

**SICOM**

**訊研科技有限公司  
SIGNAL COMMUNICATIONS LTD.**

An associated company of CityU Enterprises Limited

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Security Company Licence No.: 0601

REF NO: F0002141  
TO: Intertek Testing Services  
ATTN: Mr. Cliff Wong  
CC:  
FROM: Ms. Shirley Yip

DATE: 14 February, 2000  
YOUR FAX NO: 27458306  
YOUR TEL NO: 21738503  
NO OF PAGES INCLUDING THIS PAGE: 1

Subject: Letter of Agency

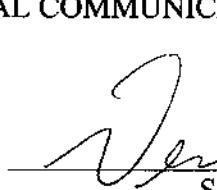
I, an officer of Signal Communications Limited do hereby authorize Intertek Testing Services to act on our behalf in front of the Federal Communications Commission with respect to all matters relating to certification of equipment under Part 15 and Part 18 of the FCC Rules until further notice.

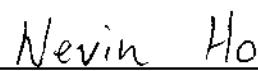
I further certify that no party (as defined in §1.2002(b) of CFR 47, 1992) to this application, including myself, is subject to a denial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C., 853(a).

Dated this 14<sup>th</sup> day of February 2000

For and On Behalf of  
SIGNAL COMMUNICATIONS LTD.

By

  
  
Signature

  
Nevin Ho  
Printed

Title Engineering Manager

*TeleEye Pro*

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**Transmission Unit**  
**PTA-B1 / PTA-C1/**

**User Guide**

**SiCOM**

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Version 2.6

**Limits of Liability and Disclaimer of Warranty**

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## FCC Statement on Class B

### **WARNING**

**Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

### **NOTE**

**This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.**

**However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determine by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:**

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.
- Consult the dealer or an experienced radio/TV technician for help.

**Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.**

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## **SECTION 1**

# **INTRODUCTION**

**TeleEye Pro** is an advanced *Video Monitoring System*. The transmission unit is especially designed for monitoring medium sized firm, factory and warehouse. Four models are available to suit for different applications. **PTA-B1** is monitoring systems transmitting B/W video frames. **PTA-C1** functions as standard model for the transmission of color video. **PTA-B1** and **PTA-C1** supports up to 4 alarm inputs and 1 output switch.

## **Features**

- Transmits high quality videos of multiple CCTV cameras
- Achieves fast video update by using an interframe image compression
- Password protection on connections and settings
- Built-in real time clock
- Multiple alarm inputs with independent NC / NO trigger contacts
- Remote control through 1 relay switch

## **About the Reception Software**

The **TeleWin Reception Software** is a Win95 application program (IBM or compatible PC). It implements the system controls as well as image decoding of the **TeleEye Pro** systems. The compressed data are decoded and displayed through the PC monitor.

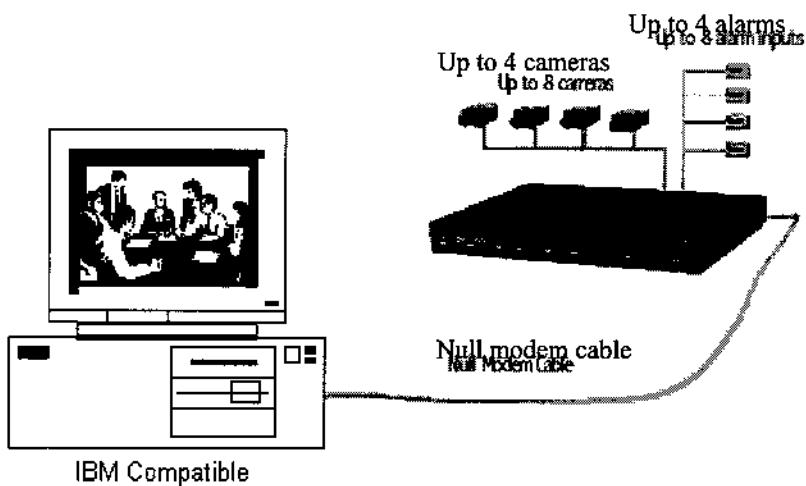
## **INSTALLING *TeleEye Pro***

### **What You Need**

To install and operate the ***TeleEye Pro*** transmission unit, the following items are required:

- **TeleEye Pro Transmission Unit**  
The image transmitter supports up to 4 video sources in all PAL or NTSC format.
- **CCD Camera**  
Color / monochrome, PAL or NTSC.
- **Coaxial Cable (RG-59 recommended)**  
It is used to connect the video output of the CCD camera to the video input of ***TeleEye Pro*** transmission unit.
- **Null Modem Cable**  
It is used to connect the ***TeleEye Pro*** transmission unit to one of the COM port of the PC.

