RFTS-400

Remote Fiber Test System

The RFTS-400 modular platform design incorporates an Optical Control Module (OCM) and Optical Switching Modules (OSM) that support fiber monitoring expansion from 8 to 108 ports in the 1U rack. A fully expanded system can support up to 4608 monitoring ports.

KEY PLATFORM FEATURES

The RFTS-400 is VeEX's third generation optical remote fiber test unit. The RFTS-400 fits into a 1U tray which has six single width slots. The OCM requires two slots, leaving four remaining slots in the tray, allowing up to an additional 4 single slot OSM modules or additional OCM modules. The RFTS-400 is field serviceable, expandable, and upgradable. An unparalleled selection of OSM modules are available to support the many network type monitoring applications using the RFTS-400 such as dark fiber monitoring, in-service monitoring, PON construction and monitoring, infrastructure monitoring, and security monitoring.

One RFTS-400 OSM module can be configured to support up to 288 ports in 1U for high fiber density monitoring applications. All OSM modules can also be configured with integrated FWDM filters without needing additional shelf space for in-service monitoring. By incorporating the FWDM into the OSM module, we also simplify the system installation and reduce the system commissioning time while eliminating the possibility of cross-over connection concerns. The RFTS-400 can operate as a serverless remote fiber test system or as part of a centralized server monitoring system powered by VeSion®, VeEX's state-of-the-art monitoring software platform.

Optical Control Module (OCM)

Key Features

- Up to 50 dB dynamic range excluding switch option
- Occupies 2 module slots in 1U tray; wall-mount option available
- Optional built-in switch up to 16 ports
- Simple installation and maintenance with front panel access
- Dual -48V DC inputs
- Dual Ethernet interface
- Dedicated management Ethernet interface for remote system diagnostic and recovery
- Low power consumption: 6W
- Secure HTTPS interface
- Solid state storage up to 10TB
- Running ruggedized Linux OS
- Data encryption using the FIPS-140-3 algorithm
- Controls up to 4608 test ports
- Manage both serial and ethernet controlled optical switches
- OLS feature with tone generator for fast fiber identification and OLTS applications

RFTS-400

Key Benefits & Applications

- Simple and intuitive installation and commissioning
- Serverless Remote Fiber Test System operation
- Continuously monitors fiber integrity
- Dark fiber and in-service monitoring up to 400 km using the bi-directional monitoring feature
- PON construction monitoring
- Out of band DWDM monitoring
- Improves failure detections to minute scale
- Supported by major GIS solutions
- Performs non-intrusive fiber characterization
- Proactive monitoring and machine learning-induced fiber degradation analysis
- Supports email notifications, SMS notifications, SNMP traps, relay output, and push notifications to the RFTS mobile app

Optical Switch Module (OSM)

Key Features

- MEMS-based for high reliability and lifetime >1 billion cycles
- No external IP communication is required
- 1x8, 1x16, 1x32, 1x64 and 1x128,1x144,1x288 configurations available in 1U rack space
- Front access, high-quality SC/APC, LC/APC, SC/UPC, or MPO/APC connectors
- Integrated FWDM option available
- No configuration required; OSM modules are controlled and powered by the OCM module

Key Benefits & Applications

- Low insertion loss
- Flat passband
- Fast switching time, <15ms for adjacent channels
- Protocol and bit-rate independent
- Single-mode fiber support
- Low reflectance and ORL
- FWDM compatible with data traffic and in-service OTDR monitoring using 1625 nm or 1650 nm