



Snell
Advanced
Media

User Manual

IQFDA31

Dual Channel 3G/HD/SD-SDI Re-clocking Distribution Amplifier with
Fiber I/O

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Contents

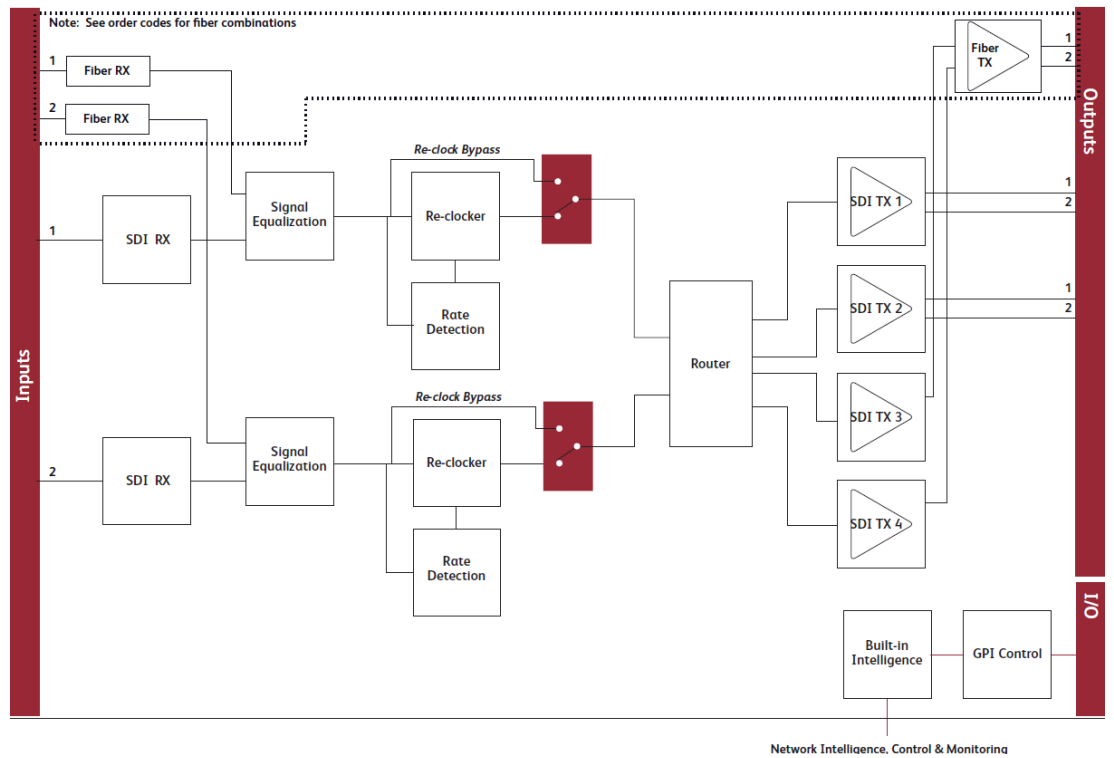
- Information and Notices** 2
- 1 Introduction** 4
 - 1.1 Description 4
 - 1.2 Block Diagram 4
 - 1.3 Feature Summary 5
 - 1.4 Order Codes 5
 - 1.5 Rear Panel View 5
 - 1.6 Enclosures 6
 - 1.6.1 B-style Enclosure 6
 - 1.6.2 A-style Enclosures 6
- 2 Technical Specification** 7
- 3 Connections** 10
 - 3.1 SDI Input 10
 - 3.2 SDI Outputs 10
 - 3.3 SFP 10
- 4 Card Edge LEDs** 11
- 5 Operation Using the RollCall Control Panel** 12
 - 5.1 Information Window 12
 - 5.1.1 Unit Status 12
 - 5.1.2 SFP Status 12
 - 5.2 Input 13
 - 5.2.1 Input 1 and 2 13
 - 5.2.2 Outputs 13
 - 5.3 SFP 14
 - 5.3.1 SFP Transmit 14
 - 5.3.2 SFP Receive 14
 - 5.4 Memory 1-16 15
 - 5.4.1 Recall Memory 15
 - 5.4.2 Save Memory 15
 - 5.4.3 Last Recalled Memory 15
 - 5.4.4 Save Memory Name 16
 - 5.5 Logging 17
 - 5.5.1 Logging Misc 17
 - 5.5.2 Logging Inputs 17
 - 5.5.3 Logging SFP 18
 - 5.5.4 Log Field Descriptions 19
 - 5.6 RollTrack 21
 - 5.6.1 Disable All 21
 - 5.6.2 Index 21
 - 5.6.3 Source 21
 - 5.6.4 Address 22
 - 5.6.5 Command 22
 - 5.6.6 RollTrack Sending 22
 - 5.6.7 RollTrack Status 22
 - 5.7 Setup 23
 - 5.7.1 Default Settings 23
 - 5.7.2 Factory Defaults 23
 - 5.7.3 Restart 23
 - 5.7.4 Input Name 23
 - 5.8 SFP Setup 24
 - 5.8.1 Restart 24
 - 5.8.2 Configure Type 24

1 Introduction

1.1 Description

The IQFDA31 provides dual HD-SDI 3 Gbit/s, 1.5 Gbit/s, or 270 Mbit/s SD-SDI inputs with both SDI and fiber optic outputs in a single-width package. Flexible routing of inputs and outputs allows the module to operate as a single- or dual-channel mixing fiber and copper I/O. Input signal loss detection enables switching from a main feed to a back-up feed automatically, providing emergency changeover functionality. Its 80m 3G, 170m HD, and 300m SD input equalization performance and non re-clocking distribution of wide-band signals make it ideal for all distribution applications.

