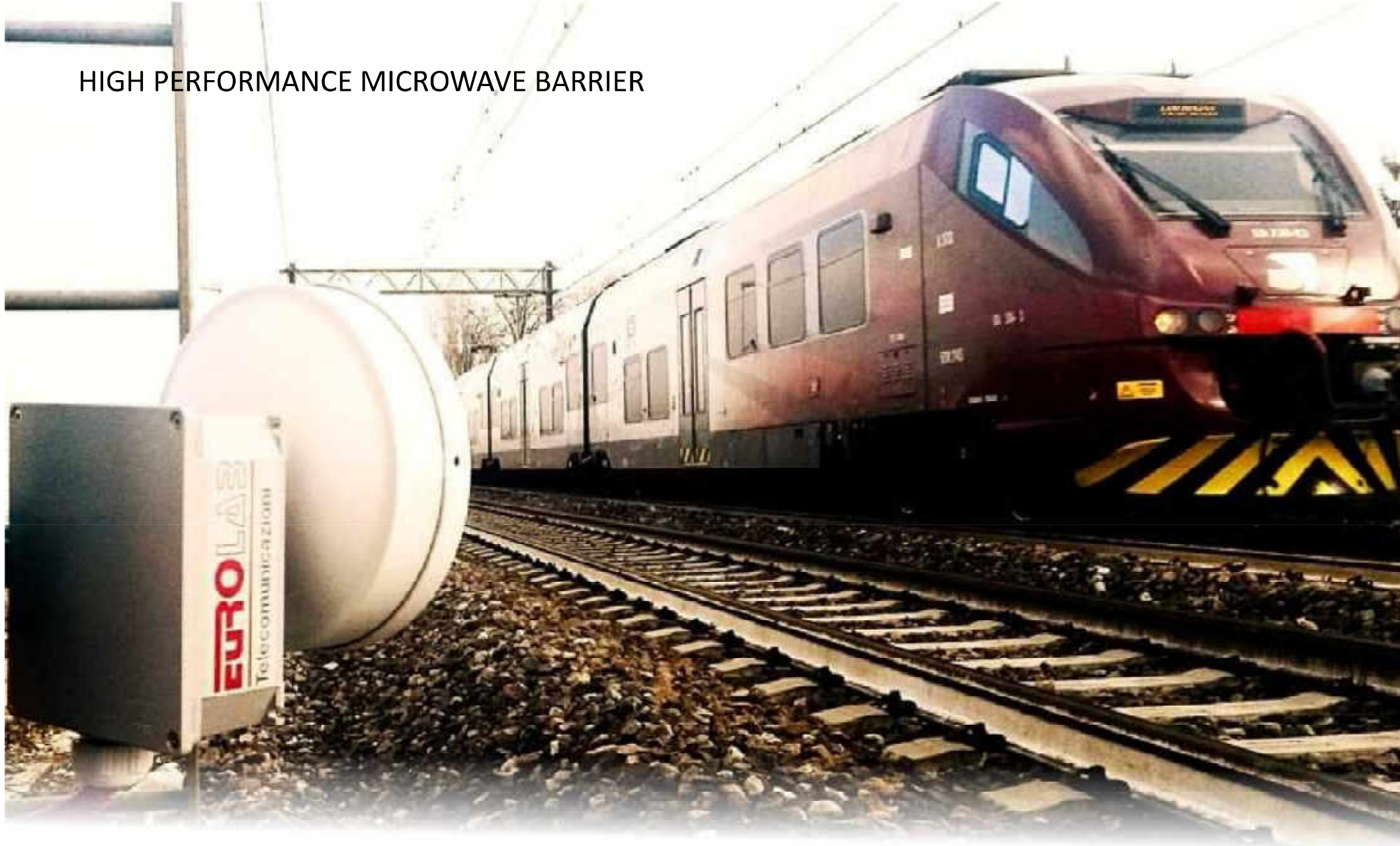


HIGH PERFORMANCE MICROWAVE BARRIER



 **IPSES**

ELBM

CONFIGURABLE BISTATIC MICROWAVE BARRIER

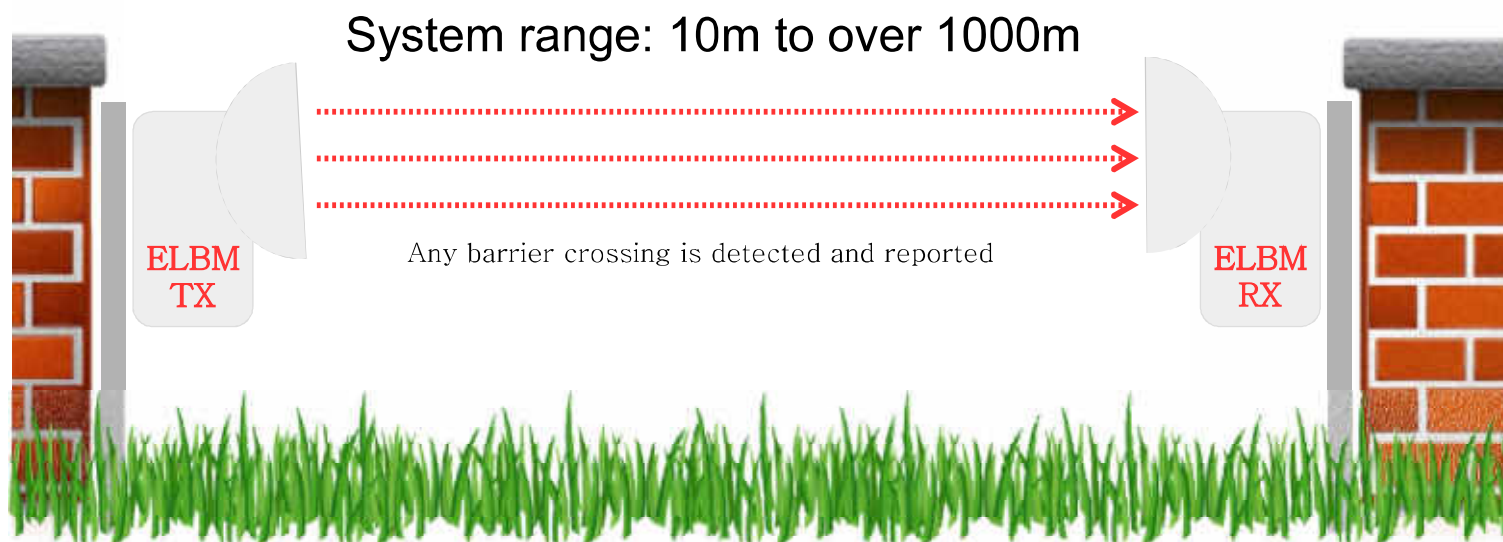
THE CONCEPT



ELBM is a bistatic (the transmitter is separated from the receiver) microwave barrier for the control of the area between the two units.

The system is truly versatile and fully configurable, and allows to use ELBM in a very wide range of applications, such as ground-vehicles crossing control (airports, bridges, tunnels, railways, etc...), proximity alert for big units for the handling of large loads (cranes, container, etc...), access control in hazardous or banned sites (construction sites, particular buildings, etc...).

