



Broadcast  
Electronics  
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# RF-Over-Fibre

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SMPTE or ST Connections

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Two Channels of RF over Fibre

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100-1000MHz RF Passband

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## Overview

Enhance Your Wireless Systems with RF to Optical Fibre Conversion

This proven technology enables the remote placement of antennas by converting RF signals to optical signals. In many wireless systems, coaxial cables are traditionally used to connect antennas to transmitters or receivers. However, coaxial cables can cause significant RF signal loss, even with high-quality cable.

By comparison, optical fibre reduces signal loss to approximately 0.5 dB per kilometre for Singlemode cable, offering a practical solution for extending the distance between RF system components. This improvement enhances flexibility in system design, making it ideal for a wide range of applications.

The Broadcast Electronics RFoF system integrates the best available optical fibre components and supports both SMPTE hybrid fibre and Singlemode fibre. Available in single- and dual-channel configurations, the system also offers advanced features such as an RS485 data path and remote DC power for block-downconverters, amplifiers and other external devices.

## Features

Extends the distance between RF components including antennas, transmitters and receivers

SMPTE and/or ST Singlemode fibre connectivity

DFB laser modules to minimise signal reflections

100-1000MHz passband

Rugged field unit built into Pelicase

1U half-width rack mount base unit

Support for RS485 data path and remote DC power up to 8W

Optional web page or JSON monitoring of fibre signal levels

50 or 75Ohm system options. DC on Coax option.



## Specifications – Base Unit

### General

Power Supply	48V
Power Consumption	5W
Dimensions	216x300x44.45mm

### Input / Output

SMPTE	RfoF signals, Power (48V), Auxiliary Data Pair
BNC	RF Signal Output, 75ohm (50ohm optional)
ST Fibre	Internal Patch to Fibre Receivers
Power	XLR5 Male, 48V DC, Pin 4 +VE, Pin 1 -VE
Auxiliary Data	XLR3 Male, 2 RS485+. 3 RS485-
USB	USB A, 4.5W Power Only
Power	XLR4 Male, 4 +VE, 1 GND

**RFOF** | Datasheet





## Specifications – Remote Unit

### General

Power Supply	SMPTE 10-48V DC / Local 10-18V DC
Power Consumption	6W + Auxiliary Devices
Dimensions	241x185x105mm

### Input / Output

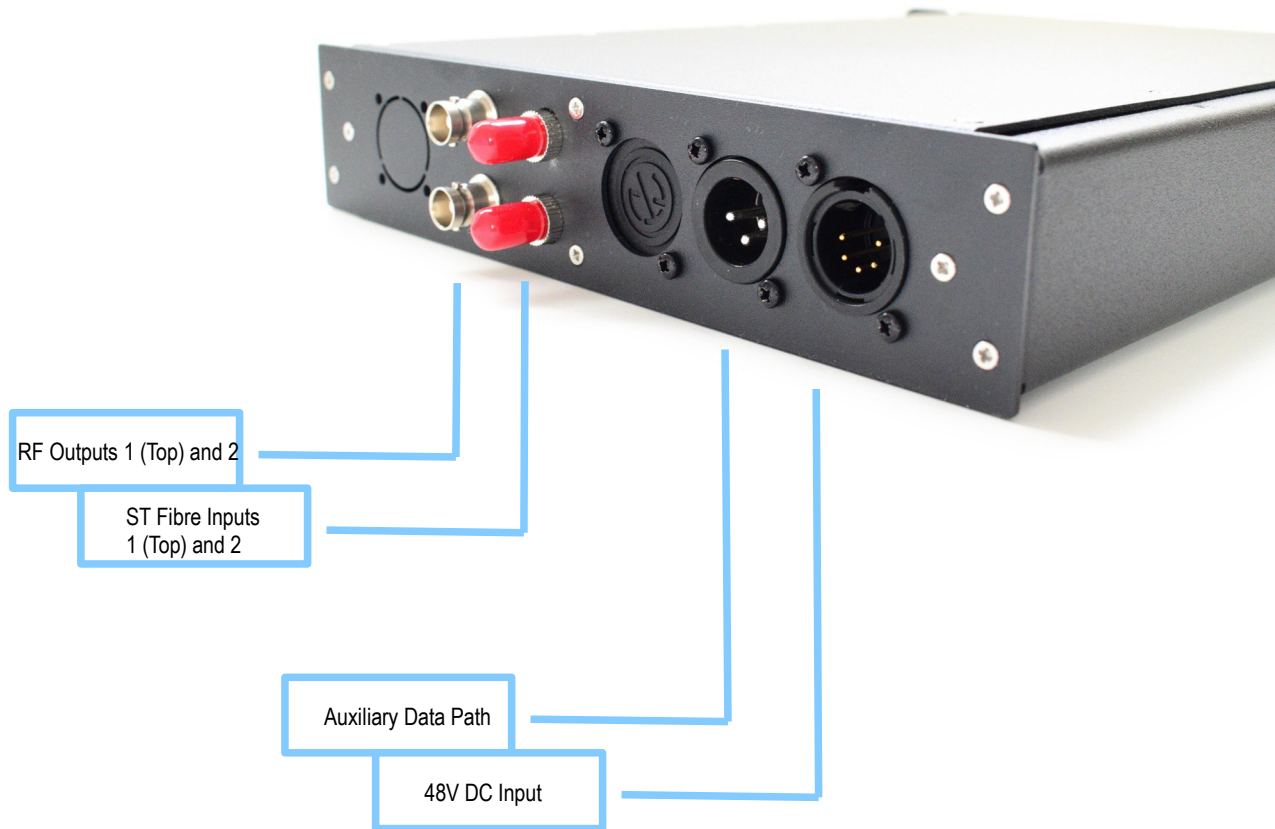
SMPTE	RfoF signals, Power, Auxiliary Data Pair
BNC	RF Signal Input, 75ohm (50ohm optional) 14V DC on coax option
ST Fibre	Internal Patch to Fibre Transmitters
Local Power Input	XLR4 Male, 10-18V DC, Pin 4 +VE, Pin 1 -VE
Power Output	XLR4 Female, 14V DC, 8W, Pin 4 +VE, Pin 1 -VE
Auxiliary Data	XLR3 Female, 2 RS485+. 3 RS485-

