

Broadcast Technologies . . . Redefined!™

# plura®

## SFP-3G Series

The Most Adaptable & Flexible Broadcast Monitor Ever!

17" 21" 24" 32"



### PLURA SFP-3G Series - Product Highlights:

New Plura SFP-217-3G, SFP-221-3G, SFP-224-3G & SFP-233-3G, 17", 21", 24" & 32" FULL HD 1920x1080 Precision Broadcast LCD Series is built with 17", 21", 24", 32" high quality panel respectively. The SFP-3G series adapt to various PLURA SFP modules which can fit any possible broadcast application. It supports up to 3 Gbps – 1080-60P along with all other Digital & Analog inputs & formats. The SFP-3G series is capable of converting the SD/HD/3G input to HDMI output.

#### 6x6 Cross Point solution

SFP-3G series comes standard with Built-IN 6x6 Cross Point solution. This allows Plura SFP-3G monitor to be utilized at the front, middle or backend of your video system. The monitor has four SFP cages which can accept variety of Plura SFP modules.

#### LKFS Audio Loudness Real-Time Monitoring & Logging including other powerful Audio Features

- Digital Loudness Audio Monitoring & Logging with selected channel measurement in LKFS / LUFS scale
- Stereo Analog & 16 CH Embedded Digital Audio Input Support.
- Advanced and various 16 CH Audio Metering Scales.
- Built -IN Stereo 2 W Speakers.
- De-embedding Audio, Stereo Analog Audio & 16 CH Embedded Digital Audio Input Support.

#### Closed Captioning (708/608)

SFP monitor can decode closed caption streams with 708 Service 1, Service2, 608 Transcoded CC1,2,3&4, 608 line 21, & 608 ANC. SFP monitor can support Teletext 801 & Subtitle OP-47 for Australia & New Zealand region.

\* LKFS Monitoring Option - Factory FIT ONLY

#### Various SFP Modules

SFP-3G series adapts to various SFP Plura modules, such as:

- Fiber Dual TX, RX, Transceiver modules
- Coaxial Dual TX,RX, Transceiver modules
- Hybrid Coaxial & Fiber TX & RX modules
- 3G/HD/SD to HDMI module

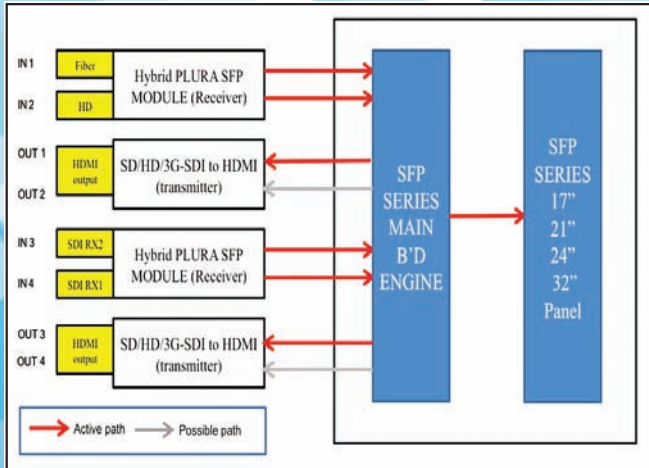
#### "3" Programmable Presets & other Prominent Features

- 3 preset programmable functions
- Line Mode, Skin tone, Range error, Focus Assist.
- Color Temperature – User, VAR, Adjustable (11000K TO 3200K)
- Internal Monitor Display (IMD)
- Pixel to Pixel Mode, Tally, DC Operation
- Display LTC & DVITC time code with line select
- Internal Pattern Generator Digital Audio Decoding
- Picture and Picture (PaP), Picture in Picture (PiP) Display / Blend
- RJ-45 Ethernet, 100Mbps, LAN to Serial supported for wall control applications along with programmable GPI & RS232 Remote Control

Please note that the technical details shown here are provisional specifications ( as of July 2015). The Information is subject to change without notice.

