CDS GUIDE

NEXT-GEN DISPLAY SOLUTIONS FOR HARSH ENVIRONMENTS

GAS & OIL ~ ATEX & IECEX ~ MARINE ECDIS
MILITARY ~ MEDICAL ~ VEHICLE SOLUTIONS

- EMBEDDED SYSTEMS
- INDUSTRIAL MONITORS
- ZERO BEZEL MONITORS
- STRETCHED SCREENS
- WATER RESISTANT
- FANLESS PANEL PCS
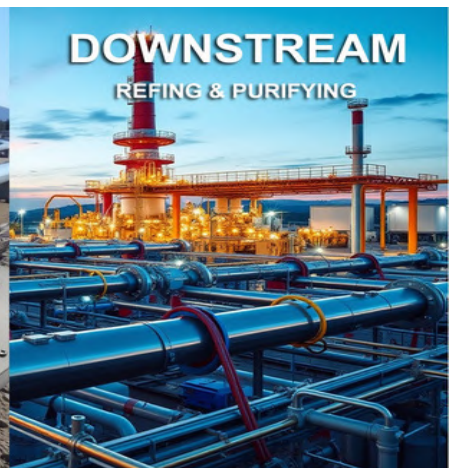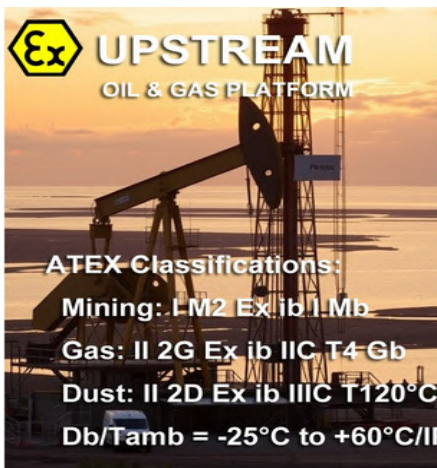- SMART AI

"The Clear Choice for Display Solutions"

CDS

Crystal Display Systems Ltd

Industrial Monitors and Panel PC ATEX Zone 2

Crystal Display Systems introduces ATEX monitor and Panel PC, with high-bright 1000nits multi-touch screen. Compliant to Class I Div 2, Class I Zone 2 areas with Ethernet and WiFi as standard and a choice of operating voltages. Compliance IEC 60079-0, IEC 60079-11, and IEC 60079-15 Features:

- Rugged and compact monitor
- Sunlight readable and UV protective LCD displays
- Compliant to IEC 60079-0, IEC 60079-11, and IEC 60079-15
- Size 5.7" to 85" LCD monitor and panel PC
- Latest generation Intel CPU
- Projective Capacitive Touchscreen (PCT) with multi-touch

UPSTREAM
OIL & GAS PLATFORM

ATEX Classifications:
Mining: I M2 Ex ib I Mb
Gas: II 2G Ex ib IIC T4 Gb
Dust: II 2D Ex ib IIIC T120°C
Db/Tamb = -25°C to +60°C/IP66 IP67 IP68

MIDSTREAM
OIL & GAS TRANSFER

DOWNSTREAM
REFING & PURIFYING

- High Brightness 1500nits for outdoor application
- Wide -20°C to +60°C operating temperature range as standard
- VESA, Yoke and Panel Mount Options
- Choice of operating voltages
- Remote RS-232 Control
- Ethernet 10/100/1000 Mbit/s and Wi-Fi as standard

- Ingress protected to IP66/NEMA 4X
- Shock in accordance with BS EN60068-2-27:2009
- Vibration in accordance with BS EN60068-2-6:2008
- Windows 11 Enterprise LTSB
- Designed for field maintainability

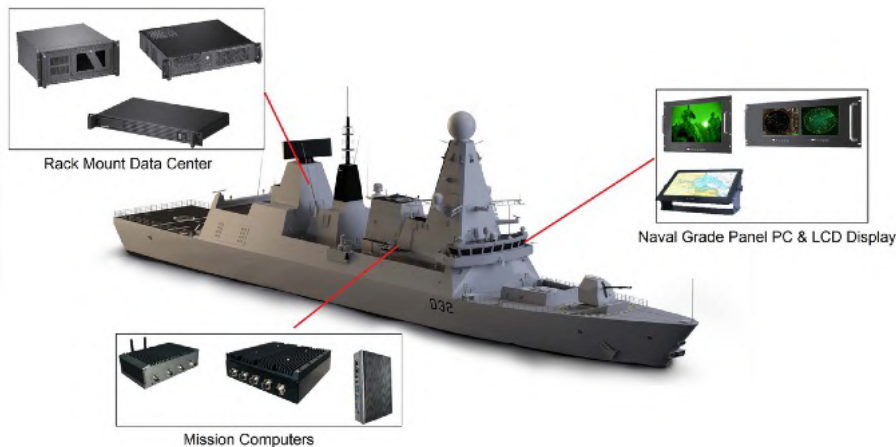## IP65 Chassis Panel PC

IP66 Chassis Panel PC

IP67 Chassis Panel PC

IP67 Fanless Box PC

Naval vessels like submarines, warships, and destroyers require specialized computing and display solutions due to their demanding environments. Crystal Display Systems provides fully customized, rugged panel PCs, fanless box PCs, rack mount servers, and LCD displays specifically designed for naval applications.

Built for the Harshest Environments, Crystal Display Systems' marine-grade products feature aluminum enclosures that offer exceptional durability. They are built to withstand the toughest conditions, boasting IP65 front water resistance and IP54 back protection, making them water-resistant, dustproof, and anti-corrosion. These features are crucial for reliable operation in the challenging maritime setting.

Rack Mount Data Center

Naval Grade Panel PC & LCD Display

Mission Computers

Flush Mount

Marine grade monitor with flush mount solution

Available Size

4 : 3	6.5" 8.4" 9.7" 10.4" 12.1" 15" 17" 19" 21.3" 23.1"	16 : 9	12.1" 15.6" 17" 18.5" 19" 21.5" 22" 24"

Stainless Chassis

Stainless housing without brilliant outlook

Available Size

4 : 3	6.5" 8.4" 9.7" 10.4" 12.1" 15" 17" 19" 21.3" 23.1"	16 : 9	12.1" 15.6" 17" 18.5" 19" 21.5" 22" 24"

Marine Grade Chassis

Marine grade metal housing without powder coating

Available Size

4 : 3	6.5" 8.4" 9.7" 10.4" 12.1" 15" 17" 19" 21.3" 23.1"	16 : 9	12.1" 15.6" 17" 18.5" 19" 21.5" 22" 24"