**RFOF** | Datasheet





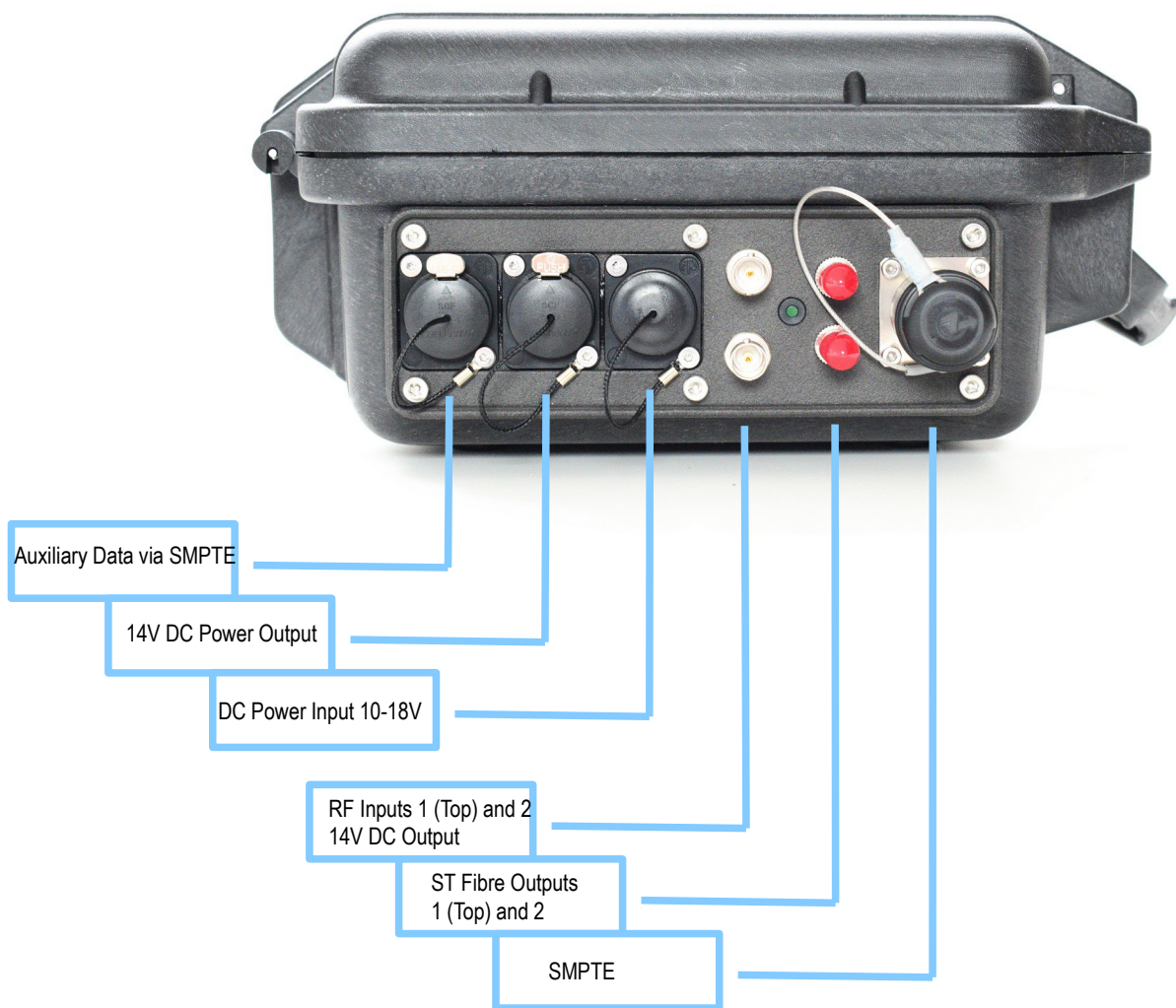
## Connections – Base Unit







## Connections – Remote End





## Display – Remote Unit



## Display – Base Unit





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Contact:

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