

ICC Dijital Endüstriyel Sistemler Ltd. Şti.



## Ürün Gami

- Endüstriyel Panel PC
- Endüstriyel Box PC
- Endüstriyel Anakart (Mainboard)
- IoT Gateway (Wifi, 3G/LTE, Lora vb.)
- IoT Boards (UP-Board)
- EN505155 Raylı Sistem Bilgisayarları
- E-Mark Araç Bilgisayarları
- Digital Signage Player
- Displat Solution
- Networks Appliances
- Endüstriyel Ethernet Switch
- Endüstriyel PoE Switch
- Endüstriyel 3G/LTE Router
- EN505155 Raylı Sistem Switch
- Metro Ethernet Switch
- Carrier Ethernet Switch
- Transponder
- Copper – Fiber Convertors
- Otomasyon Scada Yazılımı
- Enerji Yönetim ve İzleme Yazılımı
- OEE-KPI Raporlama Yazılımı

# ICC Dijital Endüstriyel Sistemler Ltd. Şti.



**AAEON**<sup>®</sup>  
an **ASUS** company



**iBASE**



**CTC**<sup>®</sup>  
union



**LITMAX** **WynMax**  
by **LITMAX**

# Raylı Sistem Uygulamaları için IBASE ITS Çözümleri

iBASE

## iBASE ITS (Intelligent Transport Solutions)

MPT Series

BYTEM Series

MRD Series

Rolling Stock



In Vehicle



Panel PC

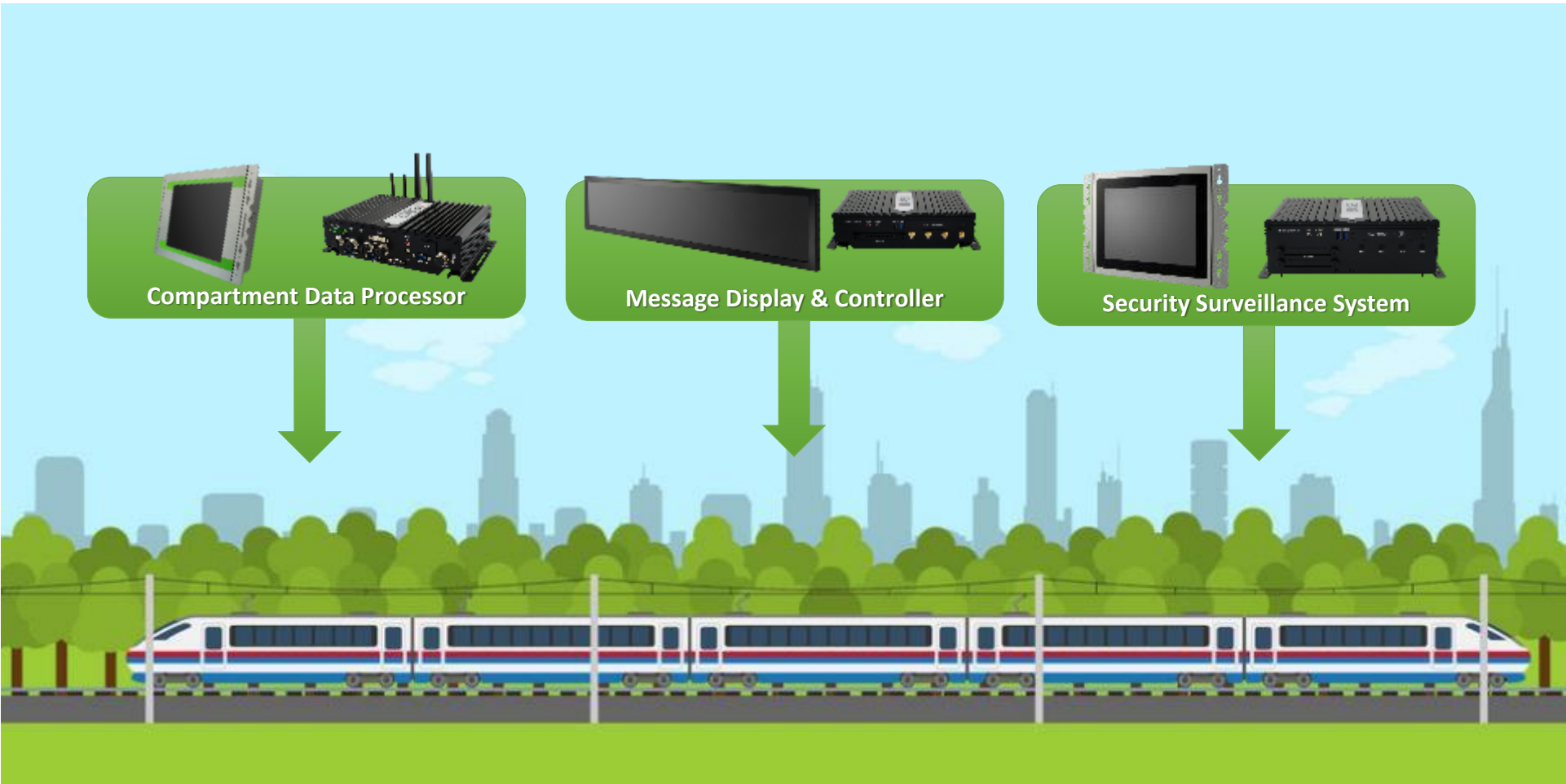


AIO Bar-Type  
Panel PC



# Raylı Sistem Uygulamaları için IBASE ITS Çözümleri

iBASE



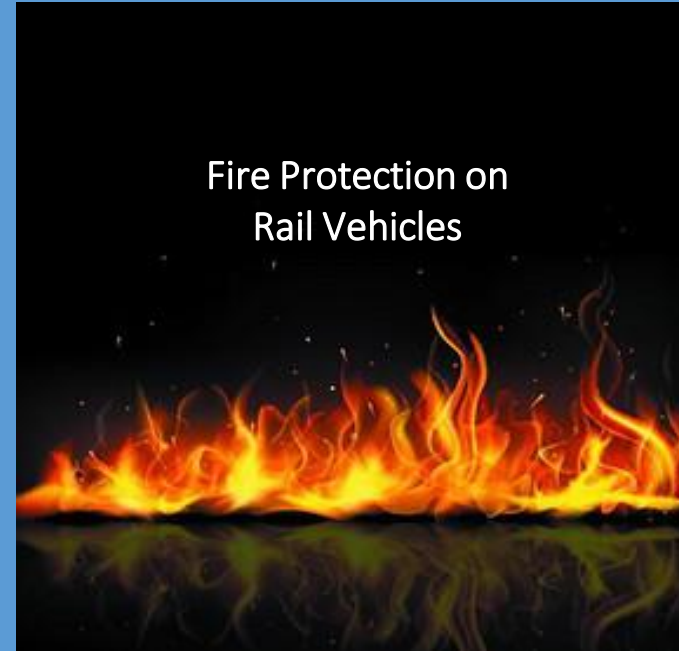
# EN50155 / EN45545 Sertifikaları

iBASE



Wide Range Operating Temperature from  
-40°C to +70°C

EN50155 Class II Certified



EN45545-2 Certified

# Lastik Tekerlekli Araçlar için IBASE ITS Çözümleri

iBASE



# E-Mark Sertifikasi

iBASE



Wide Range Operating Temperature  
from -40°C to +70°C



# MPT Serisi Fansız Sistemler

**iBASE**

**R Series** Railway Solutions



MPT-3000R



Powered by 7th/6th Gen Intel® Core™ Processors



MPT-7000R

**V Series** In-Vehicle Solutions



MPT-3000V



Powered by 7th/6th Gen Intel® Core™ Processors



MPT-7000V

# Yeni MPT Serisi Sistemler



MPT-3000RPM  
2018/Q4

- Baytrail processor
- IP67 waterproof
- EN50155:2017 certificate
- EN50155 ST4 Salt spray test passed
- E-Mark
- 24, 72 and 110V DC Input



Powered by 7th/6th Gen  
Intel® Core™ Processors

**iBASE**



MPT-7000R-QRD  
2018/Q4

- Core i3 processor (default)
- 4 x SSD drive bay
- 4 x PoE+
- NVR application
- EN50155
- E-Mark