[www.PluraSFP.com](http://www.PluraSFP.com)

## SFP-3G Powerful I/O Configuration



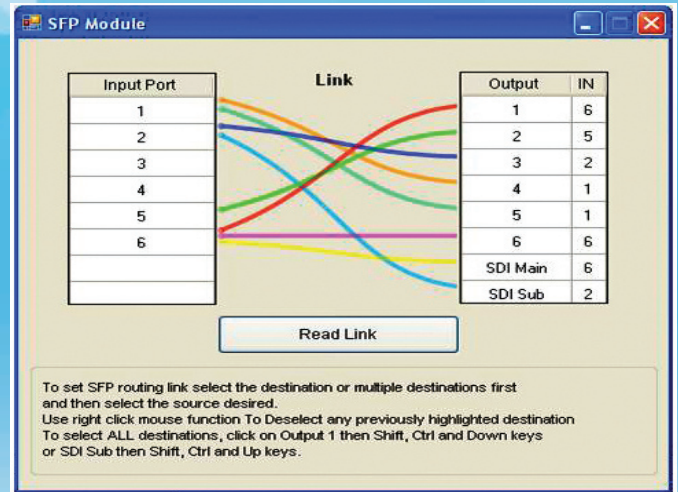
SFP-3G is equipped with powerful video processor to display concurrently two video inputs with the related Waveform & Vector, 16CH Audio Level Metering, and Timecode. Display Advanced Waveform & Vector Scope simultaneously with line select. Very slim chassis – Great for trucks, limited space and other general applications. 17", 21", 24" & 32" sizes all in Full HD panel. RJ-45 Ethernet, 100Mbps, LAN to Serial supported for wall control applications along with programmable GPI & RS232 Remote Control.



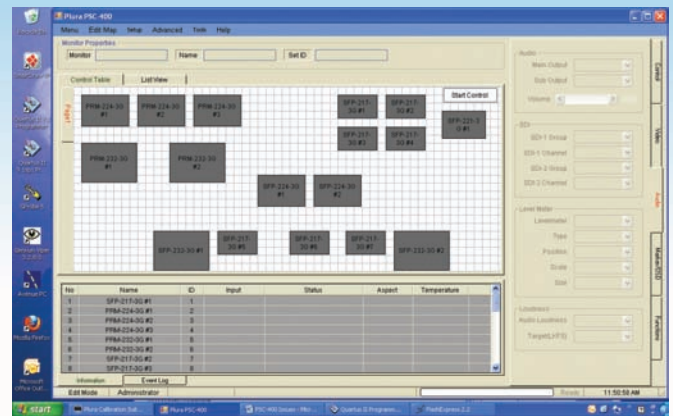
Dual Display Mode with Waveform & Vector

## 6x 6 Cross Point Switcher

SFP-3G Series comes standard with Built-IN 6 x 6 Cross point solution. This allows the Plura SFP-3G monitor to be utilized at the front, middle or backend of your video system. The monitor has four SFP cages which can accept a variety of Plura SFP modules.



SFP Built-IN 6x6 Cross Point Switcher



PSC-400 - Plura System Controller  
Inclusive Network Controller with Firmware & Cal. File Transfer

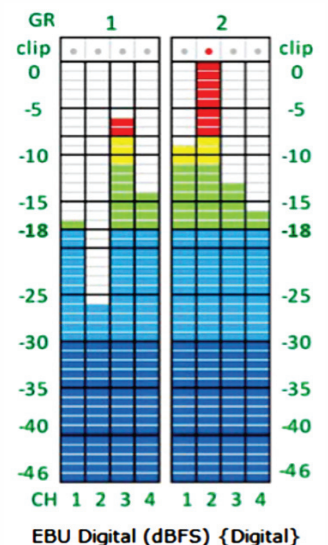
## Powerful Audio Measurement Package



LKFS Audio Loudness Mode.

LKFS Audio Loudness Measurement - Digital Loudness Audio Metering with selected channel measurement in LKFS scale.

- ▶ LKFS Loudness Real - Time Monitoring and Logging
- ▶ Stereo Analog & 16 CH Embedded Digital Audio Input Support.
- ▶ Advanced and various 16 CH Audio Metering Scales
- ▶ Built-IN Stereo 2 W Speakers,
- ▶ De-embedding Audio, Stereo Analog Audio & 16CH Embedded Digital Audio Input support



