



## PRZM T1/R1 RFOF SET SPEC SHEET



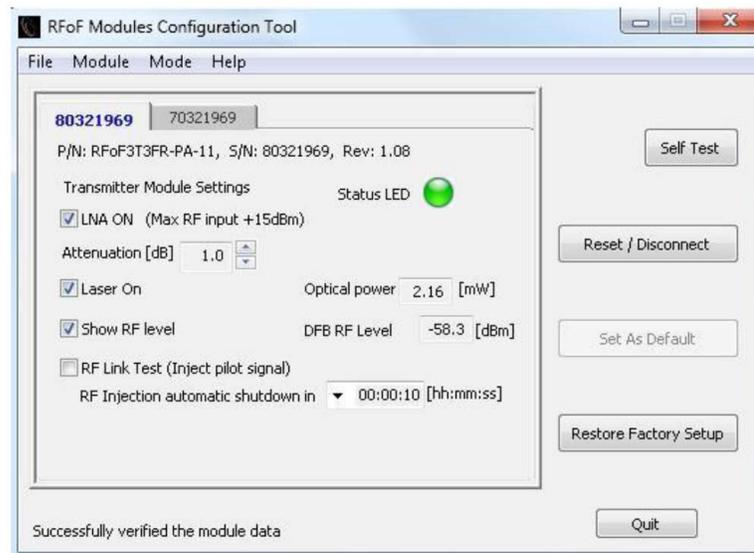


## PRZM T1/R1

The PRZM RFoF system enables RF signals to be carried long distances over fiber optic cable. The T1 unit converts RF to optical signal and the R1 unit receives and converts that signal back to RF. The two units are connected with single mode fiber cable.

The PRZM system is typically used for connection between receive antennas and a wireless microphone receiver or RF distribution amplifier (diagram 1). The system can also be used in reverse for in-ear monitor or IFB transmission (see diagram 2 for required additional hardware).

The units are able to be programmed and monitored through the included configuration software, enabling adjustment of attenuation level, LNA, link test, and laser on/off. The software also let's the user monitor link status, optical power, and RF level.



Included in the PRZM T1/R1 Set:

1x T1 Transmitter, 1x R1 Receiver, 2x power adapters, 2x USB micro cables, 1x 3' ST-ST fiber cable, and 1x USB flash drive w/ configuration software & user guide.

# PRZM T1/R1

## Specifications

Electrical	Unit	Specification LNA "OFF"	Specification LNA "ON"
Un-Filtered Frequency Range	MHz	0.5-2500	0.5-2500
Adjustable Link Gain (nominal value) <sup>[1]</sup>	dB	12	42
Attenuator 31 dB (Tx, Rx) <sup>[2]</sup>	dB	0.5	0.5
Gain Flatness	dB	±1.4	±1.4
Input P1 dB <sup>[3]</sup>	dBm	-3	-33
Noise Figure <sup>[3]</sup>	dB	25	5
SFDR <sup>[3]</sup>	dB/Hz <sup>2/3</sup>	104	100
Gain Flatness any 36 MHz	dB	±0.25	±0.25
Uncorrected gain variation over temperature	dB	±3.5	±3.5
Corrected gain variation over temperature <sup>[4]</sup>	dB	±1	±1
Corrected gain tracking between RFoF links <sup>[5]</sup>	dB	±0.5	±0.5
Maximum Input No damage	dBm	20	20
Spurious	dBm	-100	-100
VSWR Input / Output	dB	1.7:1	1.7:1
Input / Output Impedance	Ohm	50	50
<b>Optical and Electrical</b>			
Current consumption of Tx unit (at 5VDC)	mA	260	385
Current consumption of Rx unit (at 5VDC)	mA	225	225
Laser diode wavelength	nm	1310	1310
Optical Power in the fiber	mw	2.3 ±0.5	2.3 ±0.5
LED status indicators (Tx/Rx)	-	RGB	RGB

Filter range options when ordering: 169-217 MHz, 470-616 MHz (default), 470-636 MHz, and 470-698 MHz.

[1] LNA 'ON' or 'OFF' is selected by using the RFoF user software.

[2] 'No Attenuation' is the default for Tx and Rx units. Attenuation values can be selected by the user software.

[3] Noise Figure, Input P1 dB, Input IP3 and SFDR measured at 1.5GHz, can be selected by 'LNA Off/ON'.