# System Connections



## Recommended Setup Procedures:

- Step 1:** Plug one end of the Null Modem cable into the socket marked MODEM on the *TeleEye Pro* transmitter, then plug the other end to the COM port of the computer.
- Step 2:** Plug one end of the BNC cable into the VIDEO OUTPUT of the CCD camera, then plug the other end to the *TeleEye Pro*'s VIDEO INPUT connector (CH1 preferred)  
If more than one camera, plug the BNC cable to the *TeleEye Pro* CH2 to CH4 sequentially.
- Step 3:** Plug one end of the alarm cable into the connector of the alarm sensor and plug the other end of the cable to the appropriate pins of the ALARM CONNECTOR of the *TeleEye Pro*.
- Step 4:** Plug the round end of the a.c. adaptor into the socket marked POWER on the *TeleEye Pro* transmitter. (Note: transmitter can support 9V d.c. to 12V d.c. supply voltage)
- Step 5:** Plug the a.c. adapter to a.c. power source and switch on the *TeleEye Pro*. The *TeleEye Pro*'s LED should light up.

## Software Installation

Before setting up **TeleWin**, please change the video setting to *800 x 600 true colour* or *16-bit high colour* in Win95's **Display Properties**.

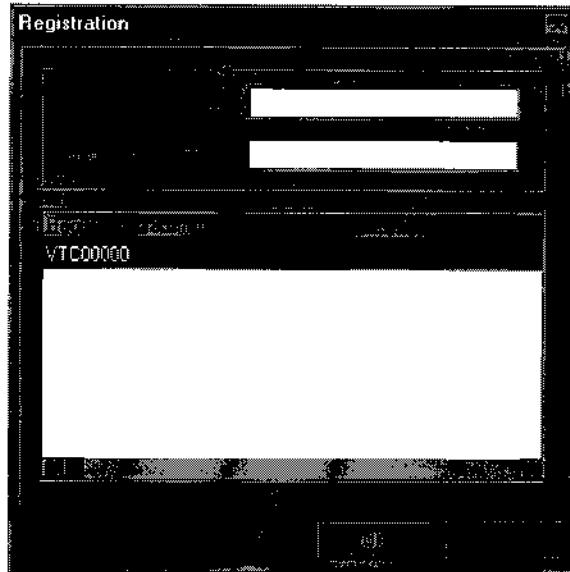
**TeleWin** software contains an installation program, **SETUP.EXE**. Please use this program to setup the necessary files into the hard disk of the reception unit.

Once you have completed the following installation procedure, you can run **TeleWin** directly from your hard disk.

## Registering the Transmission Unit

Before connecting to the transmission unit, you have to perform *transmission unit registration*. This can be done under the **Transmitter** menu. Transmission unit registration is required only once; all the information will be recorded in the hard disk.

In the package, you are provided with a Registration Code and a Serial Number of the transmission unit. You need to fill them in the Registration Message Box as shown below. Besides, please keep them in a safe place for future reference.



## Connecting *TeleWin* to *TeleEye Pro*

Step1: Make sure you video setting of Win95 environment is *800 x 600 true colour* or *800 x 600 16-bit High Colour*. To start **TeleWin Reception Software**, click on the **Start** button on the taskbar, then choose **Programs -> TeleEye Pro -> TeleEye Pro WRS-AD-1**.

Step2: To connect to the **TeleEye Pro**, click **Connect** under the **Connection** menu or the **Connect** icon.

Step3: In the **Connect Using** box, select **Direct to COM1** or **Direct to COM2**. That is the COM port that the null modem cable is physically connecting to.

Step4: Fill in the password in order to connect. The **default password** is **000000**.

Step5: You may now click the **connect** button to make connection.

You may disconnect the connection by selecting **Disconnect** on the **Connections** menu or clicking the **Disconnect** button.