1.2 Block Diagram



1.3 Feature Summary

The IQFDA31 provides the following features:

- Dual-channel intelligent 3 Gbit/s SDI, HD-SDI, and SD-SDI re-clocking distribution amplifier.
- Flexible selection of inputs allows single- or dual-channel operation.
- Input signal monitoring allows auto-changeover emergency switching.
- Provides distribution for DVB-ASI and other wide-band signals.
- Equalizes up to 80 m at 3 Gbit/s, 170 m at 1.5 Gbit/s and 300 m at 270 Mbit/s when using Belden 1694A cable.
- Standards supported:
 - 3G-HD to SMPTE 424M
 - HD-SDI to SMPTE 292M
 - SD-SDI to SMPTE 259M-C
 - DVB-ASI
 - SMPTE 297-2006
- 1310 nm, 1550 nm, and CWDM output wavelengths available.
- RollCall monitoring allows all signal paths to be managed.

1.4 Order Codes

Note: Modules with “A” order codes (for example, IQFDA3100-1**A**3) can only be fitted into A-style enclosures. Modules with “B” order codes (for example, IQFDA3100-1**B**3) can be fitted into either A- or B-style enclosures. See page 6.

The following product order codes are covered by this manual:

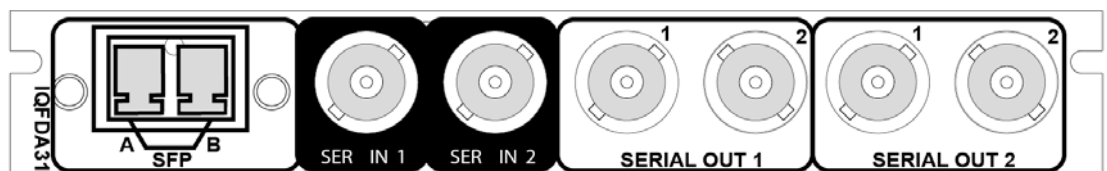
IQFDA3100-1A3 Dual-channel 3G/HD/SD-SDI re-clocking distribution amplifier with fiber I/O. 2 SDI inputs, 2 optical inputs/outputs, 4 SDI outputs, selectable per input.

IQFDA3100-1B3

The following SFP modules are available for this product:

FC1-13T1	1310 nm 1 TX
FC1-13T2	1310 nm 2 TX
FC1-15T1	1550 nm 1 TX
FC1-15T2	1550 nm 2 TX
FC1-R1	1 RX
FC1-TR	1 TX, 1 RX

1.5 Rear Panel View



1.6 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 5.

1.6.1 B-style Enclosure



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

Note:

The IQH3B enclosure provides two internal analog reference inputs. These inputs are applicable to modules with “B” order codes only.

1.6.2 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

2 Technical Specification

Inputs and Outputs	
Signal Inputs	
SDI Inputs	2 x 3G/HD/SD-SD
Connector/Format	BNC/75 Ohm panel jack on standard SAM connector panel
Input Cable Length	Up to 80 m Belden 1694A @ 3 Gbit/s Up to 170 m Belden 1694A @ 1.5 Gbit/s Up to 300 m Belden 1694A @ 270 Mbit/s
Note: When using mixed HD and SD inputs, it is recommended that cable lengths do not exceed the HD specification of 140 m.	
Fiber Signal Input*	
SDI Inputs	Up to 2
Optical	3 Gbit/s HD-SDI 1.485 Gbit/s HD-SDI 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	
SDI Outputs	Up to 12, group selectable
Connector / Format	BNC/75 Ohm panel jack on standard SAM connector panel
Conforms to video standards	SMPTE 297-2006 SMPTE 424M (HD level A/B) SMPTE 292M (HD) SMPTE 259M-C (SD)
Fiber Signal Output*	
SDI Outputs	Up to 2, selectable per channel
Optical	3 Gbit/s HD-SDI 1.485 Gbit/s HD-SDI 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)
*Dependant on SFP fitted	
Control Interface	
GPI	Up to 2 x GPI (I/O configurable)
Electrical	TTL compatible, active low driven
Connector/Format	BNC/ 75 Ohm panel jack on standard SAM connector panel
Controls	
Indicators	
Power	OK (Green)
CPU	OK (Green flashing)
Input 1	OK (Green), Bypass (Orange), Loss (Red)

