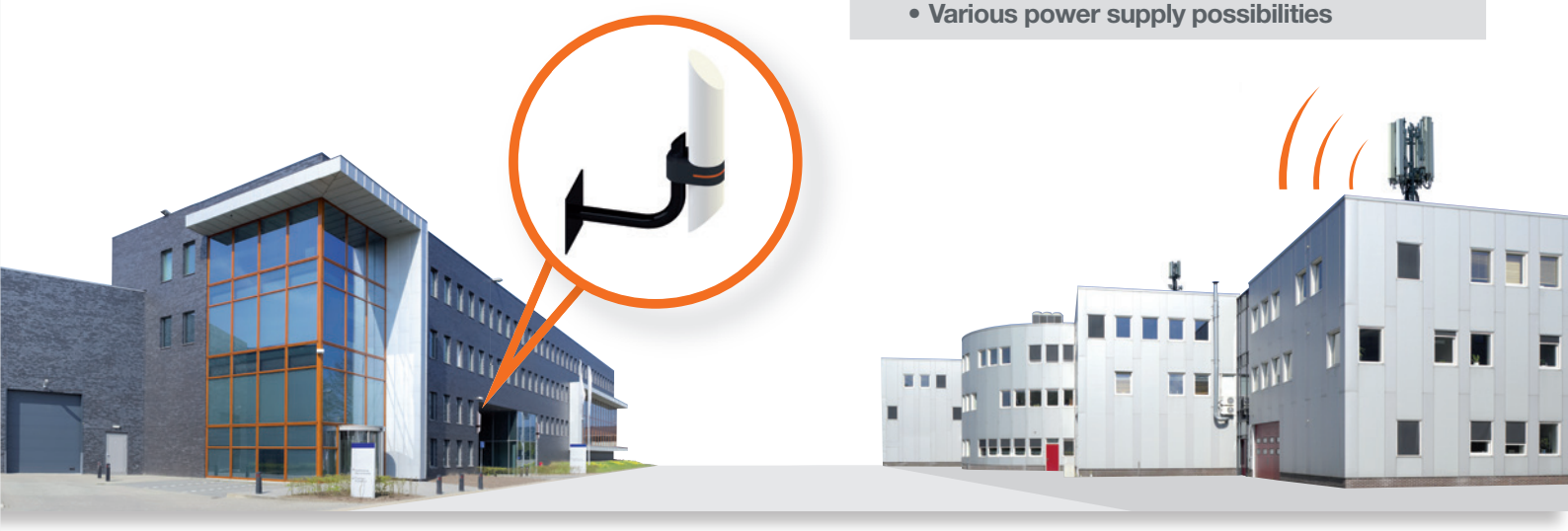
FlashRad

A Safety Monitoring System to Detect Excessive EMF Levels

- **Connected or wireless communication for data transfer and alarms**
- **Alert users with sound, light, mail or sms**
- **Cover frequencies of all cellular networks including short pulsed signals**
- **Monitor low EMF levels in public areas**
- **Various power supply possibilities**



Main features

User profile

- Companies situated near antennas or radar transmitters, who wish to protect their employees from questionable EMF levels (military bases, airports, etc.)
- Municipalities for measurements in public areas

Measurement capabilities

- Continuous measurement of EMF levels. Each monitor detects signals and then transmits the data to the surveillance PC or FTP server to be processed individually
- Data is collected separately from each monitor in place

Frequency bands

- 700 MHz – 11 GHz; higher or lower frequencies possible

Safety recommendations

- EMF exposure limits can be defined by users and adjusted to any regulation or recommendation

Product Configuration

Software

- ■ FlashRad software

Equipment

- ■ External connectors (mounted on cable or not)
- ■ Ground or wall support
- □ Modem 3G/4G
- □ PoE or autonomous power supply

