elaman
GERMAN SECURITY SOLUTIONS

Portable VIP Protection 2

CCTV & Alarm System

VIP KIT
Rapid Deployment VIP Protection Kit

The VIP KIT has been designed to provide rapidly deployable CCTV and intrusion detection for all types of mobile operations.

The VIP KIT is a modular system that can be configured according to customer demands and situations.

The standard model includes the following:

- Fully programmable and portable, ruggedized monitoring case
- 4 x Audio/Video Receivers
- 4 x Wireless and battery powered "Day/Night" camera units
- 4 x Wired and battery powered "Day/Night" camera units
- 4 x Wireless and battery powered PIR detector units
- 4 x Wireless and battery powered Door Contact units
- 1 x Fully programmable Digital Video Recorder with removable 80Gb hard disk
- 1 x 8" TFT Monitor connected to fully adjustable Quad multiplexer
- 1 x 8" TFT Monitor connected to DVR for full Video playback
- 1 x Remote control handset for remote activation of cameras
- Battery packs and chargers for all wireless items (12 units)

The VIP KIT can be configured for any of the following options:

- Customer specified cameras with PTZ or other options
- GSM/SMS alert module
- Video encryption modules
- Audio encryption modules
- Smoke/Fire wireless detection units or any other form of sensor.

Specifications

Receivers

4 Receivers individually programmable to supplied transmitter frequencies, ranging from 900 – 2.2GHz with LowPas Filters to cut out unwanted interference.
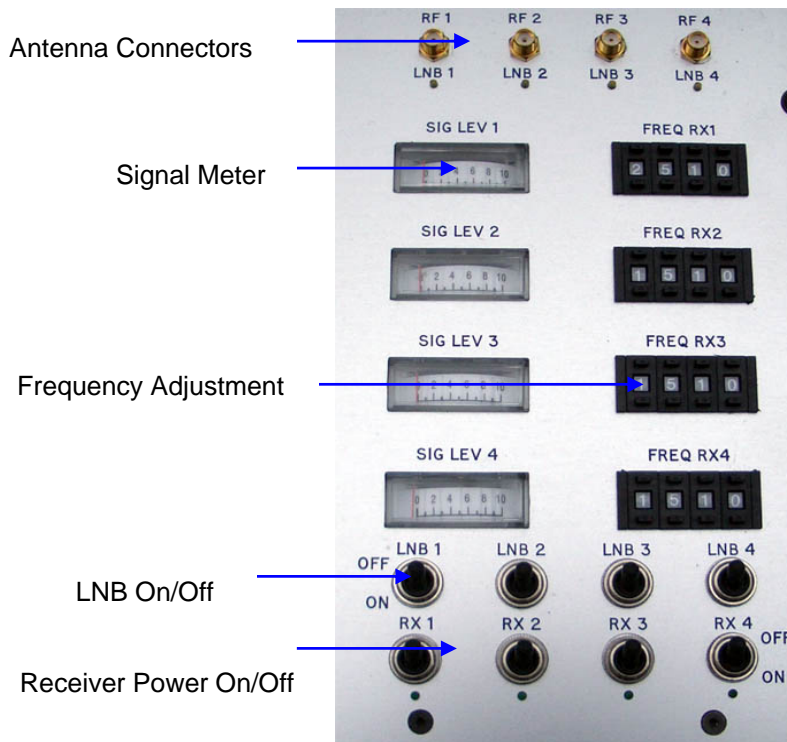
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Frequency range	900MHz–2200MHz (PLL)
Programmable steps	1MHz digital
Noise	10db
Input impedance	75W connector F female
IF bandwidth	27/16MHz SAW filter 479.5MHz
Video deviation	±4MHz (±8.5MHz max), +ve/-ve switchable
Video output	1Vpp on 75W adjustable (PAL, NTSC or SECAM)
De-emphasis	standard CCIR switchable
Video frequency response	50Hz–5MHz ±1dB with audio at 7.5MHz, ±2dB with audio at 5.5MHz
Differential gain	±4%
Differential phase	±4% >40dB
Video S/N ratio	unweighted deviation, = 4MHz RF input 50dBm
Audio sub-carrier frequency	unweighted deviation, = 4MHz RF input 50dBm
Audio sub-carrier deviation	±50kHz
Audio de-emphasis	50ms
Audio frequency response	15kHz–15MHz ±3dB
Audio output	0dBm on 1kW adjustable
Audio S/N ratio	>45dB unweighted
Working Temperature	0–45°C

Wireless Camera Units

The camera units are installed with Day/Night cameras, 100Mw transmitters (higher power can be requested). Each unit has 10 channels to avoid frequency conflict. The cameras are programmed to remain in stand-by until alarm is received or remote control signal is received to switch them on. With the supplied battery pack, the cameras will remain powered for up to 6 months in stand-by mode.

