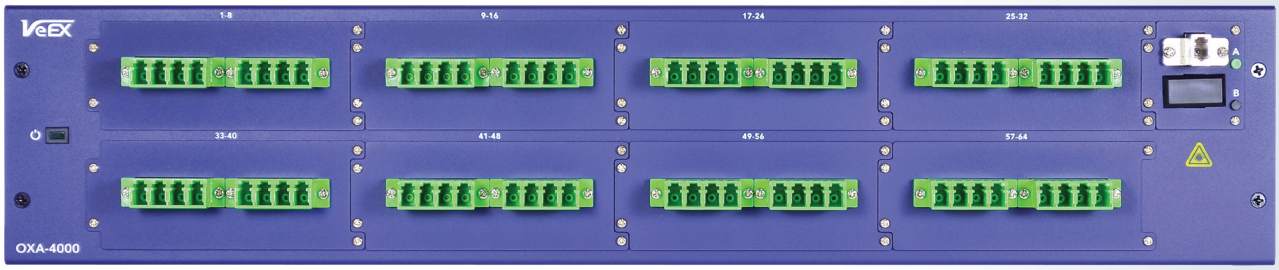


OXA-4000

Optical Test Access Unit

Optical Test Access Unit for Fiber Network Monitoring

VeEX® OXA-4000 series optical test access unit is used with the RTU-4000 fiber probe to support network monitoring of dark or in-service fiber networks. The OXA-4000 provides reliable, fast, and repeatable performance and is controlled via RTU-4000.

Platform Highlights

- 1x8, 1x16, 1x32, 1x64 and 1x128 configurations available
- Compact design for Rackmount with 280 mm depth
- Flush or 4-inch recessed rack mount bracket options
- Controlled by the RTU-4000 via DB25 interface
- Front access, high quality SC/APC or LC/APC connectors
- Optional dual input to support dual test modes
- Up to 64-port switch with built-in FWDM option
- High reliability and lifetime ≥ 10 million cycles

Key Features

- Low insertion loss
- Wide and flat passband
- Fast switching time, <8 ms 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

OXA-4000 Optical Test Access Unit

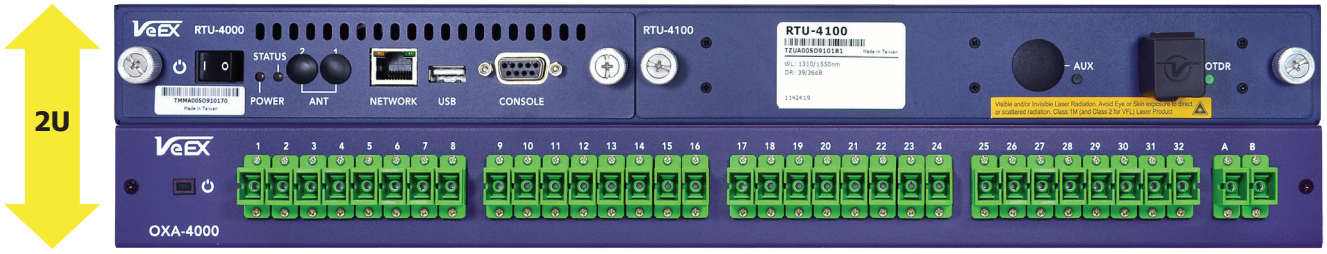
The OXA-4000 is used in conjunction with the RTU-4000 Fiber Test Probe to support 24x7 continuous monitoring. The OXA-4000 is powered by the RTU-4000, so only one power source is required.

The OXA-4000 can be configured to monitor dark fibers or in-service fibers. The RTU-4000 and OXA-4000 are both 19" rack mountable. This powerful combination supports high density fiber monitoring and only requires 2U rack space for up to 32 fibers. This footprint is smaller than other RFTS systems that require 3 to 5U rack space for an in-service RTU that includes an optical switch and a FWDM test access rack. Integrating the switch and the FWDM into a single chassis eliminates the need for additional patchcords resulting in reduced cost, fewer cable swapping errors, simplified installation, and lower risk to failure due to connector damage/contamination issues. Only a single power supply feed and one network connection is required per system, ensuring the RTU-4000 and OXA-4000 pair is very easy to install.

For Dark Fiber Monitoring, the OXA-4000 can be configured with up to 128 fiber ports. Only 3U rack space is required for LC connectors and 4U for SC connectors.

