Advanced Test Environments, Inc.

Portable Surveillance System

System Description:

The Portable Surveillance System (PSS) is a complete, self-contained, multi-channel video system. It was designed to be rugged yet small enough to be disassembled and carried to any location.

The PSS is an eight-channel video & audio surveillance system utilizing the latest synthesized controlled technology. The customer's target application was the basis for this design. The system allows multiple transmitter and power configurations while remaining very simple to operate. The system requires no programming and therefore, does not have to be "reset" after power has been cycled.

Component Description:

(Cameras)

The B&W outdoor cameras are of all metal construction and are very small (2.25" long). They are a 0.0 lux fixed focus 420 line unit assisted by infrared led.

The B&W indoor cameras are no more than 4" long and 1" wide. They are 0.01 lux fixed focus 420 line unit assisted by infrared led. They contain on-board audio.

The Color indoor cameras are no more than 4" long and 1" wide. They are 0.1 lux varifocal 380 line unit. They contain on-board audio.

(Transmitter Modules)

The transmitter modules are small, synthesized controlled 0.5-watt units. They contain a video and audio modulator, synthesized carrier generator; RF amplifier and adjustable video and audio gain control. It is powered by 12V DC. This transmitter can communicate with the repeater modules or directly with the receiver console. Carrier frequency is directly controlled by the synthesizer and requires no manual adjustments or "fine tuning".

(Repeater Modules)

The repeater module accepts the video and audio carrier from the transmitter module and converts that carrier frequency to a new frequency for final transmission to the receiver console. The received and transmitted carriers are synthesized controlled and require no manual adjustments. The repeater is a 2-watt unit and is powered by 12V DC.

(Receiver Console)

The receiver console is an eight-channel video and audio receiver. It receives the carrier frequencies from all eight transmitters or repeaters via a single antenna. The RF front end has a sensitivity of 0.4 microvolt and rejects out of band signals suppressing them at a minimum of –80dbm. Each channel of the receiver can be set to receive the carrier frequency of the transmitter module or the repeater module. This method permits omission of the repeaters when the distance to be covered is minimal. Selection of the carrier is a simple switch selection.

The received audio channels can be monitored via an on-board headphone jack. The audio channel to be monitored is selected by a selector switch on the console panel. A single master volume control is used to set the amplitude of the monitor volume.

All video and audio channels are available in real-time via their own dedicated output ports. These ports are buffered and contain low-pass noise filters. An identical set of ports is used to provide distribution to the Digital Video Recorders.

The receiver also contains a four channel panic receiver. The four panic channels are received via a single antenna. The panic receiver has a sensitivity of 0.3 microvolt and is based on technology used in our standard panic pager product line. There are four indicators and an audible alarm on the console. When a panic channel has been activated, the corresponding indicator will illuminate and the audible alarm will come on. The activation alarm can be selected to reset automatically or stay latched for a manual reset.

(LCD Displays)

There are three LCD displays in this system. The first two displays are for viewing the two quad channel video outputs. The third display is for full screen viewing of any one of the eight channels of video. The video channel to be viewed on this display is chosen via a selector switch on the console panel.

(Digital Video Recorders)

There are two digital video recorders with integrated quad channel display generators. These recorders utilize internal hard disk drives for storage. They are capable of recording, real-time playback while recording is in process and remote viewing. They can be set to overlap record when the hard drive is full or alert when it is full. There are several quality/record time settings providing a record session for any type of environment.

(PIR Motion Sensors)

There are four PIR motion sensors with integrated RF panic transmitters. The transmitters have an integrated flat plane antenna for short transmission and attachable antennas for long distance transmission. Battery or 12V DC adapters power these units.

(Universal AC Adapters)

These universal AC adapters are designed to operate anywhere in the world. They auto sense the input power and come with a complete world adapter prong set. The units are packaged differently than standard “wall cubes”. They are rectangular in shape making them easy to conceal. They are well regulated and provide clean DC power.