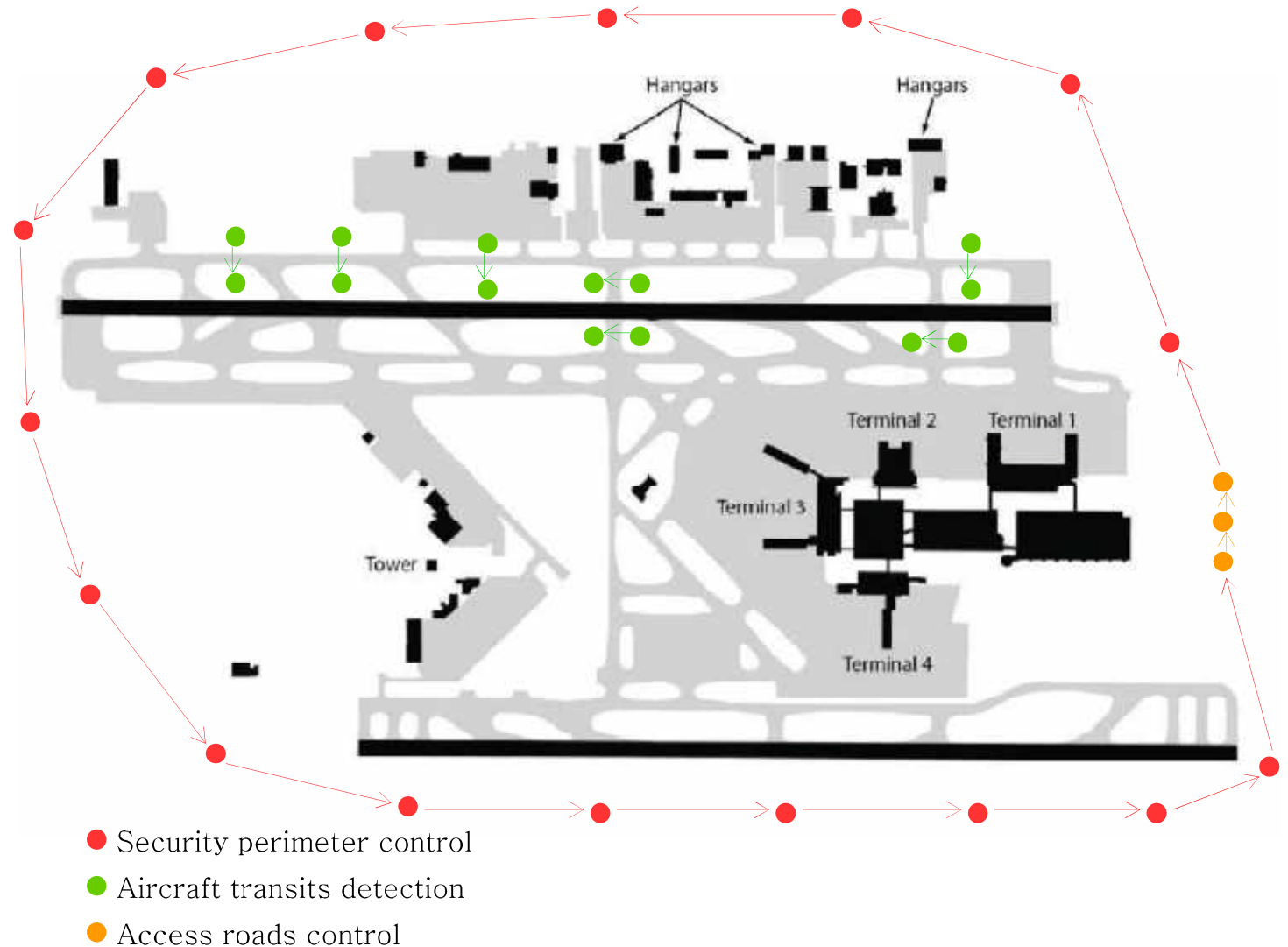
The extreme simplicity of configuration and the advanced interconnect systems allows ELBM to interface with any kind of network.



On the field



The characteristics of dynamic and range allows to a single TX-RX system to cover a large area, or to create a network of sensors, based on customer particular needs. Several parallel systems can operate together, allows to use ELBM also in areas where there are strong electromagnetic noise such as, for example, airports, railways, telecommunication stations.