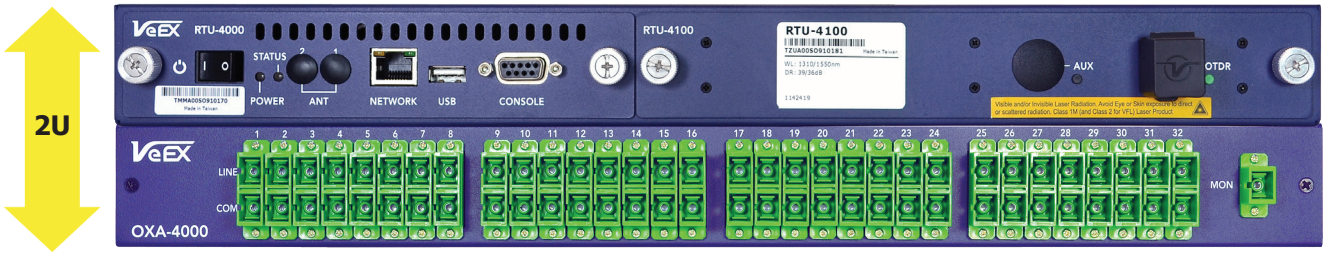
2x32 Dark Fiber Monitoring and Tap Detection

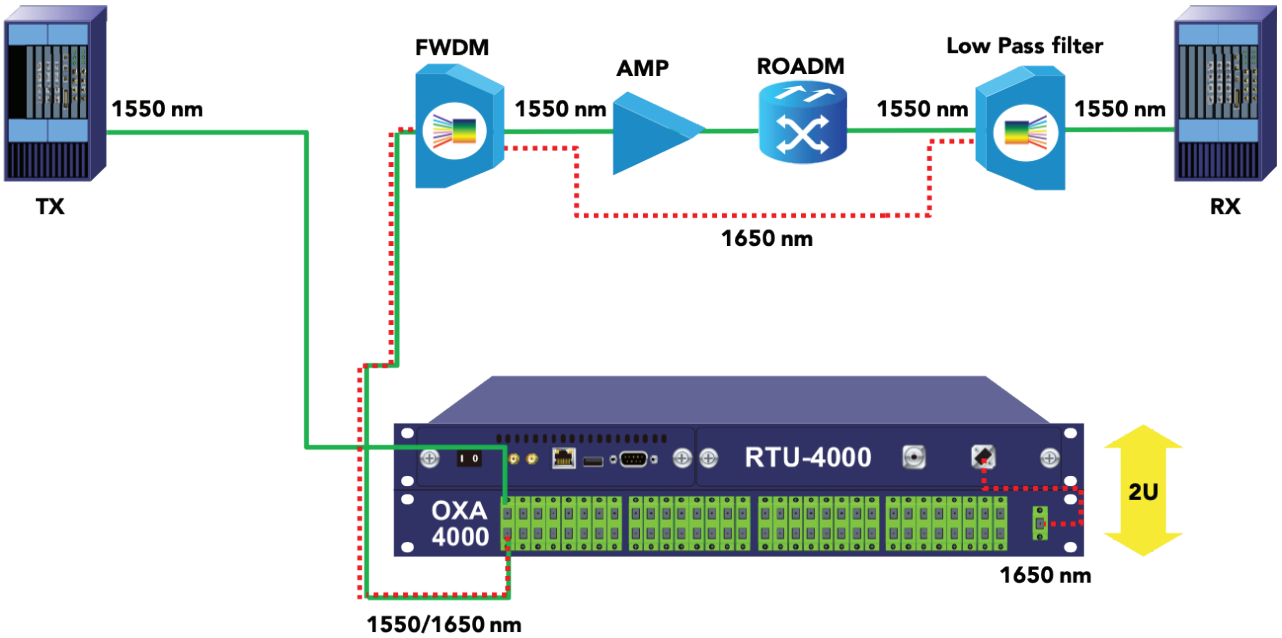
Dual Test Ports



1x32 In-Service Fiber Monitoring

Built-in FWDM



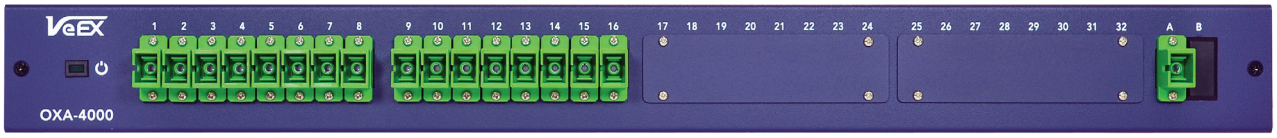


Optical Test Access Unit Configurations

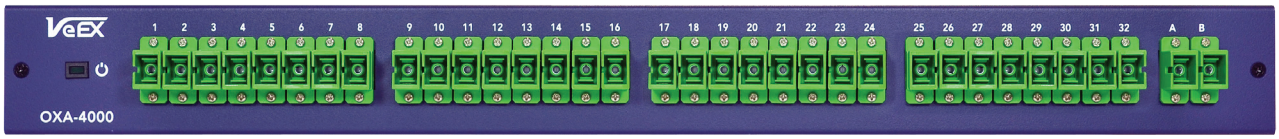
Dark Fiber Monitoring

OXA-4000 2x8 with Dual Input Port Option

OXA-4000 1x16 with Single Input Port Option



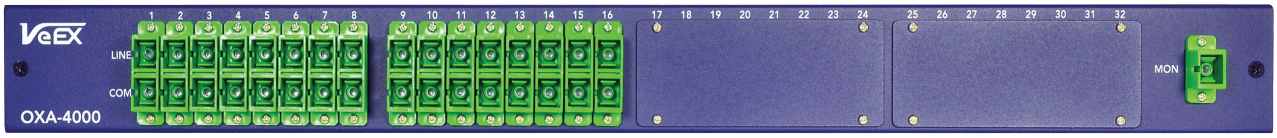
OXA-4000 2x32 with Dual Input Port Option



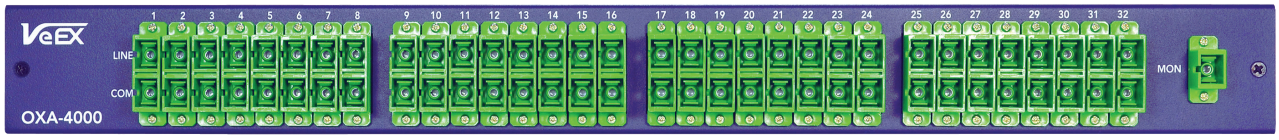
In-service Monitoring

OXA-4000 1x8 FWDM

OXA-4000 1x16 FWDM



OXA-4000 1x32 FWDM



OXA-4000 Rear Panel

Specifications

OTDR		Optical Switch	FWDM Switch			
Number of ports	1U	up to 8, 16, 32 (SC/APC)				
External Remote Switch or FWDM options	3U	up to 128 (LC/APC)	consult factory			
	4U	up to 128 (SC/APC)	consult factory			
Input Port(s)		1 or 2[2] (optional)	1			
OTDR Wavelength			1625 or 1650 nm		1650 nm	
Wavelength Range		1260 to 1670 nm	1260 to 1590 nm (Line)	1610 to 1680 nm (COM)	1260 to 1620 nm (Line)	1640 to 1680 nm (COM)
