

Wireless Video Outdoor transmission



Wavesight Wireless Outdoor Transmission

- ◇ Together with Wavesight, BCE has become a specialised provider of outdoor wireless network solutions for professional applications including:
 - ⇒ Video surveillance
 - ⇒ Ethernet data bridging
 - ⇒ Voice communications
- ◇ Wavesight employs a wide range of radio communication technologies delivering transmission data rates from 54 Mbps through to 4 Gbps solutions.
- ◇ BCE's professional service team assist at every stage, from concept and design, initial site survey, through to detailed network planning, installation and commissioning.



Key features

- Extremely low latency
- Highest levels of data encryption and security
- Megapixel and 1080p quality video images
- Free licenced band. Licenced bands also available
- Cost effective alternative to cable or leased line fibre
- Transmission rates from 54 Mbps to 4 Gbps
- Connection distances up to 60 km.
- Easy and low-cost installation
- IP67 rated for the harshest environments
- Free RF Analyser software for configuration and operational analysis

Product line



FireFly - Model: WM271IN (Set only)

Operating Range:	Up to 500m. @ 54 Mbps.
Connection:	Point to Point (PtP)
Beamwidth:	61°
Max. RF power output:	1 W EIRP
Dimensions:	197 x 133 x 58 mm.
Weight:	0.3 Kg.
IP Rating:	IP55



WaveSPRINT - Model: WSP-001

Operating Range:	Up to 1 Km@54 Mbps.
Connection:	PtP
Beamwidth:	40°
Max. RF power output:	1 W EIRP
Max. Satellites supported:	1
Dimensions:	110 x 119 x 51 mm.
Weight:	0.3 Kg.
IP Rating:	IP65



WaveSPRINT Turbo - Model: WSP-002

Operating range:	1 Km@108 Mbps. Or 2 km@54 Mbps.
Connection:	PtP
Beamwidth:	40°
Max. RF power output:	1 W EIRP
Max. Satellites supported:	4
Dimensions:	110 x 119 x 51 mm.
Weight:	0.3 Kg.
IP Rating:	IP65



WaveSPRINT Turbo MP - Model: WSP-003

Operating range:	1 Km.@108 Mbps. (PtP) or 2 km.@54 Mbps. Point to Multi Point (PtMP)
Connection:	PtP or PtMP
Beamwidth:	40°
Max. RF power output:	1 W EIRP
Max. Satellites supported:	4
Dimensions:	110 x 119 x 51 mm.
Weight:	0.3 Kg.
IP Rating:	IP65