# MPT-3000R/RHV



## Designed for Railway IoT Transportation Applications

- EN50155 Tx certified
- -40°C ~ 70°C operating temperature
- Powered by Intel® Atom™ Processor E3845
- 2 x 2G DDR3L-1333 pre-installed
- Cable-less power module (9~36VDC and 72/110VDC) with Ignition power control
- Wide-range voltage GPIO interface (24VDC)

iBASE



# MPT-3000R/RHV



## Designed for Railway IoT Transportation Applications

- Rich internal expansion, M.2(Type 1, 2 & 3) / Mini-PCIe for storage or additional wire/wireless connectivity
- Boundary-free dual SIM card design
- Removable 2.5" device bay (SSD/HDD) and CFAST socket
- Pre-sense 3-axis G-sensor for shockproof protection

iBASE



# MPT-7000R/RHV

iBASE

## Designed for Railway IoT Transportation Applications

- EN50155 Tx certified
- -40°C ~ 70°C operating temperature (system only, w/o add-on card)  
HDD: -20°C ~ 45°C (-4°F~113°F)
- Powered by Intel® Core™ i7-6600U Processor, 2.6GHz, 2C4T
- 2 x 4G DDR4-2133 pre-installed
- Cable-less power module (9~36VDC and 72/110VDC) with Ignition power control
- Wide-range voltage GPIO interface (24VDC)
- PCIe4 expansion slot



# MPT-7000R/RHV

iBASE

## Designed for Railway IoT Transportation Applications

- Rich internal expansion, M.2(Type 1, 2 & 3) / Mini-PCIe for storage or additional wire/wireless connectivity
- Boundary-free dual SIM card design
- Removable 2 x 2.5" device bay (SSD/HDD) and CFAST socket
- Pre-sense 3-axis G-sensor for shockproof protection



# MPT-7000V

iBASE

## Designed for Vehicle IoT Transportation Applications

- e/E Mark certification
- -40°C ~ 70°C operating temperature (system only, w/o add-on card)  
HDD: -20°C ~ 45°C (-4°F~113°F)
- Powered by Intel® Core™ i7-6600U Processor, 2.6GHz, 2C4T
- 2 x 4G DDR4-2133 pre-installed
- 9~36VDC wide range power input with fully car battery power control
- Wide-range voltage GPIO interface (24VDC)
- PCIe4 expansion slot



Wide Voltage GPIO

2 x GbE LAN

PCIe4 Expansion

9~36V Power Input

Replaceable Fuse

2 x USB2.0

# MPT-7000V

iBASE

## Designed for Vehicle IoT Transportation Applications

- Rich internal expansion, M.2(Type 1, 2 & 3) / Mini-PCIe for storage or additional wire/wireless connectivity
- Boundary-free dual SIM card design
- Removable 2 x 2.5" device bay (SSD/HDD) and CFAST socket
- Pre-sense 3-axis G-sensor for shockproof protection





# MPT-3000V

iBASE

## Designed for Vehicle IoT Transportation Applications

- e/E Mark certification
- -40°C ~ 70°C operating temperature
- Powered by Intel® Atom™ Processor E3845
- 2 x 2G DDR3L-1333 pre-installed
- 9~36VDC wide range power input with fully car battery power control
- Wide-range voltage GPIO interface (24VDC)



# MPT-3000V

iBASE

## Designed for Vehicle IoT Transportation Applications

- Rich internal expansion, M.2(Type 1, 2 & 3) / Mini-PCIe for storage or additional wire/wireless connectivity
- Boundary-free dual SIM card design
- Removable 2.5" device bay (SSD/HDD) and CFAST socket
- Pre-sense 3-axis G-sensor for shockproof protection



# Lastik Tekerlekli Araçlar için IBASE ITS Çözümleri

BYTEM  
Series

Rail-way  
Solutions



BYTEM-103-PC



BYTEM-123-PC



**iBASE**  
Powered by Intel®  
ATOM Processors

MRD  
Series

In-Vehicle  
/Railway  
Solutions



MRD-028-N  
MRD-028-NRA



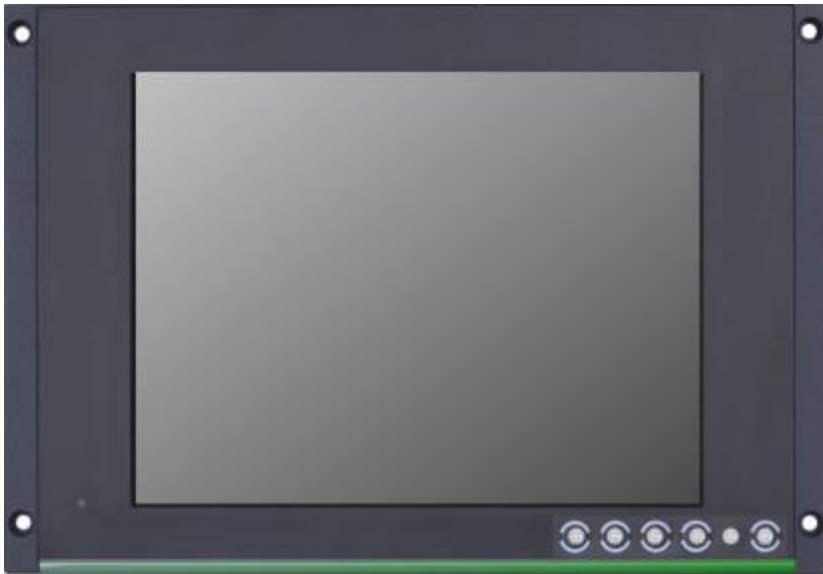
MRD-038-N  
Coming Soon



Powered by Intel®  
ATOM Processors

# Yeni MPT Serisi Panel PC

iBASE



Module Thru. PCIe x1 interface

## Basic Functions

- Apollolake platform
- 10.1" display
- Optional PCAP touch screen
- Front side control key
- 9~36VDC power
- Tx working Temp. range
- IP65 front side
- Alloy die-casting



## Features

- Proven design for rugged applications
- Integrates with commercial network
- Module options for CAN Bus, Wi-Fi, 4G LTE, and GPS
- Modularity for extensible M12 connectivity
- Altitude 3000+ meter workable.

## Features Summary

- 28 " color TFT active matrix, wide LCD, with Resolution : **1920 X 360 & Brightness : 700nits**
- Intel® Atom™ E3825 Dual Cores w/ Intel HD Graphics (Gen 7-LP) 4EU Integrated
- 1 X DDR3L-1066 SO-DIMM, Max 4GB
- **2 x M12 Gigabit LAN (Lan In/Out)**
- 1 x COM ((RS232/422/485)
- 2 x USB 2.0
- +12V DC-in power input
- **CE/FCC Class B, EN50155 (T1) & 50121-3-2 (EMC) certificate (in progress)**



(660.8 x 165.3 x 57.3mm)

# BYTEM-103-PC

iBASE

EN50155  
Certificated

Front Panel  
IP65

DC24V  
48V/72V/110V

- For Railway application
- Projected capacitive touch
- Front panel IP65 and totally IP54 waterproof protection
- 24V DC power input as standard, 48V DC, 72V DC & 110V DC for option



- 1 x M12 D code 4 pins for 10/100 LAN
- 1 x M12 4 pins for power input
- 1 x Earth Ground



- 4 key membrane keypad for  
Brightness up/down  
Screen on/off  
power on/off

# BYTEM-123-PC

iBASE

EN50155  
Certificated

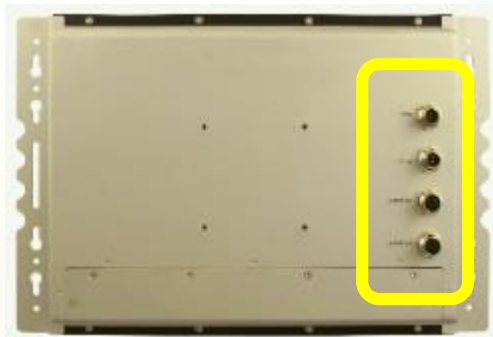
Front Panel  
IP65

DC24V  
48V/72V/110V

Optical  
bonding



- For Railway application
- Optical bonding
- 12.1" projected capacitive touch
- Front panel IP65 and totally IP54 waterproof protection
- 24V DC power input as standard, 48V DC, 72V DC & 110V DC for option




- 1 x M12 connector for power input
- 1 x M12 connector for USB2.0
- 2 x M12 D-code connector for 10/100 M LAN

- 5 key membrane keypad for  
Power  
Brightness+/Brightness  
Volume+/Volume-

# IDT Series




**IDT-1070**



9~36VDC

**IDT-2070**




9~36VDC

**IDT-6100**



Super CAP

**IDT-7104**




4 x PoE+

**IDT-1071**



72/110 VDC

**IDT-6200**



Isolation Board



# IBD Serisi


Planning

Development

M/P


iBASE

**IBD-181**




1 x RS232

**IBD-184**




4 x RS232

**IBD-189**




CAN Bus (2 Ch.)

