

# Broadband RF Over Fibre ODU

1100 to 1650nm Receive

Flexible Mounting  
Band on to pole or bolt  
to wall

Compact &  
Weatherproof  
Housed in IP65 rated  
weatherproof  
enclosure

50-2450MHz  
operating frequency



Monitoring  
Optical and RF levels  
reported at receiver

## RF Parameters

| Capacity                                 |      | One RF over Fibre Optical Receive Unit |   |
|--|------|--|---|
| Power Connector                          |      | 1K - LEMO FGL1K.302.CLLK75Z            | Cable mount LEMO 1K series 2 pin  |
| Input ports                              |      | 50Ω N-type, 75Ω F-type.                | DC power available, do not connect to power source.   |
| Fibre output connector                   |      | Senko IP-SC/APC                        |   |
| Frequency                                |      | 50MHz to 2450MHz                       |   |
| Connector & impedances                   |      | 50Ω N-type                             | 75Ω F-type  |
| Input Return Loss (dB)                   | Typ. | 18                                     | 16  |
|  | Min. | 12                                     | 12  |
| Gain flatness (dB)                       |      | ±2.0 Across Band                       |   |
| Output AGC flatness                      |      | ±2.0 dB over full band                 | Tx Input -10 to -40 dBm   |
| OIP3 (dBm)                               |      | Typical 17 dBm<br>Worst Case 14 dBm    | Test condition: SRY-RX-B2-926 , 0 dB optical link loss, -22 dBm tones at 2150 and 2152 MHz                |
| CNR (in any 36MHz) (dB)                  |      | Typical -50 dB<br>Worst Case -45 dB    | Test condition: SRY-RX-B2-926 , 0 dB optical link loss, -10 dBm RF i/p power, -10 dBm RF o/p total power. |
| NF (dB)                                  |      | Typical 12dB<br>Worst Case 15dB        | Test condition: SRY-RX-B2-926 , 0 dB optical link loss, -50 dBm RF i/p power, -10 dBm o/p power           |
| Group Delay variation (ns)               |      | 2 over full band                       | 1 over any 36MHz  |
| SFDR (dB/Hz <sup>2/3</sup> )             |      | 105 typ., 100 min                      | Test condition: SRY-RX-B2-926 , 10 km fibre, -13 dBm tones at 2150 and 2152 MHz                           |
| IMD3 (dBc)                               |      | -65 typ., -60 min.                     | Test condition: SRY-RX-B2-926 , 10 km fibre, -13 dBm tones at 2150 and 2152 MHz                           |
| RF Input Signal Range, total power (dBm) |      | -30 to -10                             | o/p range available under all i/p conditions  |
| Module input voltage (V DC)              |      | 12                                     | Use with PSU SRY-12-916-0KXX  |
| DC consumption (W)                       |      | 4                                      | Max   |
| External PSU Redundancy                  |      | Dual redundant hot swap external units | Separate Unit   |



| RF Parameters                         |   |   |   |
|---------------------------------------|---|---|---|
| Local Monitoring                      | Full remote monitoring, PSU voltage, RF amp current, temperature, laser power, RF modulation power, laser optical power |   | Contact ETL if remote monitoring and control is required. |
| MTBF                                  | > 250,000 hours   |   |   |
| Optical Parameters                    |   |   |   |
| Optical Wavelength (nm)               | 1100 to 1650  |   |   |
| Optical Power output (dBm)            | 0 to 4.5  |   |   |
| Optical Connectors                    | Senko IP-SC/APC   | Single mode fibre   |   |
| Control, Monitoring & Alarms          |   |   |   |
| Control Switch Position               | 1<br>2<br>3<br>4<br>5   | Unused<br>Output power Bit 1<br>Output power Bit 2<br>Output power Bit 3<br>AGC on/Gain fixed |   |
| Indicator Lights                      | Power<br>Status Green<br>Status Red   | Module powered<br>Module OK<br>Internal monitoring alarm                                      |   |
| Monitoring includes                   | Optical Input Power<br>Status of amplifier stages<br>Module temperature   | Monitored in each module  |   |
| AGC                                   | Factory set   | Once AGC level set, gain can be fixed   |   |
| Environmental Conditions              |   |   |   |
| Operating Temperature (°C)            | -20°C to +55°C  |   |   |
| Storage Temperature (°C)              | -40°C to +85°C  |   |   |
| Location                              | Indoor or outdoor use to IP65   | Mount out of direct sunlight  |   |
| Humidity                              | TBA   | Relative Humidity   |   |
| Altitude                              | 10,000 feet AMSL  | Above Mean Sea Level  |   |
| Physical Dimensions & Parameters      |   |   |   |
| Weight                                | TBD kg  |   |   |
| Dimensions                            | 85mm high x 50mm deep x 165mm wide  | Excluding mounting flanges and connectors   |   |
| Front Panel Colour                    | RAL9003 – White (Semi-Matte)  |   |   |
| RF Output Power (Fixed Gain Disabled) |   |   |   |
| Switch Settings                       | 2   | 3   | 4   |
| -31dBm                                | 0   | 0   | 0   |
| -28dBm                                | 0   | 0   | 1   |
| -25dBm                                | 0   | 1   | 0   |
| -22dBm                                | 0   | 1   | 1   |
| -19dBm                                | 1   | 0   | 0   |
| -16dBm                                | 1   | 0   | 1   |
| -13dBm                                | 1   | 1   | 0   |
| -10dBm                                | 1   | 1   | 1   |

1 = Switch State ON      0 = Switch State OFF

## Physical Dimensions (mm)