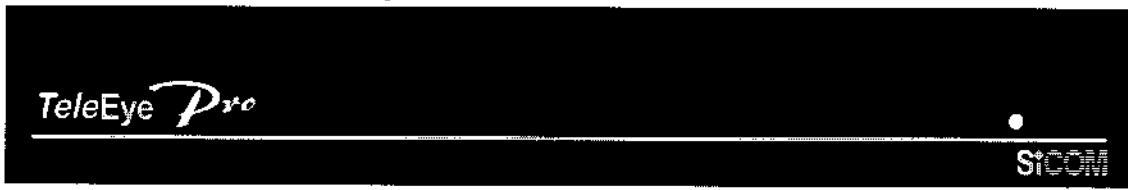
You may reset the alarms by clicking **Reset Alarm** under the **Alarm** menu and fill in the password. The **default password** is **000000**.

## Pin Definitions of NULL MODEM CABLE

Pin definitions of a DB-9 (female) to DB-25 (female) or DB-9 (female) to DB-9 (female) null modem cable	<i>TeleEye Pro</i> Transmission Unit		PC DB25	PC DB9
	2      RXD $\longleftrightarrow$	TXD	2	3
	3      TXD $\longleftrightarrow$	RXD	3	2
	1      CD $\longleftrightarrow$	DTR	20	4
	4      DTR $\longleftrightarrow$	CD	8	1
	5      GND $\longleftrightarrow$	GND	7	5
	7      RTS $\longleftrightarrow$	CTS	5	8
	8      CTS $\longleftrightarrow$	RTS	4	7

# Transmission Unit

The panels of the **TeleEye Pro** transmission unit are shown below :



## Functional Description



*Rear Panel for PTA-B1 and PTA-C1*

### VIDEO IN Connectors (CH1 – CH4)

- Standard BNC connectors for the video sources
- A composite video signal should be supplied to these connectors

### ALARM IN Connector

- This connector is used for connecting 1 remote control switches and 4 alarm inputs.
- All alarm channels have the same priority

### Communication Port

A DB-9 male connector for connecting to COM port of PC

### Power Connector

A 2.1mm DC power jack for the connection to the power supply (9V-12V DC)

### Power Switch

A on/off switch of power.

# SECTION 3

## SPECIFICATIONS

MODEL	PTA-C1	PTA-B1
STANDARD	(P): PAL/CCIR, 625 LINES, 50 FIELDS PER SECOND (N): NTSC/EIA, 525 LINES, 60 FIELDS PER SECOND	
INTERFACE	4 CHANNELS, 1.0V <sub>pp</sub> COMPOSITE, BNC WITH 75Ω TERMINATION	
RESOLUTION (H x V)	256 x 192 PIXELS	
GRAY LEVELS	256	
	16 MILLION	-
COLORS	SCALEABLE ADAPTIVE IMAGE COMPRESSION	
INPUT	4 INDEPENDENT CHANNELS, NC / NO	
OUTPUT	1 CHANNEL, DRY CONTACT  CONTACT RATING: 24Vac, 2A RESISTIVE LOAD : 24Vdc, 2A	
TYPE	RS-232C, DB-9 MALE CONNECTOR	
RATE	38,400 BITS PER SECOND	
FORMAT	ASYNCHRONOUS, 8 DATA BITS, NO PARITY, 1 STOP BIT (N,8,1)	
FLOW CONTROL	HARDWARE (RTS, CTS)	
PROTOCOL	EFFICIENT ERROR CONTROL PROTOCOL	
MODEM CONTROL	HAYES COMMANDS	
INPUT VOLTAGE	9 - 12V DC	
POWER CONSUMPTION	12W (MAX.)	
AMBIENT TEMPERATURE	+5°C TO +40°C (40°C TO 104°F)	
RELATIVE HUMIDITY	20% TO 85%, NO CONDENSATION	
DIMENSION (W x D x H)	254mm x 203mm x 38mm	
COLOR	DARK GRAY	
WEIGHT	1.3kg	