Remote Control Antenna
Transmitter Antenna
Camera Lens
Audio Mic Connector
Mains/Battery Connector
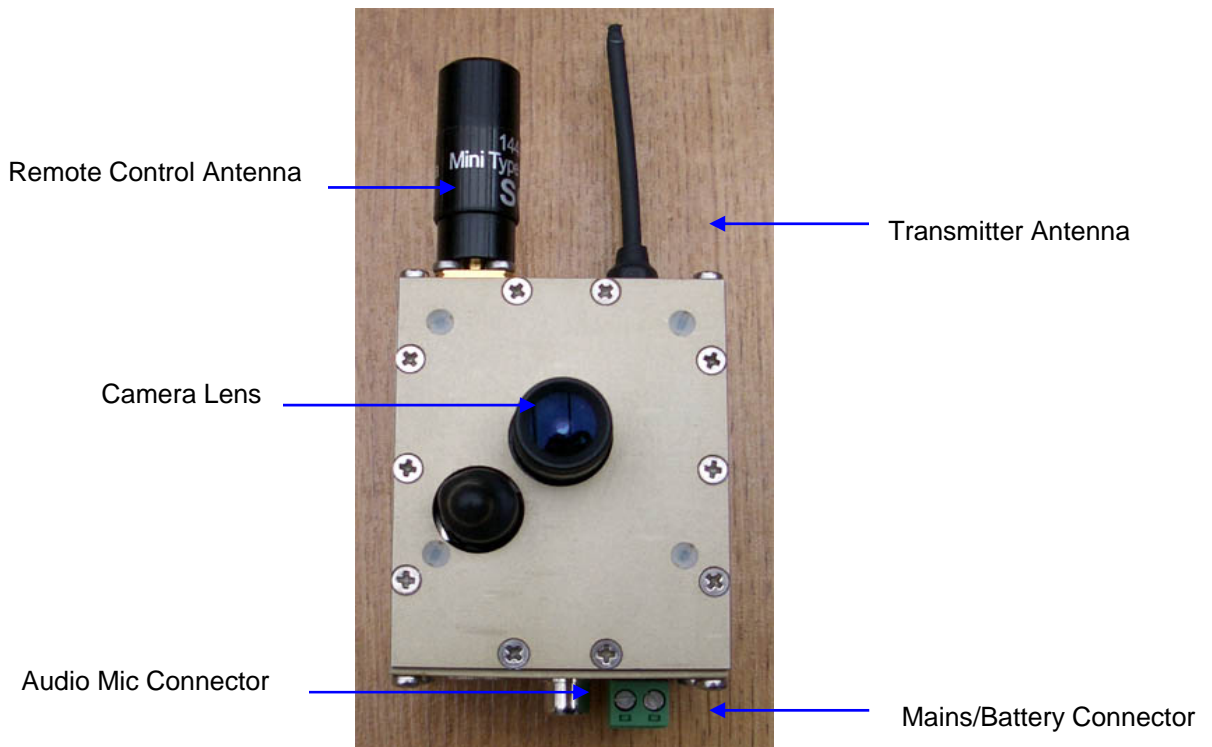
Camera	4mm Lens Day Night Colour Camera (NTSC or PAL)
Working Frequency	900MHz – 2200Mhz 10 Channel
RF Power Output	100mW ±1dB
RF power impedance	50W (SMA)
Frequency Stability	±300kHz
Video Carrier Deviation	±4MHz (FM)
Video input level	1Vpp adj. 75W (BNC)
Video frequency response	50Hz–5MHz +0/-2dB
Audio sub-carrier frequency	1.5MHz–7.5MHz
Audio sub-carrier deviation	±50kHz FM
Audi frequency response	20Hz–15kHz ±3dB
Audio input level	LINE 100mV into 5KW MIC input 20mV
Dimensions	52mm x 64mm x 23mm
Working Temperature	-10/+50°C
Weight	150g
Audio Connector	RCA female
Supply connector	3 pin direct insertion

Digital Video Recorder

The DVR is supplied with removable 80Gb hard disk. All functions are controlled from the touch screen panel. The DVR is installed in series with the 8″ TFT playback screen and the camera connections. The DVR can be programmed to automatically record all alerts each time the video cameras are enabled.

