Honeywell

PIT AUXILIARY PORT EXPANDER FOR VIDEOBLOX

User Manual

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1	June 2005	Initial Release

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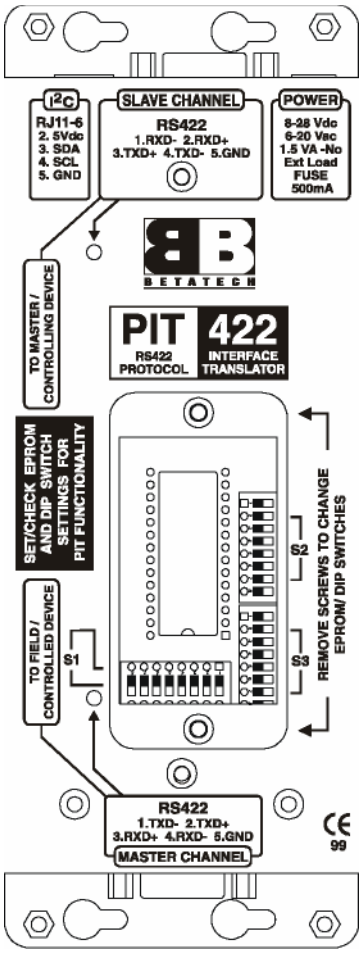
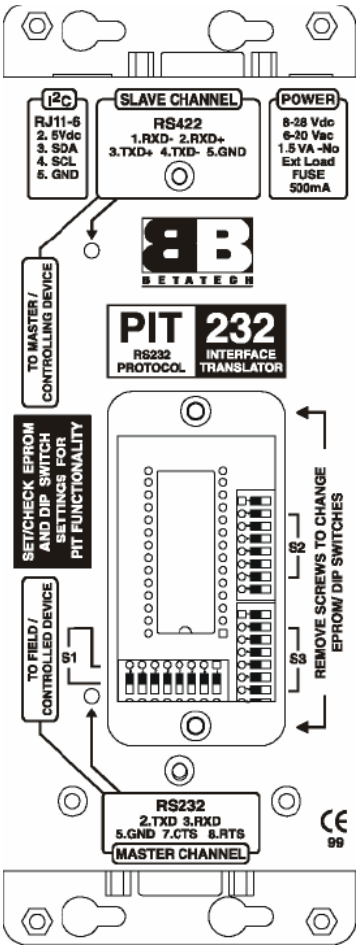
Notes:

1.1 INTRODUCTION

This document describes a PIT interface, which connects to the VideoBloX satellite port via its slave port. The PIT master port provides a subset of the functionality of the VideoBloX auxiliary port.





This document describes the interconnection, switch configuration and command set.

For further information, please consult the VideoBloX user manual and the Auxiliary port protocol documentation.

2.1 PROTOCOL DEFINITION

2.1.1 Data Format

The data format is fixed 8 data bits, 1 stop bit, no parity. Baud rate is adjustable 1200 / 2400 / 9600 / 19200 baud.

All commands consist of a text string which is not case insensitive. This is followed by a variable number of parameters, separated by commas, depending on the command. The command must be terminated with a carriage return (0x0D).

Should the command format be acceptable, a carriage return, line feed and command prompt will be returned. Should the command format not exactly match the expected commands, the command will be ignored and a carriage return, line feed, “???”, followed by the response had the command been accepted.

On power up the PIT will transmit a similar string to the following out of the master port:

> Betatech VideoBloX Aux Port extension via satellite port
> Revision 1.00 All Rights reserved 2001
> VideoBloX SI

2.1.2 Command Set

Command	Parm 1	Parm 2	Parm 3	Comments
SWITCH	Input	Output		Switch video input to output
PTZRCL	PTZ Address	Position		Recall PTZ pre-positions
PTZSTOR	PTZ Address	Position		Store PTZ pre-positions
RUNSEQ	Sequence number	Sequence parameter	Default monitor	Operation of sequences
STOPSEQ	Sequence number			Operation of sequences
OUTPUT	System output number	State		Operation of system outputs
REV				Read PIT software revision

3.1 SWITCH CONFIGURATION

3.1.1 Address Selection

Set switch 2, to the required address of the PIT. The actual switch setting is the binary representation of the address. The PIT looks like a satellite controller on the system and must have a unique address. For further information, please refer to the Networking / satellite documentation for VideoBloX.