Full IP66, Stainless

Stainless IP66 housing fit for harsh environment

Available Size

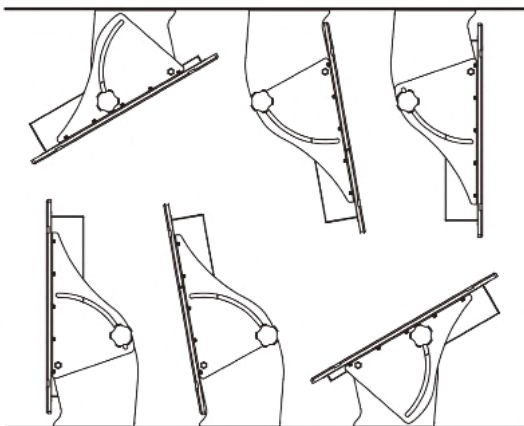| 4 : 3	6.5" 8.4" 9.7" 10.4" 12.1" 15" 17" 19" 21.3" 23.1"	16 : 9	12.1" 15.6" 17" 18.5" 19" 21.5" 22" 24"

Marine ECDIS

ECDIS displays (Electronic Chart Display and Information System) are a critical component in marine navigation, and their calibration is paramount. Given that ECDIS is among the most stringent applications for display technology, ensuring monitors precisely reproduce the colour characteristics mandated by relevant standards is absolutely vital.

Features

- Wide dimming adjusting through PWM control
- 10mm Aluminium, Flush Mount front Bezel
- With IP65 front and IP54 rear cabinet
- Housing with powder coating design
- Anti Salt / Anti Corrosion
- Protected glass
- Isolated 9~36VDC wide voltage input
- Anti-Shock and Vibration enhanced
- Removable Stand Wide
- Viewing angle Adjustable

Wide Temperature Solution

For extreme outdoor applications like those in military or marine settings, a resilient LCD display solution is crucial. These environments subject displays to intense conditions, including direct sunlight that can elevate surface temperatures to +55°C or +60°C, alongside considerable temperature shifts. The combination of waterproofing needs, internal heat generation, and solar heating creates a profoundly challenging environment for LCD monitors and PCs. Addressing these issues, Crystal Display Systems delivers rugged LCD displays and PC solutions engineered to thrive in such extreme conditions, often accommodating temperatures from -30°C to +60°C or even wider extremes.

Optional Mounting Solution
Ceiling mount

Ceiling mount

Night Vision Imaging Systems (NVIS) have become an essential standard for the majority of military operations. With the evolving nature of the battlefield, the demand for LCDs compatible with NVIS technology is increasing. Additionally, these systems offer robust performance with a broad temperature tolerance from -20°C to +70°C and a versatile 9V~36V DC isolated power input.

CDS's NVIS function boasts several crucial features. These displays offer a versatile brightness range, from full illumination to nearly zero nits, ensuring adaptability in diverse environments. They also provide the flexibility to operate independently in either normal LCD mode or NVIS mode as conditions demand. Furthermore, these displays are fully compliant with Type I, Class B NVIS standards.

MIL-D38999 Aerospace

- Corrosion resistant olive drab cadmium
- Plate aluminium (composite)
- EMI Shielding −50 dB@10
- 500 hour salt spray
- Temperature range of -65 to 200
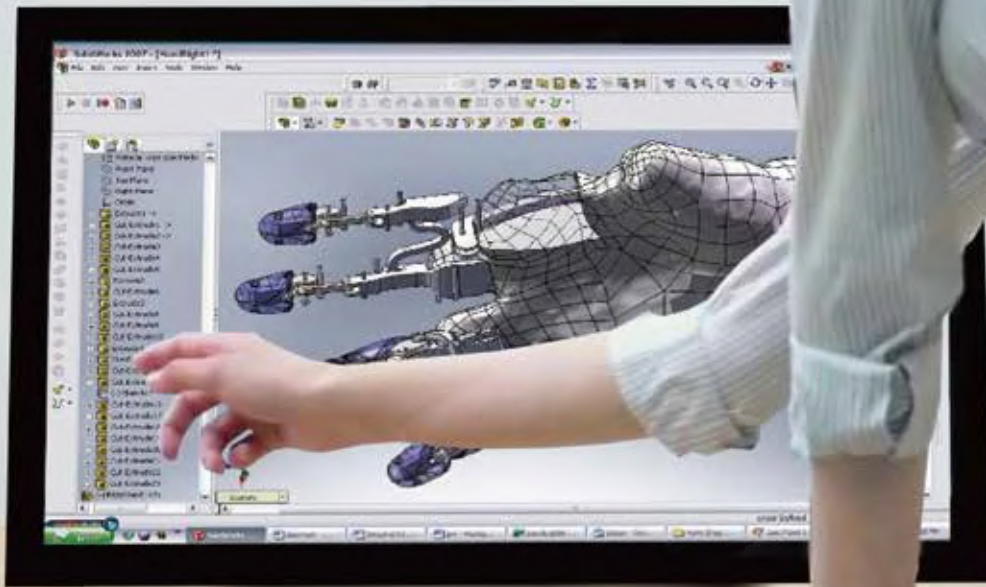
MIL-26482

- Aluminium housing
- Inline and bulkhead mounting
- EMI filter protection styles
- Quick disconnect
- Temperature range -55 to 125

M12 Metal Connectors

- Environmentally Sealed
- Multi-pin circular connector
- IP66 Metal Housing
- Pin: Copper Alloy, Gold Plated
- Temperature range of -20 to 80

MEDICAL

Crystal Display Systems offers a range of large, ultra-high-definition LCD monitors, perfect for video and graphics professionals who need top-tier visual performance. Our 27-inch, 32-inch, 42-inch, 55-inch, 65-inch, 75-inch, and 85-inch 4K2K resolution monitors are designed to meet the growing demand for large-sized viewing with incredible clarity.

Our 4K2K monitors boast a wide 178-degree viewing angle, ensuring a consistent and vibrant picture no matter where you're seated. Connectivity is a breeze thanks to HDMI compatibility, allowing for a single-cable PC connection that keeps your workspace tidy. Experience unparalleled color precision, with each hue rendered with richness and vibrancy, bringing every detail to life.

MEDICAL DISPLAY
4K2K ultra resolution(3840 x 2160) for medical application 27", 32" ... models available

Vehicle Solutions

A team of experts from the Society of Automotive Engineers (SAE) has developed a set of standards that define how electronic devices within a vehicle communicate by sending and receiving messages and commands. Known as SAE J1939 and its related documents, these guidelines have become widely adopted and trusted across the automotive industry.

