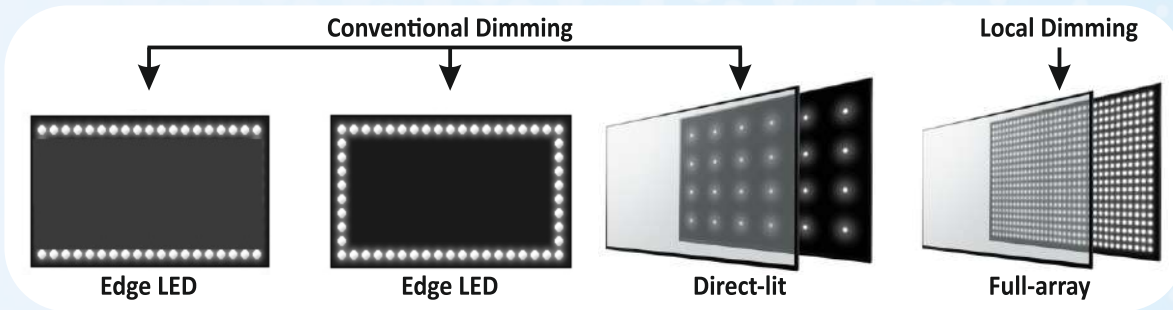
What is Local Dimming?
Local dimming is a display technology used in LED-backlit screens to improve contrast and image depth. Instead of lighting the entire screen evenly, the backlight is divided into separate zones. Each zone's brightness can be adjusted independently based on the image content.

How It Works :
• The LED backlight behind the LCD panel is split into multiple zones.
• When the image contains dark areas, the LEDs in those zones dim to produce deeper blacks.
• Bright areas are illuminated more intensely for highlights.
• This dynamic adjustment happens in real time for each frame of video.

Benefits :
• **Deeper Blacks** – Dark scenes appear more natural without a grayish haze.
• **Better Contrast** – Bright highlights stand out without washing out darker details.
• **Improved HDR** – Delivers greater depth and realism in high dynamic range content.
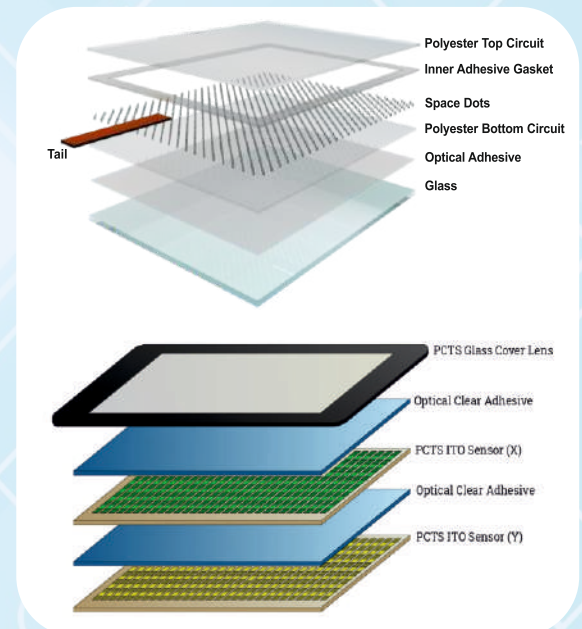• **Reduced Light Bleed** – Minimizes glow from bright objects spilling into dark areas.

Types of Touch Screen

Resistive

A **resistive touchscreen** panel has a thin metallic coating that is electrically conductive and resistive, altering the electrical current upon touch. This change records a touch event and is forwarded to the controller for processing. While resistive panels are generally more affordable, they provide only 75% clarity and are susceptible to sharp object damage. External elements like water or dust do not affect resistive touchscreen displays.

Projected Capacitive

A **capacitive touch screen** display contains a layer with electrical charges. Upon touching the screen, a minute charge is transferred to the point of contact. Sensors situated at the panel's corners measure this charge and relay the data to the controller for processing. In contrast to resistive and surface wave screens, which accept input from both fingers and styluses, capacitive touch screens are receptive solely to finger touches. These panels, known for high clarity, are also resilient to environmental factors.

