



Snell
Advanced
Media

User Instruction Manual

IQOTR32

3G/HD/SD-SDI Flexible Fiber Optic Interfacing Module

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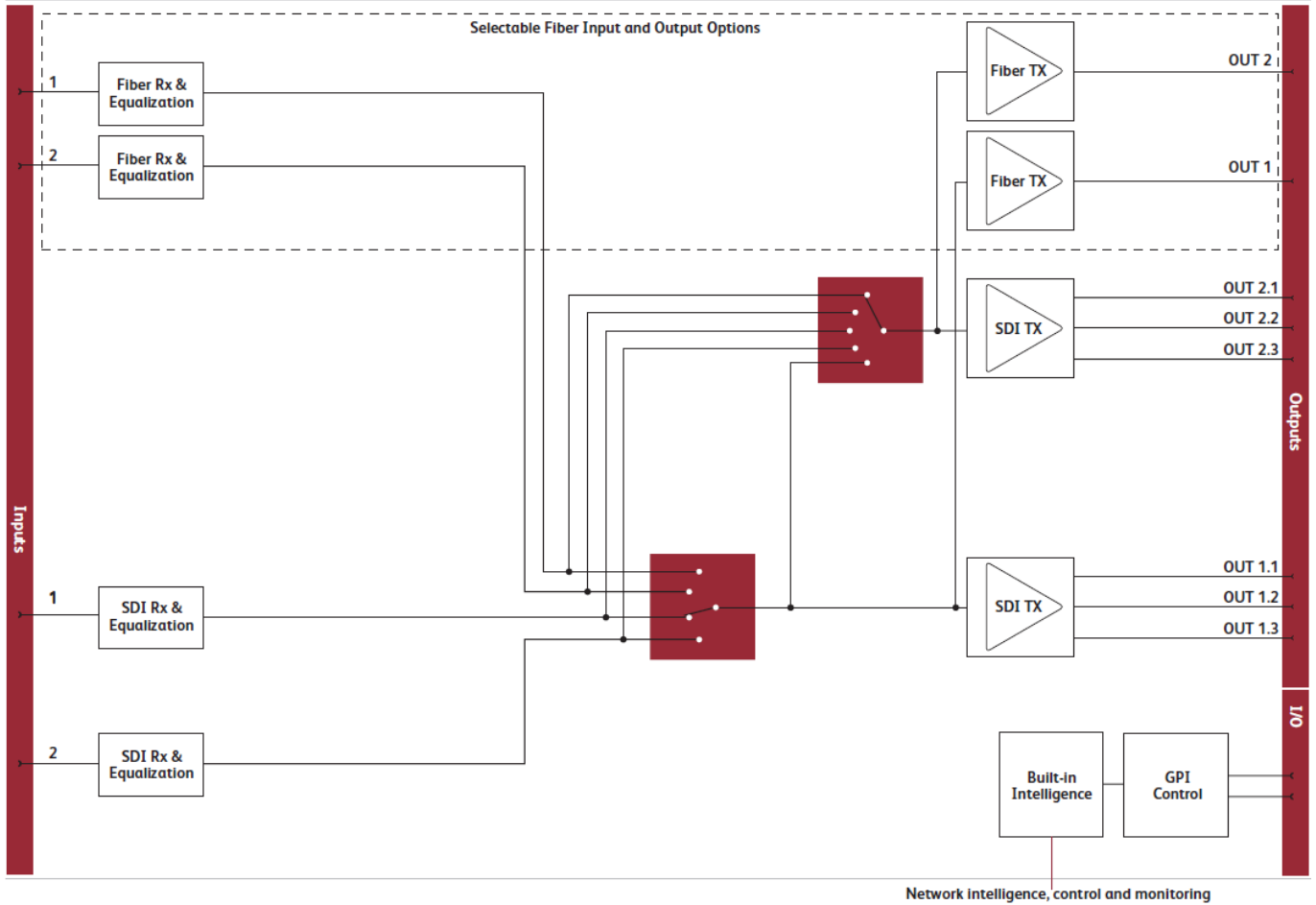
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1. Introduction

1.1 Module Description

The IQOTR32 is a user-configurable fiber optic transceiver for bi-directional conversion of 3 Gbit/s, HD and SD-SDI signals to 1310 nm optical signals. Ideal for mixed coax and fiber workflows, the IQOTR32 allows the user to configure the inputs and outputs to match their infrastructure needs.



Block Diagram for IQOTR32-2A

1.2 Order Codes

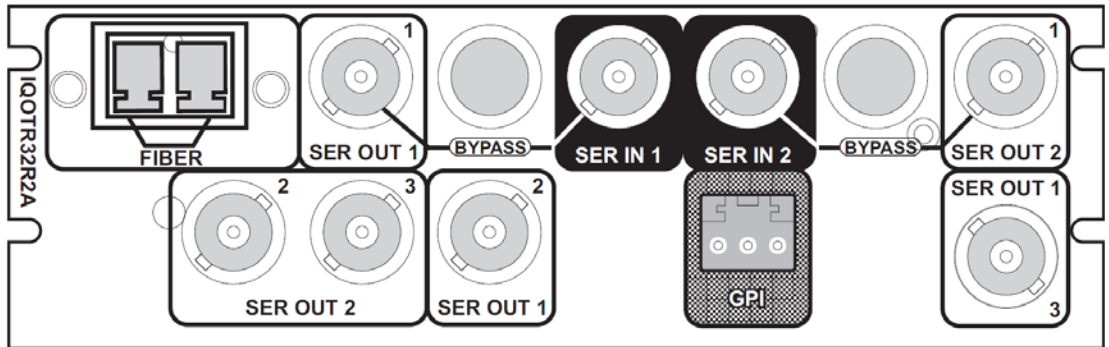
Note: Modules with “A” order codes (for example, IQOTR32TR-1**A3**) can be fitted into either A- or B-style enclosures. Modules with “B” order codes (for example, IQOTR32TR-1**B3**) can only be fitted into B-style enclosures. See page 8.

The following product order codes are covered by this manual:

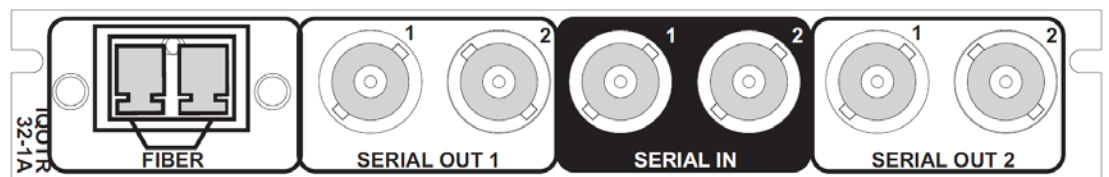
IQOTR32TR2A3R	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 6x 3G/HD/SD-SDI outputs, 1x optical input, 1x 1310 nm optical output.
IQOTR321(2)T2A3R	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 6x 3G/HD/SD-SDI outputs, 1x optical input, 1(2)x 1310 nm optical outputs.
IQOTR321(2)R2A3R	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 6x 3G/HD/SD-SDI outputs, 1(2)x optical inputs, 1x 1310 nm optical output.
IQOTR32992A3R	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 4x 3G/HD/SD-SDI outputs.
IQOTR32TR-1A3 IQOTR32TR-1B3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 4x 3G/HD/SD-SDI outputs, 1x optical input, 1x 1310 nm optical output.
IQOTR321(2)T-1A3 IQOTR321(2)T-1B3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 4x 3G/HD/SD-SDI outputs, 1x optical inputs, 1(2)x 1310 nm optical outputs.
IQOTR321(2)R-1A3 IQOTR321(2)R-1B3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 4x 3G/HD/SD-SDI outputs, 1(2)x optical inputs, 1x 1310 nm optical output.
IQOTR3299-1A3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 4x 3G/HD/SD-SDI outputs.
IQOTR32TR1A3G IQOTR32TR1B3G	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 3x 3G/HD/SD-SDI outputs, 1x optical input, 1x 1310 nm optical output, 2x GPI.
IQOTR321(2)T1A3G IQOTR321(2)T1B3G	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 3x 3G/HD/SD-SDI outputs, 1x optical inputs, 1(2)x 1310 nm optical outputs, 2x GPI.
IQOTR321(2)R1A3G IQOTR321(2)R1B3G	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 3x 3G/HD/SD-SDI outputs, 1(2)x optical inputs, 1x 1310 nm optical output, 2x GPI.
IQOTR32991A3G	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 3x 3G/HD/SD-SDI outputs, 2x GPI.
IQOTR32TR-2A3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 6x 3G/HD/SD-SDI outputs, 1x optical input, 1x 1310 nm optical output, 2x GPI.
IQOTR321(2)T-2A3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 6x 3G/HD/SD-SDI outputs, 1x optical input, 1(2)x 1310 nm optical outputs, 2x GPI.
IQOTR321(2)R-2A3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 6x 3G/HD/SD-SDI outputs, 1(2)x optical inputs, 1x 1310 nm optical output, 2x GPI.
IQOTR3299-2A3	Flexible dual-channel fiber optic transceiver for 3G/HD/SD-SDI. 2x 3GHD/SD-SDI inputs, 6x 3G/HD/SD-SDI outputs, 2x GPI.