WaveFLOW - Model: WFL-001

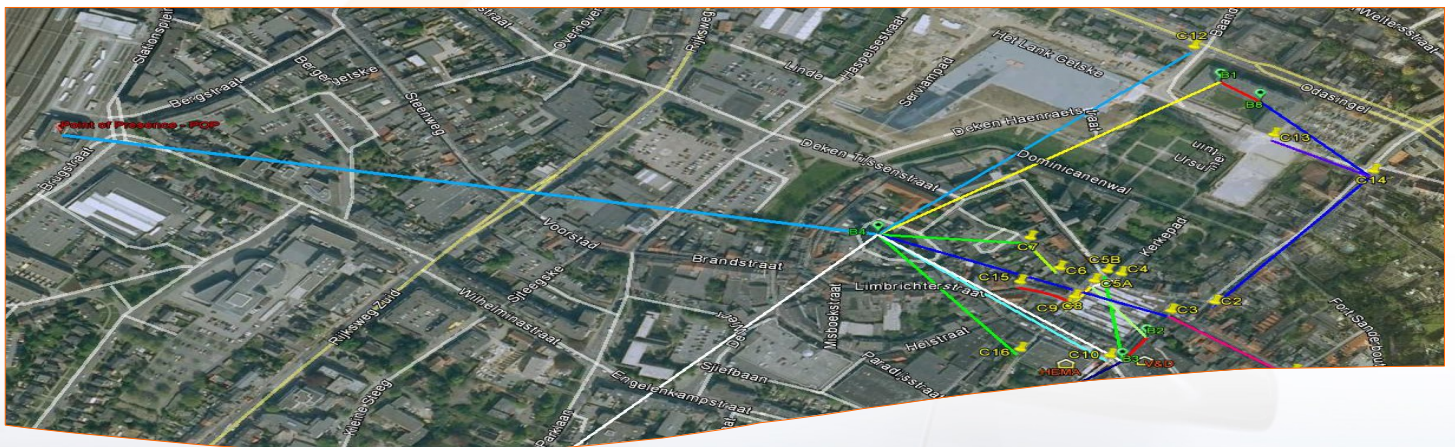
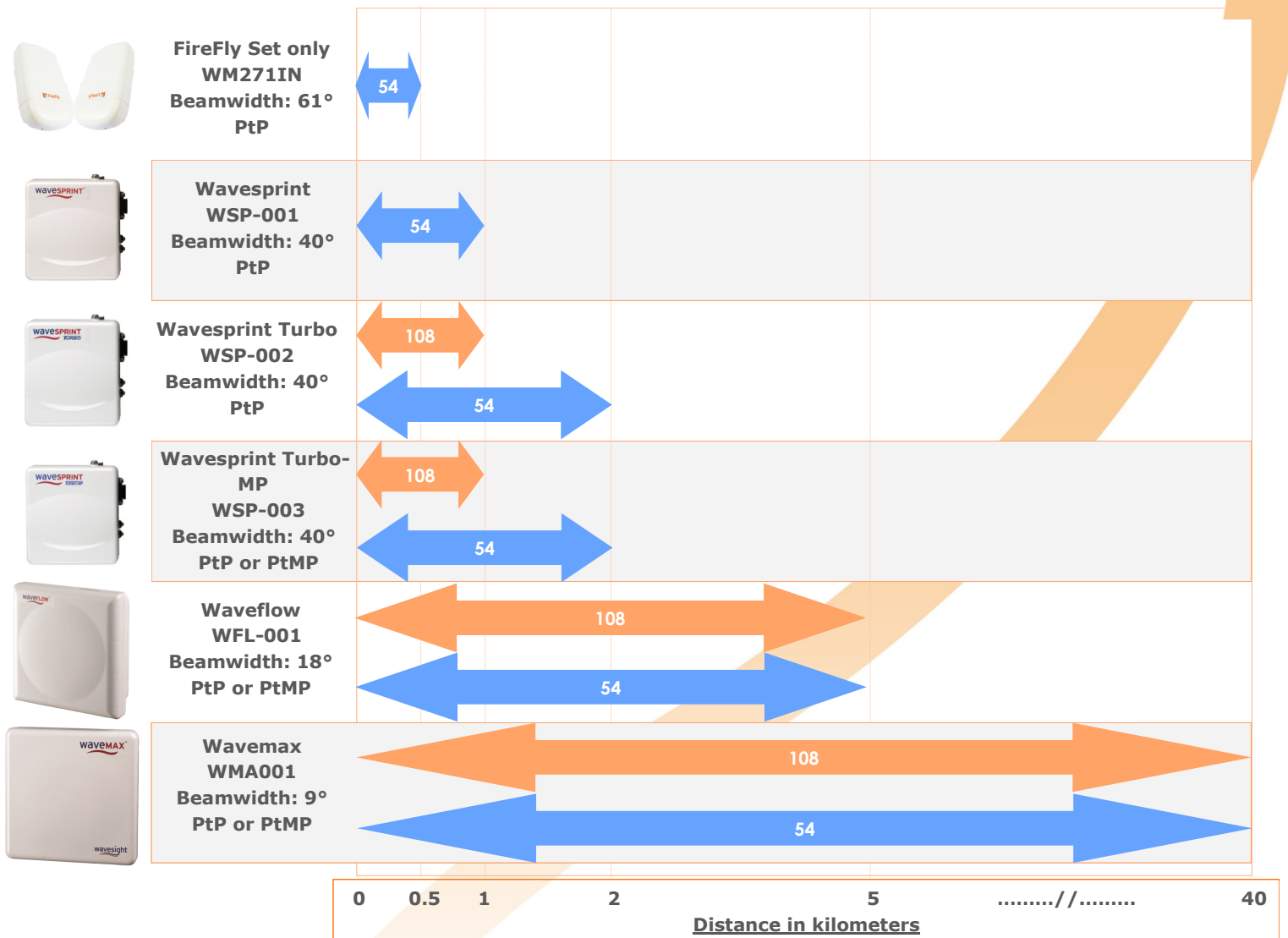
Operating range:	Up to 5 Km
Data Rate:	54 Mbps or 108 Mbps (Turbo Mode)
Connection:	PtP or PtMP
Beamwidth:	18°
Max. RF power output:	4 W EIRP
Max. Satellites supported:	4
Dimensions:	190 x 190 x 72 mm.
Weight:	1.2 Kg.
IP Rating:	IP67