**IBD-190**




1 x GbE LAN

**IBD-182**




2 x RS232

**IBD-188**




8 x RS232

**IBD-185**




16IN/16OUT GPIO

**IBD-192**




2 x GbE LAN

**IBD-183**



1 x RS232  
1 x RS422/485

**IBD-186**



2 x RS232  
w/ Isolation

## LITEMAX Public Information Display Solution

- Durapixel -- High Brightness LCD
- Spanpixel – Resizing Ultra Wide LCD
- Side by Side & Double Sided LCD

# Litemax Product Advantage

- PID Product Full Line-up
  - Durapixel 24" ~ 65", Spanpixl 28" ~ 56", Double Sided, Outdoor.
- Ultra High Brightness
  - Semi outdoor 1000 nits, outdoor up to 3000 nits
- Ultra Wide Screen
  - 16:3 aspect ratio and 4K1K LCD
- High Color Saturation
  - MaxRGB technology drives LCD color up to 97% NTSC
- High Resolution 4K2K
  - Fine pitch pixel, 32" ~ 65" 4K2K LCD with high brightness

# Litemax Product Advantage

- Low Power Consumption
  - High efficiency BL design, proprietary LED light bar
  - Litemax DLD5500 55" FHD **2500** nits power consumption **166W**
  - Samsung OM550 55" FHD **2500** nits power consumption **297W**
  - Comp.DS DS550X 55" FHD **1500** nits power consumption **190W**
- High Reliability
  - BL MTBF 100,000 hours
  - Trouble free 24/7 operation
- Long Term Support

# Durapixel High Brightness LCD

- ✓ Sunlight Readable
- ✓ High Brightness 1000 ~ 3000 nits
- ✓ Full Line Up Product 24" ~ 65"
- ✓ High Color Saturation 94% NTSC
- ✓ High Resolution 4K2K
- ✓ Wide Viewing Angle
- ✓ Portrait and Landscape Orientation
- ✓ 24/7 Professional Operation
- ✓ 100,000 Hours MTBF
- ✓ Low Power Consumption
- ✓ Long Term Support



# Spanpixel High Brightness LCD

- ✓ Ultra Wide Resizing LCD
- ✓ Special Aspect Ratio 16:3,16:6,8:9
- ✓ High Brightness 1000 ~ 3000 nits
- ✓ Full Line Up Product
- ✓ High Resolution 4K1K
- ✓ Wide Viewing Angle
- ✓ 24/7 Professional Operation
- ✓ 100,000 Hours MTBF
- ✓ Re-sizing LCD Patents Cross License
- ✓ Customized Specific Sizes by Request
- ✓ wide voltage option



# Spanpixel High Brightness LCD

## 28" and 29" Spanpixel

### 28" SSF2845-ENN

- Active Area: 698.4 x 129.8 mm (16:3)
- Dimension : 735.4 x 170.5 x 18 mm
- Resolution: 1920 x 357, 70 PPI
- Brightness: 1000 nits, 29.8W

### 29.3" SSF2945-ENN

- Active Area: 698.4 x 258.2 mm (16:6)
- Dimension: 735.4 x 298.9 x 18 mm
- Resolution: 1920 x 710, 70 PPI
- Brightness: 1000 nits, 48W

## Spanpixel SSF2845 for Metro



# Spanpixel High Brightness LCD

## 36.5" and 38" Spanpixel

### 36.5" SSF3655-INN

- Active Area: 919.3 x 138.8 mm (16:2.2)
- Dimension: 960 x 174.3 x 24 mm
- Resolution: 1920 x 290, 52 PPI
- Brightness: 1000 nits, 19W

### 38" SSF3805-INN

- Active Area: 919.3 x 258.5 mm (16:4.5)
- Dimension: 965 x 294.7 x 19 mm
- Resolution: 1920 x 540, 52 PPI
- Brightness: 1000 nits, 31.4W





# Spanpixel High Brightness LCD

## 48.4" and 49.5" Spanpixel

### 48.4" SSF4848-ANN

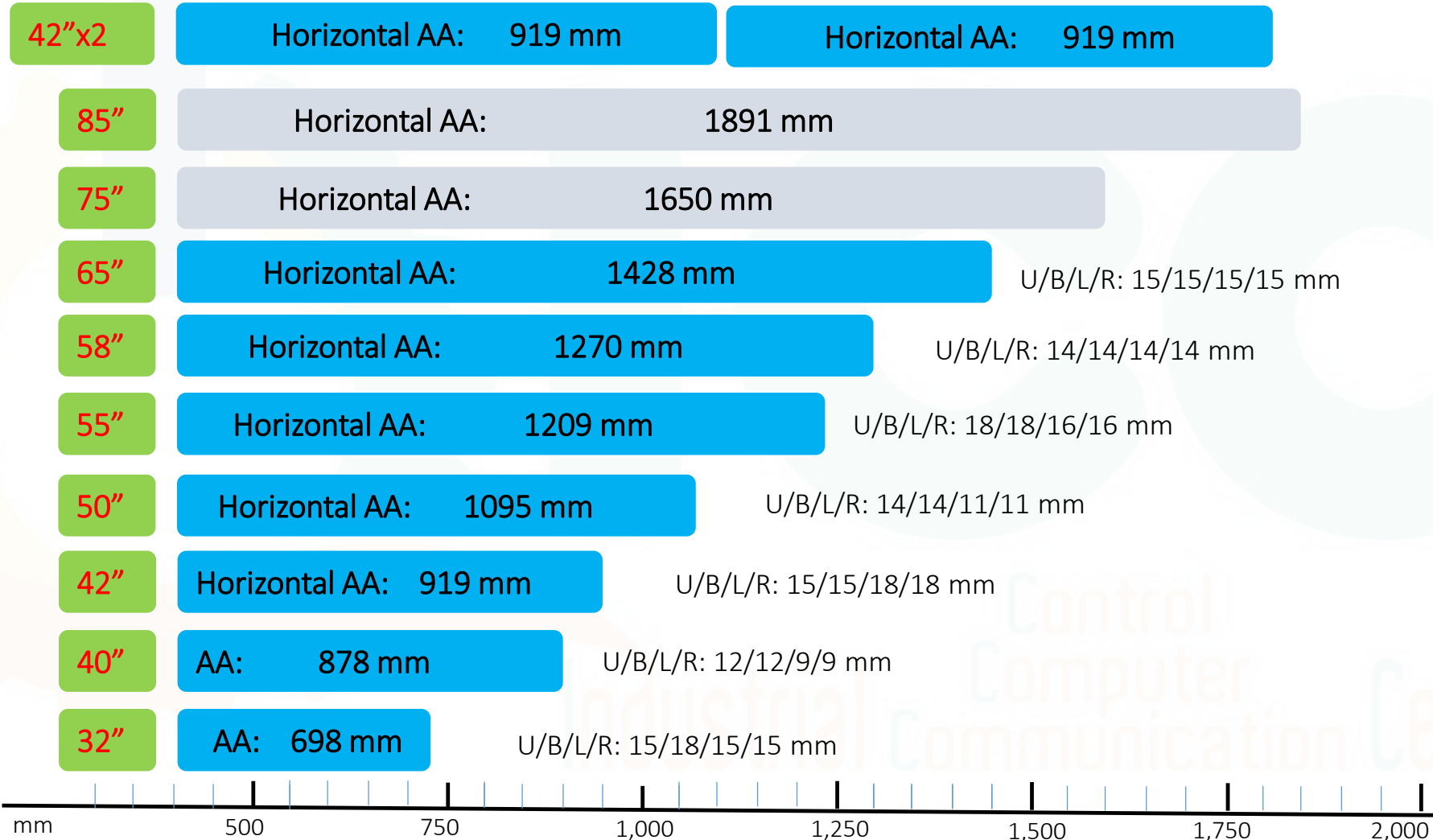
- Active Area: 1209.6 x 225 mm (16:3)
- Dimension: 1244.6 x 264.9 x 16.6 mm
- Resolution: 1920 x 358, 40 PPI
- Brightness: 1600 nits, 78W