1.3 Rear Panel View

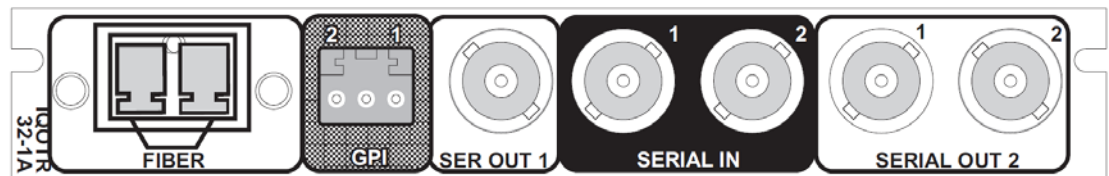
The following rear panel types are available:



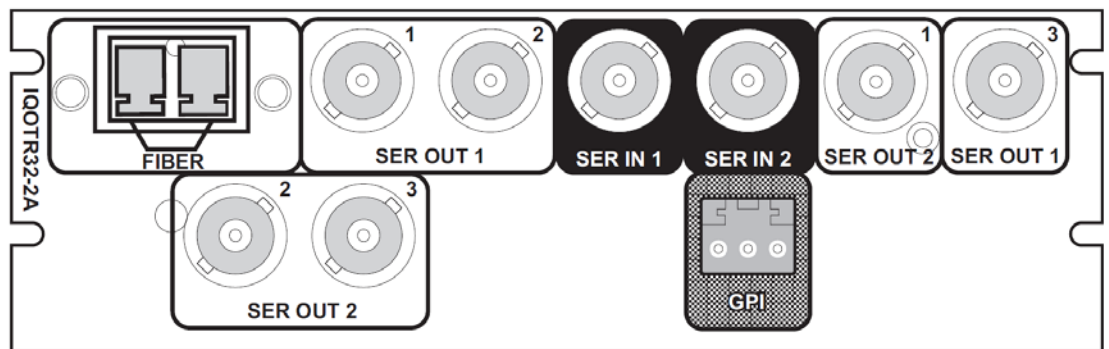
IQOTR32TR2A3R/IQOTR321(2)T2A3R/IQOTR321(2)R2A3R/IQOTR32992A3R



IQOTR32TR-1A(B)3/IQOTR321(2)T-1A(B)3/IQOTR321(2)R-1A(B)3/IQOTR3299-1A3



IQOTR32TR1A(B)3G/IQOTR321(2)T1A(B)3G/IQOTR321(2)R1A(B)3G/IQOTR32991A3G



IQOTR32TR-2A3/IQOTR321(2)T-2A3/IQOTR3221(2)R-2A3/IQOTR3299-2A3

1.4 Enclosures

The module can be fitted into the enclosure types shown.

Important: Although IQ modules are interchangeable between enclosures, their rear panels are enclosure specific. An IQH3B enclosure accepts modules with either “A” or “B” order codes. An IQH3A or IQH1A enclosure accepts modules with “A” order codes only. See page 6.

1.4.1 B-style Enclosure



Enclosure order codes: IQH3B-S-0, IQH3B-S-P

1.4.2 A-style Enclosures



Enclosure order code: IQH1A-S-P



Enclosure order codes: IQH3A-S-0, IQH3A-S-P



Enclosure order codes: IQH3A-E-0, IQH3A-E-P, IQH3A-0-0, IQH3A-0-P



Enclosure order code: IQH1A-S-P

1.5 Feature Summary

The IQOTR32 provides the following features:

- Single mode fiber optic receiver and transmitter for 3G/HD/SD-SDI signals.
- Independent input selection for each channel, or all outputs follow input mode.
- User-selectable 3G/HD/SD-SDI outputs for fiber or coax inputs in accordance with SMPTE 424M, SMPTE 292M, SMPTE 259M.
- Input wavelength range 1260-1620 nm, output wavelength of 1310 nm
- 2x GPI/O control interface.

2. Technical Specification

Inputs and Outputs	
Signal Inputs	
Electrical	3 Gbit/s HD-SDI, 1.485 Gbit/s HD-SDI or 270 Mbit/s SD-SDI
Connector/Format	BNC/75 Ohm panel jack
Conforms to	SMPTE 424M (HD level A/B) SMPTE 292M (HD) SMPTE 259M-C (SD)
Inputs	2
Input 1 Cable Length	Up to 70 m Belden 1694A @ 3 Gbit/s Up to 160 m Belden 1694A @ 1.5 Gbit/s >350 m Belden 1694A @ 270 Mbit/s
Input 2 Cable Length	Up to 60 m Belden 1694A @ 3 Gbit/s Up to 100 m Belden 1694A @ 1.5 Gbit/s Up to 100 m Belden 1694A @ 270 Mbit/s
Fiber Signal Input	
Input	Up to 2
Optical	3 Gbit/s HD-SDI, 1.485 Gbit/s HD-SDI or 270 Mbit/s SD-SDI
Connector/Format	LC single mode
Conforms to	SMPTE 297-2006 SMPTE 424M (HD level A/B) SMPTE 292M (HD) SMPTE 259M-C (SD)
Signal Outputs	
Electrical	3 Gbit/s HD-SDI, 1.485 Gbit/s HD-SDI or 270 Mbit/s SD-SDI
Connector/Format	BNC/75 Ohm panel jack
Outputs	2 SDI, locked to input. Up to 3 BNCs per output, depending on rear selected.
Conforms to	SMPTE 424M (HD level A/B) SMPTE 292M (HD) SMPTE 259M-C (SD)
Fiber Signal Output	
Optical	3 Gbit/s HD-SDI, 1.485 Gbit/s HD-SDI or 270 Mbit/s SD-SDI
Connector/Format	LC single mode
Standard	SMPTE 297-2006 SMPTE 424M (HD level A/B) SMPTE 292M (HD) SMPTE 259M-C (SD)
Outputs	Up to 2, selectable per channel
Control Interface	
GPI/O	2x closing contact via screw terminal (ST) connector

Controls	
Indicators	
Power	OK (Green)
CPU running	OK (Green flashing)
FPGA running	OK (Yellow flashing)
Status	OK (Green), Warning (Yellow), Error (Red)
Input 1	OK (Green), Loss (Off)
Input 2	OK (Green), Loss (Off)
RX (Fiber) 1	OK (Green), Loss (Off)
RX (Fiber) 2	OK (Green), Loss (Off)
Video Controls	
Output 1 Select	Input 1, Input 2, RX (Fiber) 1, RX (Fiber) 2
Output 2 Select	Input 1, Input 2, RX (Fiber) 1, RX (Fiber) 2 Follow Output 1 Selection
Laser Disable	On/Off
Other Controls	
User Memories	16x Save, Recall, Rename
GPIO Inputs	Memory recall 1 to 16, Memory toggle
GPIO Outputs	Input Present or Loss for SDI 1, 2, Fiber 1, 2
Memory Naming	User-configurable naming of memories 1 - 16
Information Window	Input Status, Video Input Status
RollTrack Index	Up to 70 RollTrack destinations
Optical Logging*	Tx Laser Bias High Warning Tx Power Low Warning Tx Power High Warning
Laser Wavelength	Input 1 (2) Rx Power High Warning Input 1 (2) Rx Power Low Warning Input 1 (2) Rx Power Measurement
RollTrack Sources	Unused, Input Present, Input Loss, Output X Selects Input X, Output Rate/Std, Tx Laser Bias High Warning*, Input 1 Rx Power High Warning*, Input 2 Rx Power High Warning*, Input 1 Rx Power Low Warning*, Input 2 Rx Power Low Warning*
Factory Default	Resets all module settings to factory specified default values and clears memories
Default Settings	Resets all module settings to factory specified defaults but does not clear memories
Restart	Software restart of the module
Module Information	Reports following module information: Software version, Serial number, Build number, KOS version, Firmware version, PCB version