The following table shows the first few addresses:

Address	S2/8	S2/7	S2/6	S2/5	S2/4	S2/3	S2/2	S2/1
Switch Legend	Address 7	Address 6	Address 5	Address 4	Address 3	Address 2	Address 1	Address 0
0 (B/cast)	Off	Off	Off	Off	Off	Off	Off	Off
1	Off	Off	Off	Off	Off	Off	Off	On
2	Off	Off	Off	Off	Off	Off	On	Off
3	Off	Off	Off	Off	Off	Off	On	On
4	Off	Off	Off	Off	Off	On	Off	Off
5	Off	Off	Off	Off	Off	On	Off	On
6	Off	Off	Off	Off	Off	On	On	Off
…								
255	On	On	On	On	On	On	On	On

The satellite address for the target system, should be set up using S 1. Note that the address setting is similar to that shown above. DIP switch S 1 on the target matrix must be set to match this address.

3.1.2 Baud Rate Selection

Switch 3, positions 7 and 8 are used to set the slave port (i.e. connect to satellite port) baud rate as per the following table:

Satellite Baud Rate	S3/8	S3/7
1200 baud	Off	Off
9600 Baud	Off	On
19.2 Kbaud	On	Off

Switch 3, positions 5 and 6 are used to set the master port (i.e. auxiliary port functionality) baud rate as per the following table:

Auxiliary Baud Rate	S1/6	S1/5
1200 baud	Off	Off
2400 baud	Off	On
9600 baud	On	Off
19.2 Kbaud	On	On

4.1 CONNECTIONS

The third party interface is implemented on the PIT master port. Dependant on the PIT used, this port may be either RS232 or RS422.

4.1.1 Master Channel RS232 Pin-out

Pin Number	Pin Function
1	Internally Connected to pins 4 and 6
2	TXD
3	RXD
4	Internally Connected to pins 1 and 6
5	GND (RS232 Communications common)
6	Internally Connected to pins 1 and 4
7	RTS (not used)
8	CTS (not used)
9	N/C

4.1.2 Master Channel RS422 Pin-out

Pin Number	Pin Function
1	RS422 Transmit data [-]
2	RS422 Transmit data [+]
3	RS422 Receive data [+]
4	RS422 Receive data [-]
5	RS422 Communications common
6	N/C
7	N/C
8	N/C
9	N/C

4.1.3 Slave Channel RS422 Pin-out

Pin Number	Pin Function
1	RS422 Receive data [-]
2	RS422 Receive data [+]
3	RS422 Transmit data [+]
4	RS422 Transmit data [-]
5	RS422 Communications common
6	Power input (+)
7	N/C
8	N/C
9	Power common

The PIT slave channel should be connected pin to pin to the satellite port of the VideoBloX matrix. Note that this port will provide power to the PIT. Should multiple PITs / matrices require satellite connection, units should be connected in a ring configuration as described in the VideoBloX networking documentation.

4.1.3 Slave Channel RS422 Pin-out, Continued

The PIT master channel must be connected to the device which generates the aux port compatible commands. Note that if this is connected to a 9 pin RS232 connector on a PC, a pin-to pin connection may be used.

5.1 EXAMPLES

Note that in the following examples "\r", denotes a carriage return representing 0x0D.

Example 1: Switch video matrix input 15 to video output 7:

SWITCH 15,7\r

Example 2: Cause the PTZ camera connected to input 15 to move to preset position 1:

PTZRCL 15,1 \r

Example 3: Store the current position of the PTZ camera connected to input 12 as preset position 5:

PTZSTOR 12,5\r

Example 4: Turn off system output 1:

OUTPUT 1,0\r

Example 5: Start sequence 5. The parameter which is passed to the sequence is 100 and the default monitor for the sequence is 1.

RUNSEQ 5,100,1\r

Example 6: Stop the above sequence.

STOPSEQ 5\r

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