ISOBUS

ISOBUS refers to the J1939-based ISO standard that defines CAN-based higher-level communication protocols for agricultural mobile machinery. It enables seamless communication between tractors and implements, allowing all implements to be controlled through a single Human-Machine Interface (HMI) device, known as the Virtual Terminal.

Vehicle Computer

The Vehicle Computer Series is a high-performance, fanless system designed for in-vehicle use in trucks, buses, trains, and taxis. This latest generation of vehicle computers features a range of I/O interfaces, allowing connectivity to various in-vehicle systems. Powered by the latest low-power, high-performance 3rd Generation Core i7/i5/i3 processors, it supports up to 8GB of system memory and offers up to four optional COM ports (3x RS-232 and 1x RS-485).

Vehicle Driver Display

Vehicle Passenger Display

Features

- Rugged construction ensures exceptional stability
- LCD meets sunlight readability for navigation and transportation systems
- Multiple mounting options
- Technical support for hardware screens, monitors, controllers, peripherals including troubleshooting procedures and general system issues
- Customer service and sales support help with product selection, order management, and warranty status

Features

In recent years, information displays have become increasingly common in bus transportation, serving as an effective tool for managing passenger flow. Digital signage allows crucial information to be delivered to passengers in real time. At bus stops, passengers can view arrival times through digital displays, while also receiving additional information and advertisements during their wait.

Shock Test Method

Test method : Reference to MIL-STD-810F

Notice 3, 2003, Method 516.5 Testing

Procedures I, Category 20-Ground vehicles-ground mobile.

Table 514.5C-VII, Figure 514.5C-3

Composite wheel vehicle vibration exposures

Sample Condition: Operating

Wave form: Random

Frequency: 5~500 Hz

Impact acceleration: 1.62 & 2.05 & 2.20 grams

Duration: 1 hour/axis

The Latest AI Server Rack

Crystal Display Systems has unveiled its latest AI server rack, the RMBC401-W680, which can be optionally equipped with NVIDIA's advanced A100, H100, or L40S GPUs. This new server rack is specifically engineered to address the increasing demands of AI and machine learning applications, delivering superior performance and efficiency.
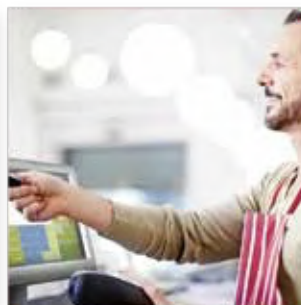

Quick & Easy DIY
replaceable

Transportation
BOX PC

Digital
Signage

POS

Gaming

Latest AIoT edge computing

Construction	Aluminium extrusion
CPU	Intel® Celeron J6412
System Memory	DDR4-2666/2933/3200MHz
Chipset	Intel® Elkhart Lake
OS Support	Windows 10 / 11
System I/O Outlet	2 x HDMI, 3 x USB 3.0, 3 x USB 2.0, 2 x LAN

Construction	Aluminium extrusion
CPU	Intel® J6412 Processor
System Memory	DDR4-2666/2933/3200MHz
Chipset	Intel® Elkhart Lake
OS Support	Windows 10 / 11
System I/O Outlet	1 x HDMI, 2 x USB , 1 x LAN

Construction	Aluminium extrusion & heavy duty steel
CPU	Intel® 11th Gen, i3, i5, i7 Processors
System Memory	2 x DDR4-3200 MHz
Chipset	Intel® Tiger Lake
OS Support	Windows 10 / 11
System I/O Outlet	2 x HDMI, 6 x USB 3.0, 2 x LAN, 1 x Lineout

Construction	Aluminium extrusion
CPU	Intel® 11th Gen, i3, i5, i7 Processors
System Memory	2 x DDR4-3200 MHz
Chipset	Intel® Tiger Lake
OS Support	Windows 10 / 11
System I/O Outlet	1 x HDMI, 1 x RJ45 (Gigabit LAN), 2 x USB

Construction	Aluminium extrusion IP Rated
CPU	Intel® J1900 and Core i5/i7
System Memory	DDR4-2666/2933/3200 MHz
OS Support	Windows 10 / 11

Construction	Aluminium extrusion
CPU	Intel® Celeron J6412
System Memory	DDR4-2666/2933/3200MHz
Chipset	Intel® Elkhart Lake
OS Support	Windows 10 / 11
System I/O Outlet	1 x HDMI, 2 x USB, 1 LAN

Industrial Monitors

With its sleek design and compact footprint, this monitor helps maximize desk space while enhancing the overall aesthetic. It delivers sharp, crystal-clear images and text, offering a slim, lightweight build with fast response times. The monitor supports various manufacturing standards and is compatible with a wide range of applications.

Thin design provides more application space and offers a stylish look for public venues
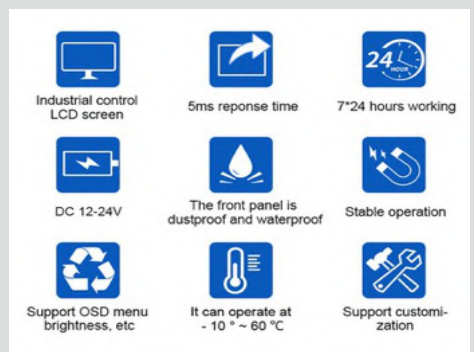

True Flat surface easy to clean

PCAP multi touch

Monitor IP65 front, resistant to water dust and grease
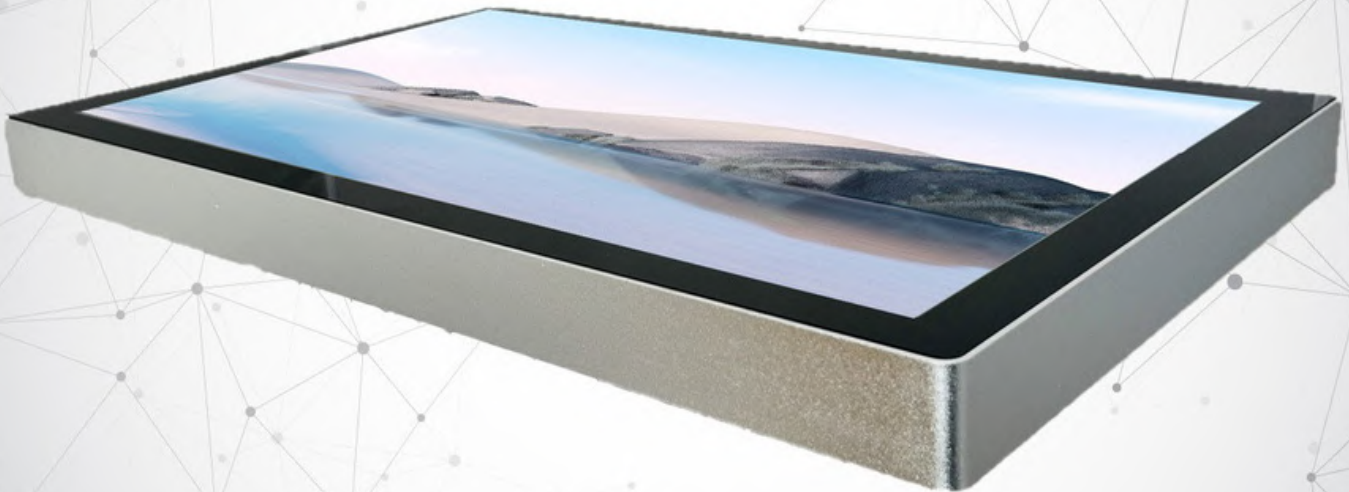