Accessories

- ■ Case
- □ LEDs box with alarm + USB cable

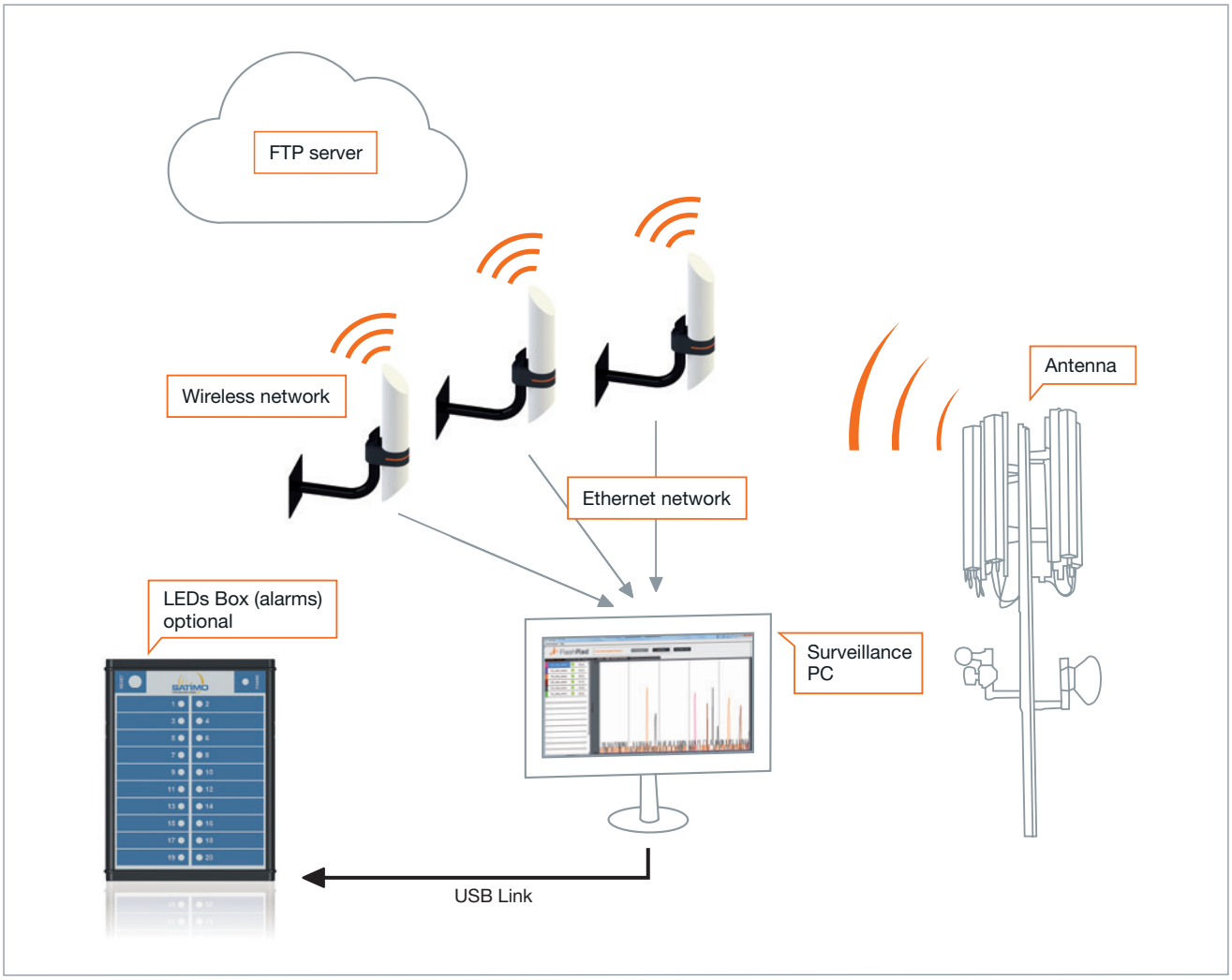
Services

- ■ Initial calibration
- ■ Calibration report
- □ Ground or wall installation
- □ Training
- □ Additional calibration
- □ Extended warranty

■ Included □ Optional

FlashRad is a safety wideband exposure monitoring system that performs continuous measurements of electromagnetic field (EMF) levels. It detects all kinds of pulsed signals, including short pulsed radar, emitted from various sources outside a building. When predetermined EMF levels are exceeded, the FlashRads monitor can sound and flash a warning in its immediate surroundings while sending a signal to the surveillance PC or user (mail, sms) for action.

