

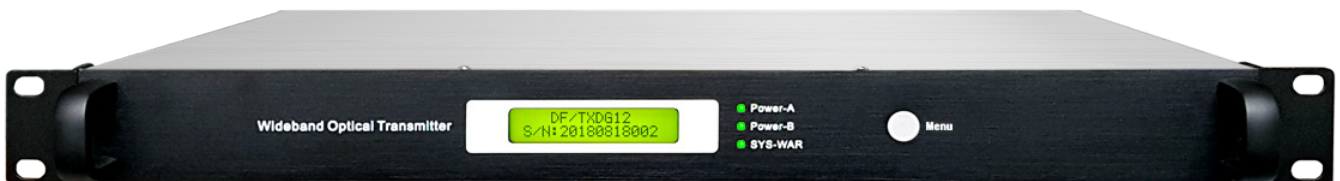


DIRECT FIBRE TV TRANSMITTER 1550 nm INSTRUCTION MANUAL


47 MHz to 2400 MHz




PRODUCT CODE: DF/TXDG12




SAFETY PRECAUTIONS

 **WARNING:** Avoid personal injury and product damage by complying with the following important operating and maintenance instructions.

Avoid Electric Shock

 **WARNING:** To reduce the risk of an electric shock, perform only the instructions that are included in this instruction manual. Refer all servicing to a qualified service technician.

 Do not apply power to the TX until all components have been installed and all of the wiring has been properly terminated. Failure to do so may result in damage to the product and this will void the manufacturer's warranty.


Do not attempt to terminate, change or un-install any of the wiring without first switching off the unit and unplugging the AC power cord from the TX. Be sure to switch off the power at the outlet and the TX prior to disconnecting or unplugging the power cords from the unit.

The voltage supplied must be at the recommended VAC, otherwise the TX could suffer irreparable damage and subsequent invalidation of the warranty.

Note:

- Do not connect the TX to the power if the power cord is damaged
- Do not cut the AC power cords


Servicing

 **WARNING:** Avoid electric shock! Opening or removing the cover may expose you to dangerous voltages. Do not open the cover of this product and attempt service unless instructed to do so in the operating instructions. Refer all servicing to qualified personnel only.

Laser Safety

 **CAUTION**
VISIBLE AND INVISIBLE LASER RADIATION
AVOID EXPOSURE TO THE BEAM

Grounding Terminal

 **WARNING:** This product is equipped with an external grounding terminal, attach one end of a 2.5mm to the grounding terminal; then, attach the other end of the wire to an earth ground, such as an equipment rack that is grounded or CET.



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DIRECT FIBRE TV TRANSMITTER 1550 nm [47 MHz to 2400 MHz]

INTRODUCTION & SPECIFICATIONS

1.1 Product Overview

This is an all-in-one direct fibre transmitter for the use in medium to large fibre distribution networks. It can be used as a standalone Fibre Direct Transmitter or combined with our EYDFA.

This device provides long life stability and reliability.

1.2 Features

- Fibre output wavelength: 1550 nm to 1560 nm
- RF input: 47 MHz to 2400 MHz
- Fibre simultaneous dual outputs at + 12 dBm and + 9 dBm
- Module design, simple installation
- Redundant power supply
- 19" rack mounting in a 1RU space
- Low power consumption

1.3 Main Technical Specification Parameters

Specifications	DF/TXDG12	
Optical Power (mW)	15.85	7.95
Optical Power (dBm)	12	9
Optical Wavelength (nm)	1550 to 1560	
Fibre Connection	SC/APC	
RF Bandwidth (MHz)	47 to 2400	
Channels	70 [Mix of DVB-C, DVB-T and DVB-S/S2]	
Band Unflatness	≤ 0.75	
Optical Modulation Mode	Direct	
Optical Return Loss	≥ 50	
RF Input Level (dBμV)	70 ± 2 @ AGC	
Input Return Loss	≥ 10	
Input Impedance (Ω)	75	
CNR (dB)	≥ 51	
CTB (dB)	≥ 65	
CSO (dB)	≥ 65	
Power Consumption (W)	≤ 4	
Dual Power Supply (V)	110 VAC to 254 VAC or 48 VDC	
Storage Temperature (°C)	- 10 to + 50	
Operation Temperature (°C)	0 to + 50	
Humidity (%)	20 to 85	
Dimensions (mm)	483 x 370 x 44	



CAUTION: DO NOT FEED THE + 12 dBm FIBRE OPTICAL OUTPUT INTO THE EYDFA INPUT! THIS MAY CAUSE DAMAGE TO THE EYDFA.