Potential uses: airports



Airport external
perimeter security
control

Airport
access roads
control

Airport restricted
areas security
control

Aircraft
passage
detection



Potential uses: military bases



Base external
perimeter security
control

Base restricted
areas security
control

Access roads
control

Aircraft and vehicles
passage detection

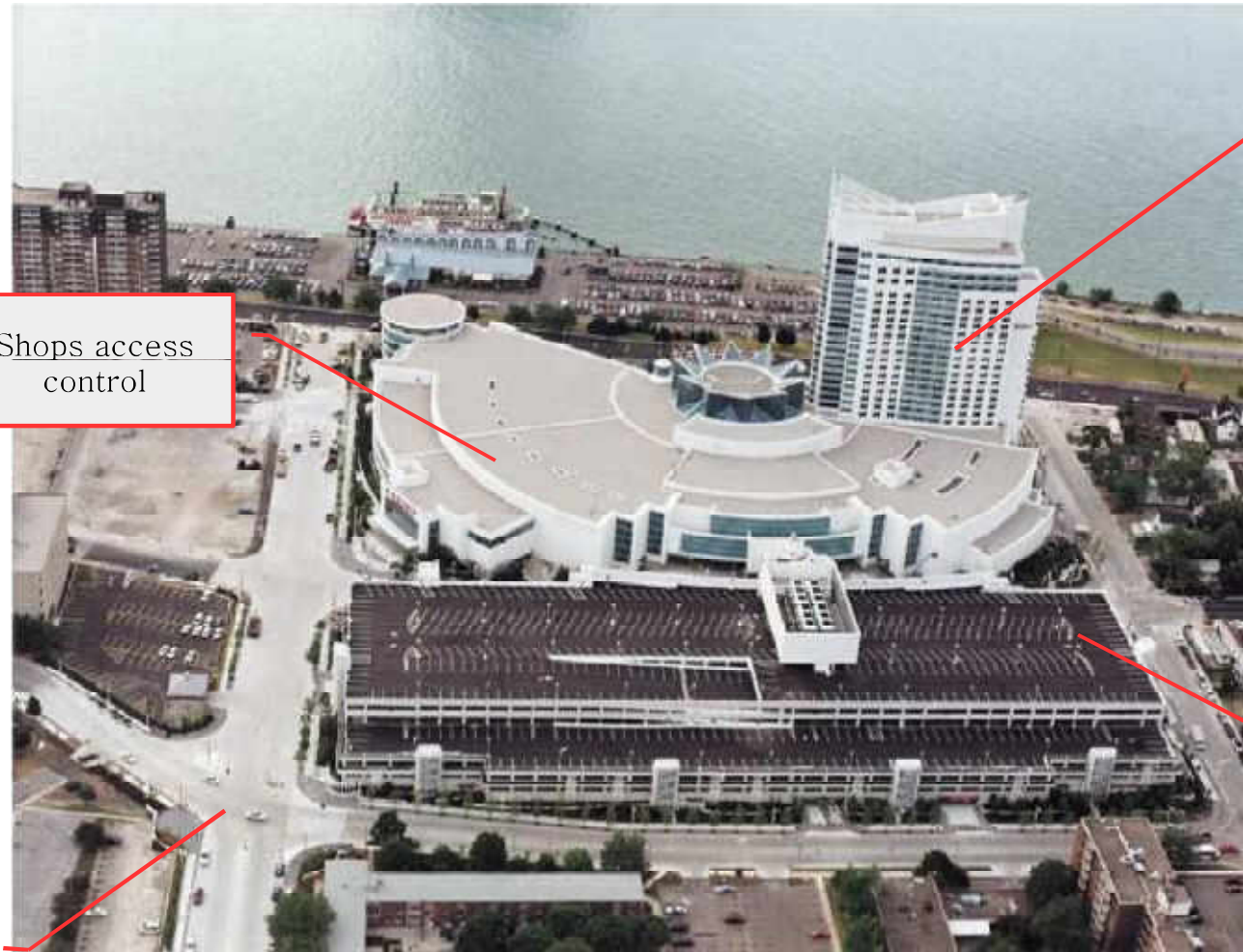
Perimeter control



Potential uses: ports



Potential uses: shopping centers



Shops access
control

Restricted
areas security
control

Parking areas
crowding control

Access roads
control

Potential uses: resorts



Bungalows
access control

Restricted
areas security
control

Access roads
control

Potential uses: caves and mines

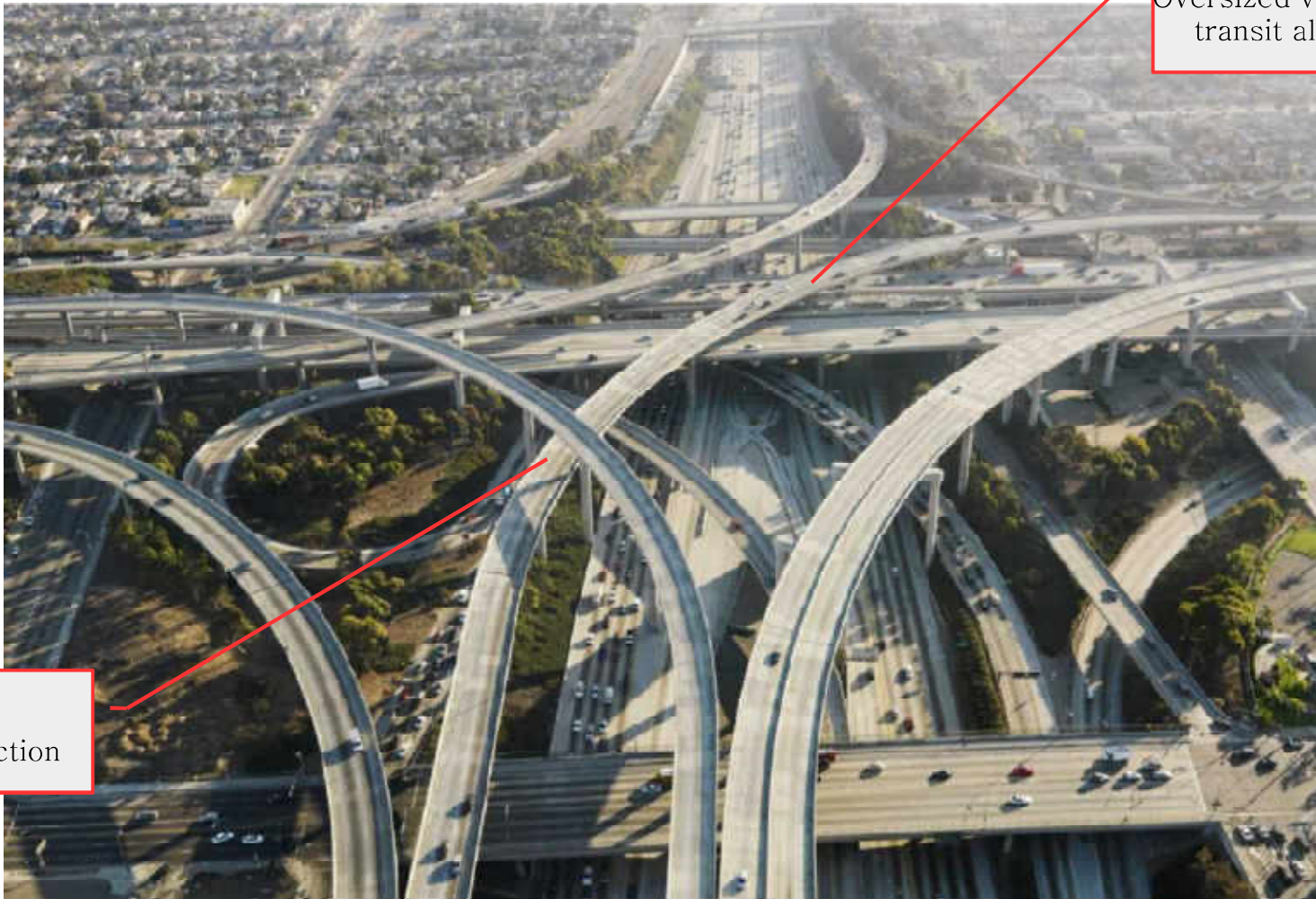


Landslides and
falling rocks control

Crane movements
monitor and alert

Vehicles and personel
passage detection

Potential uses: roads and highways



Vehicles
passage detection

Oversized vehicles
transit alerts

Potential uses: dams



Technical specifications



HIGH PERFORMANCE MICROWAVE BARRIER

- Frequency Band: 24 – 24.25 GHz (K band), ETSI EN 300 440, EN 302 288, EN 302 858 and 1999/5/EC R&TTE directive compliant.
- Adjacent channel rejection >50dB
- Digital frequency synthesis up to 61 channels (4MHz step)
- Minimum detection time 1mS
- Programmable transmission power: min. +10 dBm, max +20 dBm EIRP,
