LBFoster®

Solar Gateway Camera
Ultra-low Power Remote
Monitoring of Events

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Ultra-Low power Remote Monitoring of events

SECTOR

Telecomms and Security

AVAILABLE

WORLDWIDE

Self powered, with up to 20 'TAG' wireless detectors monitoring various conditions and sending alerts and images via 3G communications for security or environmental events. Fast 24/7 "always online" response without power or cables.

KEY BENEFITS

This ultra-low power intelligent CCTV system requires only 1/10th of the energy of 'traditional' CCTV, which now permits a small 30W solar panel (only 536x477mm) full autonomous operation within the UK. Complete with an Infra-Red illuminator for night time viewing.

Solar calculations are based upon the 22+ years 'Insolation' solar radiation NASA database and optimised for the UK weather.

Within the camera housing the camera is an integrated low powered gateway which monitors a family of wireless 'TAG's – and streams either data, images or alarms via a low power always online 3G communications integrated router.

This creates a complete 24/7 monitored smart Solar 3G CCTV system, which extends beyond intruder detection.

Each TAG is wirelessly connected to the IP Gateway, at typically 200-500m distance, operating on its own integral battery. Typical life 12 months, longer at design request – and remotely monitored.

TAG's are intelligent, and can be programmed with various functions, and decision logic, currently and not limited to detecting Tilt / Vibration / Temperature / Position / Flood and Contacts.

Asset monitoring

Cable theft

Flood sensing

Landslip monitoring

Vibration monitoring

Movement detection

Temperature

Typical tilt 'TAG'

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SPECIFICATION

Camera Module

> Default VGA 640x480 resolution.

> Class leading ultra-low light sensitivity

> Electro-mechanical IR filter and IR illuminationfor day / night operation

> Frame rate of 25FPS QVGA low compression

> Frame rate of 25FPS VGA with high compression

> Frame rate of 15FPS VGA with low compression (actual frame rate depends on 3G network conditions)

30 Frame Buffer

> To permit pre-alarm images

Tags

> Operating voltage 3.0V – 5.0V

> Operating Temp.-30C to +70C

> Radio

    Default data rate 2kbps

    434MHz nominal carrier frequency – unlicensed ISM band

    Carrier temperature stability <1ppm over operating temp. range

    Radio Link Budget in excess of 130dBm+ with default settings

    Long range UHF encrypted data communications

Integrated Intelligent Gateway

> Operating Temp. -20C to +70C (extended low temp to -30C available)

> Firmware remotely updates over the 3G network

> Programmable for future options.

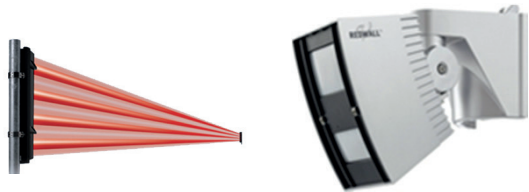**WAN Wireless Interface**

> Data bearers: SMS, GSM, GPRS, 3G

Max Tags: 20 per system

> Redundancy options available.

Expansion Options

> 2 x voltage free relay contact outputs

> 2 x opto isolated digital inputs

> 3 x general purpose analogue / digital I/O –not isolated.

Optex® PIR detectors and IR Beams supported

> Optex® low power detectors are wired to the battery / TAG radio box, which offers up to two years typical operation, battery levels monitored.

> Tamper and Anti-Mask detected.

> Or any 'dry-contact' out device, i.e., IR Beams, alarm panels etc.

Operation

> Email sent on alarm, with pre image attachments

> Remote live streaming via RTSP media player

> Connection via secure VPN

> Optional NVR software to record

TAG VARIANTS

Motion Tags	Detect vibration – as per cable theft tags
Tilt Tags	Detect Tilt – cut overhead cables
XYZ Tags	As per tilt tags but detect orientation to greater accuracy e.g. for slip / structure movement
XYZ streaming tags	Real time streaming of XYZ data for motion analysis
Beacon Tags	Emit a beacon ping that can be tracked by directional
Scanner	
Contact Tags	Detect contact closures / voltage free switch inputs
GPS Tags	Provide GPS location of tag – 1 metre or less for surveying applications using multiple tags in differential mode
GPS Logging Tags	Provide historical GPS location of tag over a period of time with data downloaded when in range of a gateway – for historical non real time tracking without the need for a SIM contract.
Flood Sensor Tags	Detect water level
Temperature Sensor Tags	0.25C accurate sensing of surface temperature
Custom tags	All our tags are designed from the chip level upwards with our own hardware and software IP so we can produce custom versions for almost any application.