## **PTA-B1/PTA-C1**

### **Contact Person:**

Name: Shirley Yip

Tel: (852)23192151

Fax: (852)23192550

### **FCC ID:**

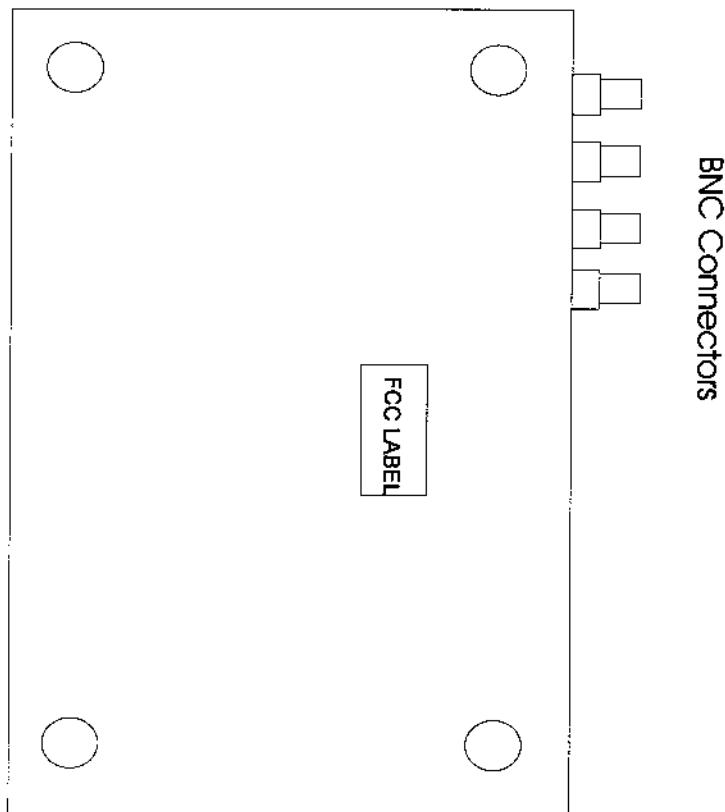
NAGSCVT-000125

### **FCC Label:**

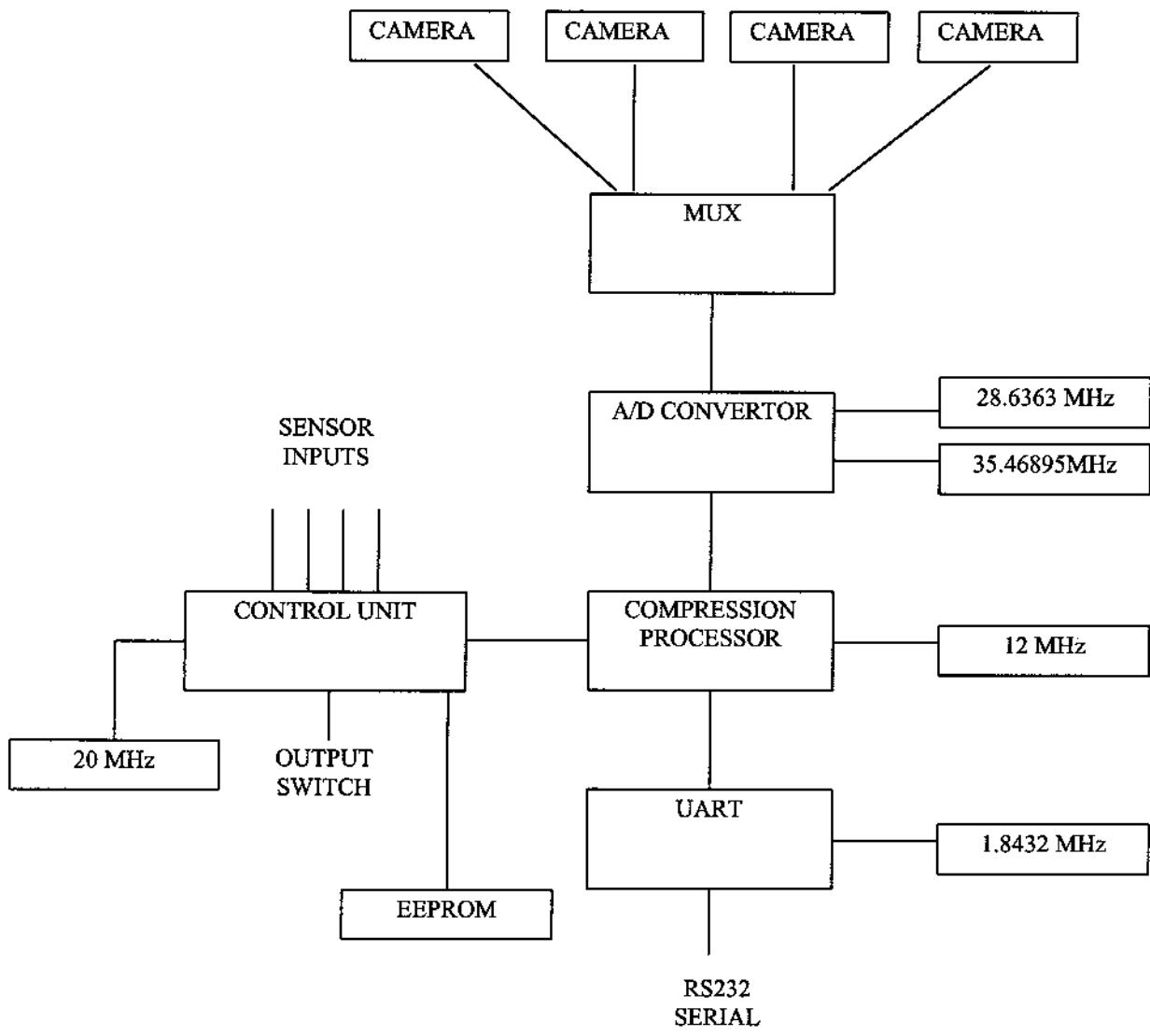
**FCC ID: NAGSCVT-000125**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **Label Location Drawing:**