Tail
Polyester Top Circuit
Inner Adhesive Gasket
Space Dots
Polyester Bottom Circuit
Optical Adhesive
Glass

PCTS Glass Cover Lens
Optical Clear Adhesive
PCTS ITO Sensor (X)
Optical Clear Adhesive
PCTS ITO Sensor (Y)

# Transparent Display

OLED Transparent Display

It is a Transparent Color Active Matrix Organic Light Emitting Diode Display (T-OLED). The matrix employs Oxide Thin Film Transistor as the active element. It is a Top emission display type. It is intended to Public Display where transparency, high color gamut, high color depth and fast response time are important.

Features of OLED Transparent Display :

• With OLED inherent characteristics, high contrast, wide color gamut, etc.;
• Display content can be seen in both positive and negative directions;
• Non-luminous pixels show high transparency, which can realize virtual reality superposition display;
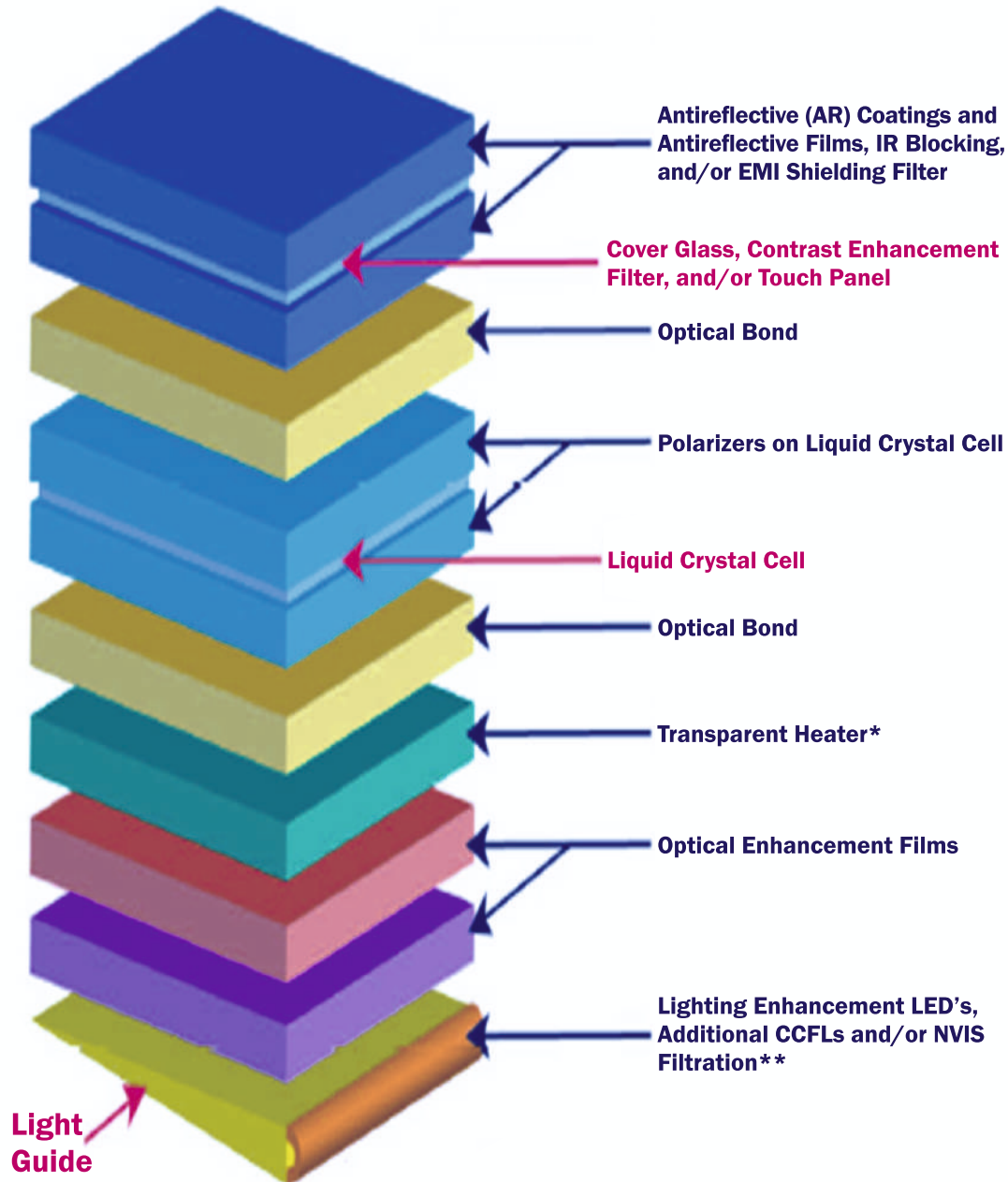• Almost borderless