Wall mounting VESA compliant

Monitor base sizes

Size	Active Area	Native Resolution	Brightness / Contrast	Response Time	Viewing Angle	Power Consumption
1:1 Squire screen						
17"	305.28(H) x 305.28(V) mm	1920(H) x 1920(V)	350cd/m²/1000:1	≤25ms	(H)178° (V)178°	35 watt
22"	394.56(H) x 394.56(V) mm	1920(H) x 1920(V)	300cd/m²/1000:1	≤25ms	(H)178° (V)178°	111watt
26.5"	491.8(H) x 491.8(V) mm	1920(H) x 1920(V)	300cd/m²/400:1	≤35ms	(H)178° (V)178°	130 watt
33"	596.16(H) x 596.16(V) mm	1920(H) x 1920(V)	300cd/m²/500:1	≤35ms	(H)178° (V)178°	145 watt
45"	806.4(H) x 806.4(V) mm	1920(H) x 1920(V)	700cd/m²/1200:1	≤35ms	((H)178° (V)178°	145watt
4:3 Squire screen						
5.7"	115.2(H) x 86.4(V)mm	640(H) x 480(V)	400cd/m²/800:1	≤25ms	(H)160° (V)140°	8.25 watt
6.5"	132.48(H) x 99.36(V)mm	640(H) x 480(V)	400cd/m²/500:1	≤25ms	(H)140° (V)120°	9.875 watt
8.4"	170.4(H) x 128.8(V)mm	800(H) x 600(V)	350cd/m²/400:1	≤35ms	(H)140° (V)120°	8.68 watt
9.7"	196.608(H) x 147.456(V)mm	1024(H) x 768(V)	350cd/m²/500:1	≤35ms	(H)140° (V)120°	8.3 watt
10.4"	210.4(H) x 157.8 (V)mm	1024(H) x 768(V)	400cd/m²/1200:1	≤35ms	(H)176° (V)176°	9.375 watt
12.1"	246.0(H) x 184.5(V)mm	800(H) x 600(V)	250cd/m²/600:1	≤35ms	(H)140° (V)120°	21.9 watt
12.1"	245.76(H) x 184.32(V)mm	1024(H) x 768(V)	350cd/m²/700:1	≤20ms	(H)160° (V)160°	23.75 watt
15"	304.13(H) x 228.10 (V)mm	1024(H) x 768(V)	250cd/m²/500:1	≤12ms	(H)130° (V)100°	20 watt
17"	337.92(H) x 270.34(V)mm	1280(H) x 1024(V)	250cd/m²/800:1	≤5ms	(H)160° (V)160°	32.5 watt
19"	376.3(H) x 301.1(V)mm	1280(H) x 1024(V)	250cd/m²/800:1	≤5ms	(H)160° (V)160°	32.5 watt
20.1"	408(H) x 306(V) mm	1600(H) x 1200(V)	400cd/m²/800:1	≤8ms	(H)160° (V)160°	40 watt
21.3"	433.152(H) x 324.864(V)mm	2048(H) x 1536(V)	800cd/m²/1200:1	≤25ms	(H)178° (V)178°	111.25 watt
23.1"	470.4(H) x 352.8(V)mm	1600(H) x 1200(V)	400cd/m²/600:1	≤8ms	(H)160° (V)160°	117.5watt
26"	491.8(H) x 491.8(V)mm	1920(H) x 1920(V)	400cd/m²/600:1	≤8ms	(H)178° (V)178°	130.5watt
16:9 Wide screen						
7"	152.40(H) x 91.44(V)mm	800(H) x 480(V)	400cd/m²/300:1	≤16ms	(H)120° (V)100°	9.625 watt
10.1"	222.72(H) x 152.28(V)mm	1024(H) x 600(V)	200cd/m²/650:1	≤10ms	(H)90° (V)65°	8.75 watt
10.1"	216.96(H) x 135.6(V) mm	1280(H) x 800(V)	200cd/m²/500:1	≤16ms	(H)130° (V)110°	8.75 watt
10.1"	222.72(H) x 125.28(V) mm	1366(H) x 768(V)	200cd/m²/500:1	≤16ms	(H)90° (V)50°	8.25 watt
10.1"	216.81(H) x 135.5(V) mm	1920(H) x 1200(V)	350cd/m²/600:1	≤25ms	(H)160° (V)160°	8.75 watt
12.1"	261.12(H) x 163.20 (V)mm	1280(H) x 800(V)	350cd/m²/350:1	≤15ms	(H)130° (V)115°	10 watt
15.4"	331.2(H) x 207.0 (V)mm	1280(H) x 800(V)	1000cd/m²/400:1	≤16ms	(H)90° (V)65°	17 watt
15.6"	344.232(H) x193.536(V)mm	1366(H) x 768(V)	200cd/m²/500:1	≤8ms	(H)90° (V)50°	10.625 watt
17"	367.2(H) x 229.5(V)mm	1440(H) x 900(V)	1000cd/m²/800:1	≤8ms	(H)130° (V)100°	11 watt
17.3"	381.888(H) x 214.812(V) mm	1920(H) x 1080(V)	300cd/m²/500:1	≤8ms	(H)90° (V)50°	15 watt
18.5"	409.8(H) x 230.4(V)mm	1366(H) x 768(V)	250cd/m²/1000:1	≤5ms	(H)170° (V)160°	22 watt
19"	408.24(H) x 255.15(V)mm	1440(H) x 900(V)	250cd/m²/1000:1	≤5ms	(H)170° (V)160°	30 watt
21.5"	476.64(H) x 268.11(V)mm	1920(H) x 1080(V)	250cd/m²/1000:1	≤5ms	(H)170° (V)160°	26 watt
22"	473.8(H) x 296.1(V)mm	1680(H) x 1050(V)	300cd/m²/1000:1	≤5ms	(H)170° (V)160°	36 watt
24"	531.36(H) x 298.89(V)mm	1920(H) x 1080(V)	250cd/m²/1000:1	≤2ms	(H)170° (V)160°	50 watt
24"	518.4(H) x 324.0(V)mm	1920(H) x 1200(V)	300cd/m²/1000:1	≤6ms	(H)178° (V)178°	85 watt
27"	597.89(H) x 336.31(V)mm	1920(H) x 1080(V)	300cd/m²/1000:1	≤3.4ms	(H)178° (V)178°	35 watt
27"	596.74(H) x 335.66(V)mm	2560(H) x 1440(V)	350cd/m²/1000:1	≤5.5ms	(H)178° (V)178°	100.5 watt
32"	697.69(H) x 392.26(V)mm	1920(H) x 1080(V)	350cd/m²/2000:1	≤6ms	(H)178° (V)178°	130 watt
32"	698.4(H) x 392.9(V)mm	2560(H) x 1440(V)	350cd/m²/3000:1	≤6ms	(H)178° (V)178°	145 watt
34"	820.8 (H) x 361.0 (V)mm	2560(H) x 1080(V)	300cd/m²/3000:1	≤6ms	(H)178° (V)178°	175 watt
42"	930.24(H) x 523.26(V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	202 watt
46"	1018.08(H) x 572.67(V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	190 watt
50"	1101.8(H) x 622.4(V) mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	280 watt
55"	1209.6(H) x 680.4 (V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	400 watt
65"	1428.48(H) x 803.52 (V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	630 watt