### System Block Diagram:



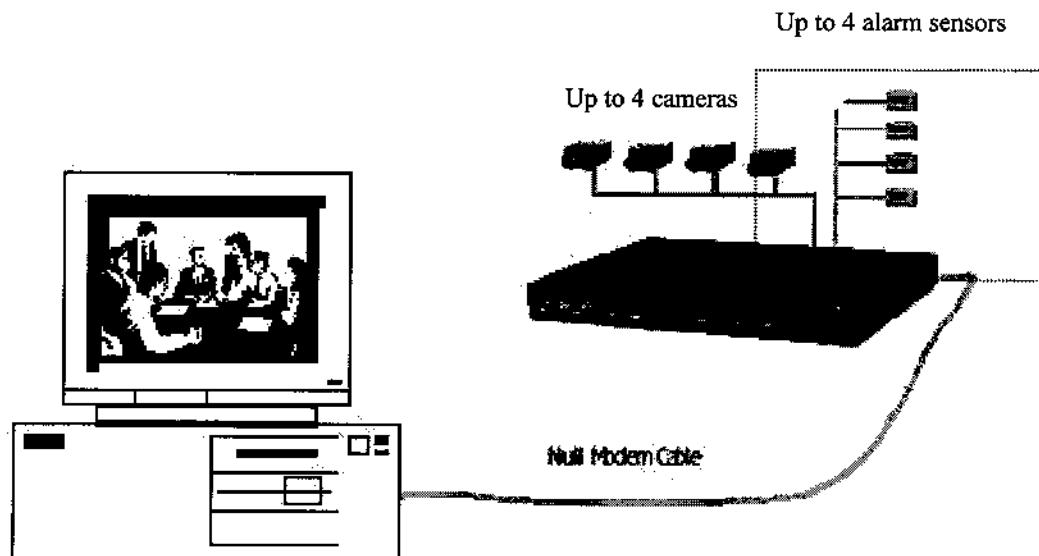
Voltage regulator:

Switching Voltage  
Regulator (52kHz)

## **Technical Description: TeleEye Pro PTA-B1 / PTA-C1**

TeleEye Pro PTA16-B1 and PTA16-C1 are advanced video monitoring systems that can support up to 4 video sources, 4 alarm inputs and 1 output switch. PTA16-B1 is designed for B/W video while PTA-C1 is designed for color video. The video sources are multiplexed and then converted to digital signal through an A/D converter. The digital signal is then processed by a digital signal processor and is compressed using interframe technology. The compressed signal is transmitted to a IBM compatible PC through a UART and a custom designed null modem cable. The reception software receives and decodes the compressed data and sends the video to screen.

The system configuration is as follow:



The pin definitions of a DB-9 (female) to DB-25 (female) or DB-9 (female) to DB-9 (female) null modem cable is shown below:

<i>TeleEye Pro</i>		PC	PC
Transmission Unit		DB25	DB9
2	RXD	2	3
3	TXD	3	2
1	CD	20	4
4	DTR	8	1
5	GND	7	5
7	RTS	5	8
8	CTS	4	7