OMETS OTDR SPECIFICATIONS

Optical Module Embedded Test Systems

Core OTDR Technology for any Application

The Anritsu embedded OTDR series is designed to integrate industry leading OTDR technology into any standard PCI connector. Our high resolution, high dynamic range test systems are ideally suited for both short and long haul testing or monitoring applications. They are available in several wavelength and dynamic range combinations to handle virtually any application - single-mode or multimode, "dark" or active fibers. All of the OMETS are designed for easy hardware integration with any standard PC featuring a PCI bus and feature a software developer's kit (SDK) to initialize and operate the modules. Simply create your own user interface, using the included demo utility as a guide, to provide state of the art OTDR performance with your personalized GUI.

Key Benefits
- Fast and easy integration with included software developer's kit (SDK)
- Compact size enables integration into transmission systems
- Industry leading Anritsu OTDR performance for your application
- Up to 256,000 data points for unparalleled fiber sampling

Features
- High dynamic range and superb resolution
- Compact size
- PCI interface
- Ready to install hardware, ready to be accessed software

![Anritsu]

High Performance Hardware
The PCI version includes the PCI bus interface card, ribbon cable with interface and optics module that can be mounted into an unused PC drive bay or as a stand-alone unit for desktop use. Either option can be used for remote OTDR testing or as part of an integrated remote fiber test and monitoring system.

OMETS Software
Anritsu's software suite provides total control over all OTDR functions and parameters including:

- OTDR initialization

- Parameter selection and retrieval from card

- OTDR acquisition parameters - wavelength, pulsewidth, data sampling

- Data acquisition – real time or averaged

- Data Averaging (timed or number of averages)

- Data transfer and storage

- Event Analysis table – event location, loss characteristics and classification by type

The OMETS series software support CD includes:

- Documented library of data acquisition/control and analysis API's

- Demo Application as a MS Visual C (Ver 6) Project. All source code, headers and build environment are included

- This demo application, and its associated source code, provide a valuable "sample" for users who wish to write their own OTDR/RFTS application

Optical Specifications				
Model Number PCI Interface	Wavelength	Dynamic Range[1]	Event Dead zone[2]	Attenuation Dead zone[3]
5223-OMETS-UFC	1310+20 nm	37 dB	4 m	9 m
5224-OMETS-UFC	1550+20 nm	36 dB	3.5 m	9 m
5225-OMETS-UFC	1310/1550+20 nm	37/36 dB	4/3.5 m	9/9 m
5233-OMETS-UFC	1310+20 nm	40 dB	4 m	8 m
5234-OMETS-UFC	1550+20 nm	40 dB	3 m	6 m
5238-OMETS-UFC	1625+15 nm	40 dB	3 m	6 m
5235-OMETS-UFC	1310/1550+20 nm	40 dB	4/3 m	8/6 m
5239-OMETS-UFC	1550/1625+20/ 15 nm	40 dB	3/3 m	6/6 m
5243-OMETS-UFC	1310+20 nm	43 dB	5 m	10 m
5244-OMETS-UFC	1550+20 nm	45 dB	5 m	10 m
5248-OMETS-UFC	1625+15 nm	43 dB	5 m	10 m
5245-OMETS-UFC	1310/1550+20 nm	43/45 dB	5/5 m	10/10 m
5249-OMETS-UFC	1550/1625+20/ 15 nm	45/43 dB	5/5 m	10/10 m
5258-OMETS-UFC	1625+15 nm	45 dB	5 m	10 m
5254-OMETS-UFC	1550+20 nm	50 dB	5 m	10 m

Multimode available upon request.

Common Optical Specifications	
Distance Resolution	0.0001 km, 0.1m, 1 ft, 0.0001 mi
Distance Range Setting	5, 20, 50, 125, 250, 300 km
Loss Resolution	0.001 dB
Distance Sampling (Range Dependent)	0.125, 0.25, 0.5, 1, 2, 4, 8, 16m
Data Points	Up to 256,000
Linearity	0.04 dB/dB
Spectral Width (RMS)	<15 nm
Pulse Widths (Module/Range/ Wavelength Dependent)	5 ns to 30 µ s
Distance Accuracy	0.0025% of distance measurement ± distance resolution ± index uncertainty
Laser Safety	Meets IEC60825-1 Class I and CDRH Class 1 Requirements (Eye Safe) 21 CFR 1040
Optical Connector	FC/UPC
Operating Temperature	0° to 45°C (32° to 122°F)
Storage Temperature	–25° to 60°C (–13° to 140°F)
Humidity	95% max, non-condensing