- Receiver sensitivity: min. NF 8 dB,
- Min channel step: 4 MHz (CW modulation)
- System range: 1m to 1 Km
- Standard 25 cm dia. Antenna, gain >30dB
- Antenna aperture <3°
- Standards WR42 waveguide RF interconnection
- Radome de-icing system (optional)
- Zenith-Azimuth precision antenna alignment system
- Power supply: standard POE, isolated IEEE 802.3, max. 3W, POE 5/18V, 9/36V
- Redundant power supply
- Isolated bipolar extractable terminals
- Alarm, warning and tamper signalling on NO and NC relay contacts
- Alarm, warning and tamper signalling on electronic optoisolators (for fast detection)
- Environmental working conditions: -35/+65°C, IP66.
- System control: Ethernet 10/100 (optional RS485, RS422, RS232), Local and remote control and supervision thru web-server and web-browser. No need to install dedicated management software
- Working conditions setting and supervision: alarm strategy setting, event memory with time stamping and NTP server dating, remote software upgrading, SNMP protocol with MIB file and event TRAP, radome de-icing system control, complete system operation setting, Ethernet network interfacing setting.

- ✓ Easy to Install
- ✓ High Directivity Antennas
- ✓ Digital Channel Synthesis
- ✓ High Interference Rejection
- ✓ POE-LAN Interface
- ✓ Web-browser Supervision
- ✓ Bidirectional Link Possibility
- ✓ Long Haul, up to 1Km



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