(30 feet camera extension harness)

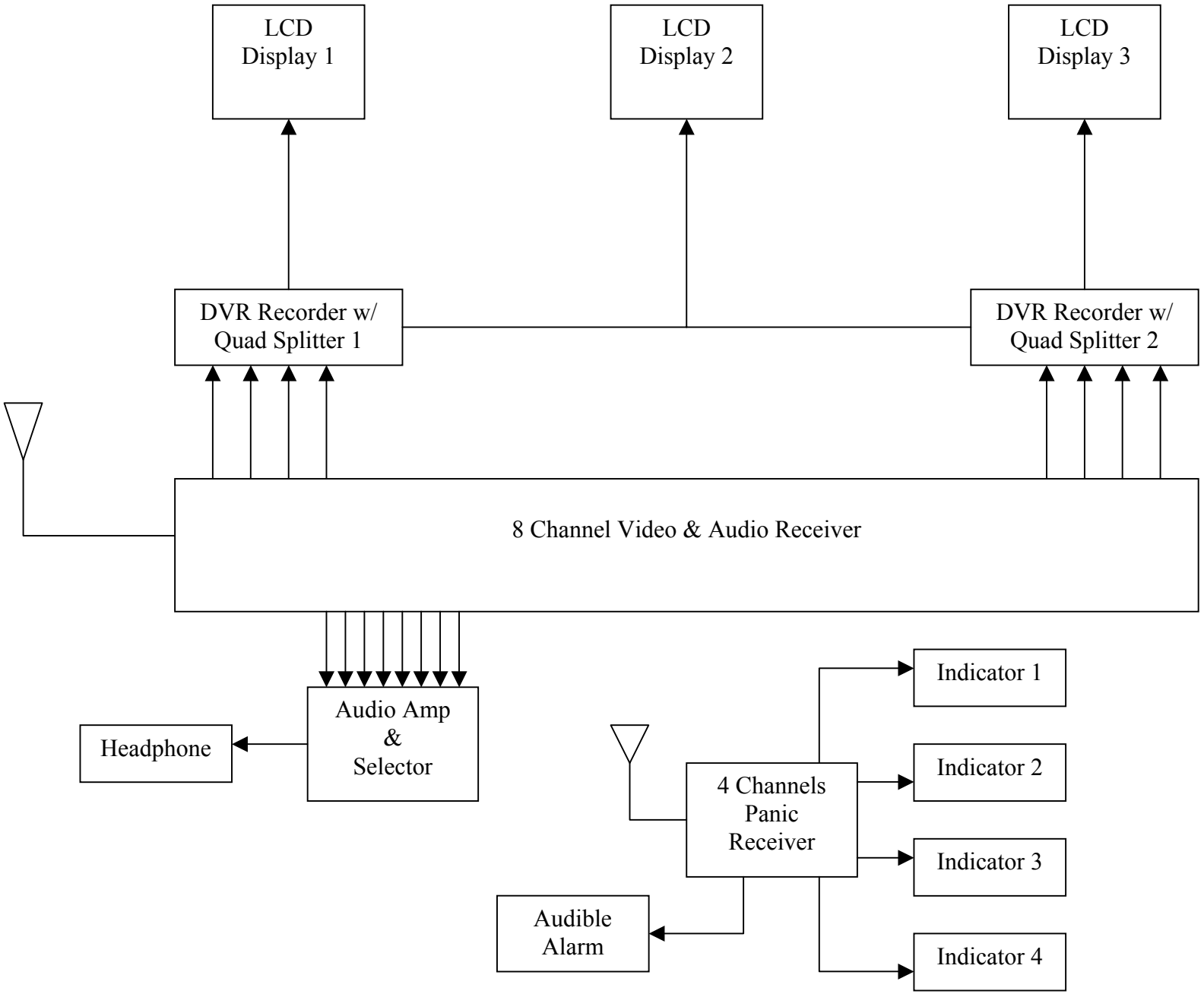
These extension harnesses provided connectivity for video, audio and power. They are made of shielded coax.