Input 2	OK (Green), Bypass (Orange), Loss (Red)
SFP A	OK (Green), Bypass (Orange), Loss (Red)
SFP B	OK (Green), Bypass (Orange), Loss (Red)
RollCall Functions	
Video Controls	
Input 1 Format Select	SDI, Rx
Input 2 Format Select	SDI, Rx
Output 1 Select	Serial 1, Serial 2
Output 2 Select	Serial 1, Serial 2
Output 3 Select	Serial 1, Serial 2
Output 4 Select	Serial 1, Serial 2
Laser Disable	On/Off
Input 1 (2)	Auto, 3G, HD, SD, DVB-ASI, Bypass (re-clocking off), Output
Input Status	Present, Loss, Unknown, Data Rate
Other Controls	
User Memories	Name, save, and recall 16 user memories
Memory Naming	User configurable naming of memories 1–16
GPI Input	Activates on contact closure – select config 1 or 2
GPI Output	Produces an output for: Config 1 selected, Config 2 selected, Input 1 error, Input 2 error
Information Window	Unit Status, SFP Status
Logging	Input 1(2) Type Input 1 (2) Data Rate Input 1 (2) Present Input 1 (2) Error Input 1 (2) Loss
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 Index	Up to 16 RollTrack destinations
RollTrack Controls	On/Off, Index, Source, Address, Command, Status, Sending
Roll Track Sources	Unused, Input Present (1 & 2, Fiber 1 & 2), Input Loss (1 & 2, Fiber 1 & 2), Output Rate/Std (1 & 2), Out 1 Selects (In 1 & 2 & Rx 1 & Rx 2), Fiber Rx Power OK (1 & 2), Fiber Rx Power Fail (1 & 2), Fiber Tx Bias OK (1 & 2), Fiber Tx Bias High (1 & 2), Fiber Tx Bias Low (1 & 2)
Factory Default	Resets all module settings to factory specified default values and clears memories
Default Settings	Resets all module settings to factory specified default values but does not clear memories
Restart	Software restart of the module
Module Information	Reports the following module information: Software Version, Serial Number, Build Number, KOS Version, Firmware Version, PCB Version
Specifications	
Electrical	3 Gbit/s SDI, SMPTE 424M 1.5 Gbit/s HD-SDI, SMPTE 292M 270 Mbit/s SDI, SMPTE 259M-C / DVB-ASI

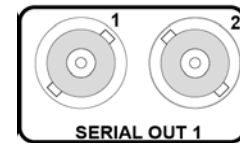
Connector / Format	BNC/ 75 Ohm LC singlemode SFP
Return Loss	>-15 dB (270 Mbit/s, 1.5 Gbit/s) >-10 dB (3 Gbit/s)
Output Jitter	SD-SDI 0.2 UI (10 Hz) / 0.2 UI (1 kHz) 3G/HD-SDI 1.0 UI (10 Hz) / 0.2 UI (100 kHz)
Optical 1310 nm Tx	
Wavelength	1310 nm
Spectral Width (FWHM)	>1.5 nm (typical)
Output Power	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 @ 3 Gbit/s Up to 21 Km @ 1.5 Gbit/s Up to 10 Km @ 270 Mbit/s
Optical Rx	
Input Wavelength Range	1260 nm (min.), 1620 nm (max.)
Input Sensitivity	-21 dBm
Optical Power Input Range	>0 dBm, <-20 dBm
Link Distance	Up to 30 Km @ 3 Gbit/s Up to 21 Km @ 1.5 Gbit/s Up to 10 Km @ 270 Mbit/s
Power Consumption	
Module Power Consumption	4 W Max (A frames) 4 PR Max (B frames)

3 Connections

This section describes the physical input and output connections provided by the IQFDA31.

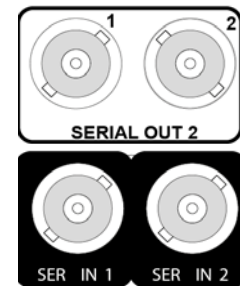
3.1 SDI Input

Serial digital input is made to the unit via two BNC connectors which terminate in 75 Ohms.



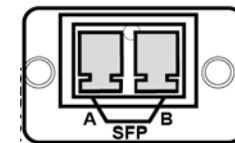
3.2 SDI Outputs

Serial digital outputs from the unit are made via four BNC connectors which terminate in 75 Ohms.



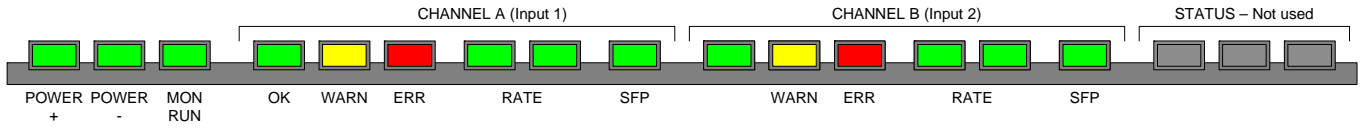
3.3 SFP

An SFP cage provides a range of connectivity options.