Insertion Loss (excluding connectors)						
up to 32 ports		0.8 dB[3] typ	≤1.5 dB[4] typ (Line)	≤1.7 dB[5] typ (COM)	≤1.5 dB[4] typ (Line)	≤1.7 dB[5] typ (COM)
up to 64 ports		1.0 dB[3] typ	≤1.7 dB[4] typ (Line)	≤1.9 dB[5] typ (COM)	≤1.4 dB[4] typ (Line)	≤1.6 dB[5] typ (COM)
up to 128 ports		1.2 dB[3] typ	2.2 dB[4] typ	2.4 dB[5] typ	2.2 dB[4] typ	2.2 dB[5] typ
Isolation		n/a	>15 dB	>30 dB	>15 dB	>30 dB
PDL, dB		<0.1				
PMD, ps		<0.1				
Back Reflection, dB		>50				
Repeatability, dB		±0.01				
Lifetime		≥10 million cycles				
Switching Time, ms		≤8 (adjacent channels)				
Fiber type		SMF 28e+				
Connector type		SC/APC or LC/APC				
Power		Provided by RTU-4000 via DB25 interface; ≤4 Watts				
Operating temperature		-20 to +70				
Storage temperature		-40 to +85				
Dimension	1x8,1x16,1x32 SC/APC	483 × 280 × 44.5 mm (19 x 11 x 1.75 in)				
	1x128, LC/APC	483 x 280 x 132 mm (19 x 11 x 5.2 in)				
	1x128, SC/APC	483 x 280 x 177 mm (19 x 11 x 6.97 in)				
Weight	1x8,1x16,1x32 SC/APC	<3kg (<6.6 lbs)				
	1x128, LC/APC	TBD				
	1x128, SC/APC	TBD				