### 49.5" SSF4956-ANN

- Active Area: 1209.6 x 338.9 mm (16:4.5)
- Dimension: 1244.6 x 378.7 x 16.6 mm
- Resolution: 1920 x 538, 40 PPI
- Brightness: 1200 nits, 93W



# Spanpixel High Brightness LCD



# Side by Side LCD



## DRM (Dynamic Route Map) display

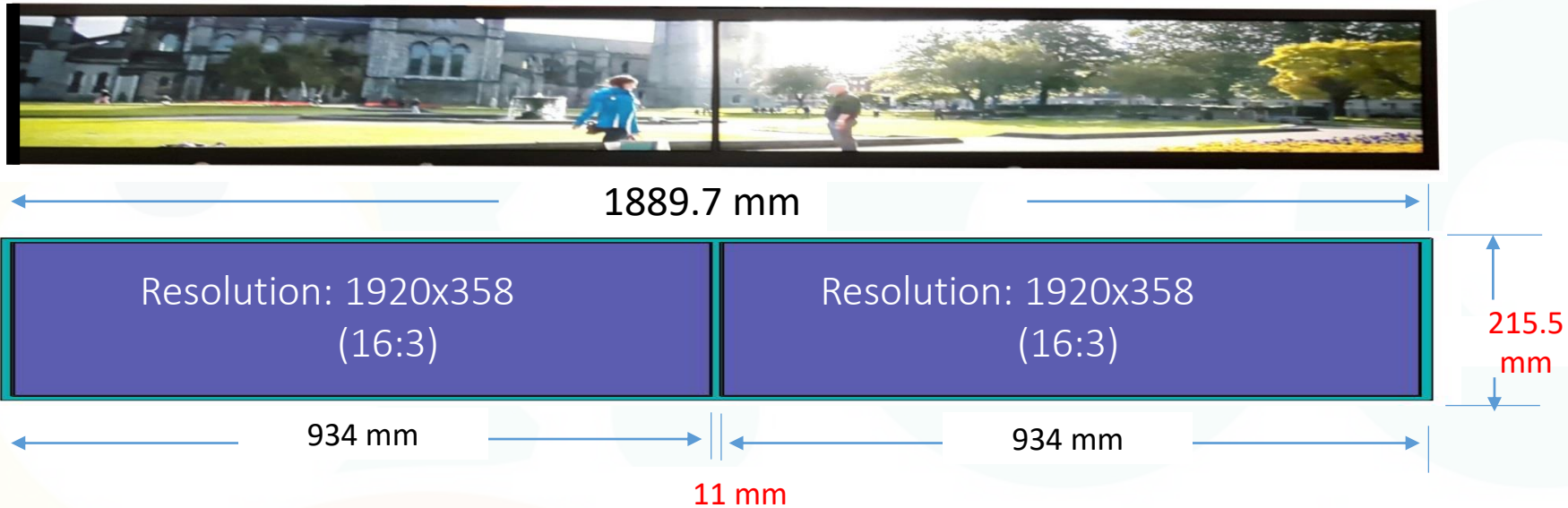
Siemens presents new metro for Riyadh

- 74 Inspire type metro vehicles
- 2 and 4-car trains designed for the region's extreme climate
- Certification in 2016



# Side by Side LCD

## SCD3685-IGS



Active Area: (919.3x 171.4) + (919.3 x 171.4) (mm)

Resolution: (1920 x 358) + (1920 x 358)

Brightness: 1000nits CR : 7600:1

Active to Active Gap: 11 mm

# Side by Side LCD

## SCD3685-IGS

### Specification:

- LCD Size : 72.7"
- Brightness : 1000 nits
- Resolution : (1920 x 358) + (1920 x 358)
- Active Area: (919.3x 171.4) + (919.3 x 171.4) mm
- Outline Dimension: 1889.7 x 215.5 x 59 mm
- AD Board: AD5827 x 2
- Video Input: VGA , DVI
- Wide Viewing Angle : 178° x 178°
- Low Power consumption : 70W

# V-Shape Double Sided

Platform Display



# V-Shape Double Sided



# V Shape Double Sided

## V Shape Double Sided LCD



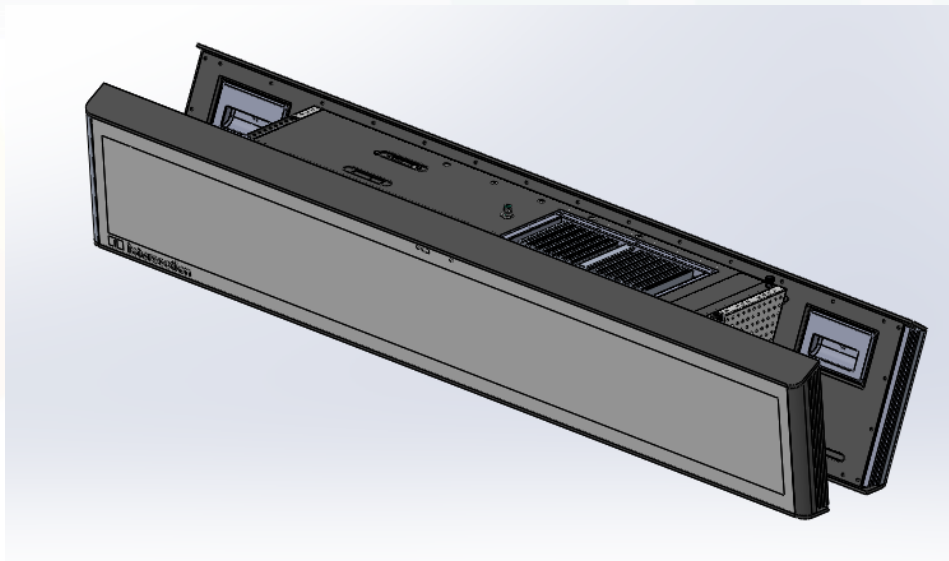
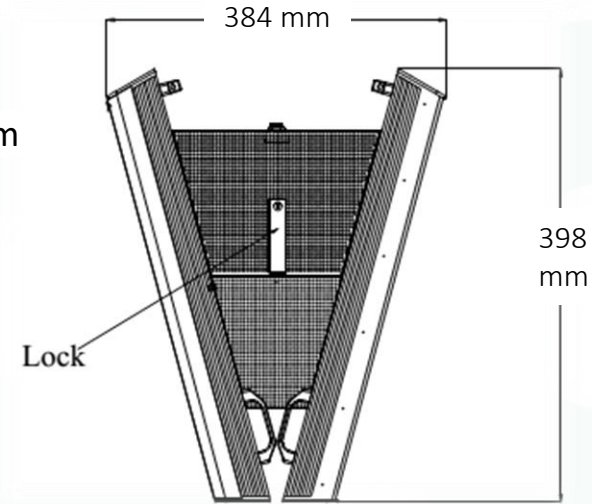
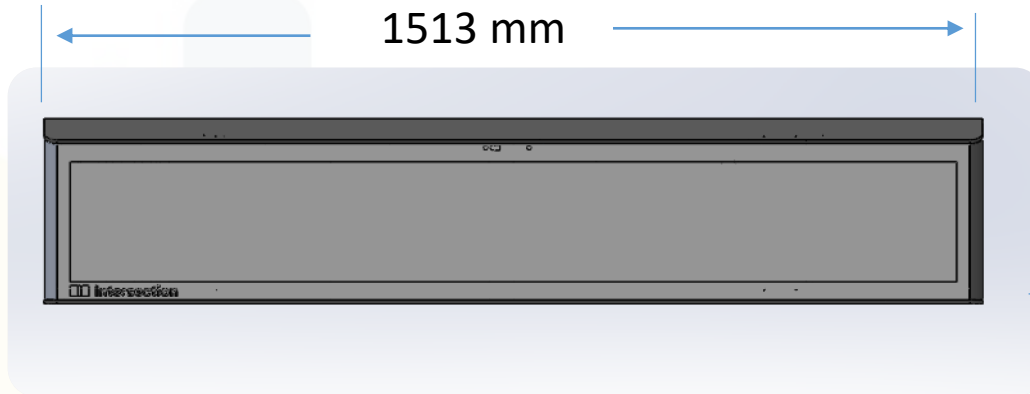
49.5"  
SCD4956-AGV