# QC Dashboard Capabilities

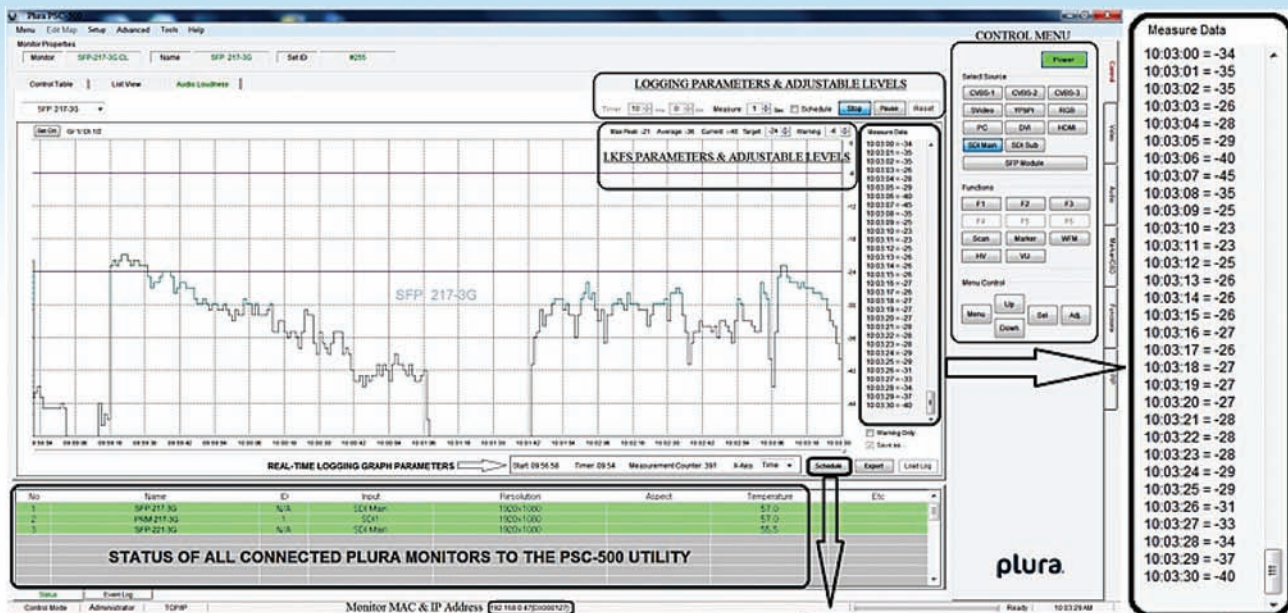
The NEW Plura QC Dashboard series with the below NEW & Advanced features takes Master Control monitoring to a higher and unmatched Level.

Plura SFP-3G & PRM-3G line up for "QC Dashboard" Series of monitors that include WF/VS, Audio meters, (Closed Caption & V-Chip Decoding) and an on screen LKFS measurement with logging!

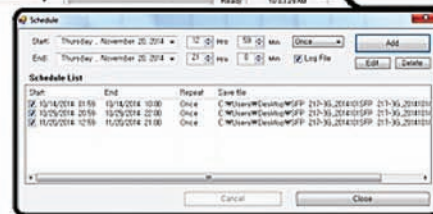
SFP-3G monitor series have a built-IN 6x6 router and SFP modular capabilities. This would allow a direct multiple Fiber and/or Coax feeds to the monitor, then you can break out to Coax, Fiber or HDMI. You can also use the HDMI output to go to a larger display.

## 1 - LKFS Loudness Real-Time Monitoring & Logging

► LKFS Loudness Real-Time display & logging on a remote PC using PSC-500 (Plura System Controller Utility). See below:



Real-Time logging on a Plura SFP-217-3G Monitor



Schedule Menu Edit & Add Unlimited schedule list items.

► LKFS Loudness Real-Time display on the Plura monitor above.