Notes:

1. All specification guaranteed at 23°C
2. Add 1 dB insertion loss for dual input optical switch
3. Max Data insertion loss. Up to 1x16 ports: 2.2 dB; 1x32 ports: 3.0 dB; 1x128: 2.7 dB
4. Max Data insertion loss. Up to 1x16 ports: 2.7 dB; 1x32 ports: 3.5 dB; 1x128: 3.2 dB
5. Max OTDR insertion loss. Up to 1x16 ports: 2.9 dB; 1x32 ports: 3.7 dB; 1x128: 3.4 dB

Ordering Information

Chassis	OXA-4000 - Optical Switch/Cross Connect and Access Unit
Z06-99-140P	OXA-4000 Optical Switch (SC/APC) passband 1260 to 1590 nm with built-in FWDM for 1625 nm(F) or 1650 nm(F), 8 ports
Z06-99-141P	OXA-4000 Optical Switch (SC/APC) passband 1260 to 1590 nm with built-in FWDM for 1625 nm(F) or 1650 nm(F), 16 ports
Z06-99-142P	OXA-4000 Optical Switch (SC/APC) passband 1260 to 1590 nm with built-in FWDM for 1625 nm(F) or 1650 nm(F), 32 ports
Z06-99-143P	OXA-4000 Optical Switch (SC/APC), 8 Ports, with dual Access Port
Z06-99-144P	OXA-4000 Optical Switch (SC/APC), 16 Ports, with dual Access Port
Z06-99-145P	OXA-4000 Optical Switch (SC/APC), 32 Ports, with dual Access Port
Z06-99-150P	OXA-4000 Optical Switch (SC/APC), 16 Ports
Z06-99-151P	OXA-4000 Optical Switch (SC/APC), 32 Ports
Z06-99-152P	OXA-4000 Optical Switch (SC/APC), 8 Ports
Z06-99-187P	OXA-4000 Optical Switch (LC/APC) passband 1260 to 1590 nm with built-in FWDM for 1625 nm(F) or 1650 nm(F), 8 ports
Z06-99-188P	OXA-4000 Optical Switch (LC/APC) passband 1260 to 1590 nm with built-in FWDM for 1625 nm(F) or 1650 nm(F), 16 ports
Z06-99-189P	OXA-4000 Optical Switch (LC/APC) passband 1260 to 1590 nm with built-in FWDM for 1625 nm(F) or 1650 nm(F), 32 ports
Z06-99-202P	OXA-4000 Optical Switch (LC/APC) passband 1260 to 1620 nm with built-in FWDM for 1650 nm(F), 8 ports
Z06-99-203P	OXA-4000 Optical Switch (LC/APC) passband 1260 to 1620 nm with built-in FWDM for 1650 nm(F), 16 ports
Z06-99-204P	OXA-4000 Optical Switch (LC/APC) passband 1260 to 1620 nm with built-in FWDM for 1650 nm(F), 32 ports
Z06-99-190P	OXA-4000 Optical Switch (LC/APC), 8 Ports, with dual Access Port
Z06-99-191P	OXA-4000 Optical Switch (LC/APC), 16 Ports, with dual Access Port
Z06-99-192P	OXA-4000 Optical Switch (LC/APC), 32 Ports, with dual Access Port
Z06-99-193P	OXA-4000 Optical Switch (LC/APC), 8 Ports
Z06-99-194P	OXA-4000 Optical Switch (LC/APC), 16 Ports
Z06-99-195P	OXA-4000 Optical Switch (LC/APC), 32 Ports
Z06-99-196P	OXA-4000 Optical Switch (LC/APC), 64 Ports
Z06-99-199P	OXA-4000 Optical Switch (SC/APC) passband 1260 to 1620 nm with built-in FWDM for 1650 nm(F), 8 ports
Z06-99-200P	OXA-4000 Optical Switch (SC/APC) passband 1260 to 1620 nm with built-in FWDM for 1650 nm(F), 16 ports
Z06-99-201P	OXA-4000 Optical Switch (SC/APC) passband 1260 to 1620 nm with built-in FWDM for 1650 nm(F), 32 ports
Consult factory	OXA-4000 Optical Switch (LC/APC), 128 Ports
Consult factory	OXA-4000 Optical Switch (SCC/APC), 128 Ports

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