Removable Hard Drive

Touch Screen Control
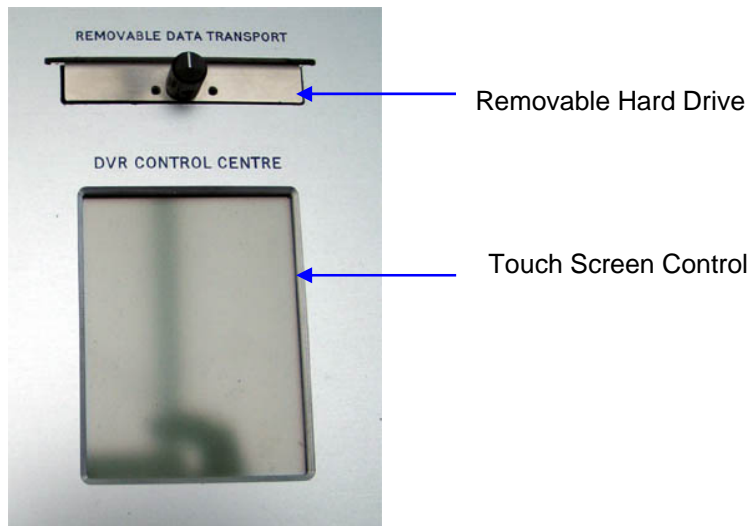
Technical Specifications

Video Input:
One MiniDin 4 Pin connector
Analogue Input Composite and S-Video (Y/C), software selectable.
Level 1.0 Vp-p 75 ohms
PAL and NTSC standards, 625/50 (PAL) 525/60 (NTSC)
Pixel Resolution: 720 x 576 pixels (PAL), 720 x 486 (NTSC)
ADC:
    Sampling: 13.5MHz
    S/N Ratio 50db
    Bandwidth: 7 MHz (-3db)
Differential Gain: 2%
Differential Phase: 2 deg.
ADC Differential Linearity: +/- 0.7 LSB
ADC Integral Linearity: +/- 1.0 LSB

Video Output:

- One MiniDin 4 Pin Connector
- Analogue output composite and S-Video (Y/C), software selectable.
- PAL and NTSC standards 625/50 (PAL) 525/60 (NTSC)
- Level 1.0 Vp-p 75 ohms
- 550 lines resolution
- DAC:
  - High Quality 10-Bit Video DACs
  - Integral Nonlinearity < 1 LSB at 10 Bits
  - 80 db Video SNR

Video Compression:

- Wavelet codec for superior image quality
- Real time compression or decompression at 720 x 288 @ 50 fields/sec – PAL
- 720 x 240 @ 60 fields/sec – NTSC
- Visually Loss-less compression at 4:1 on natural images
- Compression ratio variable down to 4:1
- Field rate variable from 50 fields/sec to 1 fields/sec PAL. (60 fields/sec to 1 fields/sec NTSC)

Audio Input:

- One 3.5mm stereo jack
- Level Max 1 volt RMS 12 Kohm input impedance.
- Resolution 16 bits, sampling rate 39375 KHz

Audio Output:

- One 3.5mm stereo jack
- Headphone amplified output 82mW on 32 ohm, THD=0.1% (max) f=1 kHz
- Digital db-linear volume control

Power Input:

- Power jack 2.1mm
- Power requirement 12 volt at 500 ma while recording.

GPI Input:

- One 2.5mm stereo jack
- 22 Kohm pulldown input resistance, digital level.
- +5 volt max 20ma available.

Infrared Receiver:

- 38 Khz receiver compatible with RC5 standard.

Serial Port:

- One 3.5mm stereo jack
- Three pin RS232 (TX, RX, GND) serial port.
- Programmable speed to max 115200 Baud.

Hardware:

- Processor 32 bit RISC ARM ARM7TMDI core, clock speed 75.6MHz.
- 1 Mb flash memory, 256 bytes Flash EEPROM
- 32 Mb SDRAM
- LCD display 240 x 320 pixel touch panel and backlight
- 2.5" removable hard disk maximum size of 60Gb.
- PIO mode 4 protocol with maximum data rate of 16.6Mb/Sec.