LCD Resizing
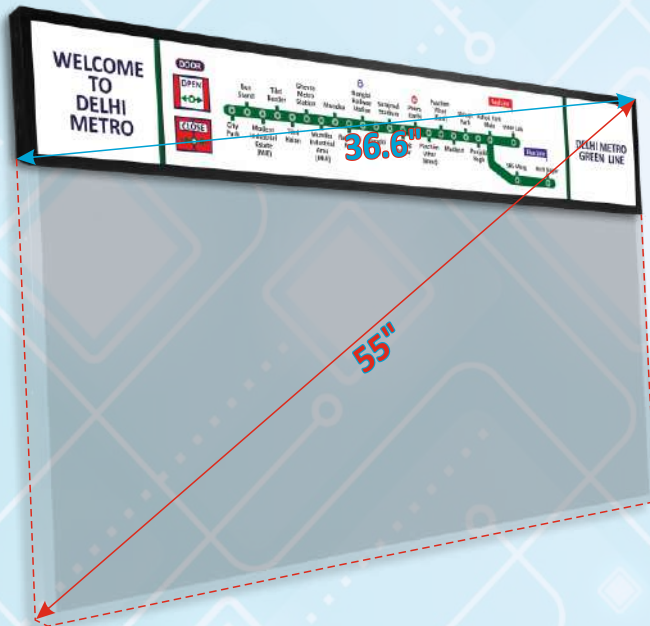
Resizing LCD technology transforms a standard LCD into a **custom ultra-wide format** by precisely cutting the glass, circuits, and polarizers — without sacrificing performance. This innovation allows **unique aspect ratios** for modern signage, transportation, kiosks, and industrial applications.

Key Features :

• **Custom Aspect Ratios** – Create ultra-wide formats like 16:4.5 or 16:2.6.
• **Sunlight Readable** – Brightness from 1,000 to 3,000 nits for clear visibility outdoors.
• **Industrial-Grade Durability** – 70,000+ hour MTBF, wide temperature range, shock resistance.
• **Energy Efficient** – LED backlighting with low power consumption.
• **Vivid & Crisp** – High contrast ratio for sharp text and images.
• **24/7 Operation** – Designed for continuous use in demanding environments.

Display Enhancement Configurations

Antireflective (AR) Coatings and Antireflective Films, IR Blocking, and/or EMI Shielding Filter

Cover Glass, Contrast Enhancement Filter, and/or Touch Panel

Optical Bond

Polarizers on Liquid Crystal Cell

Liquid Crystal Cell

Optical Bond

Transparent Heater*

Optical Enhancement Films

Lighting Enhancement LED's, Additional CCFLs and/or NVIS Filtration**

Light Guide

*A Transparent heater can also be located on the front of an LCD or the back of a touch screen.
**NVIS Filter can be located on the front of an LCD (absorptive type only).

Display Enhancement Solutions

EMI-MESH :
As part of *HIGHNESS* Display-Enhancement solutions, EMI-Mesh with silver-plated or copper-taped edges as busbars and attenuation levels of 30, 45 and 60dB in customized sizes offer dependable shielding against Electro-Magnetic Interference. These can be either Tape or Optically-Bonded on the Display surface.

OPTICAL-BONDING :
Visibility under Direct or Ambient Sunlight can be very challenging, but with *HIGHNESS* Optical Bonding solutions the gap between the Display and top cover (whether a glass or touch screen) is filed with specialized UV adhesive that reduces light reflection by up to 90% and thereby enhancing the outdoor use ability of the Display by a great deal.