DIRECT FIBRE TV TRANSMITTER 1550 nm [47 MHz to 2400 MHz]

APPEARANCE

1.4 Front Panel



Name	Function
Power A	LED ON: Working Normally LED FLASHING: Abnormal or No Power
Power B	LED ON: Working Normally LED FLASHING: Abnormal or No Power
SYS-WAR	LED ON: Working Normally LED FLASHING: Laser Output Lower than Normal Value (SYS-WAR = SYSTEM WARNING)
Menu	LCD Menu Toggle Button

Key Number	LCD (Display) Line	Description
0	DF/TXDG12	DF/TXDG12 is the Product Code / Model of the Fibre Optical Direct Transmitter
	S/N: 20180818002	Indicates the Serial Number of the Device
1	OP_A Pow:	The output power of laser A.
	Bias1:	The laser A bias current.
2	A+5V:	PSU A +5V Status. If the voltage is $< +4.2$ V, "LOW" is displayed, if above $+5.8$ V, "High" is displayed
	A-5V:	PSU A -5V Status. If the voltage is < -5.8 V, "LOW" is displayed, if above -5.8 V, "High" is displayed
3	B+5V:	PSU B +5V Status. If the voltage is $< +4.2$ V, "LOW" is displayed, if above $+5.8$ V, "High" is displayed
	B-5V:	PSU B -5V Status. If the voltage is < -5.8 V, "LOW" is displayed, if above -5.8 V, "High" is displayed
4	DF/TXDG12	DF/TXDG12 is the Product Code / Model of the Fibre Optical Direct Transmitter
	Soft Ver:1.0.0.1	Software Version loaded in the Fibre Transmitter

1.5 Rear Panel



Name	Function
	Grounding Terminal, Connect to Earth [CET]
Laser Out (+ 9 dBm)	+ 9 dBm Fibre Optic Signal Output SC/APC Connector
Laser Out (+ 12 dBm)	+ 12 dBm Fibre Optic Signal Output SC/APC Connector
RF Input	RF Signal Input: 47 MHz to 2400 MHz, F Female Connector
Back Up	Back up Power Supply Module
Main	Main Power Supply Module

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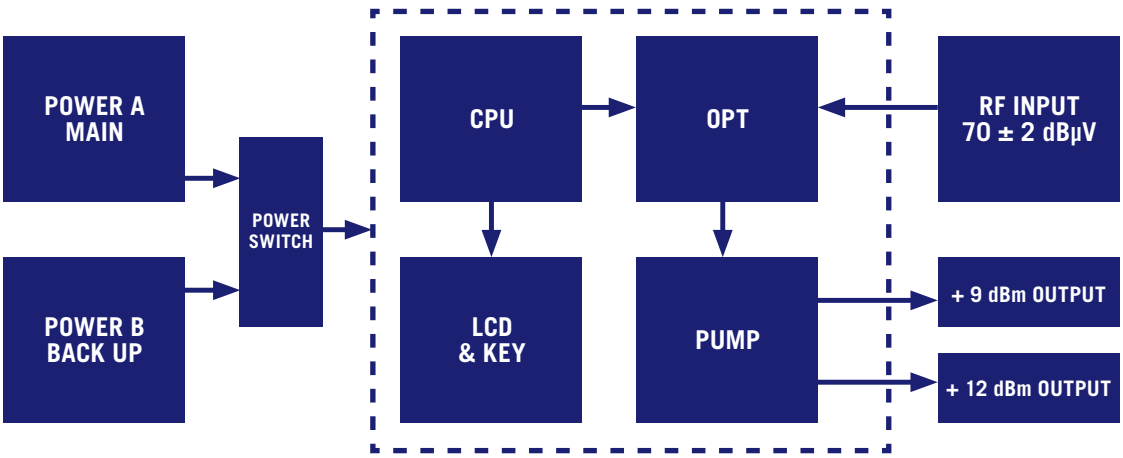
TROUBLESHOOTING

