

Ogier Electronics

Track to Train CCTV System

Benefits

The Ogier Track to Train system, which has been in long-term operation on rail networks around the world, including Mass Transit Railway and Kowloon Canton Railway in Hong Kong and London Underground in UK, is well proven.

It provides automatic operation with no need for cab driver intervention, ease of installation with no routine maintenance required, guaranteed interference free high quality pictures in the train cab and automatic, clean and precise picture switch on and off at operator specified positions along the track. Due to the inherent flexibility in the design, the system can handle complex station scenarios and train movements.

It is designed and manufactured in the UK to meet demanding EMC, environmental and vibration standards required by the rail industry including EN50121 and EN50155

Proven High Reliability in service

Automatic operation

Ease of Installation

High quality video

Guaranteed free from interference

Operation in all climates

No routine maintenance required

Comprehensive Built in Test

Applications

Track to Train Systems have been designed for the latest OPO (one person operated) trains to enhance safety and efficiency with the platform train interface.

Train to Track Systems are used to monitor driverless trains to improve passenger safety by providing the central control room with real time video & security alerts.

Options

Analogue (zero latency) or digital transmission (low latency) to either end of the train. A range of licensed frequencies are available to guarantee interference-free operation under all conditions. Transmission can be to the front or the back of the train.

The System switches on the monitors automatically and precisely at the required point via a signal from trackside Beacons. Live transmission to the train continues until the last carriage has left the station or the required area. Switch off is also automatic and precise prior to deterioration of the monitor picture.

Multiple videos can be simultaneously transmitted to the train; the standard is one or two separate real-time video channels.



Features

The system provides broadcast quality video with no loss of resolution or frame rate. Equipment is easy to install and requires no routine maintenance in service.

Operation is automatic with no manual intervention required by the train driver or other staff. Transmissions are guaranteed to be interference-free with no cross talk between adjacent platforms even in complex scenarios.

The equipment build is very robust and has been proven to be highly reliable throughout its 10-year service in Hong Kong with an extremely high MTBF.

Train to Track System

For the new generation of driverless trains the ability to monitor carriages remotely enhances security and passenger safety.

The Ogier Train to Track system shares many features with the Track to Train system including automatic operation, ease of installation, high quality video, no routine maintenance, built in test and as always with our equipment we guarantee transmissions to be interference free.



Specifications

Features		Train to Track	
Frequency	1 to 31 GHz bands	Frequency	1 to 24 GHz bands
Transmission	Analogue FM (PAL or NTSC) or Digital DVB-T	Video Channels	Up to 8 at 1 GHz, 30 at 24 GHz
Diversity	Space Diversity as standard	Simultaneous videos	1 per carriage
Analogue Video Channels	From 2 at 1 GHz, 20 at 31 GHz	System Range	Up to 30km LoS and 2km NLoS
Digital Video Channels	From 8 at 1 GHz, 75 at 31 GHz	Availability	100% in all weathers
Simultaneous videos	1 or 2	Signal to Noise	50 dB
Analogue System Range	Typically up to 200 metres	Video Quality	CCIR grade 4.8 installed
Digital System Range	Typically up to 700 metres	Operating Temperature	-20C to +60C
Availability	100% in all weathers	Radio Specifications	ETSI EN 300 632 or equivalent
Signal to Noise	50 dB minimum	Railway Specifications	EN50155, EN50121, EN50125
Video Quality	Better than CCIR grade 4 installed	Sealing - Trackside Units	IP66 and IP67
Operating Temperature	-20C to +60C	Sealing - Trainborne Units	IP65 depending on installation
Radio Specifications	ETSI EN 300 632 or equivalent	EMC Specifications	ETSI EN 300 339, EN50155
Railway Specifications	EN50155, EN50121, EN50125	RF Hazard	None – safe all distances
Sealing - Trackside Units	Typically IP67		
Sealing - Trainborne Units	Typically IP65 depending on installation		
EMC Specifications	ETSI EN 300 339, EN50155		
RF Hazard	None – safe all distances		

Ogier Electronics equipment is a supplier to major security and telecoms companies, local authorities, police, military and railway network operators world wide.

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