4 Card Edge LEDs

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



LED	Color	State	Indication
POWER +	Green	Illuminated	A positive power supply is present.
POWER -	Green	Illuminated	A negative power supply is present.
MON RUN	Green	Flashing	The CPU is running.
CHANNEL A			
OK	Green	Illuminated	Input channel 1 is locked to the input signal.
WARN	Yellow	Illuminated	The signal on input channel 1 is not being re-clocked. That is, in re-clock bypass mode.
ERR	Red	Illuminated	Unknown or no input on input channel 1.
RATE	Green	Illuminated	The rate on input channel 1: <ul style="list-style-type: none"> Both LEDs illuminated: 3 Gbit/s Left LED illuminated: 1.5 Gbit/s Right LED illuminated: 270 Mbit/s Both LEDs off: Rate unknown
SFP	Green	Illuminated	Input SFP Rx A selected.
CHANNEL B			
OK	Green	Illuminated	Input channel 2 is locked to the input signal.
WARN	Yellow	Illuminated	The signal on input channel 2 is not being re-clocked. That is, in re-clock bypass mode.
ERR	Red	Illuminated	Unknown or no input on input channel 2.
RATE	Green	Illuminated	The rate on input channel 2: <ul style="list-style-type: none"> Both LEDs illuminated: 3 Gbit/s Left LED illuminated: 1.5 Gbit/s Right LED illuminated: 270 Mbit/s Both LEDs off: Rate unknown
SFP	Green	Illuminated	Input SFP Rx selected.

5 Operation Using the RollCall Control Panel

Note: The IQFDA31 will dynamically configure itself depending on rear and SFP options. The RollCall control panel will change to reflect the current product configuration.

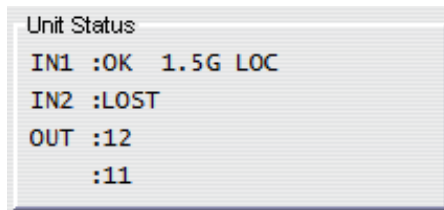
The screens shown in this section are for guidance and reference only, and may be slightly different to those on your module.

5.1 Information Window

The Information Window is displayed in the upper-right corner of each screen and displays basic information about the input and output status of the module.

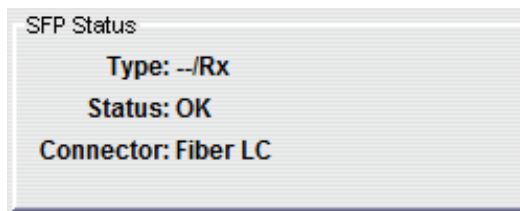
5.1.1 Unit Status

The Unit Status pane provides basic information about the status of the video inputs, video outputs, product settings, and status.



Name	Description
IN1: IN2:	Displays the status of Input 1 and Input 2, the detected rate, and whether the signal is locked or in bypass mode. If no valid input is detected, asterisks (**) are displayed.
OUT:	The first line represents the outputs (1–4). The second line is character aligned with the first and indicates the input routed to that output. If no valid input signal is detected for the output, an E is displayed.

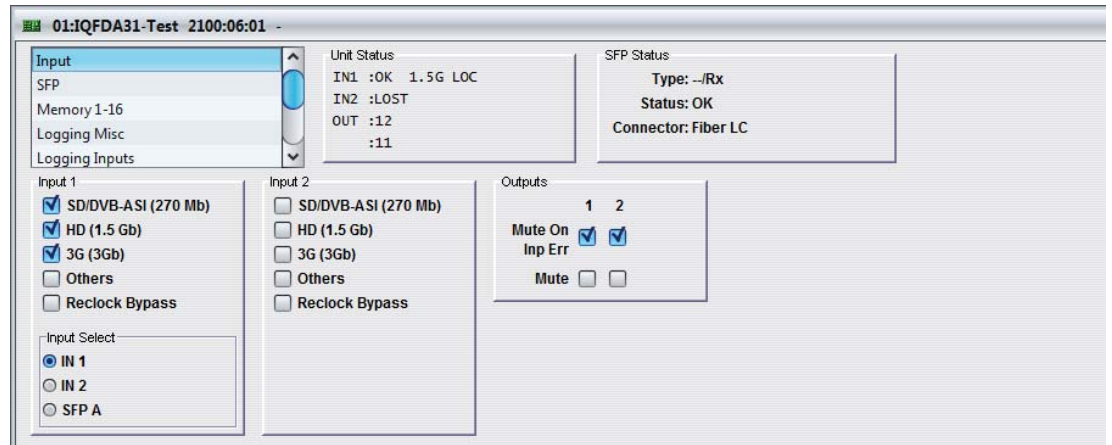
5.1.2 SFP Status



Name	Description
Type:	Shows the type of SFP installed. This is supplemented with a simple report for each SFP.
Status:	Shows the operational status of the SFP.
Connector:	Shows the physical connector type, for example, Fiber LC.

