



# MINI FIBRE TV TRANSMITTER 1550 nm INSTRUCTION MANUAL

47 MHz ... 2400 MHz



PRODUCT CODE: DF/TXDGW4





# MINI FIBRE TV TRANSMITTER 1550 nm [47 MHz ... 2400 MHz]

## 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. Only use the manufacturer's recommended power adaptor.

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

The power supply voltage must not exceed the supplier recommended VDC, 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 adaptor or its DC cable is damaged
- Do not cut the DC power cord

### 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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## INTRODUCTION & SPECIFICATIONS

### 1.1 Product Overview

This is an all-in-one direct modulation fibre transmitter for the use in medium to large fibre distribution networks. It is used as a standalone modulation fibre direct transmitter. This device provides long life stability and reliability.

### 1.2 Features

- Fibre output wavelength: 1550 nm  $\pm$  10
- RF input: 47 MHz to 2400 MHz
- Optical output power: + 4 dBm
- LED indicators: POWER | ALARM | BIAS
- Earth terminal integrated into the high quality housing
- Wall or desk mount with elongation slots for simple installation
- Low power consumption
- Miniature design

### 1.3 Main Technical Specification Parameters

Specification		
Optical Power (mW)	2.5	
Optical Power (dBm)	4	
Optical Wavelength (nm)	1550 $\pm$ 10	
Fibre Connection	SC/APC	
RF Bandwidth (MHz)	47 ... 2400	
Channels	70 [Mix of DVB-C, DVB-T and DVB-S/S2]	
Band Unflatness	$\pm$ 1.5 [47 MHz ... 862 MHz]	$\pm$ 2.5 [950 MHz ... 2400 MHz]
Optical Modulation Mode	Direct	
Optical Return Loss	$\geq$ 40	
RF Input Level (dB $\mu$ V)	75 $\pm$ 2 @ AGC	
Input Return Loss	$\geq$ 10	
Input Impedance ( $\Omega$ )	75	
CNR (dB)	$\geq$ 51	
CTB (dB)	$\geq$ 65	
CSO (dB)	$\geq$ 65	
Power Consumption (W)	$\leq$ 4	
Power Supply (V)	12 VDC	
Storage Temperature ( $^{\circ}$ C)	- 20 ... + 85	
Operation Temperature ( $^{\circ}$ C)	0 ... + 50	
Humidity (%)	20 ... 50	
Dimensions (mm)	150 x 135 x 47	



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## APPEARANCE

### 1.4 Front Panel



### 1.5 Ports

Interface	Port	Function	Description
DC IN	Power Port	Power Adaptor Input Port	12 VDC Power Input
RF IN	RF Signal Port	RF Signal Input Port	CATV, MATV, SMATV Input [47 MHz ... 2400 MHz]
FIBRE OUT	Optical Signal Port	Optical Signal Output Port	Output at 1550 nm
⏏	Earth Terminal	Connect to Earth [CET]	Grounding Terminal

### 1.6 LED Indicators

LED	Indication	Colour	Status	Description
POWER	Power Status Indicator Light	RED	ON	Connected to the Power
			OFF	Not Connected to the Power
	Input Level Indicator Light	GREEN	ON	Input Level within 70 dBμV ± 2 dBμV
		RED	ON	Insufficient Input Level
O_ALM	Optical Signal Status Indicator Light	GREEN	ON	Optical Power Output is Normal
		RED	ON	Optical Power Output is too Low
BIAS	Bias Current Status	GREEN	ON	Operating Normal
		RED	ON	BIAS too Low