57.4"  
SCD5745-IGV

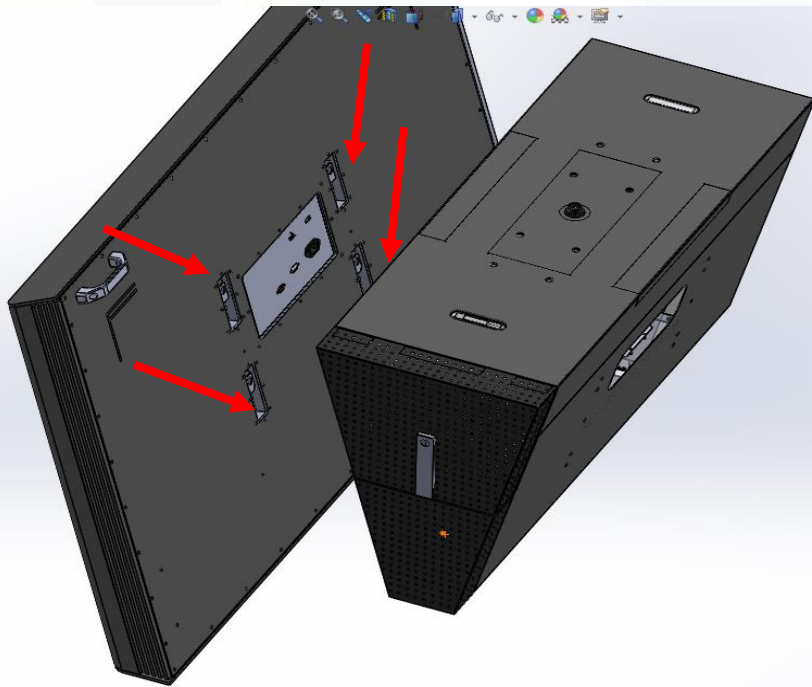


# V Shape Double Sided



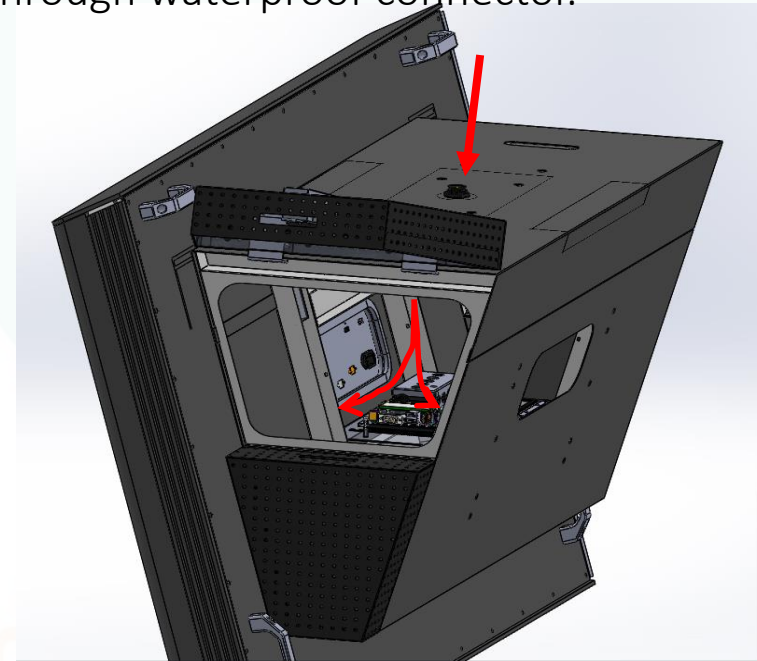
# V Shape Double Sided

Hooks



4 hooks on each side to hang panels with V shape metal.

Power cable come in to V shape metal through waterproof connector.



Media MB, SSD or WiFi build in

# PIS solution

## Double Side Display

- ❖ Resizing LCD
- ❖ Ultra Wide Screen (16:4.5)
- ❖ Square LCD (8:9)
- ❖ High Brightness 1000 nits
- ❖ Wide Viewing Angle
- ❖ Thickness: 37mm
- ❖ Two LCD Independent Display
- ❖ Portrait / Landscape Mode
- ❖ Media Player Integrated

27.3"  
42" x 1/2  
8:9  
92 PPI

**SSC2735-A**  
BR: 1000 nits  
AA: 457x523 mm  
PD: 945 x 1080  
PW: 84W

38"  
42" x 1/2  
16:4.5  
92 PPI

**SSC3805-E**  
BR: 1000 nits  
AA: 919x258 mm  
PD: 1920 x 540  
PW: 121W

32"  
16:9  
1920x1080  
70 PPI

**SSC3255-E**  
• 1000 nits  
• H/V 178/178  
• MVA  
• 160W

# PIS solution

## Double Side Display

SSC3805



27.3"  
42" x 1/2  
8:9  
92 PPI

**SSC2735-A**  
BR: 1000 nits  
AA: 457x523 mm  
PD: 945 x 1080  
PW: 84W

38"  
42" x 1/2  
16:4.5  
92 PPI

**SSC3805-E**  
BR: 1000 nits  
AA: 919x258 mm  
PD: 1920 x 540  
PW: 121W

32"  
16:9  
1920x1080  
70 PPI

**SSC3255-E**  
• 1000 nits  
• H/V 178/178  
• MVA  
• 160W

# PIS solution

## 4K2K Display

- ❖ High Resolution 4K2K
- ❖ Ultra High Brightness 1600 nits
- ❖ Wide Viewing Angle
- ❖ Landscape / Portrait
- ❖ Hi Color Saturation MaxRGB
- ❖ Support Digital Link
- ❖ Touch Integrated (optional)
- ❖ Media Player Integrated (optional)

43"  
UHD  
102 PPI

**DLD4308-U**  
BR: 1600 nits  
PD: 3840 x 2160  
Wide View Angle  
Landscape / Portrait

55"  
UHD  
80 PPI

**DLD5508-L**  
BR: 1600 nits  
PD: 3840 x 2160  
Wide View Angle  
Landscape / Portrait

65"  
UHD  
68 PPI

**DLD6500-A**  
BR: 1600 nits  
PD: 3840 x 2160  
Wide View Angle  
Landscape / Portrait

# Spanpixel High Brightness PID

Spanpixel series designed for public information display in Munich S Bahn and train stations in Hungary.



PID 38" 1000nits CR: 7000  
Hungary



PID—38" 2000nits CR:  
5600 in Munich S Bahn

# Spanpixel High Brightness PID



**PID 28" 1000nits**  
**CR: 3000 in Milan**

**38" 1000 nits**  
**CR: 7000 in Israel**



**PID 49" 1200 nits**  
**CR : 9000 in USA**



**55" 1000nits**  
**CR: 6000 in TW**



# Spanpixel High Brightness PIS

**PIS 29" 700nits CR:3000 in the train in Germany**



**PIS 28" 1000nits CR:3000 in Metro in China**



**PIS 28" 1000nits CR:7000 in the Tram in UK**



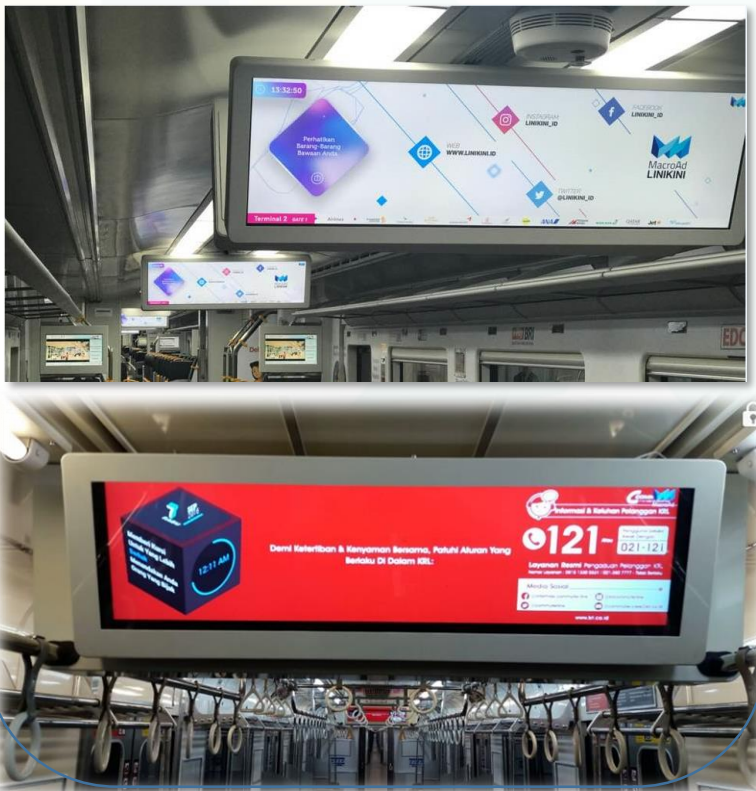
**PIS 21.5" 1000nits CR: 900 in the bus in Turkey**