5.2 Input

The Input screen enables the inputs and outputs to be configured, and can be used to determine how the module behaves in the event of an input error.



5.2.1 Input 1 and 2

- **SD/DVB-ASI (270 Mb):** When selected, the unit will re-clock SD/DVB-ASI (270 Mb) signals.
- **HD (1.5 Gb):** When selected, the unit will re-clock HD (1.5 Gb) signals.
- **3G (3 Gb):** When selected, the unit will re-clock 3G (3 Gb) signals.
- **Others:** When selected, signals that are not of any of the above rates will be re-clocked.
- **Reclock Bypass:** When selected, the unit will not re-clock the input signal. If a supported rate is detected, the Unit Status will display the detected rate, otherwise, *** will be displayed.
- **Input Select:** Use the radio buttons to select the input.

5.2.2 Outputs

Use the radio buttons to specify the input for each of the outputs.

Select **Mute On Inp Err** to apply a mute to the output if any rate other than those specified as valid in the Input 1 and Input 2 sections is detected.

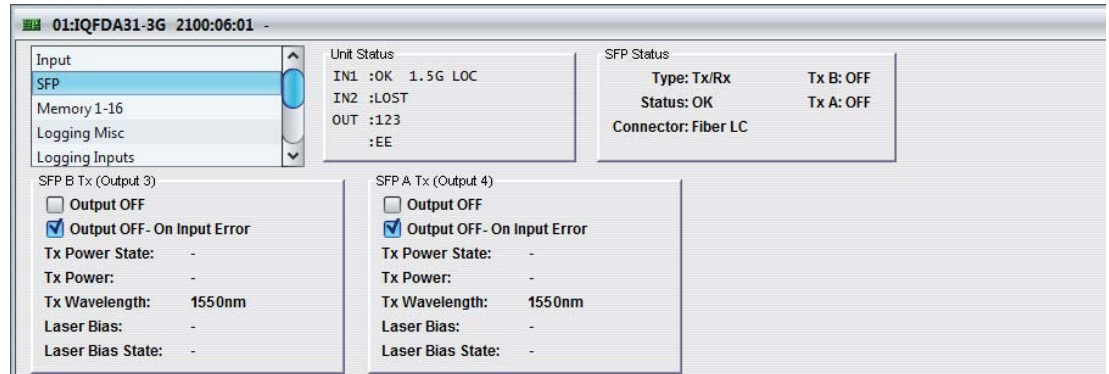
Select **Mute** to manually apply a mute to the output.

5.3 SFP

Note: This screen is only displayed when the module is fitted with a rear that supports SFPs.

5.3.1 SFP Transmit

For an SFP transmitter channel, the SFP screen is used to select whether the output is turned off – either permanently, or when an error condition on the selected input is detected.

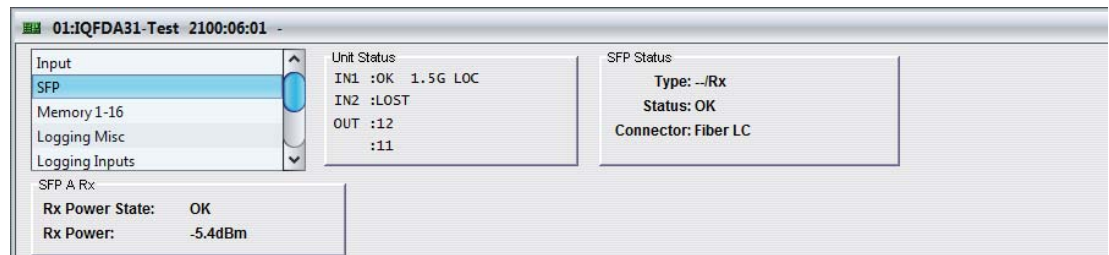


5.3.1.1 SFP B Tx

- **Output OFF:** Enables the fiber optic output to be turned off manually.
- **Output OFF- On Input Error:** When selected, enables the fiber optic output to be turned off automatically when the signal is lost at the associated fiber optic receiver input.
- **Tx Power State:** Displays the state of the transmitted output signal (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 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).

5.3.2 SFP Receive

For an SFP receiver channel, the SFP reports the status of the SFP. If a deselected data rate is presented to the module it will cause an “On Error” condition and the module will handle this as per its On Error settings on the Translate screen.