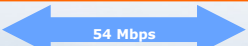
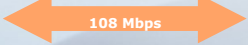


WaveMAX - Model: WMA-001

Operating range:	Up to 40 Km
Data Rate:	Up to 54 Mbps or 108 Mbps (Turbo Mode)
Connection:	PtP or PtMP
Beamwidth:	9°
Max. RF power output:	4 W EIRP
Max. Satellites supported:	4
Dimensions:	310 x 310 x 80 mm.
Weight:	1.6 Kg.
IP Rating:	IP67

Quick Reference Table



Legenda	
Capacity	 54 Mbps
	 108 Mbps
PtP	Point to Point
PtMP	Point to Multi Point

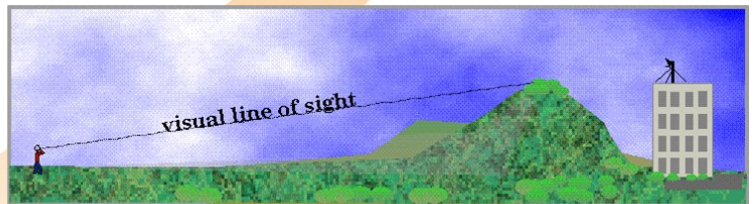
Line Of Sight

- ❖ At microwave frequencies while trying to bridge between two distant sites. You need to make sure you have “CLOS” Non-Line-Of-Sight (NLOS) between the two antennas. However, at these frequencies “line of sight” does not simply mean visual line of sight.

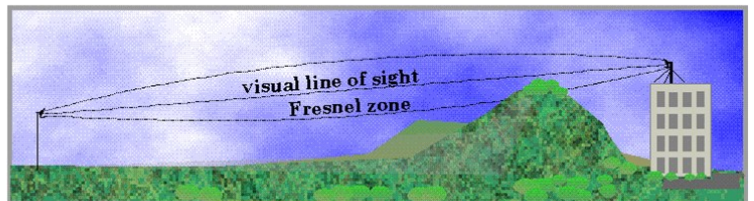
For example: when the proposed transmission distance exceeds 8 Km, the following factors need to be taken into consideration:

- Fresnel Zone clearance
- The curvature of the earth
- Atmospheric refraction

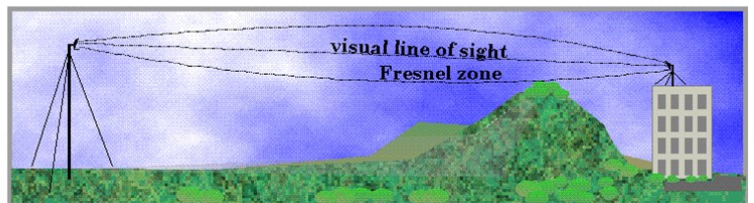
- ❖ Non-Line-Of-Sight (NLOS)
 - Reduce and bandwidth severely reduced, may work satisfactorily only at short range



- ❖ Near Line-Of-Sight (nLOS)
 - Range and bandwidth reduced, will usually work, performance dependant upon nature of obstruction(s)