Specifications

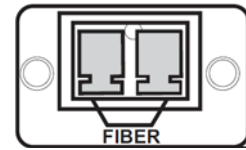
Electrical	3 Gbit/s SDI to SMPTE 424M 1.5 Gbit/s HD-SDI to SMPTE 292M 270 Mbit/s SDI to SMPTE 259M-C / DVB-ASI
Connector / Format	BNC/75 Ohm panel jack on standard IQ connector panel
Return Loss	>-15 dB (270 Mbit/s, 1.5 Gbit/s) >-10 dB (3 Gbit/s)
Output Jitter	SD-SDI 0.2 UI (10 Hz) / 0.2 UI (1 kHz) 3G/HD-SDI 1.0 UI (10 Hz) / 0.2 UI (100 kHz)
Optical 1310 nm Tx	
Wavelength	1310 nm
Spectral Width (FWHM)	>1.5 nm (typical)
Output Power	0 to -5 dBm (-2 dBm typical)
Rise and Fall Time	135 ps @ 3 Gbit/s 270 ps @ 1.5 Gbit/s 1.5 ns @ 270 Mbit/s
Extinction Ratio	>7.5:1 (typical)
Optical Return Loss	-27 dB
Link Distance	Up to 30 km @ 270 Mbit/s Up to 21 km @ 1.5 Gbit/s Up to 10 km @ 3 Gbit/s
Optical Rx	
Input Wavelength Range	1260 nm (min.), 1620 nm (max.)
Optical Power Input Range	>0 dBm, <-20 dBm
Link Distance	Up to 30 km
Video Standards	
Standards	1125(1080)/50p (A & B), 1125(1080)/59p (A & B), 1125(1080)/29i, 1125(1080)/25i, 750(720)/59p, 750(720)/50p, 525(480)/29i, 625(576)/25i
Power Consumption	
Module Power Consumption	8.8 W max (A Frames) 8.5 PR (B Frames) 9 W max (PR) with relay bypass

3. Connections

This section describes the physical input and output connections provided by the IQOTR32.

3.1 Fiber Outputs

Fiber optic LC single mode connectors provide 1310 nm outputs.



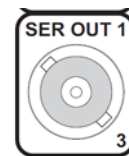
3.2 Serial Inputs

3GHD/SD-SDI serial digital input, to the unit is made via two BNC connectors which terminate in 75 Ohms.



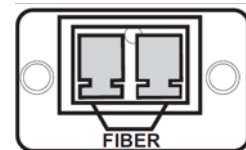
3.3 Serial Outputs

A number of 3GHD/SD-SDI serial digital outputs may be provided, depending on the option. These are made through BNC connectors which terminate in 75 Ohms.



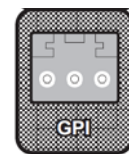
3.4 Optical Input

An optical single mode LC connector is provided.



3.5 General Purpose Interface

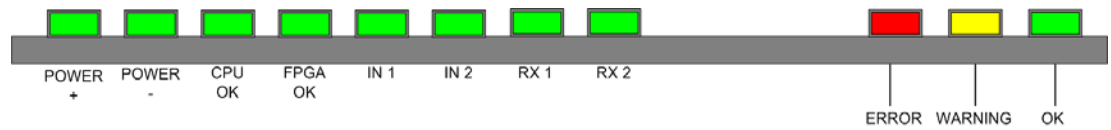
A GPI connector may be provided, depending on the option. It is a 3-pin Screw Terminal (ST) that enables x2 GPI or GPO connections to be used. Pin 2 is ground and may be shorted to either Pin 1 or 3 to provide an input. When not shorted, the voltage measured between the pins determines the output status.



Input/Output	Status	Pin Connections		
		1	2	3
GPI 1	Low	●-----0V-----●		
GPI 2	Low	●-----0V-----●		
GPO 1	Open (high)	◀-----5V-----▶		
GPO 2	Open (high)	◀-----5V-----▶		
GPO 1	Closed (low)	◀----->1V-----▶		
GPO 2	Closed (low)	◀----->1V-----▶		

4. Card Edge LEDs

The LEDs on the edge of the module indicate its operating status:



LED	Color	Description
POWER +	Green	Indicates that a positive power supply is present.
POWER -	Green	Indicates that a negative power supply is present.
CPU OK	Green	This LED will flash to indicate that the CPU is running.
FPGA OK	Green	Flashes when the FPGA is running. When the unit is booting, this LED is illuminated continuously, until the SDI is enabled.
IN 1, IN 2	Green	These LEDs are illuminated when a valid input is present at the Serial Data Inputs.
RX 1, RX 2	Green	These LEDs are illuminated when a valid input is present at the Fiber Optic Inputs.
ERROR	Red	This LED indicates board fault conditions. When the unit is booting, this LED is illuminated, until the SDI is enabled.
WARNING	Yellow	This LED is illuminated if one or more of the SDI inputs is not valid or if the reference signal is missing when the unit is set to Lock to Reference.
OK	Green	Indicates that the module is operating correctly.

5. Controlling the IQOTR32 from the RollCall Control Panel

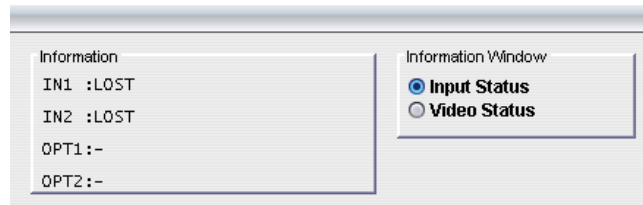
5.1 The Information Window

The information window is displayed in the upper-right corner of each screen and displays basic information about the input status, video, audio and reference status of the module.

Select either **Input Status** or **Video Status** to display the corresponding information.

5.1.1 Input Status

When **Input Status** is selected, the input status is displayed:



Name	Status	Description	Standard
IN1:	OK	SDI input signal received	Detected video input standard is displayed, e.g. 1080/29i (Blank if input lost).
IN2:	FAIL	SDI input signal failed	
	LOST	No signal received	
	MISM	Mismatch format detected	
OPT1:	OK	Fiber input signal delivered	Detected video input standard is displayed, e.g. 1080/29i (Blank if input lost).
OPT2:	FAIL	Fiber input delivered	
	LOST	No signal received	
	MISM	No signal received	

5.1.2 Video Status

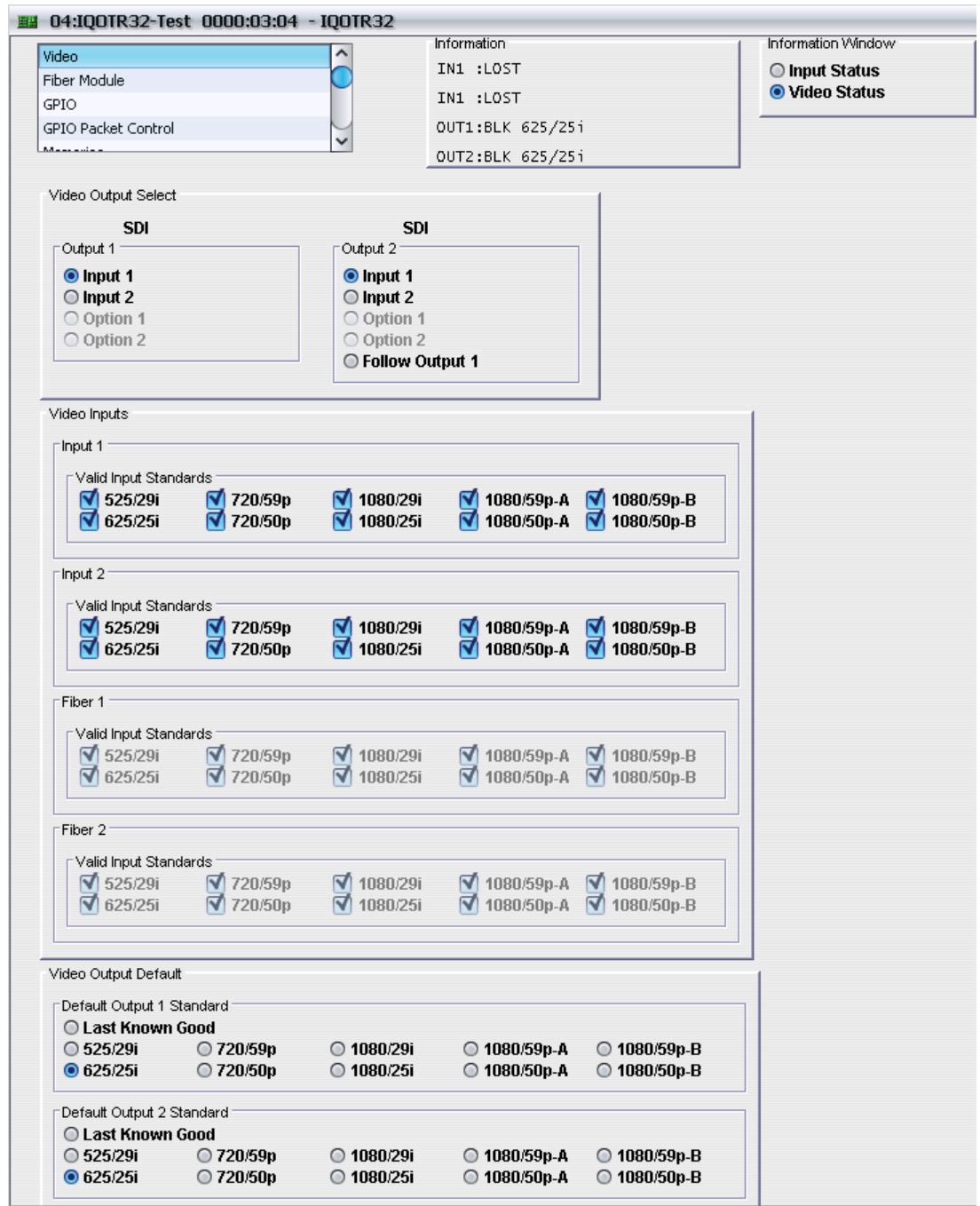
When **Video Status** is selected, the video status is displayed:



Name	Status	Description	Standard
IN1:	OK	SDI input signal received	Detected video input standard is displayed, e.g. 1080/29i (Blank if input lost).
IN2:	FAIL	SDI input signal failed	
	LOST	No signal received	
	MISM	Mismatch format detected	
OUT1:	OK	Output signal delivered	Selected video output standard is displayed, e.g. 1080/29i . A \$ symbol indicates that the caption is enabled. (Blank if disabled)
OUT2:	BLK	Black output delivered	
	FRZ	Frozen output delivered	
	PAT	Pattern output delivered	

5.2 Video

The **Video** screen enables you to specify valid standards for the SDI and Fiber video inputs, and also enables the selection of the video output type and default standard.



5.2.1 Input 1/2

This group of check boxes specifies the valid input standards for the SDI video inputs.

The **Valid Input Standards** check boxes specify the video input standards that the module will accept. The module will automatically detect the standard of the received input and block any signal that does not comply with these selected video formats.

By default, all input standards are selected.

5.2.2 Fiber 1/2

This group of check boxes specifies the valid input standards for the fiber video inputs.

The **Valid Input Standards** check boxes specify the video input standards that the module will accept. The module will automatically detect the standard of the received input and block any signal that does not comply with these selected video formats.

By default, all input standards are selected.

5.2.3 SDI Output 1/2

Enables the switching of the input video (**Input 1**, **Input 2**, **Fiber 1** or **Fiber 2**) to the SDI outputs (**Output 1** or **Output 2**). By selecting the **Follow Output 1** option, **Output 2** will be switched to the same source as for **Output 1**.

5.2.4 Default Output 1/2 Standard

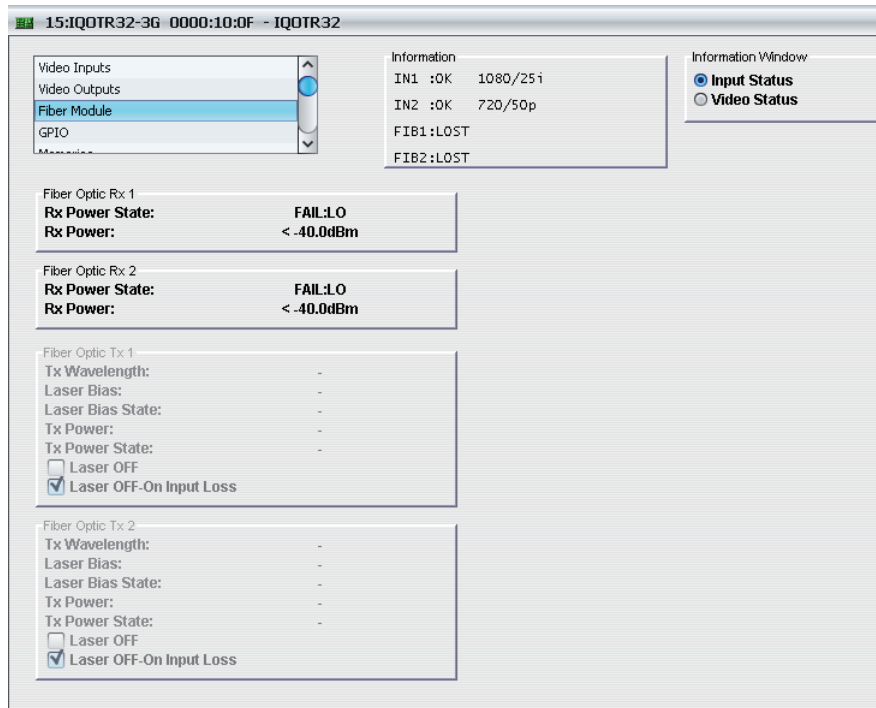
The **Default Output 1/2 Standard** settings specify the output standard that the module will use if it cannot determine the correct output standard to use.

By default, the **Last Known Good** setting is selected, which uses the last valid output standard.

5.3 Fiber Module

The **Fiber Module** screen displays information about the Fiber Optic Receivers (Rx) and Transmitters (Tx).

The controls and indicators are duplicated for the Fiber Optic Receiver and Transmitter Options 1 and 2.



5.3.1 Fiber Optic Rx 1/2

The following receiver parameters are displayed:

- **Rx Power State:** Displays the state of the received signal (options include OK, WARN:HI, WARN:LO, FAIL:LO and FAIL:HI).
- **Rx Power:** Displays the signal level received at the input (in dBm).

5.3.2 Fiber Optic Tx 1/2

The following transmitter parameters are displayed:

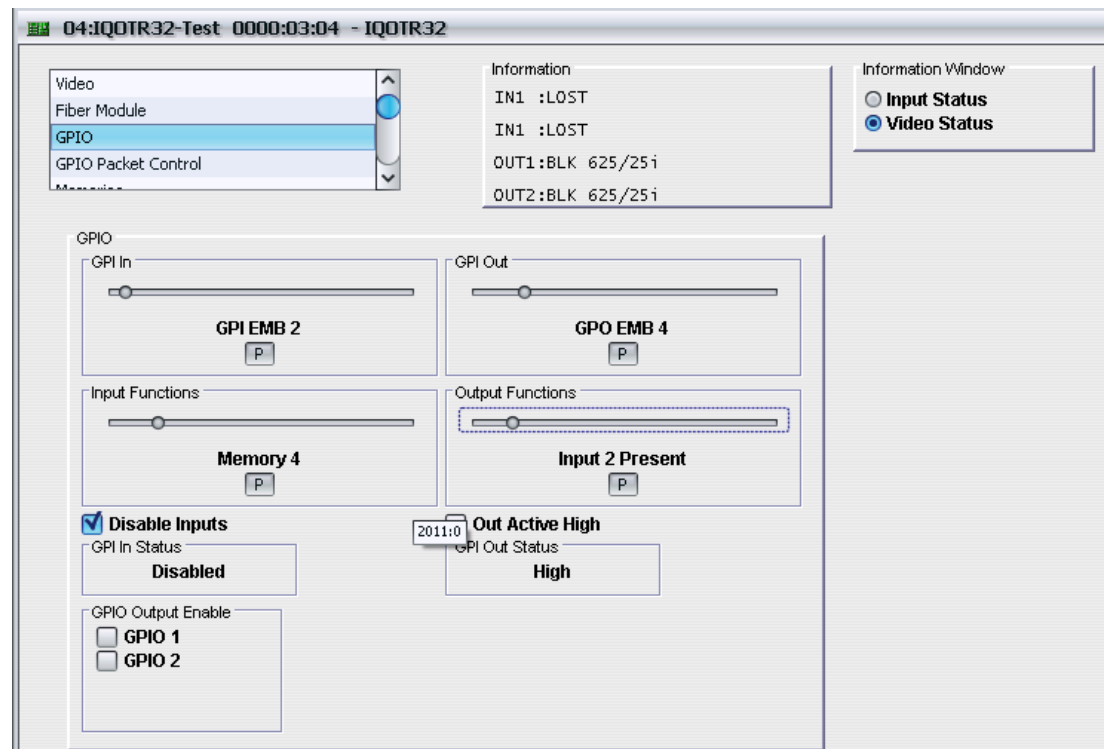
- **Tx Wavelength:** Displays the wavelength of the transmitted output signal (either 1310 nm or 1550 nm).
- **Laser Bias:** Displays the bias level (in mA).
- **Laser Bias State:** Displays the bias state (options include OK, WARN:HI, WARN:LO, FAIL:LO and FAIL:HI).
- **Tx Power:** Displays the signal level of the transmitted output signal (in dBm)
- **Tx Power State:** Displays the state of the transmitted output signal (options include OK, WARN:HI, WARN:LO, FAIL:LO and FAIL:HI).
- **Laser OFF:** Enables the laser for the fiber optic output to be turned off manually.
- **Laser OFF-On Input Loss:** When selected, enables the laser for the fiber optic output to be turned off automatically when the signal is lost at the associated fiber optic receiver input.