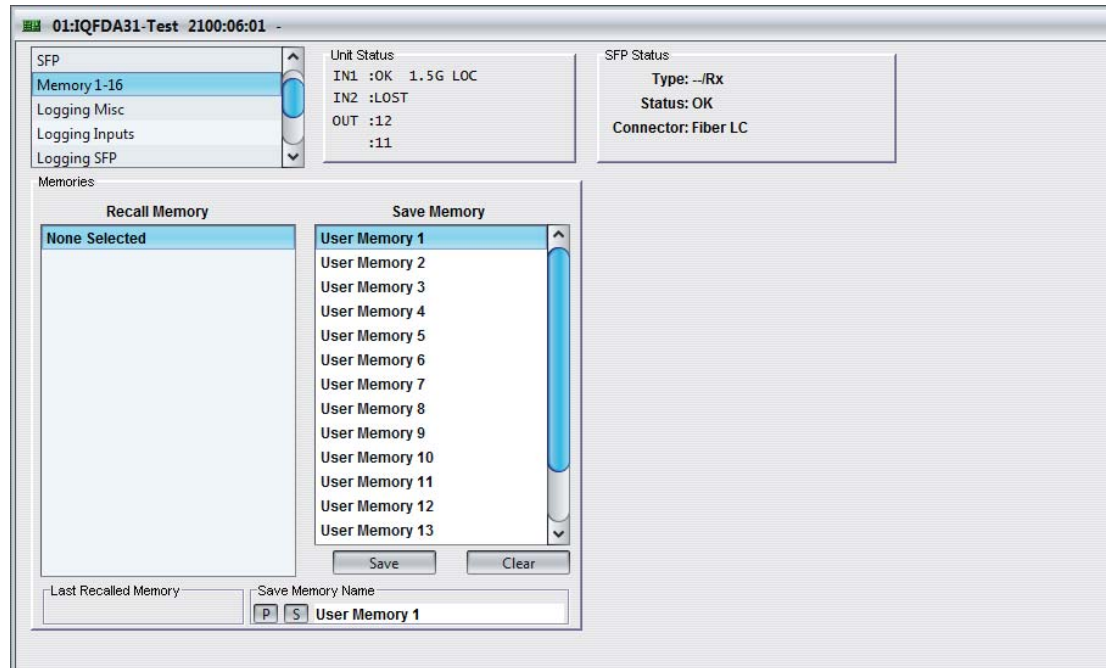


5.3.2.1 SFP A Rx

- **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).

5.4 Memory 1-16

The Memory 1-16 screen enables up to 16 setups to be saved and recalled later. Default memory names can be changed to provide more meaningful descriptions.



5.4.1 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” – that is, whether a log value has been enabled or disabled.

5.4.2 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.

To clear a memory location:

- In the **Save Memory** column, select a memory location, and then click **Clear**. The current settings stored for that memory are cleared. After you clear a memory location, it disappears from the **Recall Memory** list.

5.4.3 Last Recalled Memory

The **Last Recalled Memory** 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.

5.4.4 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.

5.5 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.

5.5.1 Logging Misc

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

Log Enable	Log Field	Log Value
<input checked="" type="checkbox"/> OS Version	SN=	unknown
<input checked="" type="checkbox"/> Build No.	OS_VERSION=	V115 Release
<input checked="" type="checkbox"/> Hardware Ver.	BUILD_NUMBER=	0000100189
<input checked="" type="checkbox"/> Up Time	HARDWARE_VERSION=	RFCDA1B
<input checked="" type="checkbox"/> Licensed Options	UPTIME=	000:00:04:00
<input checked="" type="checkbox"/> RollTrack	LICENSED_OPTIONS=	FAIL:No File
<input checked="" type="checkbox"/> Rear ID	ROL_STATES=	Disabled
<input checked="" type="checkbox"/> Rear Status	REAR_ID=	27
<input checked="" type="checkbox"/> Slot Width	REAR_STATUS=	OK
<input checked="" type="checkbox"/> Slot Start	SLOT_WIDTH=	1
<input checked="" type="checkbox"/> Last Recalled Memory	SLOT_START=	1
<input checked="" type="checkbox"/> Power Usage	LAST_RECALLED_MEMORY=	-
	POWER_USAGE=	9.4W/9.4LU

5.5.2 Logging Inputs

The Logging Inputs screen is used to select which fields should be enabled for each of the serial inputs.

Log Enable	Log Field	Log Value
<input checked="" type="checkbox"/> Input Ident	INPUT_1_IDENT=	SER IN 1
<input checked="" type="checkbox"/> Input Name	INPUT_1_NAME=	INPUT 1 SERIAL IN
<input checked="" type="checkbox"/> Input Type	INPUT_1_TYPE=	HD/SD/3G SDI
<input checked="" type="checkbox"/> Input State	INPUT_1_STATE=	OK
<input checked="" type="checkbox"/> Input SDI Bitrate	INPUT_1_SDRATE=	1.5Gb/s

5.5.3 Logging SFP

The Logging SFP screen is used to select which fields should be enabled for each of the SFP inputs.

The screenshot displays the 'Logging SFP' configuration interface. At the top left, the unit identifier '01:IQFDA31-3G' and time '2100:06:01' are shown. A navigation pane on the left lists 'Logging SFP' as the active screen. The main area is divided into several sections:

- Unit Status:** Shows 'IN1 :OK 1.5G LOC', 'IN2 :LOST', and 'OUT :123 :111'.
- SFP Status:** Shows 'Type: Tx/Rx', 'Tx B: OFF', 'Status: OK', 'Tx A: OFF', and 'Connector: Fiber LC'.
- Logging SFP Details:** A table with columns 'Log Enable', 'Log Field', and 'Log Value'.