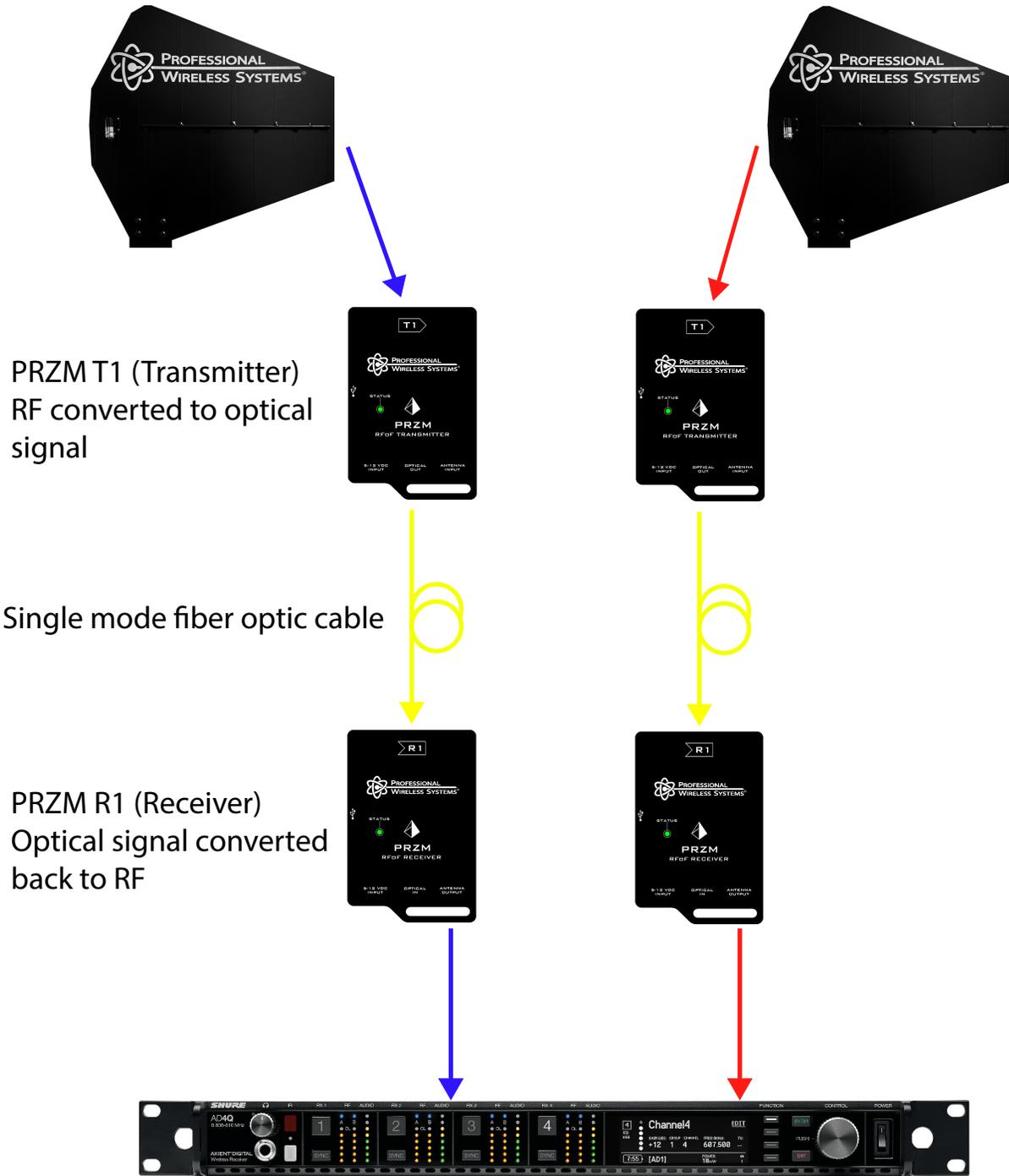
[4] Using internal temperature compensation algorithm selected by the user software.

[5] Using the Tx and/or Rx Attenuators.

Parameter	
Dimensions	6.2" x 4.2" x 1.7"
RF Input / Output Connector	BNC
Optical Connector	ST/UPC
Power Connector	XLR4 (Pin1-/Pin4+)
Power	5-12 VDC
Data Connector	Micro USB
Mounting Point	3/8"- 16

# PRZM T1/R1

Application: Diversity Receive Antennas  
(Diagram 1)



# PRZM T1/R1

Application: Transmit Antenna  
(Diagram 2)

A transmit amplifier is required to re-amplify the signal.



PRZM R1 (Receiver)  
Optical signal converted back to RF



Single mode fiber optic cable



PRZM T1 (Transmitter)  
RF converted to optical signal



*Do not exceed 20dBm at input!  
Additional padding may be required with in-line attenuators.*