# Spanpixel High Brightness PID

38" 1000nits, CR:7000, in Indonesia MRT

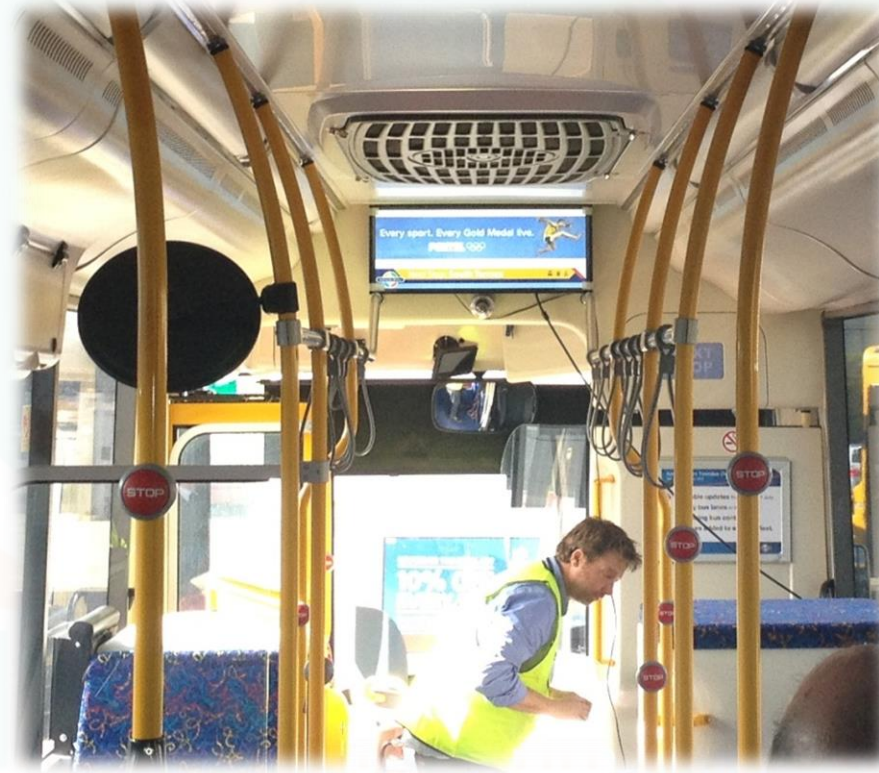


28" 1000nits, CR:6800, in Thailand MRT



# Spanpixel High Brightness PID

PIS—29" & 38" 1000nits CR: 3000 in Australian Bus  
38" 1000 nits CR:3000 in French Bus



# Spanpixel High Brightness PID

38" 1000nits, CR:7000, in  
Taiwan Bus Shelter



38" 1000nits, CR:7000, in  
Taiwan Bus Shelter



# Spanpixel High Brightness PID

49" 1200nits, CR:9000, in  
Japan Restaurant



38" 1000nits, CR:7000, in  
THSR Station



# Spanpixel High Brightness PID

Taxi Top —29" & 38" 1000nits CR: 3000 in USA & UK



# MPT-3000V

Digital signage--46" in  
Japan Store Menu



Surveillance—15" in  
Japan train station



Bus Shelter—42"



Digital Signage—32" in  
Japan Station



# Litemax Industrial kiosk



**28" 1000nits, CR: 6800**  
**15" 1600nits, CR: 1000**  
**Ticketing machine in Germany**



# Litemax Industrial kiosk

38" 1000nits, CR:7000, in Japan Vending Machine





# Litemax TV Wall Solution

TV Wall 46" 1000nits,  
CR:2500 in TWN SOGO  
department store



TV Wall 55" 1400nits,  
CR:2500 in TWN SOGO  
department store



# Stretch Displays



1 ITRP-2845

2 ITRP-3805

# Transportation Panel PC



SKYLAKE



IP65



FANLESS



EN50155



24V~110V



1000nits

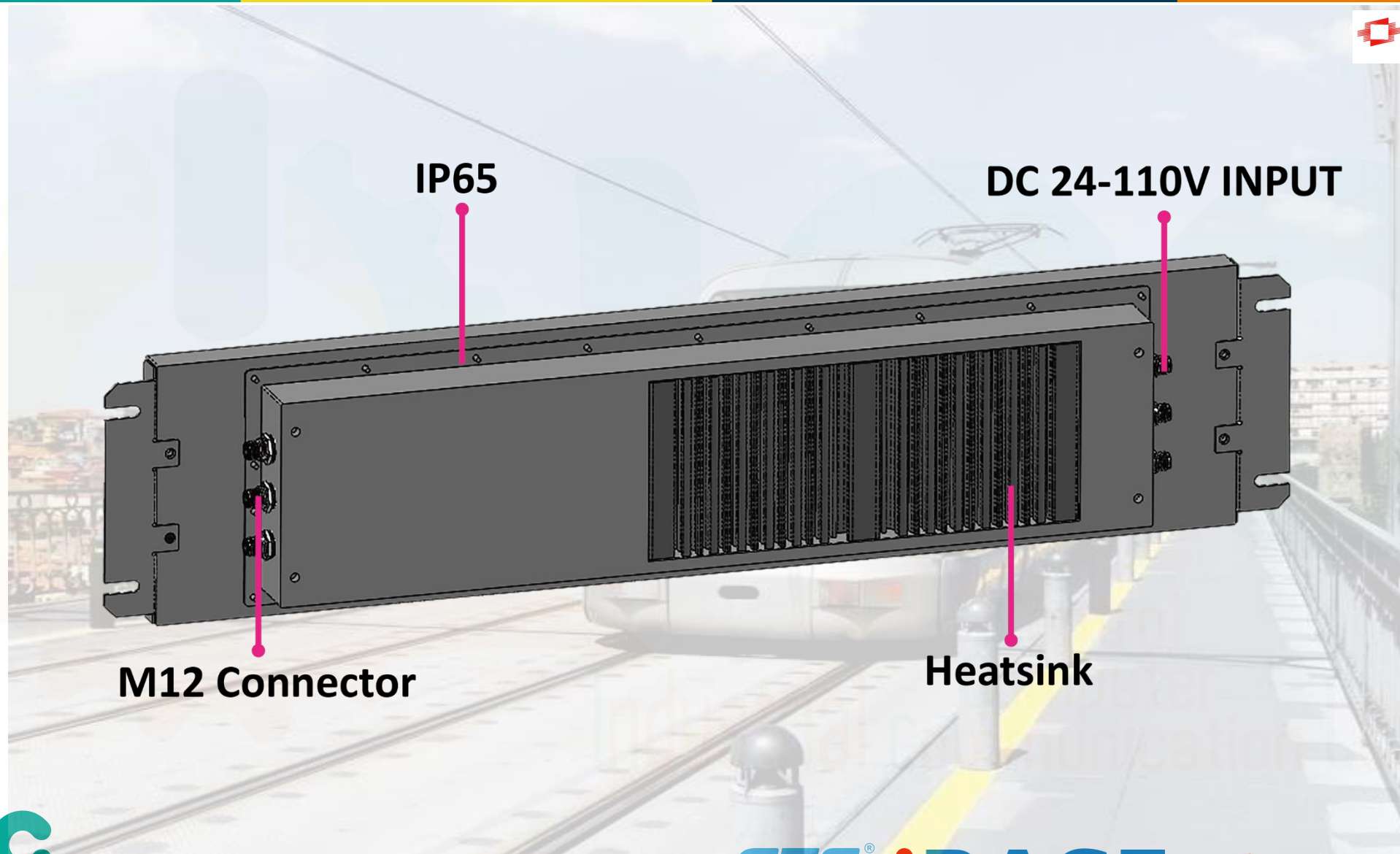


3MM GLASS



M12

# Transportation Panel PC



# Transportation Panel PC

## 28" Resizing LCD, 1000 nits LED backlight, 1920x357



Core i5-7500T, 4GB DDR4, 64GB SSD

### Core Specifications:

- 28" resizing Panel PC
- Intel® Skylake SoC onboard processor
- Resizing display (aspect ratio of 16:3)
- Sunlight readable, high brightness (1,000 nits)
- Resolutions: 1920 x 357
- Wide viewing angle of 178° (H), 178° (V)
- EN50155 certified
- BL MTBF: 70,000 hours