Log Enable	Log Field	Log Value
<input checked="" type="checkbox"/> SFP Type	SFP_1_TYPE=	Tx/Rx
<input checked="" type="checkbox"/> SFP Status	SFP_1_STATUS=	OK
<input checked="" type="checkbox"/> SFP Connector	SFP_1_CONNECTOR=	Fiber LC
- Logging SFP B Tx (Output 3):** A table with columns 'Log Enable', 'Log Field', and 'Log Value'.

Log Enable	Log Field	Log Value
<input checked="" type="checkbox"/> Tx Power State	OUTPUT_B_TX_POWER_STATE=	Log Value
<input checked="" type="checkbox"/> Tx Power	OUTPUT_B_TX_POWER=	-
<input checked="" type="checkbox"/> Tx Wavelength	OUTPUT_B_WAVELENGTH=	1550nm
<input checked="" type="checkbox"/> Laser Bias Current	OUTPUT_B_LASER_BIAS=	-
<input checked="" type="checkbox"/> Laser Bias State	OUTPUT_B_LASER_BIAS_STATE=	-
- Logging SFP A Tx (Output 4):** A table with columns 'Log Enable', 'Log Field', and 'Log Value'.

Log Enable	Log Field	Log Value
<input checked="" type="checkbox"/> Tx Power State	OUTPUT_A_TX_POWER_STATE=	Log Value
<input checked="" type="checkbox"/> Tx Power	OUTPUT_A_TX_POWER=	-
<input checked="" type="checkbox"/> Tx Wavelength	OUTPUT_A_WAVELENGTH=	1550nm
<input checked="" type="checkbox"/> Laser Bias Current	OUTPUT_A_LASER_BIAS=	-
<input checked="" type="checkbox"/> Laser Bias State	OUTPUT_A_LASER_BIAS_STATE=	-

5.5.4 Log Field Descriptions

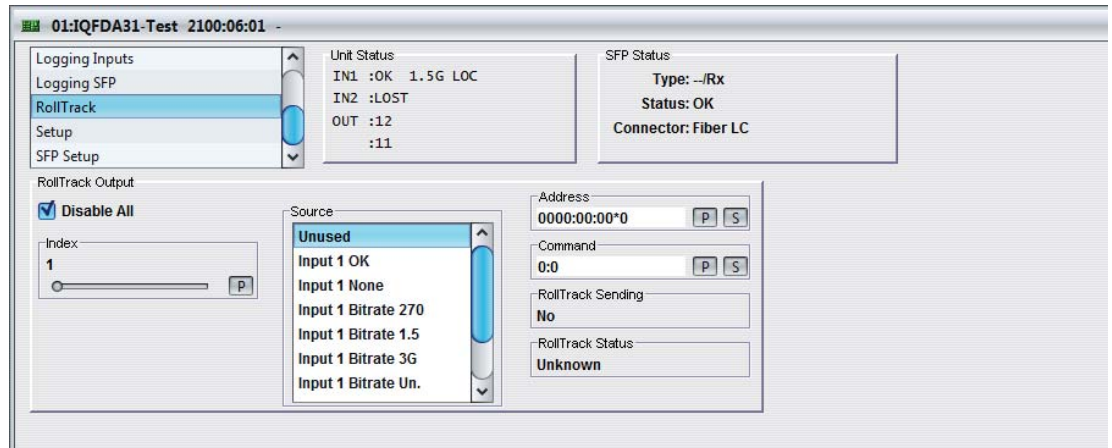
Log Field	Description
SN=	The module's unique serial number.
OS_VERSION=	The operating system version.
BUILD_NUMBER=	The software build number.
HARDWARE_VERSION	The hardware build version.
UPTIME=	Shows the time since the last restart (format ddd:hh:mm:ss).
LICENSED_OPTIONS=	The licensed features installed in the module.
ROL_STATES=	The status of any RollTracks that have been enabled.
REAR_ID=	The rear panel type.
REAR_STATUS=	The status of the rear panel.
SLOT_WIDTH=	The number of slots used by rear and module.1 or 2.
SLOT_START=	The first slot number the rear occupies. Use in conjunction with SLOT_WIDTH to determine the slots that the unit occupies.
LAST_RECALLED_MEMORY=	The last recalled memory.
POWER USAGE=	The power rating for the module. Note: this is not a live power reading.
INPUT_N_IDENT=	The identifier of the serial data input.
INPUT_N_NAME=	The name of the serial data input.
INPUT_N_TYPE=	This displays the type of input as specified by the unit's configuration. Valid values are HD /SD SDI.
INPUT_N_STATE=	Displays the current input state. Valid values are: <ul style="list-style-type: none"> • OK • WARN:Mismatch • FAIL:Lost • FAIL>Error <p><i>Note: WARN:Mismatch indicates that the input and output standards are not the same.</i></p>
INPUT_N_SDIRATE=	The current bit rate for the serial data input.
SFP_N_TYPE=	The transmitter type.
SFP_N_STATUS=	The status of the SFPs as reported by the SFPs.
SFP_N_CONNECTOR=	The physical connector type, for example, Fiber LC.
OUTPUT_N_TX_POWER_STATE=	Displays the TX power status. Valid values are: <ul style="list-style-type: none"> • OK • WARN:HI • WARN:LO • FAIL:LO • FAIL:HI
OUTPUT_N_TX_POWER=	The power level of the TX input, in dBm.
OUTPUT_N_WAVELENGTH=	The wavelength of the transmitted output signal.