## 2 - Closed Caption Real-Time display on Plura Monitor

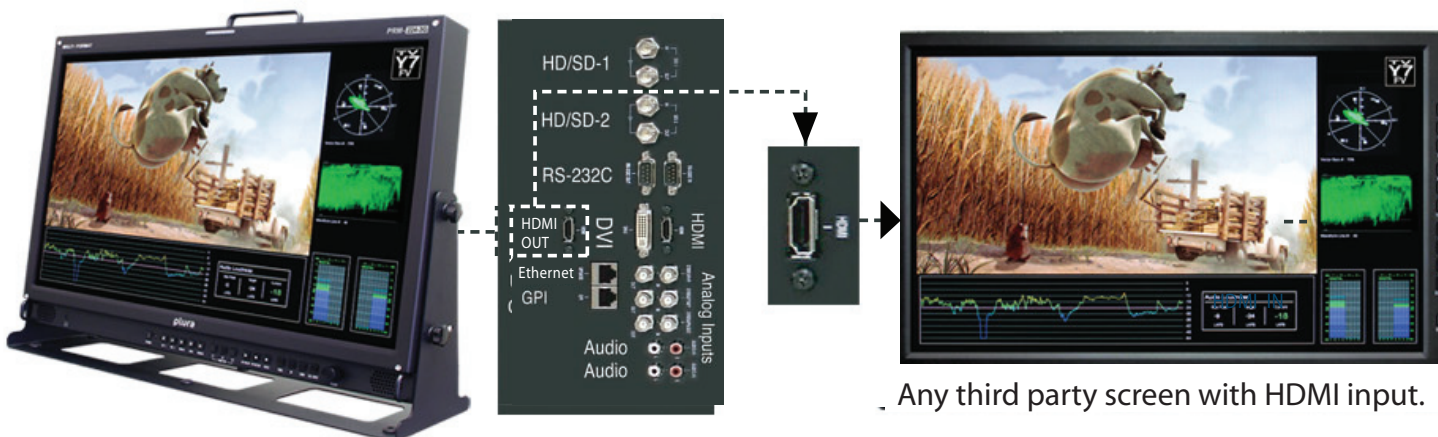


## 3 - V-Chip decoding Real-Time display on Plura Monitor



## 4 - HDMI Preview Output – OPTION

This option will allow you to stream real-time video and graphics displayed on the monitor over HDMI signal to any third party screen with HDMI signal. Below:



## SFP-3G-Series Specifications

FUNCTION		SFP-217-3G	SFP-221-3G	SFP-224-3G	SFP-232-3G	
INPUT	SDI Input	2EA, HD/SD Serial Digital , 3Gb/s, 1.485Gb/s, 270Mb/s, BNC Jack				
	Analog Input	3EA, Composite, Component(YPbPr/RGB), BNC Jack				
	S-VIDEO Input	1EA, YC(S-Video), S-Jack				
	DVI / VGA Input	1EA, DVI-I, 24pin, Female				
	HDMI	1EA, HDMI, 19pin Female				
OUTPUT	SDI Output	2EA, BNC, Active Through Output				
	Analog Loop Output	3EA, 75Ω, BNC Jack (Option)				
ANALOG INPUT FORMAT	Composite	1.0Vpp(with sync)				
	YC (S-Video)	Y :1.0Vp-p, C:0.286Vp-p				
	Component	1.0Vpp ( Y with Sync) 0.7Vpp (Pb/Pr)				
	RGB	1.0Vpp (G with Sync), 0.7Vpp (R/B)				
	DVI - (Analog PC)	H Frequency Range : 22~82KHz, V Frequency Range : 55~90Hz, Maximum Resolution : UXGA at 60Hz, Maximum Pixel Rate : 162MHz - Separate Sync Support				
DIGITAL INPUT FORMAT	SMPTE 428.1M	2048x1080P ( 24/25)				
	SMPTE-425M(3G)	1080p(60/59.94/50/30/29.97/25/24/23.98/30sF/29.97sF25sF/24sF/23.98sF) 1080i (60/59.94/50)				
	SMPTE-260M	1920x1035i(60/59.94)				
	SMPTE-292M	1920x1080i (50/59.94/60) 1920x1080P (30Psf/25Psf/24Psf/30/25/24)				
		Dual Link HD-SDI YPbPr(4:2:2) : 1080P(50/59.94/60)				
		Dual Link HD-SDI YpbPr/RGB(4:4:4)				
	SMPTE 372M	1080P(30/29.97/25/24/23.98) 1080i(29.97/25/24/23.98) 720P(60/59.94/50)				
	SMPTE 296M	1280x720P (50/59.94/60)				
	SMPTE 259M/C	480i(59.94) 576i(50)				
	Component	640 X 480 up to 1920 X 1080p				
	HDMI	H Frequency Range : 22~82KHz, V Frequency Range : 55~90Hz,				
	DVI Digital	Maximum Resolution : UXGA at 60Hz , Maximum Pixel Rate : 162MHz				
	AUDIO INPUT	Input Line	Analog Stereo (RCA Jack)			
		SDI Audio Input	Embedded HD/SD-SDI Audio			
	AUDIO OUTPUT	Speaker Output	1EA, L/R, Stereo pin jack			
Output Line		2EA, 2W+2W				
Ear-phone Output		1EA, L/R Stereo, 3.5mm pin jack				
I/O PORT	Output Signal	Input Line & De-embedded Audio, 1~ 16CH				
	GPI	1EA, Remote, RJ-45P Jack, GPI-7 Port				
	RS422/485	2EA, RJ-11P Jack, RS-422, Serial interface				
	Ethernet Port	RJ-45 8 pin Ethernet port, 100Mbps, LAN to Serial supported for wall control applications				
	Upgrade Port	D-sub 9 pin female for software upgrade				
LCD	RS232	D-sub 9 pin female				
	Size	LCD 17"	LCD 21"	LCD 24"	LCD 32"	
	Aspect Ratio	16 : 9	16 : 9	16 : 10	16 : 9	
	Resolution	1920 x 1080	1920 x 1080	1920 x 1200	1920 x 1080	
	Color	16.7 M colors			1,073,741,824 colors	
	Viewing Angle (deg)	H: 160 - V: 160 (typ)		Horizontal: 178(Typ.), Vertical 178 (Typ.)		
	Luminance of White	Max 450 cd/m2	Max 350 cd/m2	Max 400 cd/m2	Max 450 cd/m2	
	Contrast	900 : 1 (Typical)	1000 : 1 (Typical)	1000 : 1 (Typical)	1500 : 1 (Typical)	
	Display Area (H X V)	372.9 x 209.7 (mm)	495.6 x 305.2 (mm)	518.4 x 324.0 (mm)	698.4 x 392.85 (mm)	
	Response Time	Tr=8ms / Tf=8ms	Tr=6ms / Tf=6ms	Tr=7.5ms / Tf=7.5ms	Tr=8ms / Tf=6ms	
POWER REQUIREMENT	AC 100V ~ 240 V (60/50 Hz)					
POWER CONSUMPTION	0.65A - 0.34A (65W)	1.0A - 0.5A (100W)	1.0A - 0.5A (100W)	1.4A - 0.6A (140W)		
WORKING TEMPERATURE	0°C ~ 40°C (32°~104°F)					
WORKING HUMIDITY	10%RH ~ 85%RH (Non Condensed)					
STORAGE TEMPERATURE	-10°C ~ 80°C (14°~176°F)					
STORAGE HUMIDITY	12 Kg - 26.46 Lbs 10%RH ~ 85%RH (Non Condensed)					
WEIGHT (w/o Stand & Packaging)	7 Kg - 15.43 Lbs	12 Kg - 26.46 Lbs	16 Kg - 35.275 Lbs	30 Kg - 66.2 Lbs		
DIMENSION (WxHxD) (w/o Stand & Box)	445 x 263 x 67mm 17.5 x 10.35 x 2.63 Inch	509 x 323 x 67 mm 20 x 12.7 x 2.63 Inch	553.8 x 382.8 x 93.2 mm 21.8 x 15.1 x 3.7 Inch	787 x 485 x 98.5 mm 31 x 19.1 x 3.9 Inch		
PACKAGING DIMENSION (WxHxD)	550 x 435 x 220 mm 21.7 x 17.2 x 8.7 Inch	660 x 523 x 220 mm 26 x 20.6 x 8.7 Inch	660 x 523 x 220 mm 26 x 20.6 x 8.7 Inch	932 x 630 x 272 mm 36.69 x 24.8 x 10.7 Inch		
ACCESSORY	Power Cord - Desk Stand					
OPTION	Rack Mount - Vertical/Wall Mount - Carring Case					

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# Plura SFP- 3G /Small Form Factor Pluggable Modules

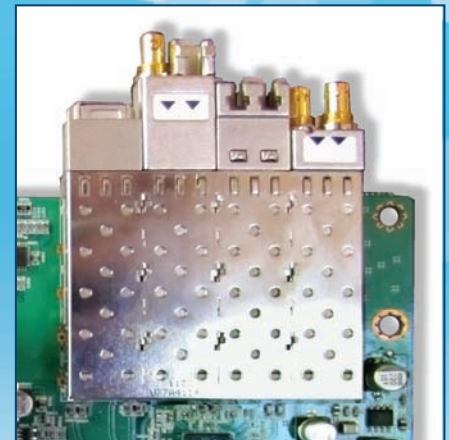
The powerful I/O configuration design of any SFP-3G monitor is based on the popular SFP- (small form factor pluggable) modules. Every SFP-3G monitor comes with four slots and can be populated in many way, shape & form as per drawings below with many different modules types you can select from to fit your application. This makes the SFP-3G monitor series the most adaptable and flexible broadcast monitor ever!



