

## Building Better Networks with **ROGUE®** | **aeROS®** Test Suite



### ROGUE OLTS/Certification Modules with TURBO App

#### Features

- Quad single-mode/multimode, Dual single-mode or Dual multimode
- Hot-swappable into ROGUE cB1 or iB1 units
- Use with aeRos cloud-based workflow management software
- Integrated FOCIS Flex Inspection capability
- Simultaneous, dual-wavelength, bi-directional loss and length testing through Dual Engine technology
- Integrated Source, Power Meter and Visual Fault Locator (VFL)
- Built-in Encircled Flux compliance

#### Applications

- Tier 1 certification testing of premise/enterprise networks
- Dual-fibre, dual-wavelength, unidirectional or bi-directional OLTS testing
- Multi-fibre testing: loss, length, ORL, certification with one push of a button
- View results and generate reports anywhere, anytime using aeRos
- Integrated multi-wavelength, bi-directional MPO/multi-fibre testing using optional multi-fibre switch



Each ROGUE OLTS test module uses state-of-the-art technology to produce the most accurate results in the shortest amount of time. Modules contain bi-directional test ports as well as an optical power meter port and visual fault locator. All Multimode ports are Encircled Flux compliant as required by ANSI/TIA and ISO/IEC.

By pairing ROGUE modules with smart device apps, AFL's patent pending architecture enables users to control their test hardware directly from any Android smart device. ROGUE users can easily turn the OLTS solution into a full Tier 1 certifier simply by adding our TURBO Certification app.

Test configurations and instructions are pushed from AFL's aeRos cloud solution to the TURBO app to simplify the process for technicians. When the testing is complete, the

results automatically and seamlessly synchronise with the cloud for real-time, on-site test data validation. No more waiting for the technician to return with a USB stick and manually transfer the data. With two bi-directional engines, you can even test both fibres in both directions on 2 wavelengths. All with the push of a button on your smart device.

If your network consists of multi-fibre cables and MPO connectors, simply add our Multi-fibre Switch to the ROGUE platform to perform bi-directional, dual-wavelength, multi-fibre testing. AFL's FOCIS Flex wireless inspection probe can also be added for integrated and seamless capture of fibre endface images.

Apps available via Google play store.



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### Specifications<sup>a</sup>

| OLTS                     | MULTIMODE  | SINGLE-MODE                               |
|--------------------------|--|---|
| Emitter Type             | LED  | Laser                                     |
| Wavelengths              | 850 ±30 nm; 1300 ±20 nm  | 1310, 1550 ±20 nm                         |
| Safety Class             | Class I FDA 21 CFR 1040.10 and 1040.11, IEC EN60825-1: 2007-03       |   |
| Detector Type            | InGaAs   | InGaAs                                    |
| Launch Condition         | Encircled Flux Compliant <sup>b</sup>                                | N/A                                       |
| Length Measurement Range | 5 km   | 200 km (SMF28e)                           |
| Power Measurement Range  | -3 to +60 dBm  | -3 to +60 dBm                             |
| Output Power             | -24/-23 dBm, 62.5/50 µm  | -3 dBm, 9 µm                              |
| Stability <sup>c</sup>   | ±0.1 dB over 1 hour ±0.15 dB over 8 hours                            | ±0.1 dB over 1 hour ±0.15 dB over 8 hours |
| Wave ID Transmit         | Yes  | Yes                                       |
| Tone Generation          | 330 Hz, 1 kHz, 2 kHz   | 330 Hz, 1 kHz, 2 kHz                      |
| Input Connector          | Interchangeable connector adapter (LC standard, SC, ST, FC optional) |   |

| OPTICAL POWER METER (OPM) |  |
|---------------------------|--|
| Calibrated Wavelengths    | 850, 1300, 1310, 1490, 1550, 1625, 1650 nm                               |
| Detector Type             | InGaAs PIN, 2 mm diameter  |
| Measurement Range         | +3 to -70 dBm  |
| Wave ID                   | Automatically synchronises and measures 1, 2 or 3 λ Wave ID combinations |
| Range                     | +3 to -40 dBm @ 850 nm; +3 to -50 dBm @ 1300, 1310, 1550 nm              |
| Tone Detect               | Auto-detects 270, 330 Hz; 1, 2 kHz tones;                                |
| Accuracy                  | ±5% @ -10 dBm  |
| Linearity                 | ±0.1 dB (-3 to -40 dBm); ±0.25 dB (-40 to -50 dBm)                       |
| Measurement Units         | Power in dBm, nW, µW, mW; Loss in dB; 0.01 dB resolution                 |