Zero Bezel Series

True Flat Glass Design

- Zero Bezel, True Flat, Thin design
- IP65 Front water resistance
- PCAP Touch Monitor & Panel-PC
- Operating Vibration Test: 10 to 25Hz (X,Y,Z direction 2G 30minutes)

Food and Beverage LCD Display

Medical LCD Display

HMI Automation

Stretched Displays

Our Stretched LCD Monitors feature a unique, ultra-wide display format designed to capture the public's attention in an innovative and striking way. Also known as BAR displays, these monitors come in various sizes and aspect ratios, with options for sunlight readability and open-frame models. They are the perfect solution for applications such as digital signage, gaming, and wayfinding.

Open Frame Stretched Display

Full IP66 Stretched Display

Stretch base sizes

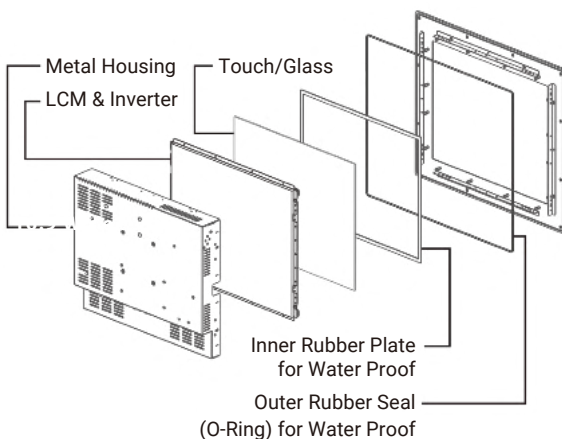| Size	Active Area	Native Resolution	Brightness / Contrast	Response Time	Viewing Angle	Power Consumption
Chassis Stretched Display						
12.3", 1/2 Cut	291.84(H) x 109.44(V)mm	1280(H) x 480(V)	300cd/m²/400:1	≤10 ms	(H)130° (V)110°	20 watt
15.1", 1/4 Cut	376.32(H) x 72.91(V)mm	1280(H) x 248(V)	300cd/m²/2000:1	≤8 ms	(H)178° (V)178°	20 watt
19", 1/3 Cut	473.76(H) x 96.44 (V)mm	1680(H) x 342(V)	300cd/m²/2000:1	≤8 ms	(H)140° (V)120°	30 watt
28", 1/3 Cut	698.3(H) x 130.9(V)mm	1920(H) x 358(V)	600cd/m²/2000:1	≤8 ms	(H)178° (V)178°	30 watt
28.5", 1/2 Cut	698.4(H) x 196.42(V) mm	1920(H) x 540(V)	1000cd/m²/5000:1	≤9 ms	(H)176° (V)176°	30 watt
37.9", 1/2 Cut	930.24(H) x 243.219(V)mm	1920(H) x 502(V)	500cd/m²/1400:1	≤5 ms	(H)178° (V)178°	100 watt
38", 1/2 Cut	930.24(H) x 260.66(V)mm	1920(H) x 538(V)	1500cd/m²/4000:1	≤8 ms	(H)176° (V)176°	100 watt
38", 1/2 Cut	930.24(H) x 276.16(V) mm	1920(H) x 570(V)	700cd/m²/400:1	≤8 ms	(H)178° (V)178°	100 watt
42", 1/3 Cut	1039.68(H)×259.92(V) mm	1920(H) x 480(V)	500cd/m²/3000:1	≤8 ms	(H)178° (V)178°	140 watt
Open Frame Stretched Display						
12.3", 1/2 Cut	291.84(H) x 109.44(V)mm	1280(H) x 480(V)	300cd/m²/400:1	≤10 ms	(H)130° (V)110°	20 watt
15.1", 1/4 Cut	376.32(H) x 72.91(V)mm	1280(H) x 248(V)	300cd/m²/2000:1	≤8 ms	(H)178° (V)178°	20 watt
19", 1/3 Cut	473.76(H) x 96.44 (V)mm	1680(H) x 342(V)	300cd/m²/2000:1	≤8 ms	(H)140° (V)120°	30 watt
28", 1/3 Cut	698.3(H) x 130.9(V)mm	1920(H) x 358(V)	600cd/m²/2000:1	≤8 ms	(H)178° (V)178°	30 watt
28.5", 1/2 Cut	698.4(H) x 196.42(V) mm	1920(H) x 540(V)	1000cd/m²/5000:1	≤9 ms	(H)176° (V)176°	30 watt
37.9", 1/2 Cut	930.24(H) x 243.219(V)mm	1920(H) x 502(V)	500cd/m²/1400:1	≤5 ms	(H)178° (V)178°	100 watt
38", 1/2 Cut	930.24(H) x 260.66(V)mm	1920(H) x 538(V)	1500cd/m²/4000:1	≤8 ms	(H)176° (V)176°	100 watt
38", 1/2 Cut	930.24(H) x 276.16(V) mm	1920(H) x 570(V)	700cd/m²/400:1	≤8 ms	(H)178° (V)178°	100 watt
42", 1/3 Cut	1039.68(H)×259.92(V) mm	1920(H) x 480(V)	500cd/m²/3000:1	≤8 ms	(H)178° (V)178°	140 watt
Full IP66 Stretched Display						
12.3", 1/2 Cut	291.84(H) x 109.44(V)mm	1280(H) x 480(V)	300cd/m²/400:1	≤10 ms	(H)130° (V)110°	20 watt
15.1", 1/4 Cut	376.32(H) x 72.91(V)mm	1280(H) x 248(V)	300cd/m²/2000:1	≤8 ms	(H)178° (V)178°	20 watt
19", 1/3 Cut	473.76(H) x 96.44 (V)mm	1680(H) x 342(V)	300cd/m²/2000:1	≤8 ms	(H)140° (V)120°	30 watt
28", 1/3 Cut	698.3(H) x 130.9(V)mm	1920(H) x 358(V)	600cd/m²/2000:1	≤8 ms	(H)178° (V)178°	30 watt
28.5", 1/2 Cut	698.4(H) x 196.42(V) mm	1920(H) x 540(V)	1000cd/m²/5000:1	≤9 ms	(H)176° (V)176°	30 watt
37.9", 1/2 Cut	930.24(H) x 243.219(V)mm	1920(H) x 502(V)	500cd/m²/1400:1	≤5 ms	(H)178° (V)178°	100 watt
38", 1/2 Cut	930.24(H) x 260.66(V)mm	1920(H) x 538(V)	1500cd/m²/4000:1	≤8 ms	(H)176° (V)176°	100 watt
38", 1/2 Cut	930.24(H) x 276.16(V) mm	1920(H) x 570(V)	700cd/m²/400:1	≤8 ms	(H)178° (V)178°	100 watt
42", 1/3 Cut	1039.68(H)×259.92(V) mm	1920(H) x 480(V)	500cd/m²/3000:1	≤8 ms	(H)178° (V)178°	140 watt