Note:

By default this option is ticked, i.e. enabled. If you require the default line standard (valid output signal) on input loss, this option must be un-ticked, i.e. disabled.

5.4 GPIO

The **GPIO** screen enables the General Purpose Input/Output settings to be viewed and modified.



5.4.1 GPI In

This slider enables the selection of the GPIO input. You can select from available physical GPI inputs and embedded GPI input data (see section 5.5). The preset value is GPIO IN 1.

5.4.2 Input Functions

This slider enables the selection of the appropriate memory (1-16). The preset value is Unused.

5.4.3 Disable Inputs

When checked, this option disables the GPIO inputs.

5.4.4 GPI In Status

The status of the GPI Input is displayed. Possible values are: High, Low, and Output.

5.4.5 GPIO Output Enable

When checked, these options enable the GPIO 1 and 2 outputs.

5.4.6 GPI Out

This slider enables the selection of the GPIO output. You can select from available physical GPO outputs or use of embedded GPO output data (see section 5.5). The preset value is GPIO OUT 1.

5.4.7 Output Functions

This slider enables the selection of output functions (Unused, Input 1 Present, Input 1 Loss, Input 2 Present, Input 2 Loss, Fiber 1 Present, Fiber 1 Loss, Fiber 2 Present, Fiber 2 Loss) The preset value is Unused. The appropriate status is displayed in the **GPI Output Status** area below.

5.4.8 Out Active High

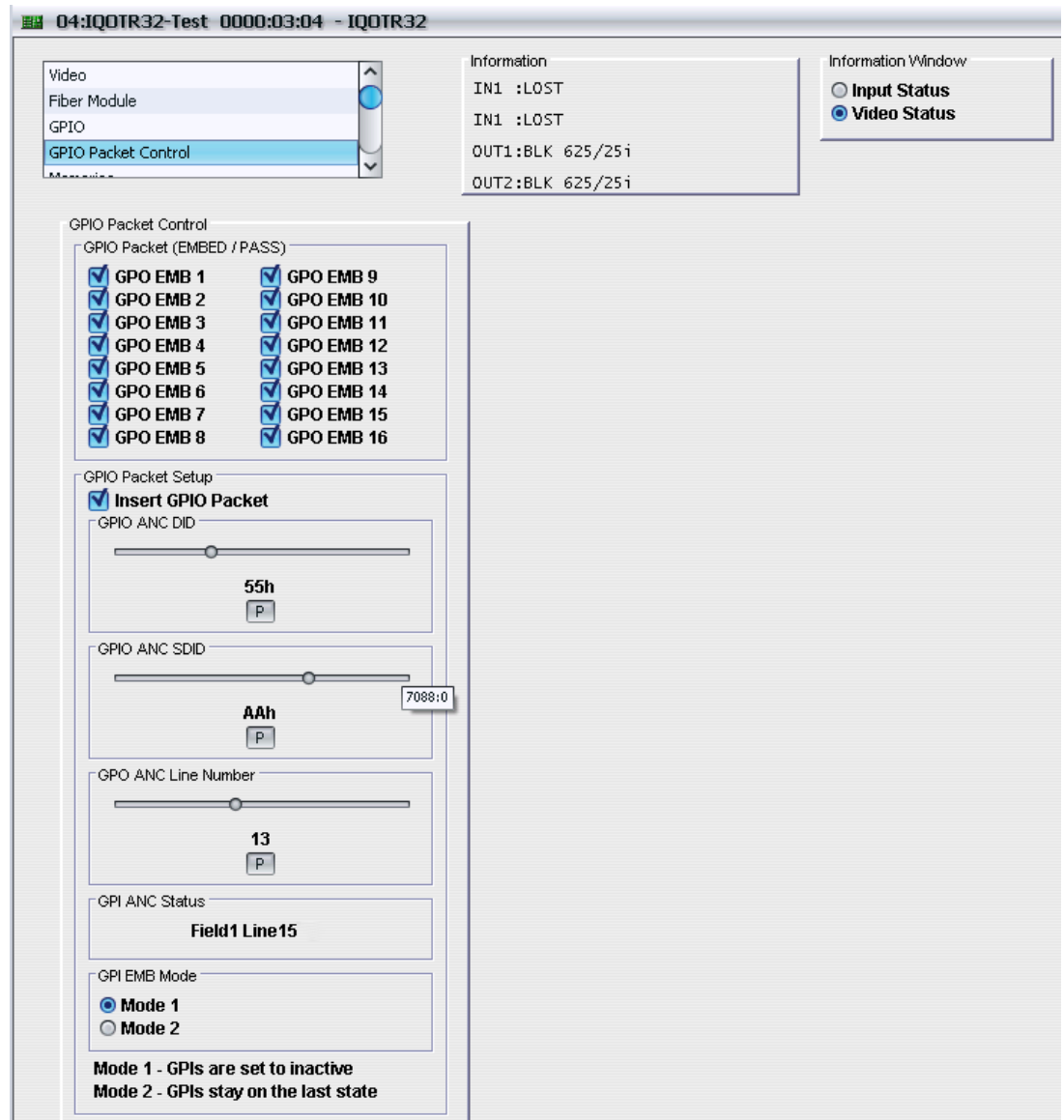
Controls the state of the GPO from Open (5 V) to Closed (less than 1 V).

5.4.9 GPI Out Status

The status of the GPI Output is displayed (Unused, Open, Closed), depending on the **Output Functions** selected above. The status displayed is Input, if the GPIs are used.

5.5 GPIO Packet Control

Using IQOTR32, it is possible to send GPIO data embedded with the timing of the video and audio content, either to cover long distances or to purely maintain the GPIO state with the content through further processing. The GPIO data are transported via a user application ancillary packet.



