

iHMI

interCon Systems Human-Machine Interface for Railway Industry

The iHMI is more than just a display; it is a rugged, purpose-built onboard industrial computer that seamlessly bridges the gap between operators and the Train Control and Management System (TCMS). It acts as the central hub for train operation, displaying essential real-time data such as train speed, distance, and equipment status. With its powerful Intel Core i5 quad-core processor, the iHMI goes beyond traditional functions by offering a Dual Function Display—allowing simultaneous operational diagnostics and real-time CCTV monitoring without the need for additional screens.

Designed for intuitive operation, the system allows personnel to easily perform equipment control and maintenance tests directly through the touch interface. The system ensures operational security through role-based, password-protected login modes tailored for both commercial operation and maintenance staff. Engineered for the harshest railway environments, the iHMI features a fanless, maintenance-free aluminum enclosure and superior sunlight-readable technology. Fully compliant with EN 50155 standards, it guarantees silent, reliable performance even in extreme conditions.



10.4"

TFT-LCD DISPLAY

i5 CPU

ARM (i.MX95) OPT.

INTEL 6TH GEN

-40~+70°C

OPERATING TEMP.

IP65 OPT.

(FRONT PANEL ONLY)

DUST & WATER PROTECTION

◆ Fanless Design

Heat dissipation via an aluminum enclosure eliminates the need for cooling fans – ensuring maintenance-free, silent operation.

◆ Dual Function Display

By integrating train information and CCTV feeds into a single screen, the display eliminates the need for additional hardware, maximizing limited cabin space and reducing overall costs.

◆ Fully Customizable

Display size, touch panel type, input voltage, and external interfaces are fully configurable to your requirements.

◆ Wide Operating Temperature

Operates reliably from -40°C to +70°C, ensuring stable performance in extreme climates.

◆ Railway-Grade Reliability

Fully compliant with EN 50155 for railway rolling stock, with proven resistance to shock, vibration, and power interruptions.

◆ Sunlight-Readable Display

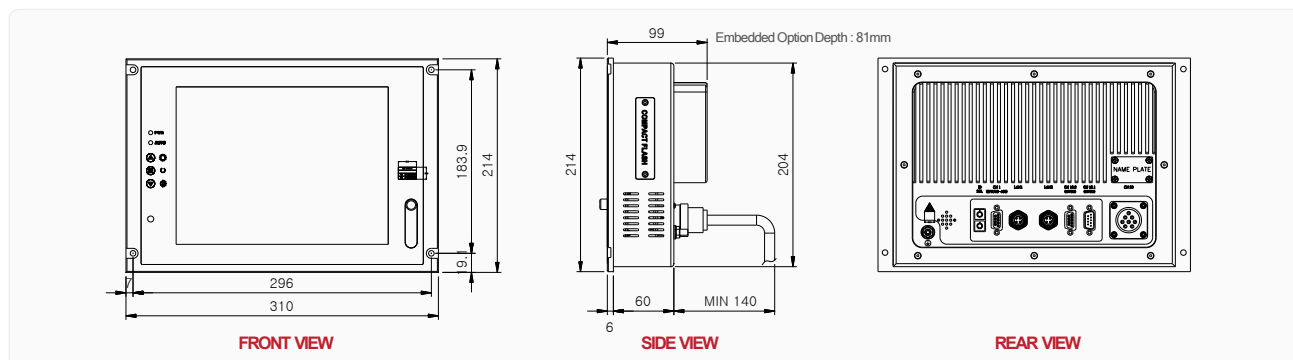
High-brightness 600 cd/m² panel ensures clear visibility even under direct sunlight or challenging lighting conditions.

ITEM	SPECIFICATIONS	
CPU	Intel Core i5-6442EQ (6th Gen Skylake) · 4-Core / 4-Thread · 1.9GHz (Up to 2.7GHz) · L3 Cache 6MB	Embedded CPU Module (i.MX95)
OS	Windows 10 IoT / Linux	Embedded Linux
Memory	4GB DDR4	Min. 4GB LPDDR5
Storage	32GB CFast (SATA) — Replaceable via side cover	Min. 32GB eMMC
Display	10.4" TFT-LCD · 1024×768 · 600 cd/m ² · 700:1 · 262K / 16.2M colors	12.1" TFT-LCD · 1280×800
Touch Screen	5-Wire Resistive via RS-232	Capacitive Type
Dimensions	310(W) × 214(H) × 99(D) mm · Approx. 5kg	310(W) × 214(H) × 81(D) mm
I/O Ports	RS-485 ×1 · Ethernet 100Mbps ×2	
Front Panel	LED Indicators (PWR / AUTO) · Brightness Buttons · Illuminance Sensor · USB 2.0	
Audio	Built-in Speaker Max 1W (8Ω) · Internal Buzzer	
Approvals / Compliance	EN 50155 Railway Standard	
Operating Temperature	-40 ~ +70 °C	
Power	100Vdc	

Customization Options

Display Size → 12.1" available	Touch Panel → Capacitive	Input Voltage → 24 / 37.5 / 72 / 110 Vdc	External Speaker → 5W speaker available	MVB → Available	IP65 Protection → Front panel only
--	------------------------------------	--	---	---------------------------	--

Dimensions (unit: mm)



Contact Us

TECHNICAL SALES TEAM

+82-31-218-1255
 mhryu@icsys.co.kr
 www.icsys.co.kr



HEADQUARTERS

264, Saneop-ro 155beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do, 16648 Rep. of KOREA



R&D CENTER

#1904~1909, 1912 Keumkang Penterium IT Tower, 282, Hagui-ro, Dongan-gu, Anyang-si, Gyeonggi-do, 14056 Rep. of KOREA