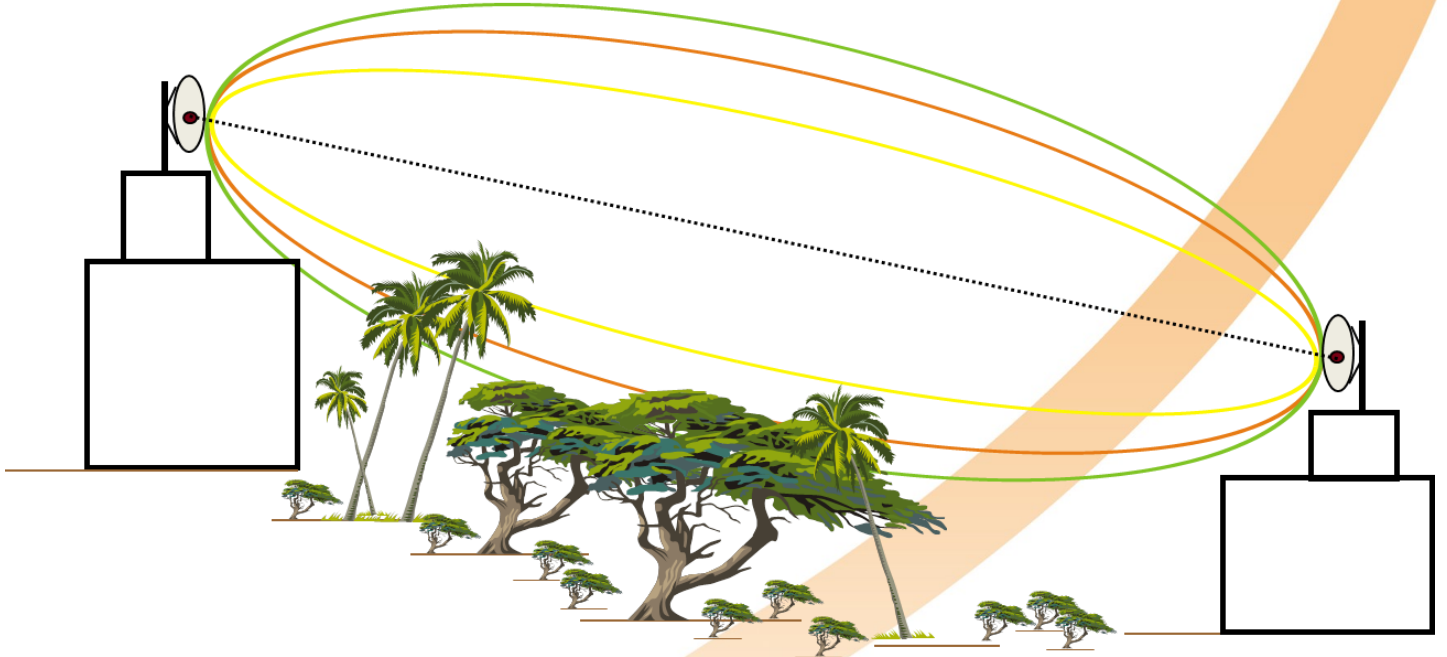


- ❖ Clear-Line-Of-Sight (CLOS)
 - Will ensure optimum range and bandwidth capability

