

Preliminary – UG16-004 Managed RF Over Fiber Transceiver



This is a hardware refreshed upgraded version of our UG13-001 RFOF unit.

This universal RF over Fiber Transceiver is optimised for operation in underground leaky feeder and coverage extension systems. The device is two way and includes all filtering for duplex operation providing a transition from RF to optical fiber systems.

Remote configuration and monitoring MODBUS-RTU interface and allows gain and general device parameters to be controlled.

Power is extracted from the leaky line or can be provided externally. This interface is ideal for increasing the coverage or quality of coverage in an underground system by bringing a clean head-end signal directly to the feeder segment or antenna, and capturing the weak uplink signals before they are lost below excessive bidirectional amplifier noise.

Capabilities

- Optical fiber to Leaky Feeder
- Optical fiber to Antenna
- Head-End to Optical fiber
- Fully remotely configurable over MODBUS-RTU interface
- High dynamic range, low noise.
- Low Intermodulation, +/- 30dB control range
- Cable or discrete power 11 to 40V
- VHF or UHF ; available 60-970 MHz
- **A CortexRF product**

Specifications UG16-004

Dynamic range : > 85dB (30kHz BW)
Uplink RF noise figure : 4dB @max gain

Maximum recommended fiber loss:
15dB optical

Passband : Customised. Flatness to order
approx +/- 1dB

Peak RF power output : 100mW

Uplink to downlink isolation : >75dB

Power consumption : 6 Watts

Fiber Interface :
Tx : FC/PC 1310nm +7dBm
Rx : SC/APC RX

RF Interface : 2 x SMA female