| VISUAL FAULT LOCATOR (VFL) |   |
|----------------------------|---|
| Emitter Type               | Visible red laser, 650 ±20 nm                                   |
| Safety Class               | Class II FDA 21 CFR 1040.10 and 1040.11, IEC EN60825-1: 2007-03 |
| Output Power (nominal)     | 0.8 mW into single-mode fibre                                   |
| Modes                      | CW and 2 Hz flashing  |

| GENERAL               |   |
|-----------------------|---|
| Size                  | 135 x 122 x 43 mm (5.4 x 4.8 x 1.7 in)                    |
| Weight                | 0.4 kg (0.9 lb)   |
| Operating Temperature | -18°C to +50°C, 0 to 95% RH (non-condensing)              |
| Storage Temperature   | -30°C, to +60°C, 0 to 95% RH (non-condensing)             |
| CE Safety & EMI/RFI   | EN61010-1; EMI/RFI: EN55011, EN61326-1, GR-196-CORE 4.5.1 |
| RoHS                  | 2011/65/EU  |

#### Notes:

- All specifications valid at 23°C ±2°C (73.4°F ±3.6°F) unless otherwise specified.
- TIA-526-14-B, ISO/IEC 14763-3 and IEC 61280-4-1.
- After 15 minutes warm-up.

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### Ordering Information

#### ROGUE OLTS Modules

ROGUE OLTS modules must be installed in either a ROGUE cB1 or ROGUE iB1 unit. Each module comes with a ROGUE OLTS Basic license allowing the OLTS module to be used in a ROGUE cB1 or iB1 and enabling basic aeRos OLTS functionality. Each module includes SC connector adapter for the OLTS/OLS ports and universal 2.5 mm adapters for the VFL and OPM (if installed) ports.

| PART NUMBER   | DESCRIPTION                                   |
|---------------|---|
| RG-1100-Q01   | Module – Quad MM 850/1300 nm, SM 1310/1550 nm |
| RG-1100-M01-D | Module – MM 850/1300 nm, Dual Engine          |
| RG-1100-S01-D | Module – SM 1310/1550 nm, Dual Engine         |

#### ROGUE Certification Kits

Each ROGUE Certification kit includes two (2) of each: ROGUE cB1 or iB1 unit, battery, adjustable carry strap, power supply, carry case, kickstand. Each kit also includes kit-specific ROGUE Modules and Turbo Certification license(s) (see table below). All kits include (1) One-Click Cleaner SC/2.5 mm and switchable test port adapters and test accessories (see table below).

| PART NUMBER  | ROGUE CERTIFICATION KITS | CONTAINS (E.A.) |     |               |             |         |                      |          |                 |                    |     |     |   |
|--------------|--------------------------|-----------------|-----|---------------|-------------|---------|----------------------|----------|-----------------|--------------------|-----|-----|---|
|              |                          | ROGUE BASE      |     | ROGUE MODULES |             | LICENSE | REFERENCE TEST CORDS |          | MATING ADAPTERS | TEST PORT ADAPTERS |     |     |   |
|              |                          |                 |     |               |             |         | SM                   | 50 μM MM |                 | SC                 | OLS | OPM |   |
|              |                          | cB1             | iB1 | QUAD SM/MM    | DUAL ENGINE |         |                      |          | SC              |                    | SC  | LC  |   |
|              |                          |                 |     |               | SM          |         | MM                   |          |                 |                    |     |     |   |
| RGK-CERT01   | Quad SM/MM               | 2               |     | 2             |             |         | 2                    | 2        | 2               | 2                  | 2   | 2   | 2 |
| RGK-CERT02   | Dual Engine SM and MM    | 2               |     |               | 2           | 2       | 4                    | 4        | 4               | 4                  | 8   | 4   | 4 |
| RGK-CERT03   | Dual Engine SM           | 2               |     |               | 2           |         | 2                    | 4        |                 | 2                  | 4   | 2   | 2 |
| RGK-CERT04   | Dual Engine MM           | 2               |     |               |             | 2       | 2                    |          | 4               | 2                  | 2   | 2   | 2 |
| RGK-CERT01B1 | Quad SM/MM               |                 | 2   | 2             |             |         | 2                    | 2        | 2               | 2                  | 2   | 2   | 2 |
| RGK-CERT02B1 | Dual Engine SM and MM    |                 | 2   |               | 2           | 2       | 4                    | 4        | 4               | 4                  | 8   | 4   | 4 |
| RGK-CERT03B1 | Dual Engine SM           |                 | 2   |               | 2           |         | 2                    | 4        |                 | 2                  | 4   | 2   | 2 |
| RGK-CERT04B1 | Dual Engine MM           |                 | 2   |               |             | 2       | 2                    |          | 4               | 2                  | 2   | 2   | 2 |

#### ROGUE OLTS Mobile Apps

Mobile Apps to configure, control and access results from your Android device are available for free download from Google Play.