5.5.1 GPIO Packet (EMBED/PASS)

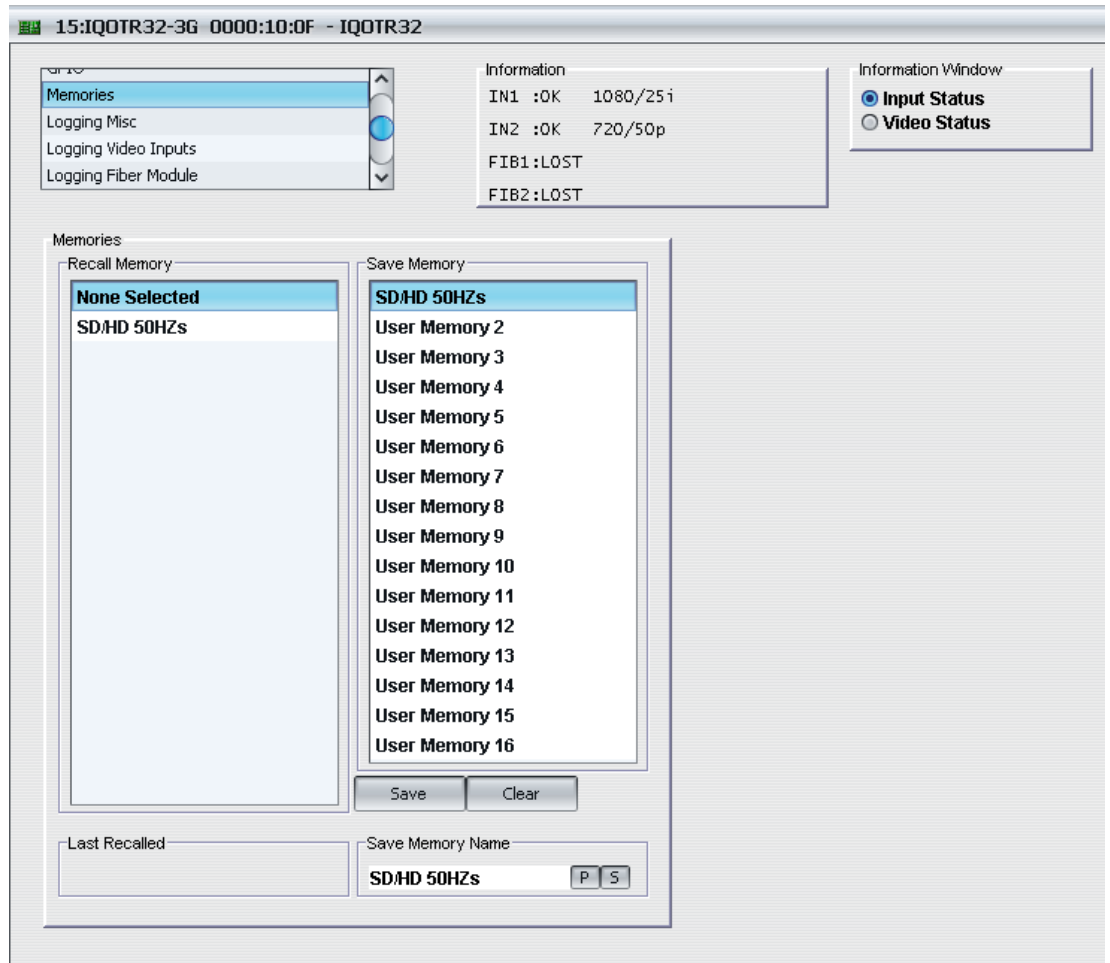
Up to 16 bits can be embedded into the output ANC packet. Check each box to embed the desired GPO bit, as specified in the GPIO setup (see section 5.4.6). If unchecked, the relevant bit will be passed through from the embedded GPI input, if available (see section 5.4.1).

5.5.2 GPIO Packet Setup

Setting	Description
Insert GPIO packet	Click in this checkbox to enable GPIO packet insertion.
GPIO ANC DID	The DID is in the range of 50h to 5Fh, default value is 55h.
GPIO ANC SDID	The SDID is in the range of 01h to FFh, default value is AAh.
GPIO ANC Line Number	<p>This control defines the insertion line number for the ancillary packet.</p> <p>The range is from line 8 to 20, default value is 13 which refers to the Field1 or Frame line. The Field2 line number is calculated from the F1 insertion line plus the start of F2 line number of the particular video standard.</p> <p>For example, if the line number insertion is set to line 13 when in 1080i29 then the F2 line number would be 576.</p>
GPI ANC Status	Displays the line on which the ANC packet is inserted.
GPI Emb Mode	<p>GPI Emb Mode defines the behavior when input is lost or DID/SDID are not present or ANC packets are lost.</p> <ul style="list-style-type: none"> • Mode 1: GPIOs are set to inactive. • Mode 2: GPIOs remain on the last state.

5.6 Memories

The **Memories** screen enables up to 16 setups to be saved and recalled later. Default memory names can be changed to provide more meaningful descriptions.



5.6.1 Recall Memory

This column lists the settings that have been previously saved. If no settings have been saved, **None Selected** is displayed.

To recall the settings saved in a memory:

In the **Recall Memory** column, select the memory to recall by clicking on it. The recalled settings will be applied and the memory name will appear in the **Last Recalled Memory** section.

Note: User memories do not recall log field states. I.e., whether a log value has been enabled or disabled.

5.6.2 Save Memory

This column lists the 16 pre-set memory names that are available for use.

To save settings:

In the **Save Memory** column, select a memory location, and then click **Save**. The current settings are saved and the memory appears in the **Recall Memory** column.

5.6.3 Last Recalled

The **Last Recalled** pane displays the most recently recalled memory. If any of the settings have been changed since it was recalled, an asterisk will be displayed after the memory name.

5.6.4 Save Memory Name

This option enables the pre-set memory names to be changed (to something more memorable or meaningful), if required.

To change a memory name:

In the **Save Memory Name** field, type the new memory name, and then click the **S** button. To return the memory to its default preset value, click **P** button.

5.7 Logging

Information about several parameters can be made available to a logging device that is connected to the RollCall network.

Each logging screen comprises three columns:

- **Log Enable:** Select the check boxes that correspond to the parameters for which log information should be collected.
- **Log Field:** Displays the name of the logging field.
- **Log Value:** Displays the current log value.

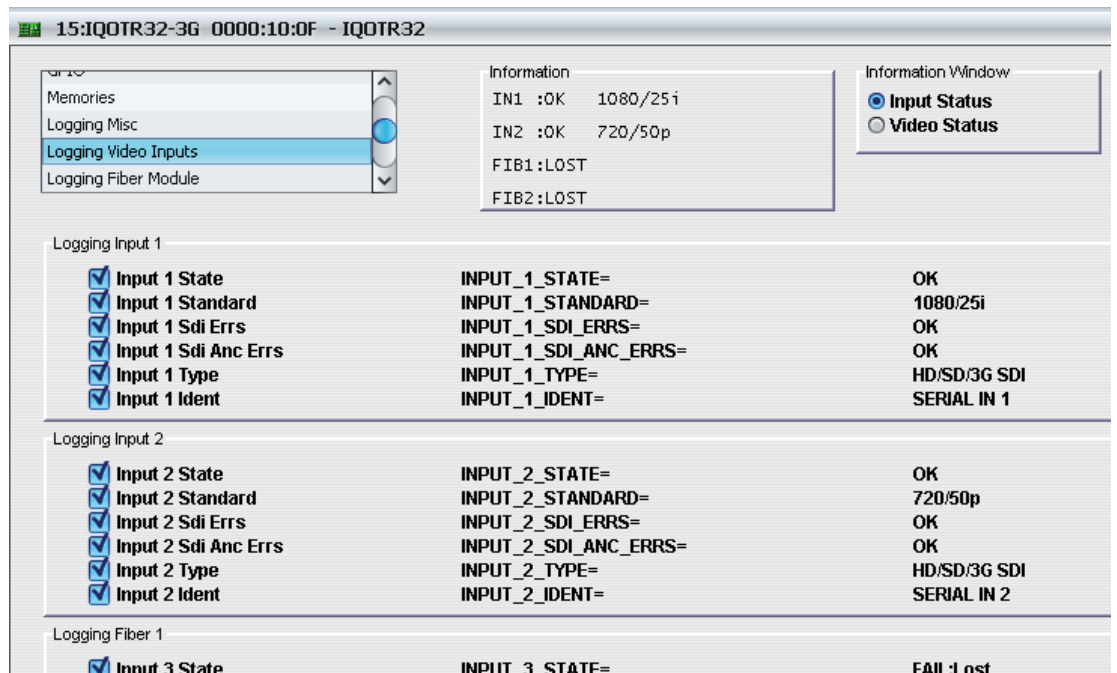
5.7.1 Logging Misc

The **Logging Misc** screen displays the current log information about the unit's basic parameters.

Logging Misc	Log Field	Log Value
<input checked="" type="checkbox"/> Slot Start	SLOT_START=	15
<input checked="" type="checkbox"/> Slot Width	SLOT_WIDTH=	1
<input checked="" type="checkbox"/> Rear Status	REAR_STATUS=	OK
<input checked="" type="checkbox"/> Rear Id	REAR_ID=	28
<input checked="" type="checkbox"/> Firmware Version	FIRMWARE_VERSION=	3855
<input checked="" type="checkbox"/> Licensed Options	LICENSED_OPTIONS=	SDHD;3G
<input checked="" type="checkbox"/> Build Number	BUILD_NUMBER=	3852.3858.3859
<input checked="" type="checkbox"/> Os Version	OS_VERSION=	V115 Release
<input checked="" type="checkbox"/> Hardware Version	HARDWARE_VERSION=	HDBASP2B
<input checked="" type="checkbox"/> Uptime	UPTIME=	000:04:07:00
	SN=	S51110765