Log Field	Description
OUTPUT_ <i>N</i> _LASER_BIAS=	The bias level, in mA.
OUTPUT_ <i>N</i> _LASER_BIAS_STATE=	Displays the laser bias status. Valid values are: <ul style="list-style-type: none">• OK• WARN:HI• WARN:LO• FAIL:LO• FAIL:HI

Note: *N* should be replaced with the respective SFP/output identifier, for example, 1 for an SFP and B for an output.

5.6 RollTrack

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



5.6.1 Disable All

When checked, all RollTrack items are disabled.

5.6.2 Index

This slider enables up to 16 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.

5.6.3 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.

Unused	No RollTracks sent.
Input N OK	Valid serial data input received.
Input N None	No serial data input received.
Input N Bitrate 270	Received bitrate is 270 Mbit/s.
Input Bitrate 1.5	Received bitrate is 1.5 Gbit/s.
Input N Bitrate 3G	Received bitrate is 3 Gbit/s.
Input N Bitrate Un.	Received bitrate is unknown.
TX N Bias OK	LASER Bias current within limits.
TX N Bias High	LASER Bias current above limits.
TX N Bias Low	LASER Bias current below limits.
RX N Power OK	Receive power is within limits.
RX N Power High	Receive power is above limits.
RX N Power Low	Receive power is below limits.

5.6.4 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-defined 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 unexpectedly.

5.6.5 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.

5.6.6 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.

5.6.7 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.

5.7 Setup

The Setup screen displays 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.
- **Rear Type:** The rear panel type.
- **Licensed Options:** The installed licensed options.

5.7.1 Default Settings

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

5.7.2 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.

5.7.3 Restart

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

5.7.4 Input Name

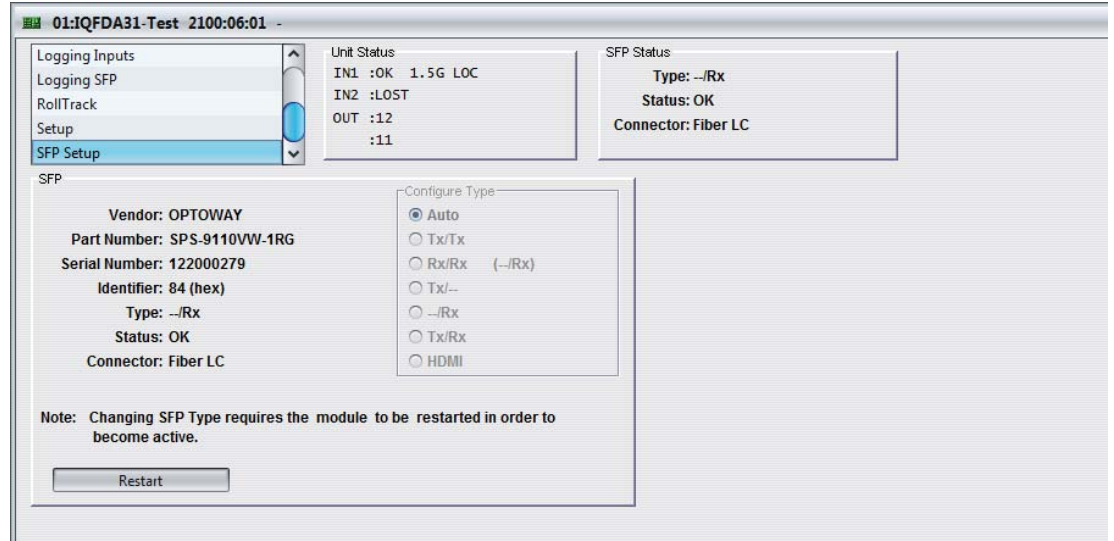
These are the input names displayed in logging.

To change the name of Input 1 or Input 2, type the name in the text field and click **S**. To return the name to its factory default, click **P**.

5.8 SFP Setup

Note: The SFP Setup screen is only displayed when the module is fitted with a rear that supports SFPs, even if no SFP is fitted.

The SFP Setup screen displays basic information about the SFP configuration. If the SFP is not recognized, manual configuration is available.



5.8.1 Restart

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

5.8.2 Configure Type

In the event of the module not recognizing the SFP, the **Configure Type** controls will become available for manual selection.

Note: When changing an SFP, the module needs to be restarted in order for the SFP to become active.



Before configuring the SFP, ensure that the correct SFP is installed.