IP65 Front

The IP65-rated front enclosure safeguards the LCD monitor from everyday hazards by providing water and dust protection. With a high level of defense against rain, dirt, sleet, snow, dust, and water, it ensures that spills and debris won't damage the display.

Applications

- Industrial & factory automation
- Outdoor kiosk
- Medical equipment
- Marine on-deck display
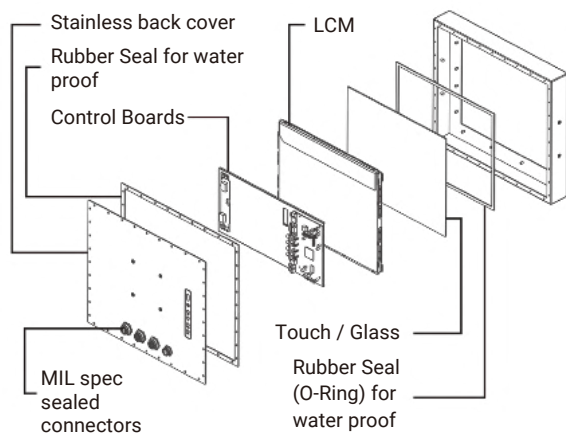- Shower room entertainment display

FULL IP66

Featuring a full stainless steel design with IP66 certification, this monitor offers total protection against external contact with internal electronics and electrical components. It also shields against harmful dust accumulation and high-pressure water jets from any direction. Available in sizes ranging from 5.7" to 85".
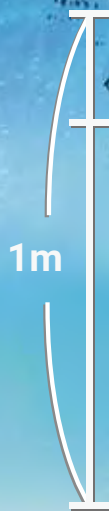
Applications

- Outdoor kiosk
- Harsh industrial environment
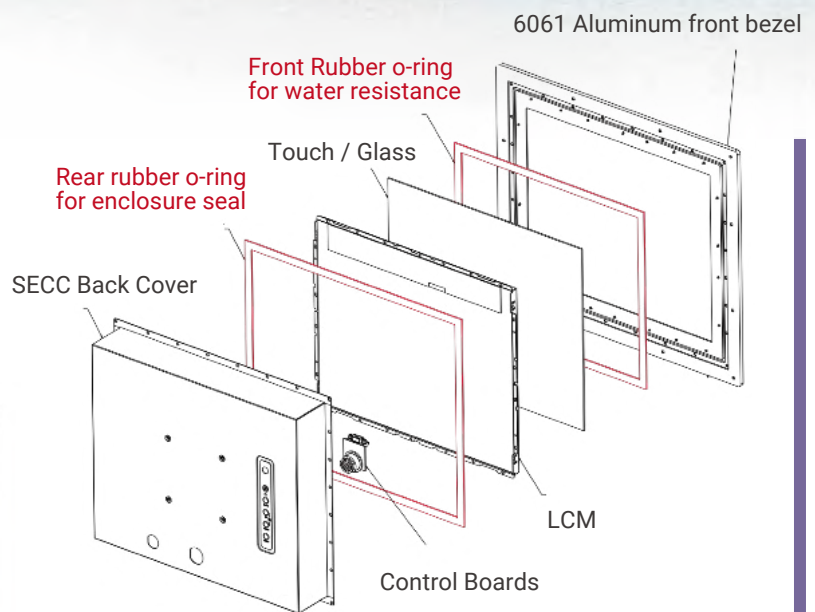- Shower room display
- Marine on-desk display

Metal Housing — Touch/Glass
LCM & Inverter
Inner Rubber Plate for Water Proof
Outer Rubber Seal (O-Ring) for Water Proof

Stainless back cover — LCM
Rubber Seal for water proof
Control Boards
Touch / Glass
MIL spec sealed connectors
Rubber Seal (O-Ring) for water proof

IP67

Totally protected against dust & the effects of temporary immersion to water between 15cm and 1m for 30 minutes.

15cm

1m

Panel Mount
IP66 Monitor

CDS offers all-around IP66 protection with powder coating showing mechanical stability and reliability. Screen size available from 10.4"~24".

6061 Aluminum front bezel

Front Rubber o-ring for water resistance

Touch / Glass

Rear rubber o-ring for enclosure seal

SECC Back Cover

LCM

Control Boards

Rugged Enclosure with powder coating

Full IP66
Yoke Mount

Rugged mount allowing swivel movement. Umbilical cable management system to protect all the cables.

FOR INDUSTRIAL DISPLAY SOLUTIONS
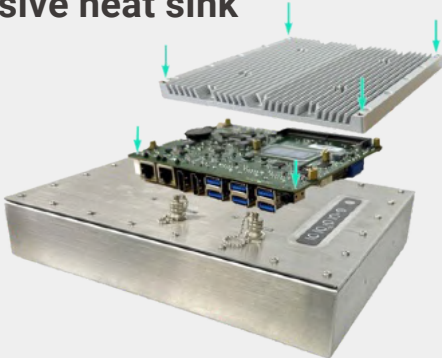
Fanless Panel PC

The CDS fanless panel PC offers exceptional customer service and serves as an all-in-one solution for interactive kiosks in locations like hotels, airports, and public transport hubs. Additionally, it's ideal for retail signage displays in shopping malls and restaurants.