TRANSPARENT THERMAL HEATERS :
HIGHNESS offers conductive glass as Transparent Thermal Heaters that can be integrated with the displays to widen their Operating Temperature to as low as -40° C.
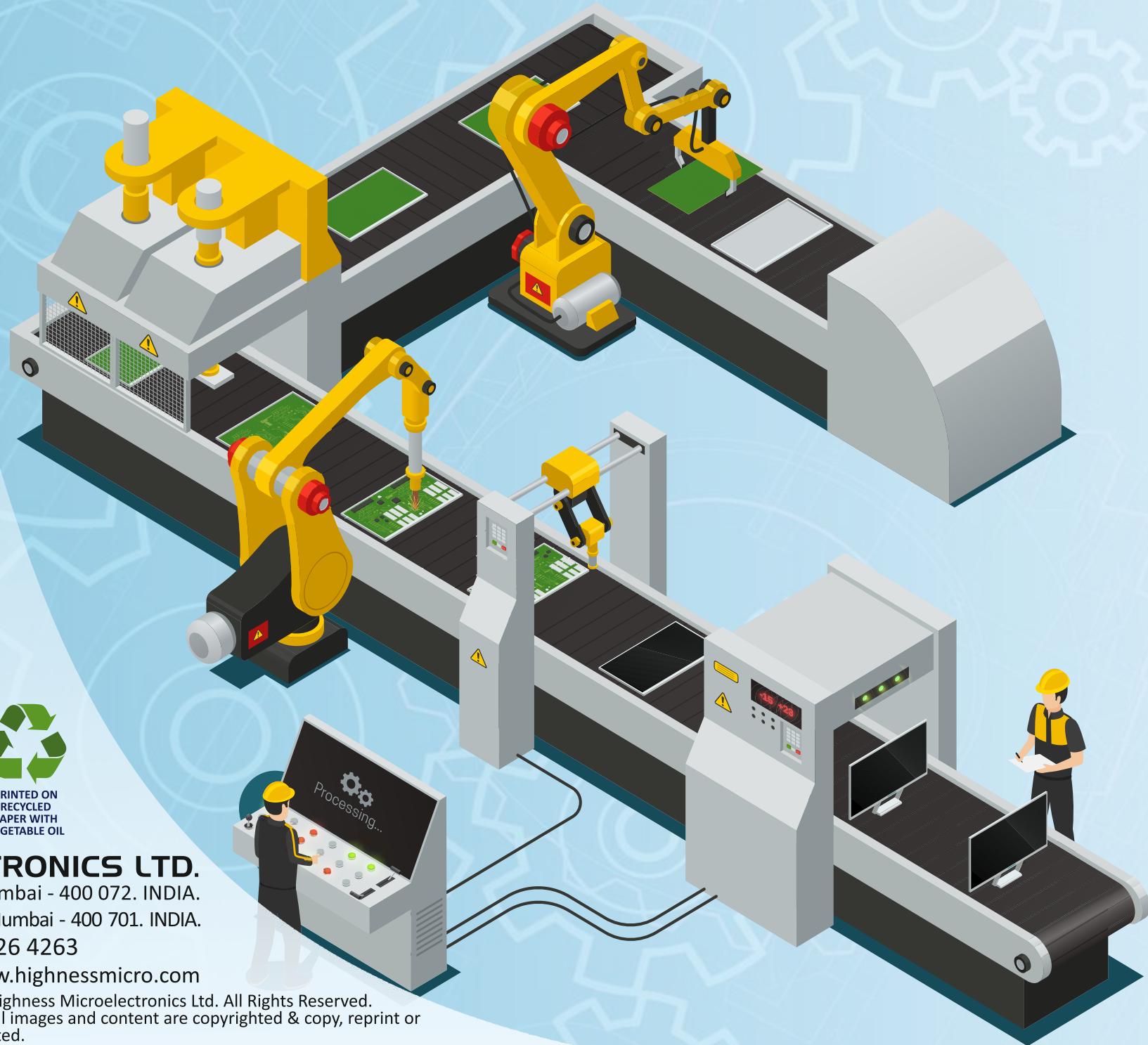
AG / AR / AFP COATING :
Anti-Glare (AG), Anti-Reflective (AR) and Anti-Finger Print (AFP) coatings offer added advantage and makes the Display feature-rich. Furthermore, Chemically Toughened Glass of up to 7H Hardness make the Displays secure, vandal and scratch-proof. Customized sizes and Retrofit options make is easy for designers to integrate our solutions

WEBSITE

BROCHURE

HIGHNESS
One of a kind

MAKE IN INDIA
Green Promise
QUALITY CERTIFIED 100%

PRINTED ON RECYCLED PAPER WITH VEGETABLE OIL

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