# MINI FIBRE TV TRANSMITTER 1550 nm [47 MHz ... 2400 MHz]

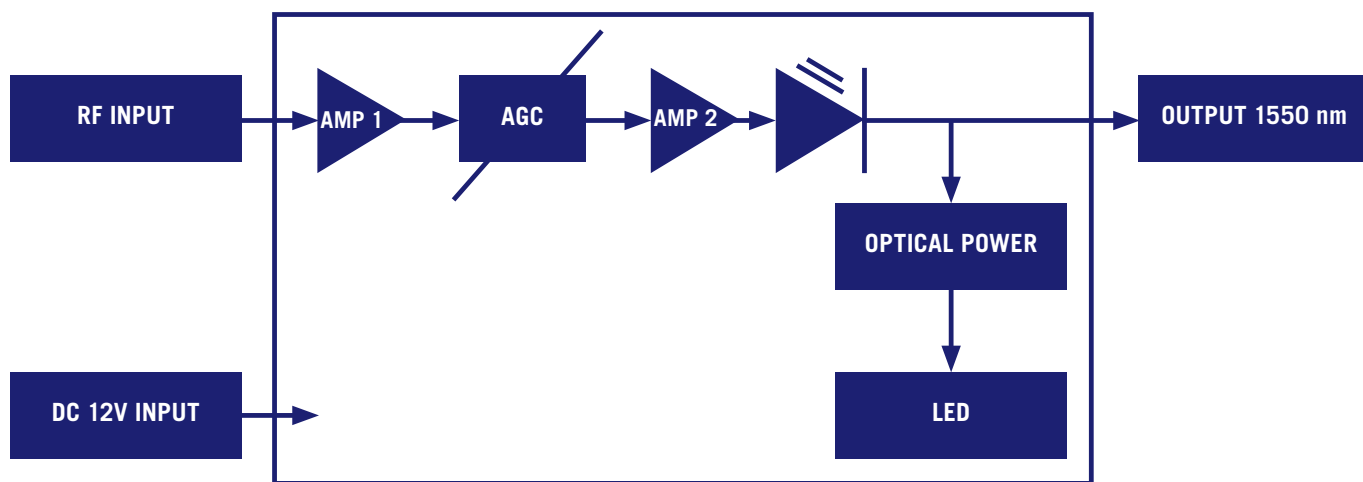
## TROUBLESHOOTING

### 1.7 Troubleshooting

1. Q. The LED indicator for POWER is RED?  
A. The Transmitter has power, but the RF input level is incorrect.
2. Q. The LED indicator for O\_ALM is RED?  
A. Check the optical output power, it is too low.  
(To check the optical power, you must use a optical power level meter)

## DIAGRAMS

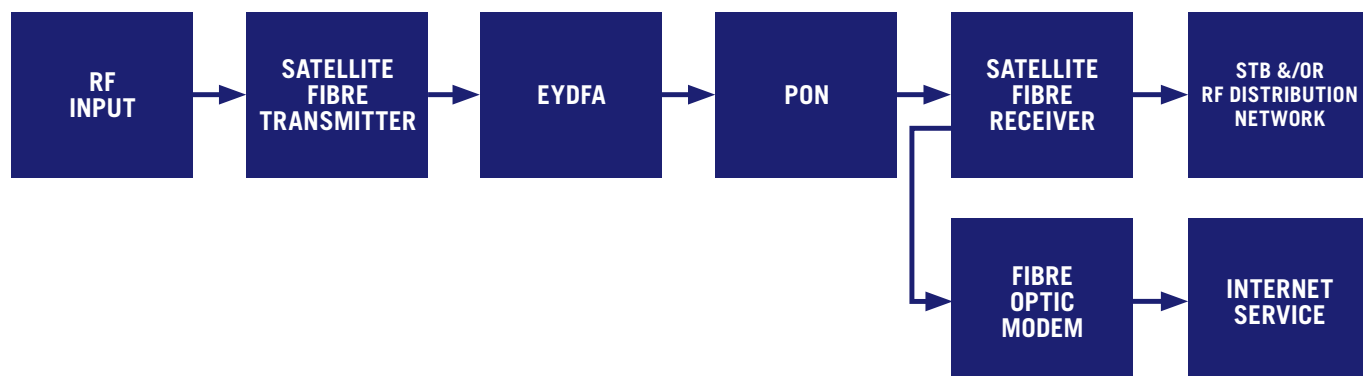
### 1.8 Fibre Transmitter Diagram



### 1.9 Device Installation Diagram



### 1.10 System Installation Diagram





## MINI FIBRE TV TRANSMITTER 1550 nm [47 MHz ... 2400 MHz]

### 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 V1.5



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