The panel PC looks stunning in public spaces, particularly when installed above eye level in a vertical orientation. It's perfect for applications like digital menus in restaurants and exhibit displays at trade shows.

Running Windows 10 with testing software, the CPU remains consistently at full 100% load.

Thermal cycle testing: 30˚C / 40˚C / 50˚C / 60˚C. CDS also offers low-power Intel® Atom™ J6412 and Core i processors. These features help reduce energy consumption, lower costs, and extend the system's lifespan, ultimately reducing the total cost of ownership.

Modern designed passive heat sink

The thermal module helps by transferring internal energy to the outer heat sink.

Panel PC's with PCIe Expandable

Panel PC with PCIe expansion slots that are fully functional for many industrial fields such as automation, transportation, and food & beverage market.
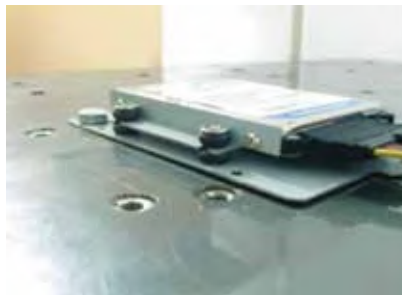

TFT LCD at panel

display Bezel Protection

1 x PCI Slot (Low profile) Panel PC with PCI expansion slots

Reduced vibration

Amplitude	0.20mm	0.25mm	0.35mm	0.50mm	0.75mm	1.00mm	1.25mm	1.50mm
55Hz	1.21g	1.52g	2.13g	3.04g	4.57g	6.09g	7.61g	9.14g
Result	V	V	V	V	V	V	X	X

- Reduced vibration to reduce case noise
- Simply attach to a standard 2.5" hard drive
- Silicon rubber construction

AIO Panel PC base sizes

Size	Active Area	Native Resolution	Brightness / Contrast	Response Time	Viewing Angle	Power Consumption
4:3 Squire screen						
5.7"	115.2(H) x 86.4(V)mm	640(H) x 480(V)	400cd/m²/800:1	≤25ms	(H)160° (V)140°	8.25 watt
6.5"	132.48(H) x 99.36(V)mm	640(H) x 480(V)	400cd/m²/500:1	≤25ms	(H)140° (V)120°	9.875 watt
8.4"	170.4(H) x 128.8(V)mm	800(H) x 600(V)	350cd/m²/400:1	≤35ms	(H)140° (V)120°	8.68 watt
9.7"	196.608(H) x 147.456(V)mm	1024(H) x 768(V)	350cd/m²/500:1	≤35ms	(H)140° (V)120°	8.3 watt
10.4"	210.4(H) x 157.8(V)mm	1024(H) x 768(V)	400cd/m²/1200:1	≤35ms	(H)176° (V)176°	9.375 watt
12.1"	246.0(H) x 184.5(V)mm	800(H) x 600(V)	250cd/m²/600:1	≤35ms	(H)140° (V)120°	21.9 watt
12.1"	245.76(H) x 184.32(V)mm	1024(H) x 768(V)	350cd/m²/700:1	≤20ms	(H)160° (V)160°	23.75 watt
15"	304.13(H) x 228.10 (V)mm	1024(H) x 768(V)	250cd/m²/500:1	≤12ms	(H)130° (V)100°	20 watt
17"	337.92(H) x 270.34(V)mm	1280(H) x 1024(V)	250cd/m²/800:1	≤5ms	(H)160° (V)160°	32.5 watt
19"	376.3(H) x 301.1(V)mm	1280(H) x 1024(V)	250cd/m²/800:1	≤5ms	(H)160° (V)160°	32.5 watt
21.3"	433.152(H) x 324.864(V)mm	2048(H) x 1536(V)	800cd/m²/1200:1	≤25ms	(H)178° (V)178°	111.25 watt
23.1"	470.4(H) x 352.8(V)mm	1600(H) x 1200(V)	400cd/m²/600:1	≤8ms	(H)160° (V)160°	117.5watt
16:9 Wide screen						
7"	152.40(H) x 91.44(V)mm	800(H) x 480(V)	400cd/m²/300:1	≤16ms	(H)120° (V)100°	9.625 watt
10.1"	222.72(H) x 152.28(V)mm	1024(H) x 600(V)	200cd/m²/650:1	≤10ms	(H)90° (V)65°	8.75 watt
10.1"	216.96(H) x 135.6(V) mm	1280(H) x 800(V)	200cd/m²/500:1	≤16ms	(H)130° (V)110°	8.75 watt
10.1"	222.72(H) x 125.28(V) mm	1366(H) x 768(V)	200cd/m²/500:1	≤16ms	(H)90° (V)50°	8.25 watt
10.1"	216.81(H) x 135.5(V) mm	1920(H) x 1200(V)	350cd/m²/600:1	≤25ms	(H)160° (V)160°	8.75 watt
12.1"	261.12(H) x 163.20 (V)mm	1280(H) x 800(V)	350cd/m²/350:1	≤15ms	(H)130° (V)115°	10 watt
15.4"	331.2(H) x 207.0 (V)mm	1280(H) x 800(V)	1000cd/m²/400:1	≤16ms	(H)90° (V)65°	17 watt
15.6"	344.232(H) x193.536(V)mm	1366(H) x 768(V)	200cd/m²/500:1	≤8ms	(H)90° (V)50°	10.625 watt
17"	367.2(H) x 229.5(V)mm	1440(H) x 900(V)	1000cd/m²/800:1	≤8ms	(H)130° (V)100°	11 watt
17.3"	381.888(H) x 214.812(V) mm	1920(H) x 1080(V)	300cd/m²/500:1	≤8ms	(H)90° (V)50°	15 watt
18.5"	409.8(H) x 230.4(V)mm	1366(H) x 768(V)	250cd/m²/1000:1	≤5ms	(H)170° (V)160°	22 watt
19"	408.24(H) x 255.15(V)mm	1440(H) x 900(V)	250cd/m²/1000:1	≤5ms	(H)170° (V)160°	30 watt
21.5"	476.64(H) x 268.11(V)mm	1920(H) x 1080(V)	250cd/m²/1000:1	≤5ms	(H)170° (V)160°	26 watt
22"	473.8(H) x 296.1(V)mm	1680(H) x 1050(V)	300cd/m²/1000:1	≤5ms	(H)170° (V)160°	36 watt
24"	531.36(H) x 298.89(V)mm	1920(H) x 1080(V)	250cd/m²/1000:1	≤2ms	(H)170° (V)160°	50 watt
24"	518.4(H) x 324.0(V)mm	1920(H) x 1200(V)	300cd/m²/1000:1	≤6ms	(H)178° (V)178°	85 watt
27"	597.89(H) x 336.31(V)mm	1920(H) x 1080(V)	300cd/m²/1000:1	≤3.4ms	(H)178° (V)178°	35 watt
27"	596.74(H) x 335.66(V)mm	2560(H) x 1440(V)	350cd/m²/1000:1	≤5.5ms	(H)178° (V)178°	100.5 watt
32"	697.69(H) x 392.26(V)mm	1920(H) x 1080(V)	350cd/m²/2000:1	≤6ms	(H)178° (V)178°	130 watt
32"	698.4(H) x 392.9(V)mm	2560(H) x 1440(V)	350cd/m²/3000:1	≤6ms	(H)178° (V)178°	145 watt
42"	930.24(H) x 523.26(V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	202 watt
46"	1018.08(H) x 572.67(V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	190 watt
50"	1101.8(H) x 622.4(V) mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	280 watt
55"	1209.6(H) x 680.4 (V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	400 watt
65"	1428.48(H) x 803.52 (V)mm	1920(H) x 1080(V)	350cd/m²/3000:1	≤8ms	(H)178° (V)178°	630 watt