Overview of FlashRad systems network



FlashRads are connected to a PC or FTP server via Ethernet or Wireless network. Continuous EMF level measurements are sent to the PC or FTP server where the FlashRad monitoring system software collects and displays the incoming data. If the FlashRads detect excessive RF levels, a signal is sent to the PC or user indicating which monitor is detecting the overexposed area. The technician can then take action. Note that each monitor can be stopped or started as necessary.

In Ethernet direct connection, the PC can send a signal to trigger the alarms in the FlashRads when the EMF levels exceed the predetermined levels.

A LED light box is available as an option to allow monitoring in multiple areas. It is connected to the PC by a USB cable of up to 10 meters.

TECHNICAL CHARACTERISTICS

	HIGH LEVEL PULSED SIGNALS (RADAR...)	WORKERS AREA (BTS, TEST...)	PUBLIC AREA
Probe reference	FR100	FR200	FR400
Probe	Isotropic 3-axes probe	Isotropic 3-axes probe	Isotropic 3-axes probe
Frequency range	900 MHz – 11 GHz	700 MHz – 6 GHz	700 MHz – 3 GHz
Lower detection limit	50 V/m	10 V/m	0.05 V/m
Upper detection limit	1000 V/m	200 V/m	100 V/m
Minimum pulse width measurement	≥ 1 µs	≥ 100 µs	≥ 10 µs

MEASUREMENT UNCERTAINTY

Axial isotropy	• 900 MHz – 6 GHz (@150 V/m) : +/-1 dB • 6 GHz – 11 GHz (@150 V/m) : +/-2.2 dB	• 700 MHz – 6 GHz (@50 V/m) : +/-1 dB • 700 MHz – 2,6 GHz (@10 V/m) : +/-2 dB	• 700 MHz – 3 GHz (@10 V/m) : +/-2 dB
Frequency response	• 900 MHz – 1 GHz (@150 V/m) : +3.8/-1.2 dB • 1 GHz – 8 GHz (@150 V/m) : +/-2 dB • 8 GHz – 11 GHz (@150 V/m) : +5/+3 dB	• 700 MHz – 2 GHz (@50 V/m) : +/-3 dB • 2 GHz – 6 GHz (@50 V/m) : +3/+1 dB	• 700 MHz – 3 GHz (@10 V/m) : +/-2.5 dB
Linearity	+/-0.5 dB (200 – 1000 V/m)	+/-1 dB (20 – 200 V/m)	+/-1 dB (1 – 100 V/m)

MEASUREMENT CONFIGURATION

Measurement interval	From 1 à 60 seconds
Measurement records	Yes if user configuration
Storage capacity	> 100 Mb
Data transfer interval	Instantaneous in connected mode From 6 à 1440 minutes in autonomous mode

CONDITIONS FOR USE

Temperature, humidity	-20 to +70°C, 90% max. humidity
Power supply	• 90 - 264 VAC, 47 – 440 Hz • 24 V passive PoE • 12 VDC by solar panel + rechargeable battery (5 days autonomy without sunlight)
Type of network connection	• Ethernet • Modem 3G/4G*

(*) SIM card and subscription not included

ALARM CONFIGURATION

Programmable alarms	Field level, battery level, memory filling, temperature, humidity, communication error
Trigger mode	Instantaneous
Transmission of alarms	By Ethernet or modem (SMS/mail)
Audio and/or Visual alarm	Yes in connected mode if exceeding a field level threshold

MECHANICAL CHARACTERISTICS

Dimensions	Heigth = 648.5 mm Diameter = 100 mm
Weight	4.5 kg
Protection	IP 55
Installation	Ground or wall installation