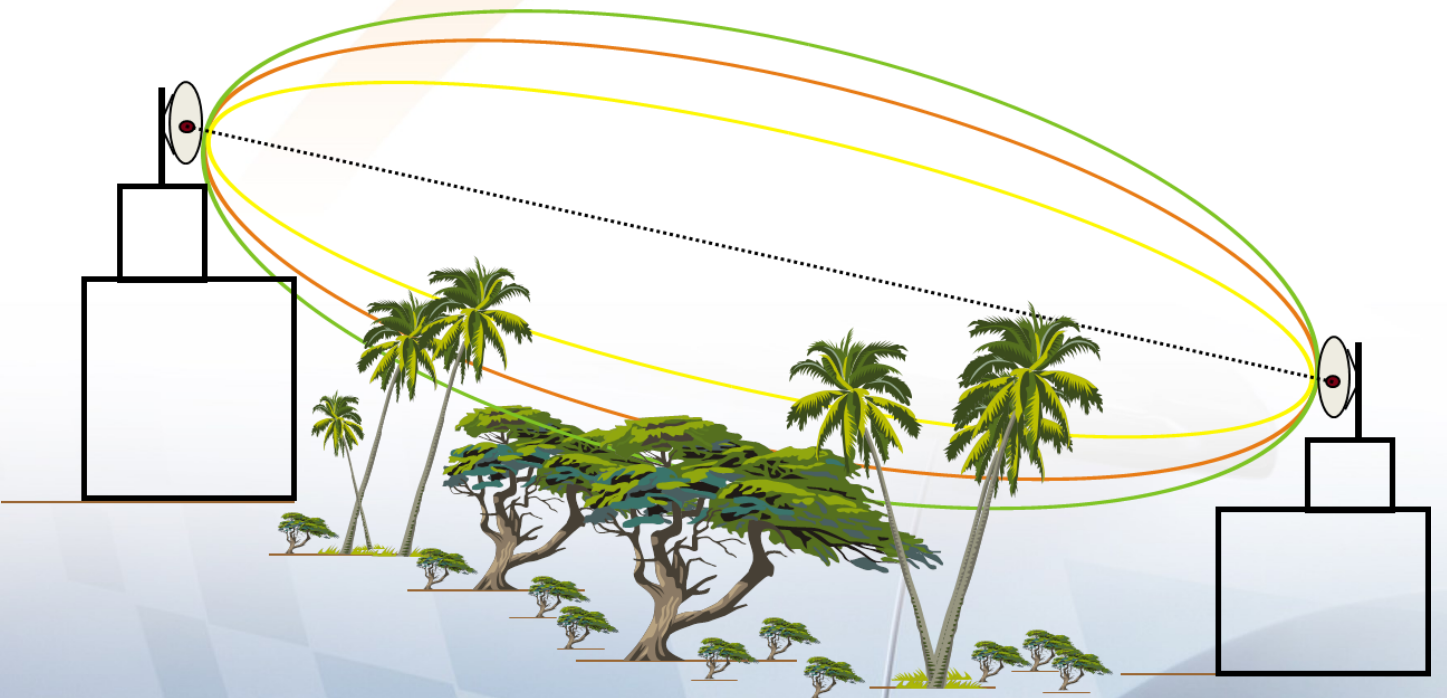


Fresnel Zone

- ❖ The Fresnel zone is a long ellipsoid that stretches between two antennas
- ❖ The first Fresnel zone surrounds the centre lobe where the RF signal is strongest
- ❖ As a rule of thumb 80% of the first Fresnel zone must be clear of any obstructions for reliable long term deployment



- ❖ If a significant portion of the Fresnel zone is obstructed, the receive-signal-strength at the receiving antenna can be greatly reduced.
- ❖ Path Profile characteristics may change over time, due to vegetation, building construction, etc.