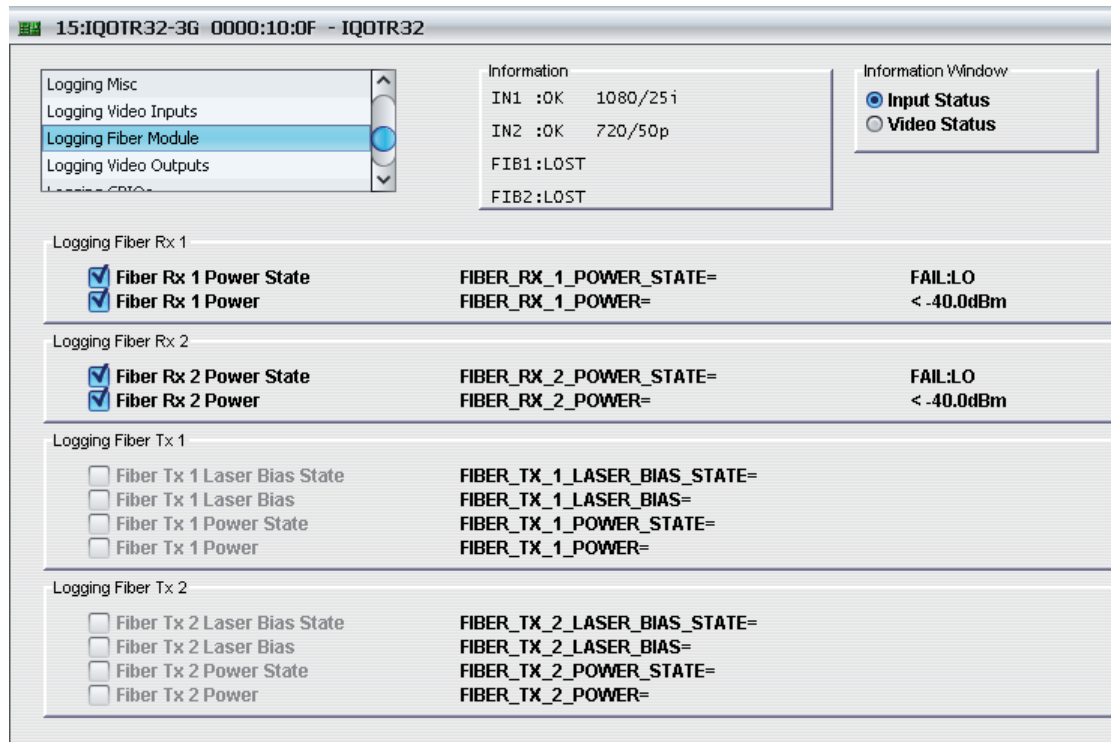
5.7.2 Logging Video Inputs

The **Logging Video Inputs** screen displays the current log information for the relevant video inputs.



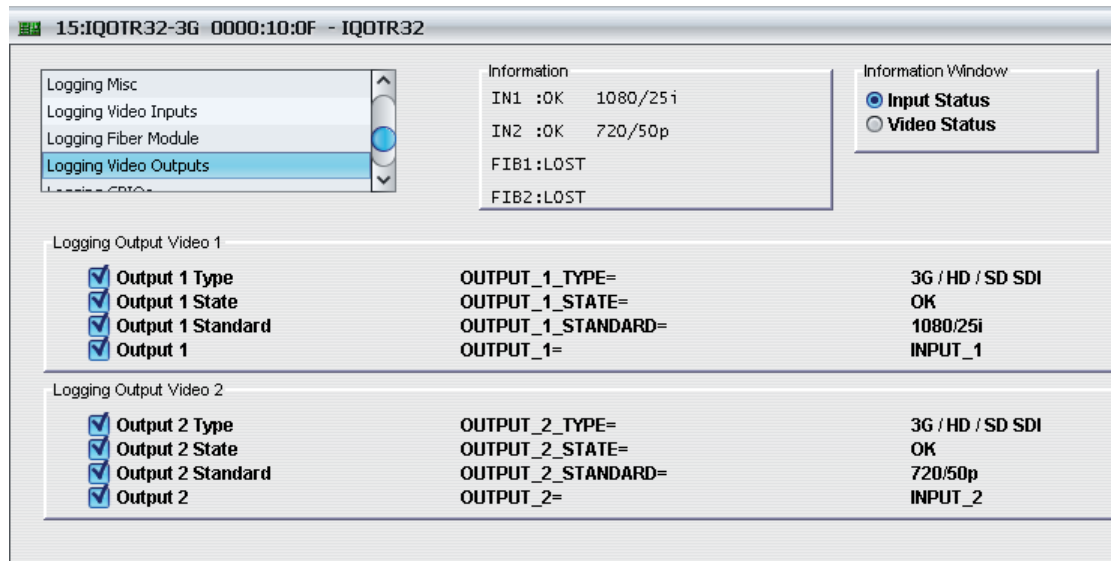
5.7.3 Logging Fiber Module

The **Logging Fiber Module** screen displays the current log information for the Fiber Optic module.



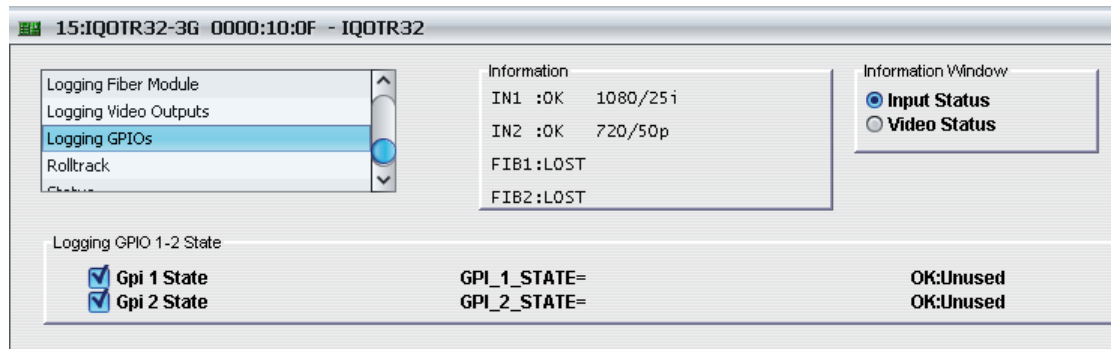
5.7.4 Logging Video Outputs

The **Logging Video Outputs** screen displays the current log information for the video outputs.



5.7.5 Logging GPIO

The **Logging GPIO** screen displays the current log values for the General Purpose Inputs/Outputs state.



5.7.6 Log Field Descriptions

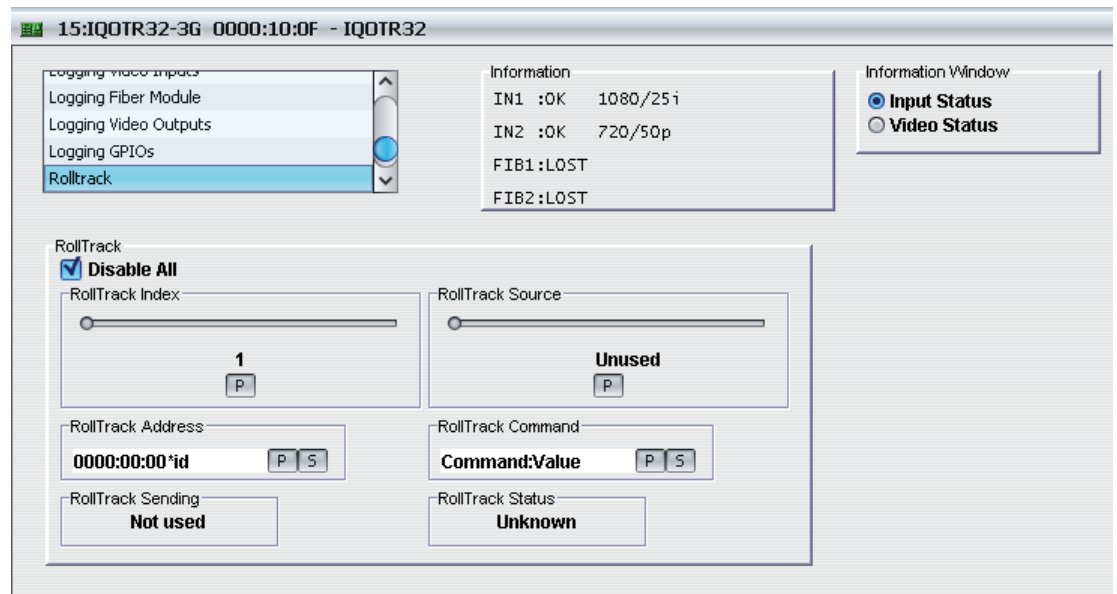
Log Field	Description
SLOT_START=	Displays the rear panel slot start (boot-up) number.
SLOT_WIDTH=	Displays the rear panel slot width. For example, 1 or 2.
REAR_STATUS=	Display the status of the rear panel. Valid values are: <ul style="list-style-type: none"> • OK • FAIL:Lost
REAR_ID=	Displays a rear panel identifier number.
FIRMWARE_VERSION=	Displays the FPGA version.
LICENSED_OPTIONS=	Displays any specially licensed options, if applicable.
BUILD_NUMBER=	Displays the build number.

