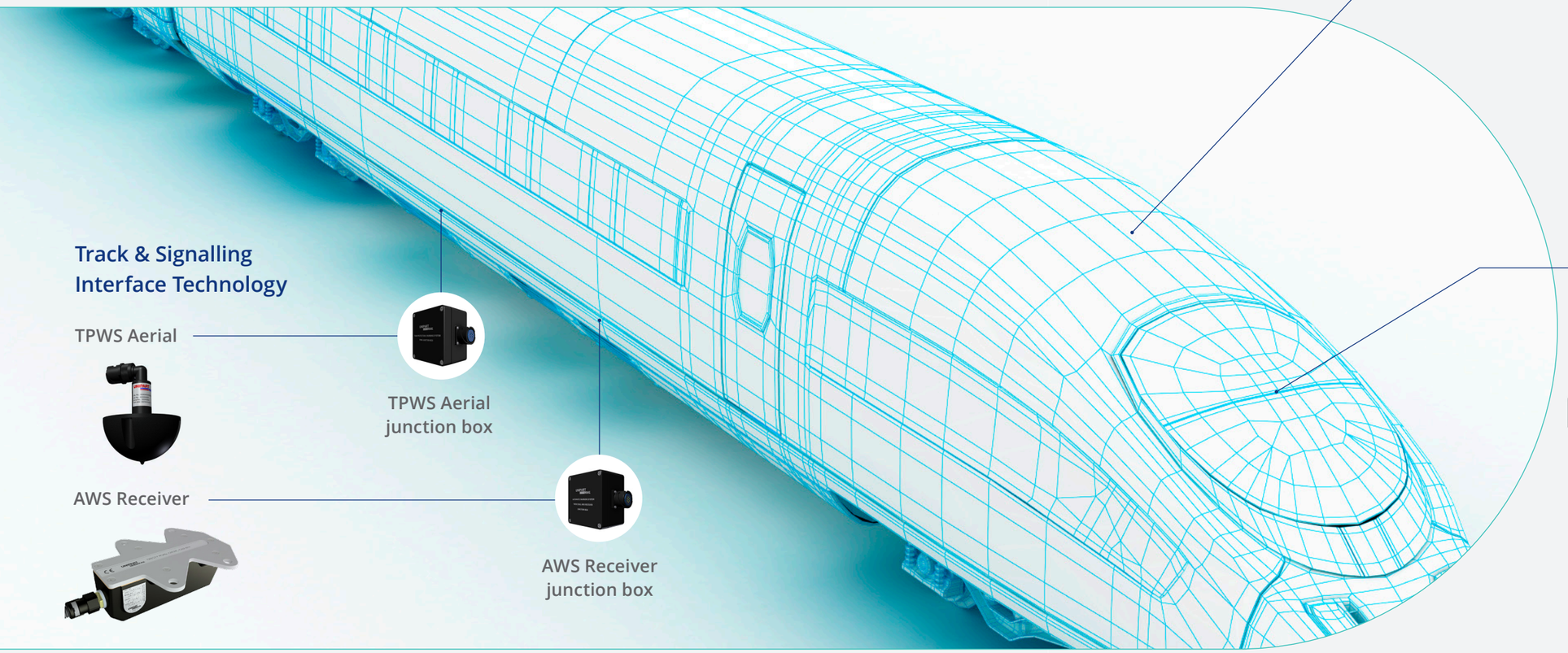
UNIPART

Performance in motion

TPWSfour EVO

Updated and reengineered for a new generation of trains



Track & Signalling Interface Technology

TPWS Aerial

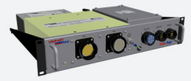
TPWS Aerial junction box

AWS Receiver

AWS Receiver junction box

Supply & Control Technology

Optional TPWS 19” Rack Design Assembly*



TPWSfourEVO Control Unit

Power Supply (PSU)

Dual Cab Switching Unit (DCSU)

AWS Receiver Switching Unit

Cab Driver Interface Technology

TPWS **EVO** Speech Unit

AWS Visual Indicator “Sunflower”

AWS Isolation Switch

Acknowledge Push Button

TPWS Temporary Isolation Switch

AWS/TPWS Isolation Switch

Driver Machine Interface “DMI”
Alternative: ETCS - Direct Customer Interface

Designed to Comply

Our engineers have designed the TPWSfour **EVO** system to fully comply with GERT8075 Issue 4 and RIS-0775-CCS Issue 3. These updated standards require all new vehicles built or undertaking significant overhaul (after 1st December 2012) to be compliant by being fitted with the latest safety systems.

The TPWSfour **EVO** system incorporates the requirements for modification to the in-cab TPWS panel (DMI) to provide separate information on the occurrence of an AWS, OSS and SPAD intervention. In June 2020 TPWSfour **EVO** also achieved full SIL1 compliance.

*The “Optional” rack consists of the:

- TPWSfour **EVO** Control Unit
- PSU
- Optional AWS Receiver Switching Unit

For a full list of materials and catalogue numbers, please contact Unipart at **contactus@unipart.com** or visit our website **unipart.com**.

Designed to Monitor

The in-built data monitoring and recording systems ensure:

- Aerial functionality is continuously monitored.
- Connection to on-train data recorder (OTMR), enabling the status of each TPWSfour **EVO** DMI function to be recorded via direct connection or via RS485 interface.
- Internal monitoring system ‘remembers’ its condition should the system be powered down when a brake demand is active and enables the brake demand to be resumed when power is re-applied (Reset & continue).
- Additional fault indication via separate TPWS and AWS fault indications.

Designed to Perform

We’ve designed TPWSfour **EVO** to integrate with both driver and machine. The system’s enhanced capabilities ensure that brakes are only released after the correct delay and ensure that the likelihood of an inadvertent over-ride (reset and continue) is eliminated and to prompt the driver to contact the signaller.

The factory selected variable audibility approach ensures that the tones and voice systems are 6dBA above ambient (levels required to be confirmed by the customer), in the range of 65dBA to greater than 90dBA, avoiding driver discomfort.

The new spoken warnings are a clear and unambiguous advice to the driver to further eliminate SPAD potential.

Further details of each product, mating connectors and kits, and technical data sheets are available on request.

Designed to Integrate

TPWSfour **EVO** control units are designed to fit in the same space envelope as the existing TPWS system - reducing the headache of finding additional space for system components.

ETCS compatibility is built into TPWSfour **EVO** to ensure future developments and upgrades can be accommodated without further system developments or performance impacts.

Integration, performance, monitoring and compliance come together in TPWSfour **EVO** to give you the system you need to enhance safety and performance on your vehicles.

We can also supply a range of mating connectors to simplify system integration.

Glossary of Terms:

TPWS	Train Protection and Warning System
AWS	Automatic Warning System
DMI	Driver Machine Interface
ETCS	European Train Control System
OSS	Over Speed Sensor
PSU	Power Supply Unit
SPAD	Signal passed at danger

Contact us today to learn how we can help your business improve reliability, efficiency and safety in railway operations.

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