1.6 Troubleshooting

1. Q. The LED indicator for Power A or Power B is flashing?
A. Check the power cord inputs and ensure the switch on the power outlet along with the device is switched on.
2. Q. The LED indicator for SYS-WAR is off.
A. Check the laser output power using a Fibre Power Meter, this indicates a lower than nominal output.

DIAGRAMS

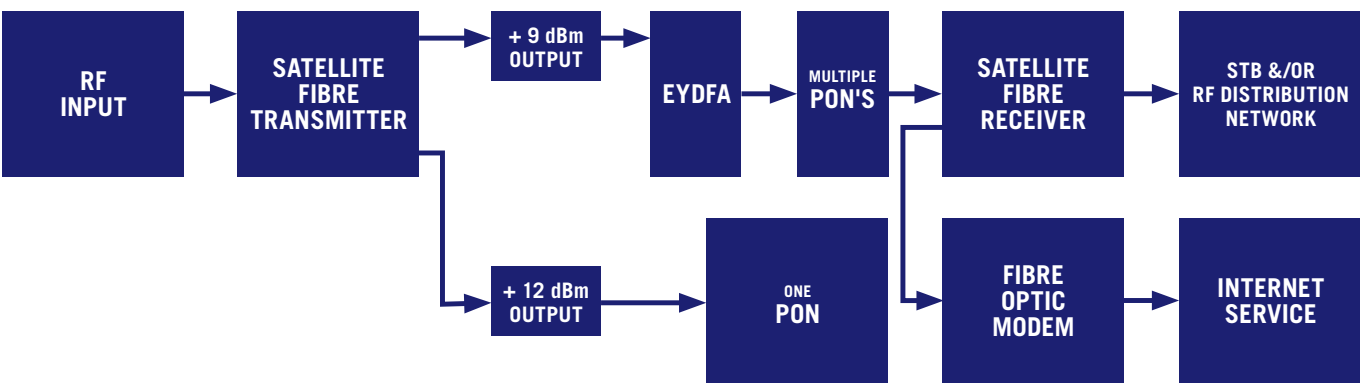
1.7 Fibre Transmitter Diagram



1.8 Device Installation Diagram



1.9 System Installation Diagram



CAUTION: DO NOT FEED THE + 12 dBm FIBRE OPTICAL OUTPUT INTO THE EYDFA INPUT! THIS MAY CAUSE DAMAGE TO THE EYDFA.



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WARRANTY

ATTACH YOUR PROOF OF PURCHASE HERE...



Please keep a copy of your proof of purchase with this Instruction Manual / Warranty.

DO NOT SEND BACK TO JONSA AUSTRALIA

PLEASE READ THIS WARRANTY AND KEEP IT WITH YOUR PURCHASE RECEIPT

Please complete these details and retain your original proof of purchase as you will require both documents to claim this as a warranty repair. Keep the documents in a safe place for future reference should you need to return this product to your place of purchase, during the warranty period of up to 12 months from the date of purchase.

Customer Details			
Name	First Name		Serial Number
	Surname		
Address	Name [St, Ave, Drv etc]		State
	Suburb		Post Code

Dealer or Installer Details			
Name	First Name		Serial Number
	Surname		
Address	Name [St, Ave, Drv etc]		State
	Suburb		Post Code

Please Note:

- Before making a claim on this product, please check your Instruction Manual. You will have to pay attention to non-product problems and operator errors.
- This warranty does not cover faults by the owners misuse, including but not limited to damage from shock, or from foreign substances such as dirt or liquid entering the product.

Version V1.4



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