Log Field	Description
OS_VERSION=	Displays the operating system name and version. For example, KOS V115.
HARDWARE_VERSION=	Displays the hardware version number.
UPTIME=	Displays the time since the last restart in the format ddd:hh:mm:ss.
SN=	Displays the module serial number, which consists of an S followed by eight digits.
INPUT_N_STATE=	<p>Displays the current input state. Valid values are:</p> <ul style="list-style-type: none"> • OK • WARN:Mismatch • FAIL:Lost <p>Note: WARN:Mismatch indicates that the input and output standards are not the same.</p>
INPUT_N_STANDARD=	<p>This displays the current input signal standard. For example, 1080/29i.</p> <p>If the input standard is not recognized or supported the field will display: WARN:Unknown</p>
INPUT_N_SDI_ERRS=	<p>Displays SDI errors. Valid values are:</p> <ul style="list-style-type: none"> • OK • WARN
INPUT_N_SDI_ANC_ERRS=	<p>Displays ANC errors. Valid values are:</p> <ul style="list-style-type: none"> • OK • WARN
INPUT_N_TYPE=	This displays the type of input as specified by the unit's configuration. Valid values are 3G / HD /SD SDI.
INPUT_N_IDENT=	Display the input ID.
FIBER_RX_N_POWER_STATE=	<p>These fields display the power status. Valid values are:</p> <ul style="list-style-type: none"> • OK • WARN:HI • WARN:LO • FAIL:LO • FAIL:HI
FIBER_RX_N_POWER=	Displays the power level of the receiver input, in dBm.

Log Field	Description
FIBER_TX_N_LASER_BIAS_STATE=	These fields display the laser bias status. Valid values are: <ul style="list-style-type: none"> • OK • WARN:HI • WARN:LO • FAIL:LO • FAIL:HI
FIBER_TX_N_LASER_BIAS=	Displays the bias level, in mA.
FIBER_TX_N_POWER_STATE=	These fields display the power status. Valid values are: <ul style="list-style-type: none"> • OK • WARN:HI • WARN:LO • FAIL:LO • FAIL:HI
FIBER_TX_N_POWER=	Displays the power level of the transmitter output, in dBm.
OUTPUT_N_TYPE=	3G / HD / SD SDI
OUTPUT_N_STATE=	<ul style="list-style-type: none"> • OK • WARN:Pattern • WARN:Black • WARN:Freeze
OUTPUT_N_STANDARD=	Displays the current output video standard.
OUTPUT_N=	Displays the relevant input source for the output video.
GPI_N_STATE=	<ul style="list-style-type: none"> • INPUT:Disabled • INPUT:High • INPUT:Low • OK:Unused • OUTPUT:Open • OUTPUT:Closed

5.8 RollTrack

The **RollTrack** screen allows information to be sent, via the RollCall™ network, to other compatible units connected on the same network.



5.8.1 Disable All

When checked, all RollTrack items are disabled.

5.8.2 RollTrack Index

This slider enables up to 70 RollTrack outputs to be setup. Dragging the slider selects the RollTrack Index number, displayed below the slider. Clicking the **P** button selects the default preset value.

5.8.3 RollTrack Source

This slider enables the source of information that triggers the transmission of data to be selected. Dragging the slider selects the RollTrack source, displayed below the slider. Clicking the **P** button selects the default preset value. When no source is selected, **Unused** is displayed.

5.8.4 RollTrack Address

This item enables the address of the selected destination unit to be set.

The address may be changed by typing the new destination in the text area and then selecting the **S** button to save the selection. Clicking the **P** button returns to the default preset destination.

The RollTrack address consists of four sets of numbers, for example, **0000:10:01*99**.

- The first set (**0000**) is the network segment code number.
- The second set (**10**) is the number identifying the (enclosure/mainframe) unit.
- The third set (**01**) is the slot number in the unit
- The fourth set (**99**) is a user-settable number that is a unique identification number for the destination unit in a multi-unit system. This ensures that only the correct unit will respond to the command. If left at 00 an incorrectly fitted unit may respond inappropriately.

5.8.5 RollTrack Command

This item enables a command to be sent to the selected destination unit.

The command may be changed by typing a code in the text area and then selecting the **S** button to save the selection. Clicking the **P** button returns to the default preset command.

The RollTrack command consists of two sets of numbers, for example: **84:156**.

- The first number (**84**) is the actual RollTrack command.
- The second number (**156**) is the value sent with the RollTrack command.

5.8.6 RollTrack Sending

A message is displayed here when the unit is actively sending a RollTrack command. Possible RollTrack Sending messages are:

String A string value is always being sent.

Number A number value is always being sent.

No The message is not being sent.

Yes The message is being sent.

Internal Type Error Inconsistent behavior. Please contact your local SAM agent.

5.8.7 RollTrack Status

A message is displayed here to indicate the status of the currently selected RollTrack index. Possible RollTrack Status messages are:

OK RollTrack message sent and received OK.

Unknown RollTrack message has been sent but it has not yet completed.

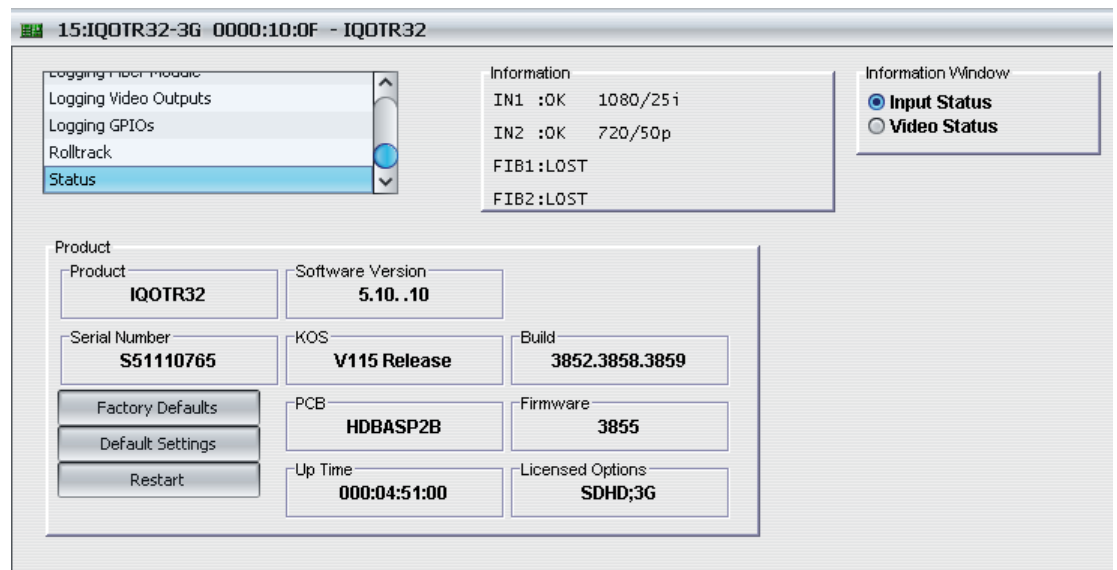
Timeout RollTrack message sent but acknowledgement not received. This could be because the destination unit is not at the location specified.

Bad RollTrack message has not been correctly acknowledged at the destination unit. This could be because the destination unit is not of the type specified.

Disabled RollTrack sending is disabled.

5.9 Status

The **Status** screen display basic information about the module, such as the serial number and software versions. Use the functions on the screen to restart the module or return all settings to their factory or default settings.



- **Product:** The name of the module.
- **Software Version:** The currently installed software version number.
- **Serial No:** The module serial number.
- **Build:** The factory build number. This number identifies all parameters of the module.
- **KOS:** The operating system version number.
- **PCB:** The Printed Circuit Board revision number.
- **Firmware:** The module firmware revision number.
- **Up Time:** The time since the module was last started.
- **Licensed Options:** The currently installed licensed options associated with the module.

5.9.1 Factory Defaults

The **Factory Defaults** button enables the module settings to be reset to their factory defaults.

Note: Resetting the module to its factory defaults also clears all the saved memory settings.

5.9.2 Default Settings

The **Default Settings** button enables module settings to be reset to their factory defaults, leaving user memories intact.

5.9.3 Restart

The **Restart** button enables the module to be rebooted, simulating a power-up/power-down cycle.