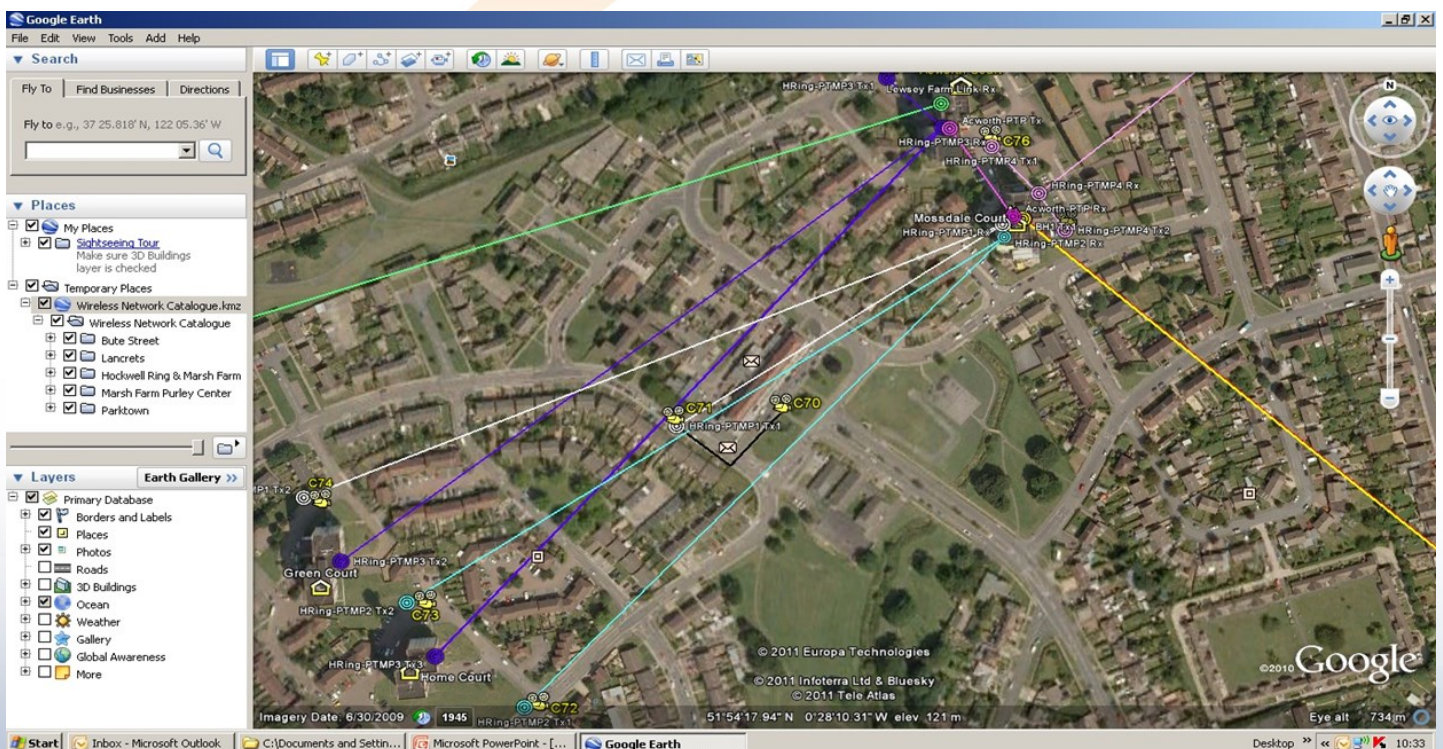


Bridge/Link Configurations



Or any combination of the above, although range and speed (54 Mbps/108 Mbps) will be limited to the lowest denominator

Network design



BCE Bos Consultancy Enterprises

BCE Bos Consultancy Enterprises is a Dutch based company, constantly building, extending and maintaining a network of distributors throughout Europe and Russia. Our aim is to identify resellers in each country to establish reliable long-term partnerships. **BCE** has the wide knowledge and specialization to deliver solutions for the high end of the security spectrum. **BCE** represents a large number of international manufacturers specialized in video networks for cities and industrial zones, thermal camera's, switches, personal media radio systems and covert solutions like as:



Wavesight

Wireless Video Outdoor Network solutions suitable for cities, harbors, airports and industrial areas. Providing stable Point to Point and Point to Multipoint connections up to 300 Mbps and 40 kilometers of distance with license free and licensed connections.



Switches, power supplies and Surge Protectors.

A great variety of industrial and desktop switches. Managed, Unmanaged, PoE, PoE+ switches suitable for integrated use at surveillance systems of cameras and wireless radio configurations. Up to 1 Gb.



RapidCam

RapdiCam is a rapid to deploy, user friendly stand alone camera solution which can be used for observation and covert covert purposes.



Thermal camera program.

Thermal camera solutions for use at Industrial sites, Border control, Airports, Harbours, Perimeters etc. For bright exposure in colour at day time and monochrome during night time. Solutions up to a distance of 5 kilometers.



ANPR Camera Program.

ANPR camera program to monitor number plates at sites, parking lots, entry/exit gates and highways at speeds up to 220 kmph. On request delivered with/as:

- ANPR software
- Built-in at stainless steel pole.



DigiController

IP based I/O controller supporting many connectivity protocols. With web based interface, DIN rail mount and small form factor.



Body Worn Camera program.

The most reliable Portable Law Enforcement camera system used at Police, Special forces, border Control, fire brigades, Surveillance and Security Guards



Smartdetect

Full stand alone camera system. Can be either used as point to point communication as well as within remote network environments. Specially designed for observation and covert operations.



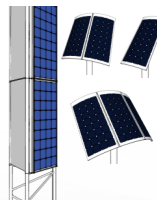
Cartag

Wireless security system protect stealing parts from cars parked at parking places of car dealers, lease companies and fleet owners.



Patio Mounts and Brackets.

Robust steel galvanised, aluminium or stainless steel patio mounts, pole extenders, L + M wall brackets and U-clamps in different size and design. Ideal for easy installation of radios and cameras at top of buildings, poles and walls.



Stand Alone Solar Power Systems.

The small light weight and rapid deploy solar solution for cameras and radio's at sites without any infrastructure.

Complete pre-assembled pole solution on request.

DISTRUBUTED BY:



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