Wireless Sensor Units

The VIP KIT will operate with up 8 remote wireless sensors. Standard supply is 4 x PIR units and 4 x Door Contact units. Alternative sensors can be supplied upon request.

Each wireless unit is supplied with fully rechargeable battery packs giving up to 3 days power, transmitting on or around 836MHz frequency.

All sensors are directly controlled by the Master Wireless Communication Station installed in the control case. The MWCS will communicate every 3 seconds with the remote sensors, interrogating each unit for details of Battery level, Temperature and Signal Strength. Any change below accepted thresholds will set of the system alarm.

When the alarm signal is received and status of the MWCS advises anything other than battery loss, the remote control can be pressed to automatically switch on the cameras in the required area. If the system alarm is not attended to within 20 seconds, the cameras will automatically switch on and the DVR will automatically start to record.

An optional GSM module can be installed to allow transmission of alarm status by SMS to pre-programmed cellular number.
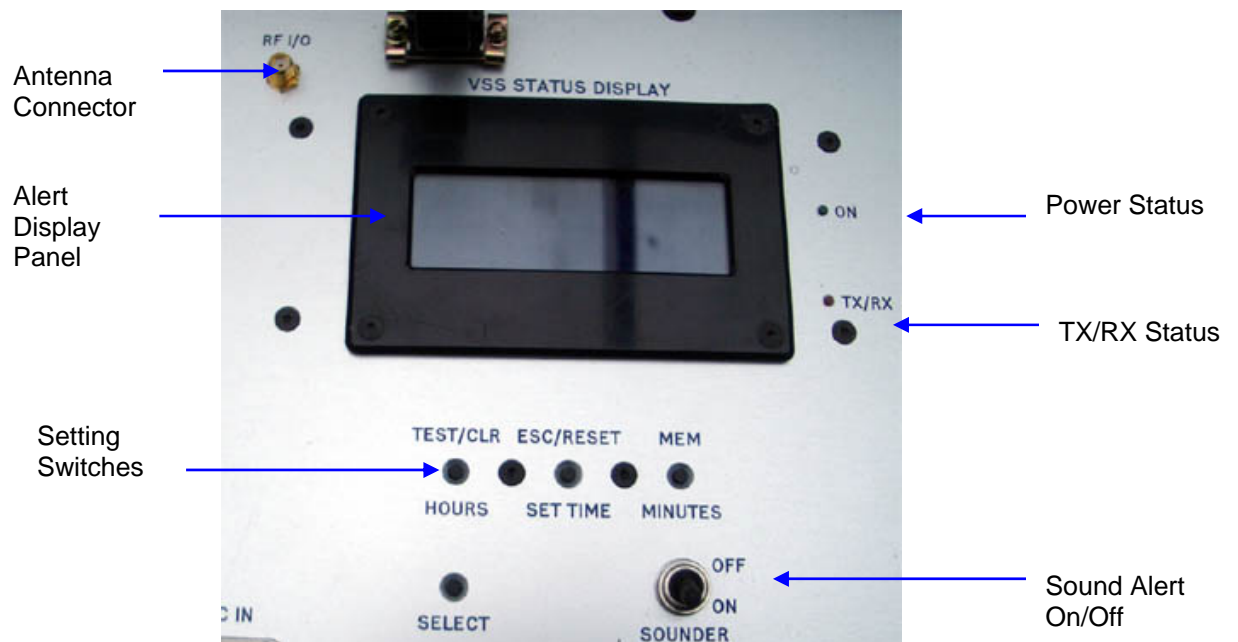
Wireless PIR

Built In TFT Monitors

Audio Control & External Wired Cameras

The system is built to accept 4 external wired camera units. The system will display, either the Wireless or the Wired cameras through the built in Quad Multiplexer and built in TFT monitor.

To monitor 8 cameras, an external monitor can be used and connected to the system through an external switcher attached to the built in BNC Video Output sockets.

All Audio is controlled through the case mounted panel. Individual channels can be opened or closed for real time listening and DVR audio controls can also be adjusted from this panel.

Wired Video and Audio Control Panel

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or would like to discuss a specific requirement or project, please contact us at:

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