x86 Fanless PC Available Size from 12" to 65"

FOR INDUSTRIAL DISPLAY SOLUTIONS

Smart AI Examples

Smart Traffic Control

- Parking Monitoring: Real-time tracking of available parking spots to ease congestion and reduce search time.
- Traffic & Pedestrian Flow: Monitoring movement patterns to optimize routes and reduce delays.
- Smart Lighting: Adaptive street lights that adjust based on weather and activity.
- Intelligent Transport Systems: Smart roads and highways with live alerts and diversions for weather, accidents, or traffic jams.

Security and Emergencies

- Perimeter Access Control: Restricts entry to secure areas and detects unauthorized presence.
- Liquid Detection: Identifies liquid leaks in data centers, warehouses, and sensitive facilities to prevent damage and corrosion.
- Radiation Monitoring: Measures radiation around nuclear facilities to issue alerts in case of leaks.
- Hazardous Gas Detection: Monitors for explosive or toxic gases in industrial sites, chemical plants, and mines to ensure safety.

Industrial Control

- M2M Applications: Automated diagnostics and remote asset management between machines.
- Indoor Air Quality: Monitoring oxygen and toxic gas levels in chemical plants to protect workers and products.
- Temperature Control: Monitoring industrial and medical refrigerators storing sensitive goods.
- Ozone Monitoring: Tracking ozone levels during meat drying processes in food production.
- Indoor Asset Tracking: Locating assets indoors using active (ZigBee) and passive (RFID/NFC) tags.
- Vehicle Diagnostics: Gathering data via CanBus to issue real-time alerts or provide driver assistance.
- Let me know if you'd like it in bullet points, infographic-friendly format, or simplified further.

eHealth

- Here's a reworded and more concise version of your text:
- Fall Detection: Support for elderly or disabled individuals living independently by detecting falls.
- Medical Freezer Monitoring: Ensuring proper storage conditions for vaccines, medications, and biological samples.
- Athlete Monitoring: Tracking vital signs in training centers and sports fields.
- Patient Monitoring: Observing patient conditions in hospitals and elder care facilities.
- UV Radiation Monitoring: Measuring UV exposure to issue warnings during high-risk hours.
- Let me know if you want this adapted for a specific use case or tone (e.g., technical, promotional, etc.).

Wireless bus controller

Wireless mall controller

Station controller

HMI+TSN (TIME SENSITIVE NETWORKING)

Integrating Human-Machine Interface (HMI) with Time-Sensitive Networking (TSN) enables synchronized, real-time industrial automation with deterministic performance. This combination improves communication reliability, responsiveness, and system interoperability in advanced manufacturing and control environments.

Key Features of HMI + TSN

1. Real-Time Data Visualization
   - Ensures low-latency and synchronized HMI updates for accurate monitoring.
   - Enables precise timing of machine status, alarms, and production
2. Deterministic Communication (IEEE 802.1Qbv, 802.1AS)
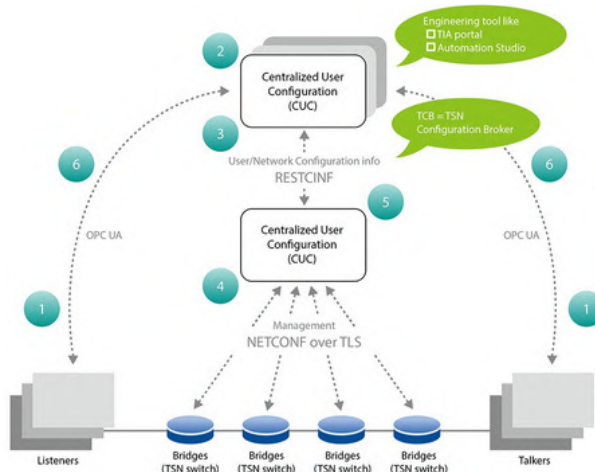   - Guarantees timing accuracy for critical HMI-to-controller interactions
   - Reduces jitter and delays, essential for safety-critical applications.
3. Seamless Interoperability
   - Works with OPC UA over TSN for standardized, vendor-independent connectivity
4. Enhanced Reliability & Redundancy (IEEE 802.1CB)
   - Frame replication and elimination prevent data loss in case of network failures
   - Ensures continuous HMI operation even in harsh industrial environments

Panel size 7"

Resolution	800 x 480
Platform	Cortex™ A 53
Storage	16GB internal
RAM	eMMC 2GB DDR3
Touch	Projective Capacitive

Panel size 10.1"

Resolution	1280 x 800
Platform	Intel® Atom J6412
Storage	128GB SSD
RAM	4GB
Touch	Projective Capacitive

Panel size 10.4"

Resolution	1024 x 768
Platform	ARM® Cortex™ A 53
Storage	16GB internal
RAM	eMMC 2GB DDR3
Touch	Projective Capacitive

Panel size 15"

Resolution	1024 x 768
Platform	Intel® Atom J6412
Storage	128GB SSD
RAM	4GB
Touch	Projective Capacitive

FOR INDUSTRIAL DISPLAY SOLUTIONS

Need any additional information?

If you need any assistance with pricing information, technical support or require any additional information our team would be more than happy to assist

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