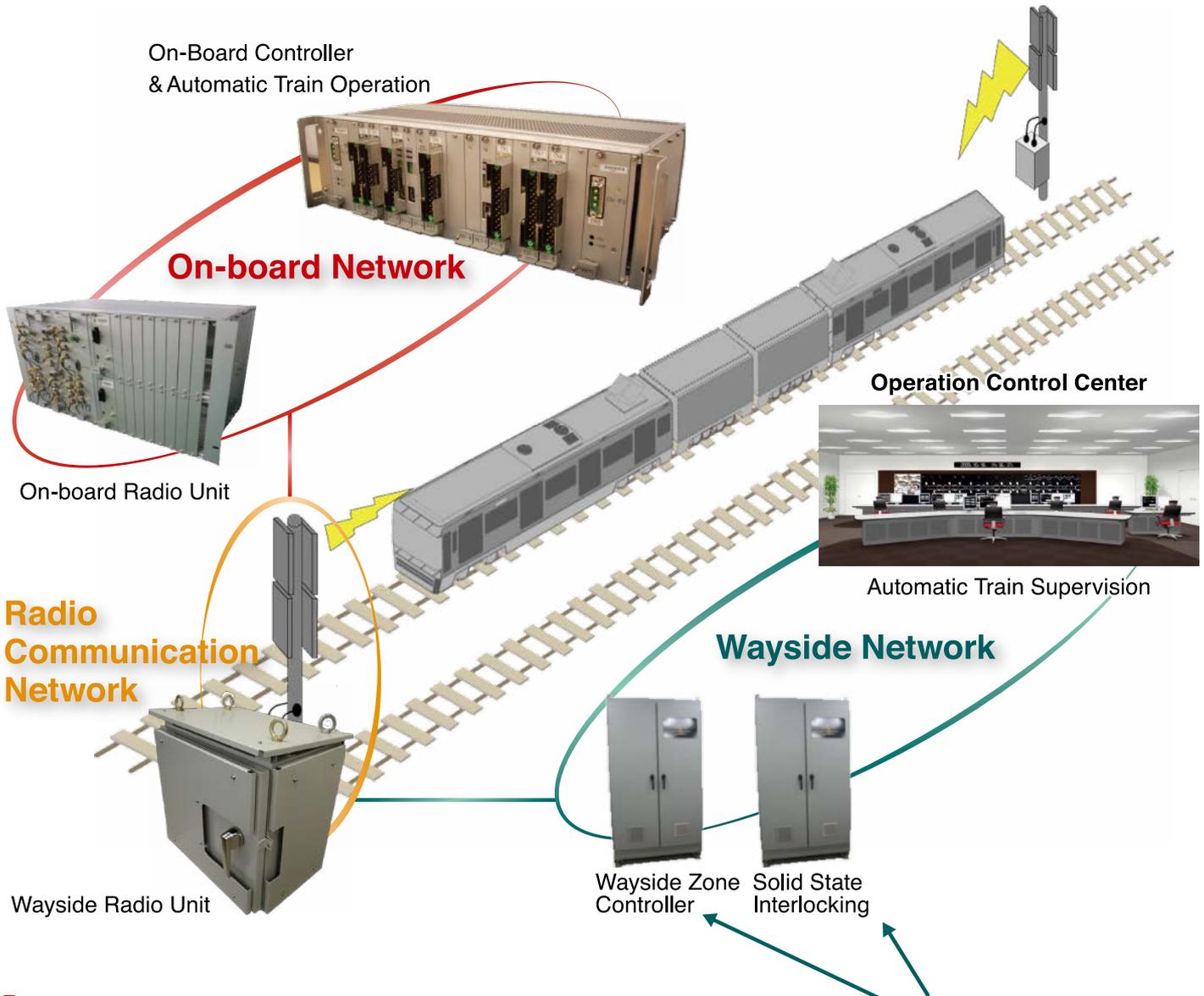


# CBTC

(Communication Based Train Control)

The CBTC system of Mitsubishi Electric is the foundation of safe and stable transportation, and it also achieves advanced train operation and control.



## Achievement of Efficient Train Traffic

High-density train operation via moving block section control

## Reduction of Wayside Equipment

Cost reduction by reducing wayside signals and other equipment

## Adoption of ISM Band Radio Communication

Easy to install by adopting 2.4 GHz band radio, which does not require a radio license



Vital unit for wayside

# CBTC (Communication Based Train Control)

## Features

### ① Energy Saving

Mitsubishi Electric's economy-driving ATO effectively reduces energy consumption<sup>※1</sup> without changing running time between stations.

※1 18% reduction on a revenue line

### ② Highly-Reliable Wireless Transmission

Mitsubishi Electric's CBTC radio system with advanced wireless transmission technologies guarantees highly available train-wayside communication for urban areas<sup>※2</sup>.

※2 Compatible with high-speed trains at up to 160km/h

### ③ System Safety

The On-Board Controller and Wayside Zone Controller were certified as SIL4<sup>※3</sup> by TÜV-SÜD (Germany) in 2014.

※3 SIL: Safety Integrity Level compliant with EN50126, EN50128, EN50129 and EN50159

## Power Equipment Specifications

<b>Product</b>	On-Board Controller	Wayside Zone Controller / Solid State Interlocking
<b>Power source</b>	110V DC	24V DC
<b>Dimension</b>	W442mm X D220mm X H132.5mm	W432mm X D267mm X H265.4mm
<b>Installation position</b>	On-board	Relay room

## Environment

<b>Product</b>	On-Board Controller	Wayside Zone Controller / Solid State Interlocking
<b>Temperature range</b>	-25 to +55 °C	0 to +45 °C
<b>Dielectric strength</b>	1200V AC (per minute)	-
<b>Electromagnetic compatibility</b>	EN50121-4	EN50121-3-2
<b>Shock resistance</b>	IEC / EN 61373	-

**MITSUBISHI ELECTRIC CORPORATION**

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