EN50155 certified

Fanless Design

Support Auto dimming

# Transportation Panel PC

## 37.6" Resizing LCD, 1000 nits LED backlight, 1920x540



Core i5-7500T, 4GB DDR4, 64GB SSD

### Core Specifications:

- 37.6" resizing Panel PC
- Intel® Skylake SoC onboard processor
- Resizing display (aspect ratio of 16:4.5)
- Sunlight readable, high brightness (1,000 nits)
- Resolutions: 1920 x 540
- Wide viewing angle of 178° (H), 178° (V)
- BL MTBF: 100,000 hours

IP65 Waterproof

High brightness

Support Auto dimming

# EN 50155 Switches



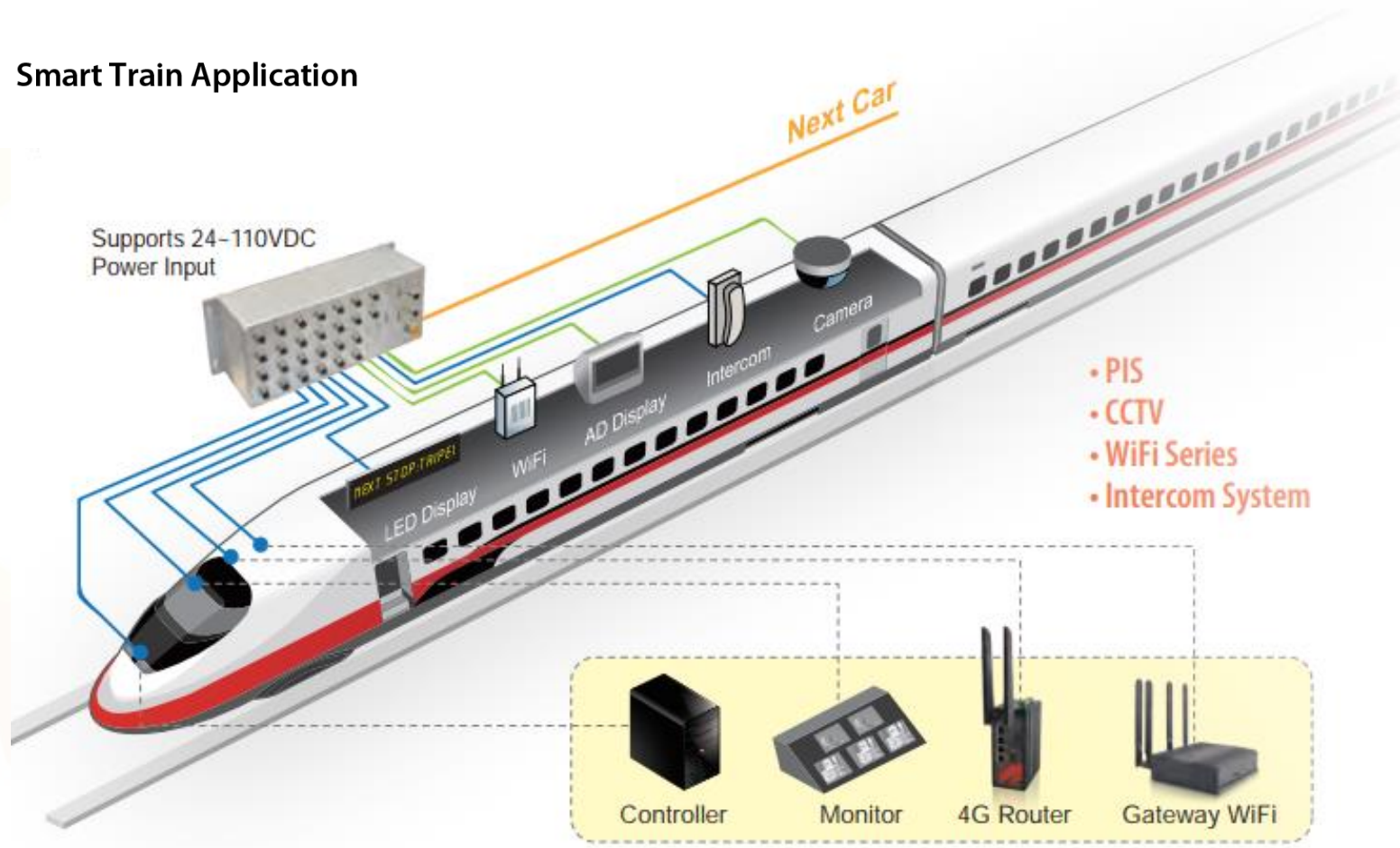
- 5/8/10/16/26- port Gigabit or 10/100Mbps portfolio
- with 8/12/16-port PoE (30W per Port, 120/180W total budget)
- 4-port or up to 8-port Gbps X-code
- Support 2-port Bypass for failover
- Dual power input 24~110VDC or 110/220VAC for non-PoE models
- Supports IEC 61375-2-3/5 TTDP, EN50155, EN45545, IP64/IP67