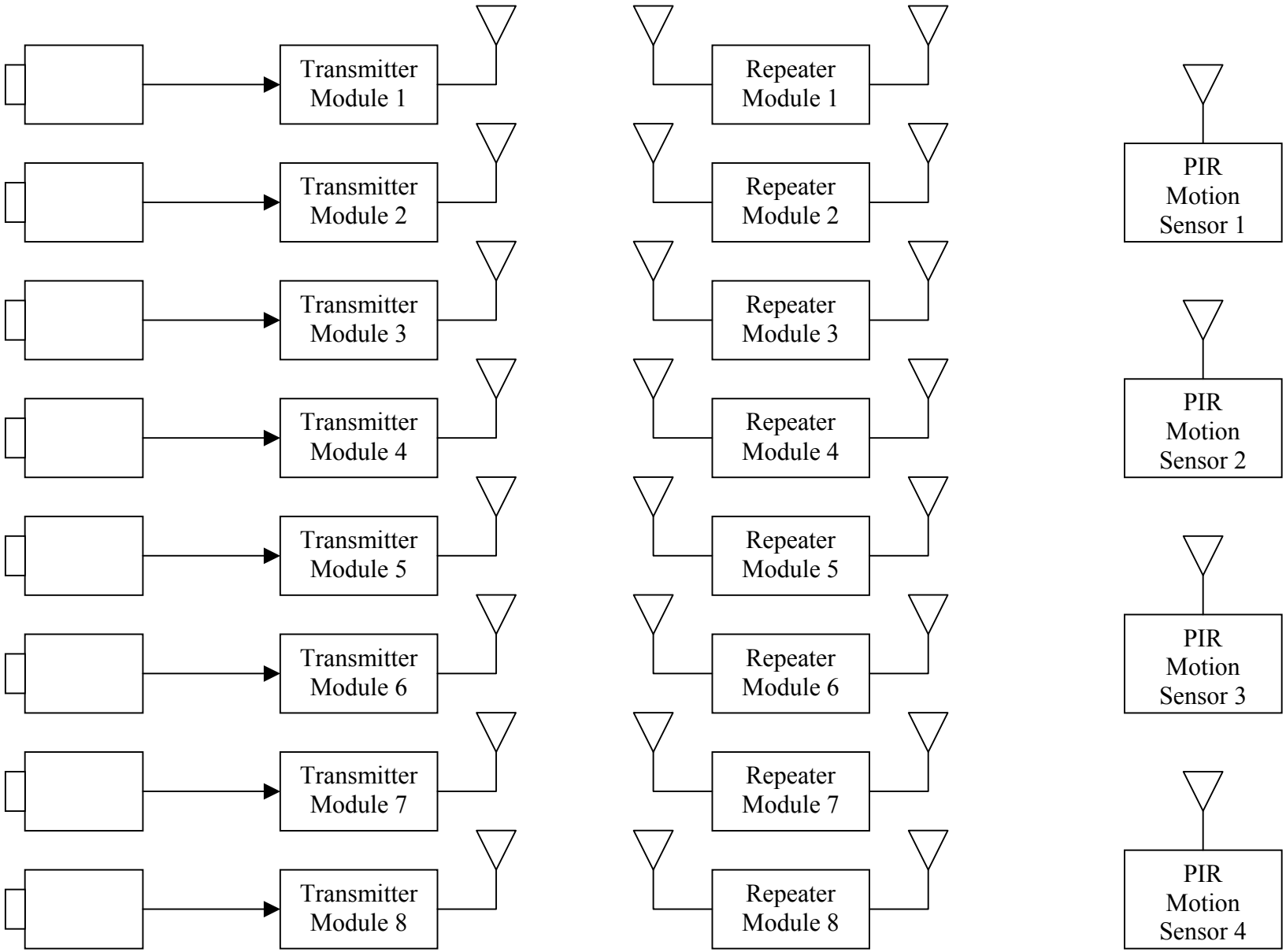
(UHF Antenna)

These antennas are 6 inches in length. They are very small in diameter and extremely flexible eliminating accidental braking due to handling and movement.

System Contents:

- (2) B&W Infrared assisted outdoor cameras
- (3) B&W Infrared assisted indoor cameras /w audio
- (3) Color indoor cameras /w audio
- (8) Transmitter modules
- (8) Repeater modules
- (1) Eight channel receiver console
- (3) LCD Displays
- (2) Quad channel digital video recorders with integrated quad channel video multiplexer
- (4) PIR Motion sensors w/ integrated RF panic transmitter
- (30) 6 inch UHF antenna
- (8) 30 foot camera extension harness
- (21) Universal powered AC adapters w/ prong kit
- (1) Headphone set


LCD
Display 1
LCD
Display 2
LCD
Display 3
DVR Recorder w/
Quad Splitter 1
DVR Recorder w/
Quad Splitter 2
8 Channel Video & Audio Receiver
Audio Amp
&
Selector
Headphone
4 Channels
Panic
Receiver
Indicator 1
Indicator 2
Indicator 3
Indicator 4
Audible
Alarm


Transmitter Module 1
Transmitter Module 2
Transmitter Module 3
Transmitter Module 4
Transmitter Module 5
Transmitter Module 6
Transmitter Module 7
Transmitter Module 8
Repeater Module 1
Repeater Module 2
Repeater Module 3
Repeater Module 4
Repeater Module 5
Repeater Module 6
Repeater Module 7
Repeater Module 8
PIR Motion Sensor 1
PIR Motion Sensor 2
PIR Motion Sensor 3
PIR Motion Sensor 4