Four SFP cages can accept variety of Plura SFP modules.  
SFP -1   SFP -2   SFP -3   SFP -4



Sample: 3 Gbps SDI Dual Optical Transmitter (1310nm) Module



## SFP MODULE IN /OUT

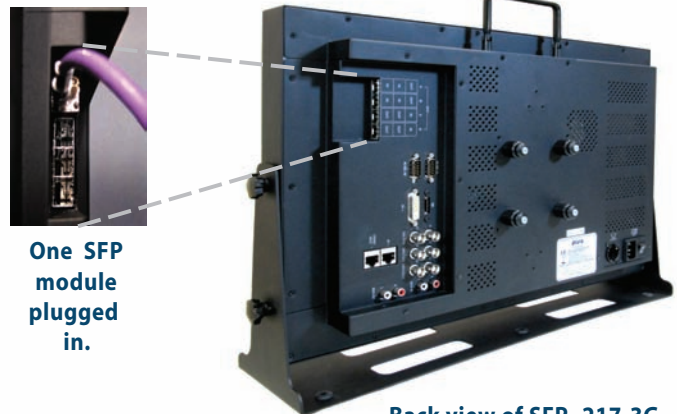
SFP 1 (DUAL MODE)		SFP 2 (DUAL MODE)		SFP 3 (DUAL MODE)		SFP 4 (DUAL MODE)					
IN 1	IN 2	OUT 1	IN 3	IN 4	OUT 2	OUT 3	OUT 4	IN 5	OUT 5	OUT 6	IN 6

Plura Module Model #	Description
SFP-3G-2RX-1310F-LC-MH	SFP Module - 3Gbps SDI Dual Optical Receiver (1310nm) - LC-F
SFP-3G-2RX-HD-BF-LR	SFP Module - 3Gbps SDI Dual Coaxial Receiver, HDBNC
SFP-3G-2RX-HD-BF-LR-C	SFP Module - 3Gbps SDI Dual Coaxial Receiver, w/Reclocker, HDBNC
SFP-3G-2TX-1310F-LC-MH	SFP Module - 3Gbps SDI Dual Optical Transmitter, (1310nm) - LC-F
SFP-3G-2TX-HD-BF-LR	SFP Module - 3Gbps SDI Dual Coaxial Transmitter, HDBNC
SFP-3G-2TX-HD-BF-LR-C	SFP Module - 3Gbps SDI Dual Coaxial Transmitter, w/Reclocker, HDBNC
SFP-3G-TX-HDMIIF-TYPE D	SFP Module - 3Gbps SDI to HDMI converter, Type D
SFP-3G-TXRX-1310F-LC-MH	SFP Module - 3Gbps SDI Optical Transceiver, (1310nm) - LC-F
SFP-3G-TXRX-HD-BF-LR	SFP Module - 3Gbps SDI Coaxial Transceiver, HDBNC
SFP-3G-TXRX-HD-BF-LR-C	SFP Module - 3Gbps SDI Coaxial Transceiver, w/Reclocker, HDBNC

Software Packages	
SFP-LKFS	LKFS monitoring Option - Factory FIT ONLY
PSC-400	Plura Software System Controller for SFP, PRM, LCM & PBM Series
PSC-500	Plura LKFS System Logger Package for SFP & PRM Series



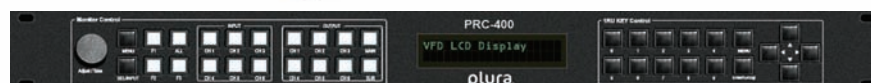
Front view of SFP -217-3G



Back view of SFP -217-3G



One SFP module plugged in.



PRC-400 - 1 RU Universal Control Panel

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