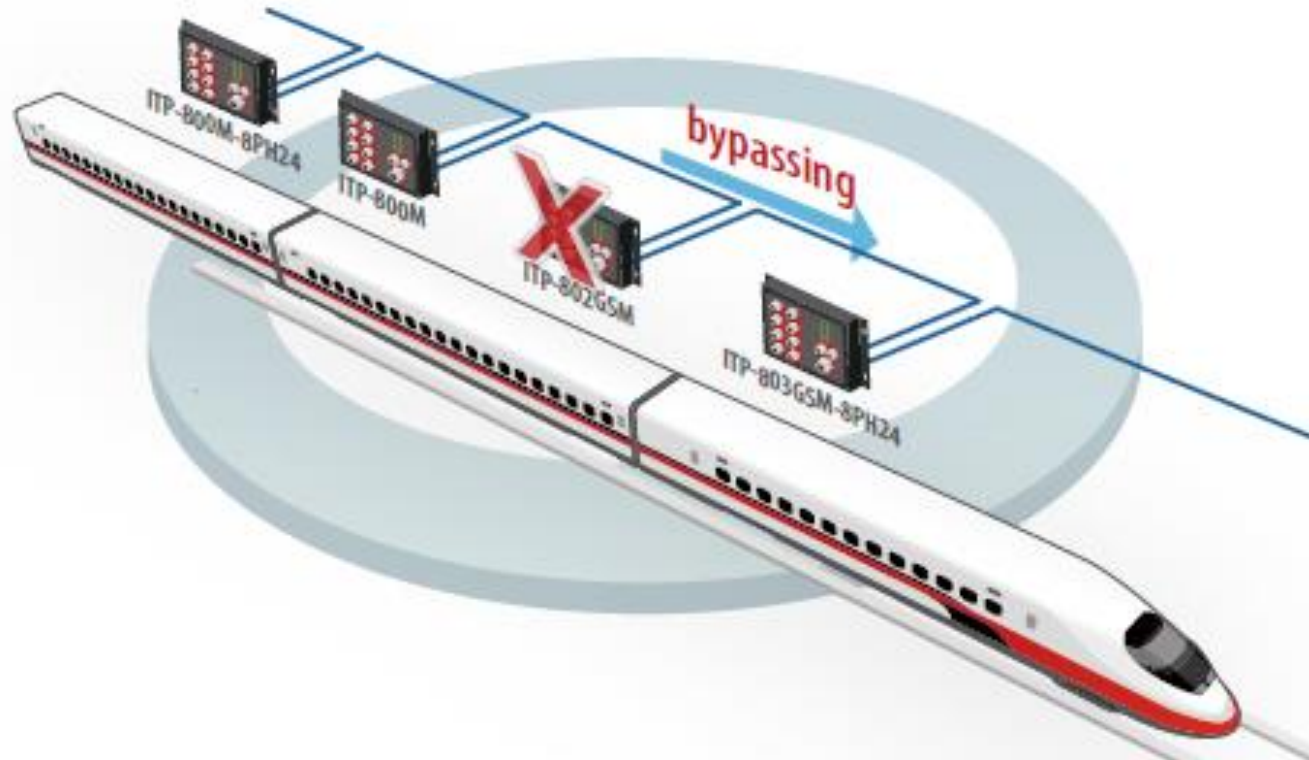
# Smart Train Communication Solutions

## Smart Train Application



# The Resilient Bypass

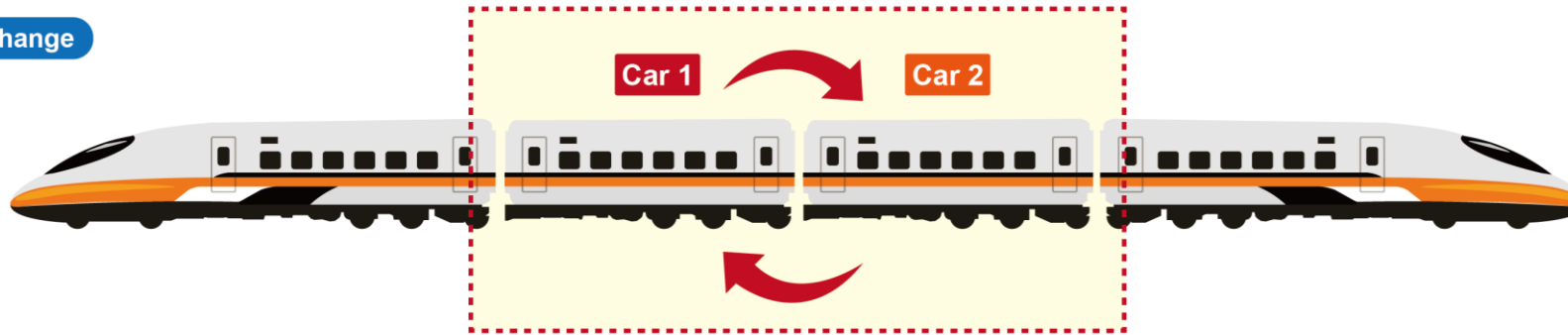
- ✓ In daisy chain topology, when power failure occurs the bypass relay will automatically active to maintain the link between neighboring equipment



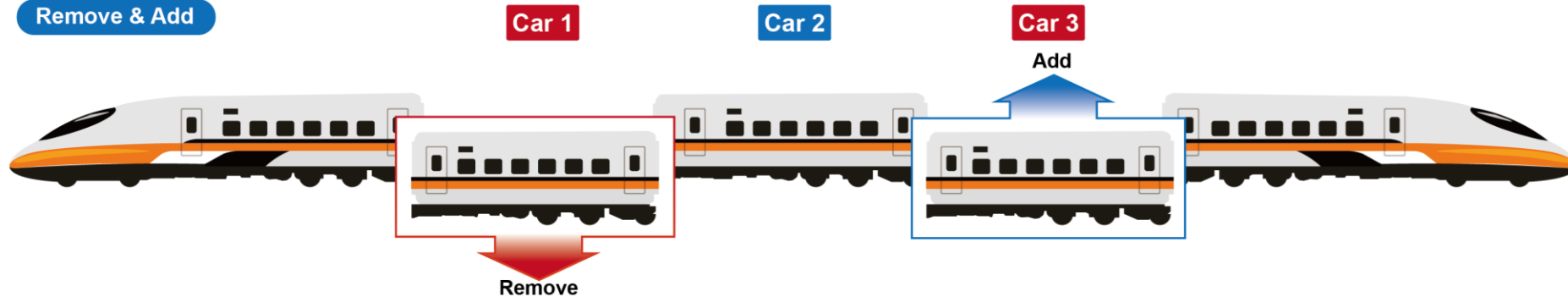
# Train Topology Discovery Protocol

## TTDP Application

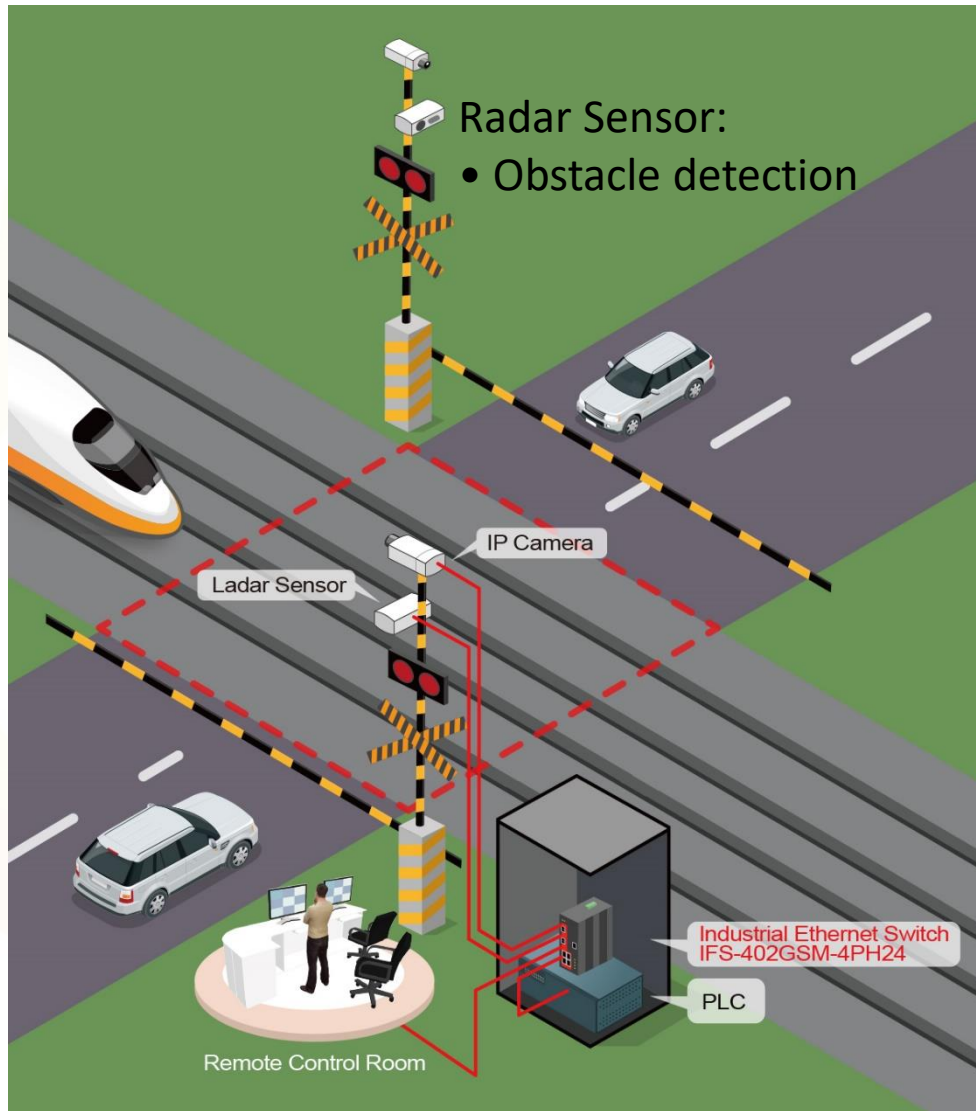
Exchange



Remove & Add



# Obstacle Detection System



CTC  
union

## Diagnostic Video Camera:

- Transmission when obstacle detection occurs for system diagnostic purposes
- it's connecting with PoE switch

## Remote Control Terminal:

- Receives all information about the status of the level crossing via LAN