SOFTWARE REQUIREMENTS

Operating system compatibility	Windows XP, 7, 8, 10

Mechanical installation

Ground Installation

Wall installation

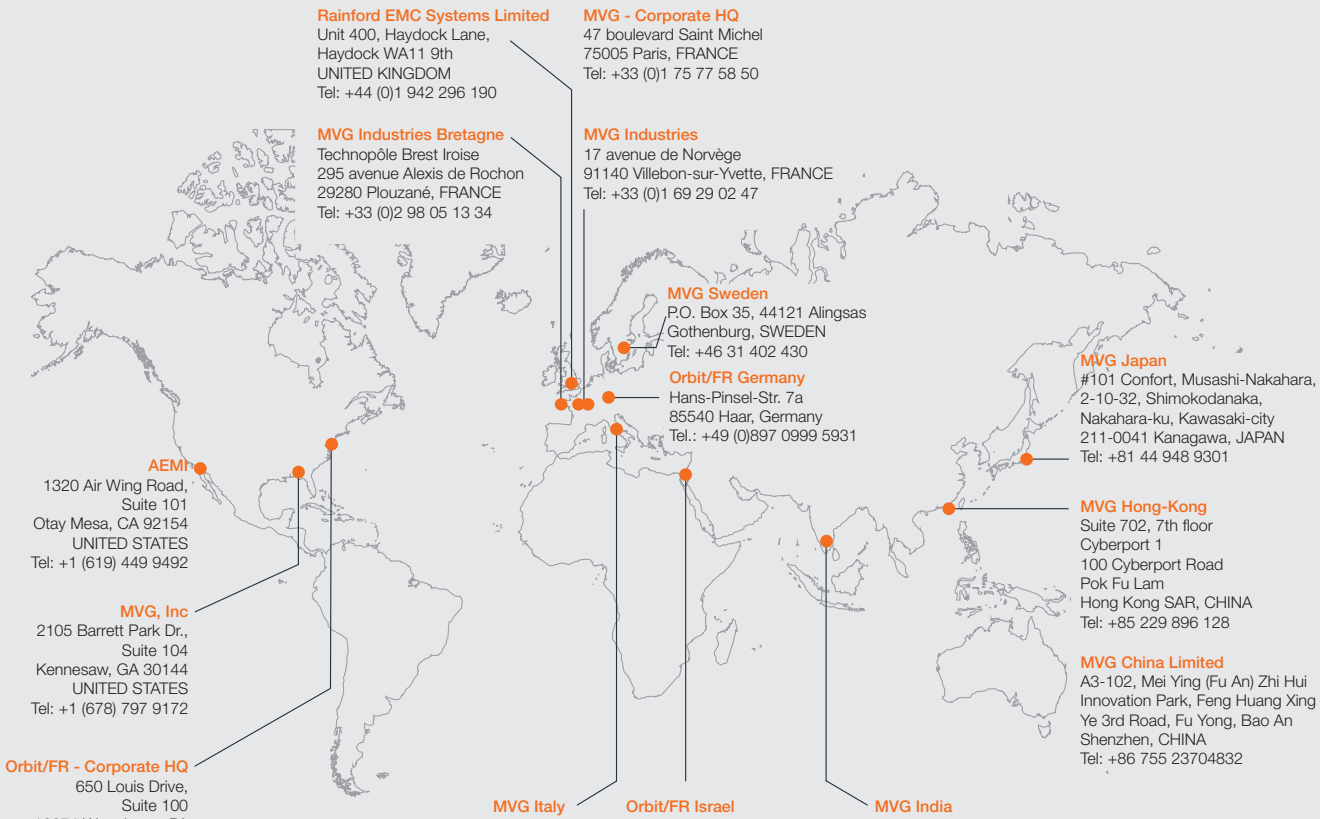
FlashRad

About Microwave Vision Group (MVG)

Since its creation in 1986, The Microwave Vision Group (MVG) has developed a unique expertise in the visualization of electromagnetic waves. These waves are at the heart of our daily lives: Smartphones, computers, tablets, cars, trains, planes - none of these devices and vehicles would work without them. Year after year, the Group develops and markets systems that allow for the visualization of these waves, while evaluating the characteristics of antennas, and helping speed up the development of products using microwave frequencies.

The Group's mission is to extend this unique technology to all sectors where it will bring strong added value. Since 2012, MVG is structured around 3 departments: AMS (Antenna Measurement Systems), EMC (Electro-Magnetic Compatibility), EIC (Environmental & Industrial Control).

MVG is present in 10 countries, and generates 90% of sales from exports. The Group has over 350 employees and a loyal customer base of international companies.



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