Notes

[1] SNR=1 with up to 256k averages (typical, subtract approximately 2 dB of range to 98% peak noise. Bellcore TR-TSY-000196 Issue 2)

[2] Using Bellcore/Telcordia TR-TSY-000196 Issue 2 (typical)

[3] Deadzones measured on -45 dB reflections (typical)

Standard Equipment

- PCI interface card

- Shielded ribbon cable

- OTDR module with desktop or mountable enclosure

- Support CD containing Application Programming Interfaces (api) and analysis data link libraries (dll)

Minimum System Requirements	
Parameter	Requirement
Bus	32 bit, 133 MHz PCI, 3.3 VDC or 5 VDC
Chassis	Standard desktop or tower type 'PC'
Slots	1 free PCI card slot, (either a 3.3V, a 3.3V/5V, or a 5V PCI slot)
Operating System	Windows 2000
Processor	Pentium II or Celeron 300 MHz, or better
Memory	256 MB RAM, minimum
CD-ROM Drive	2x or greater
Disk space	5 MB free space, application plus manual. (User will need to define extra space for the test data storage)
Power	20 Watts available
Interface Board	107 mm x 174 mm (4.2" x 6.825" - similar to PCI "short" board)
Module Dimensions (H x W x L)	52 mm x 147 mm x2 04mm (2" x 5.75" x 8")
Additional Features	Shielded ribbon cable, bumpers for desktop use
Compliance	CE compliant when mounted externally

OMETS OTDR Ordering Guide

The Optical Module Embedded Test System offers the ability to design a system while maintaining hardware flexibility with the large range of options below.

Ordering Information	
Model Number	
5223-OMETS-UFC	1310nm, 35dB optics, PCI interface card
5224-OMETS-UFC	1550nm, 35dB optics, PCI interface card
5225-OMETS-UFC	1310/1550nm, 35dB optics, PCI interface card
5233-OMETS-UFC	1310nm, 40dB optics, PCI interface card
5234-OMETS-UFC	1550nm, 40dB optics, PCI interface card
5238-OMETS-UFC	1625nm, 40dB optics, PCI interface card
5235-OMETS-UFC	1310/1550nm, 40dB optics, PCI interface card
5239-OMETS-UFC	1550/1625nm, 40dB optics, PCI interface card
5243-OMETS-UFC	1310nm, 43dB optics, PCI interface card
5244-OMETS-UFC	1550nm, 45dB optics, PCI interface card
5245-OMETS-UFC	1310/1550nm, 43/45dB optics, PCI interface card
5248-OMETS-UFC	1625nm, 43dB optics, PCI interface card
5249-OMETS-UFC	1550/1625nm, 45/43dB optics, PCI interface card
5254-OMETS-UFC	1550nm, 50dB optics, PCI interface card
5258-OMETS-UFC	1625nm, 45dB optics, PCI interface card
5264-OMETS-UFC	850nm Multimode, 62.5um optics, PCI interface card
5265-OMETS-UFC	1300nm Multimode, 62.5um optics, PCI interface card
5266-OMETS-UFC	850/1300nm Multimode, 62.5um optics, PCI interface card

Related Anritsu Products

MT9083A ACCESS Master

Anritsu's new line of MT9083A ACCESS Master OTDRs provides all the measurement functions and performance required for optical fiber construction and maintenance of access, FTTx, LAN and metro networks in a compact, lightweight, all-in-one unit that eliminates the burden of carrying many different test sets and instruments on-site.

The ACCESS Master MT9083A is the first all-in-one tool that does not compromise performance. It features extremely high resolution to see those closely spaces splices and connectors, while still being able to certify 100+ km spans- quickly and accurately. In addition to verifying the integrity of the fiber plant, network performance can also be verified ensuring the customer experience is at its highest level. Whatever your work, construction or maintenance, long haul or intra-building, Anritsu has an MT9083A model for your needs.

CMA50 Optical Loss Test Set

All-in-one light source, power meter, visual fault locator and optical return loss meter for optical fiber construction and maintenance. They are offered with common calibration wavelength and connector options to meet any testing requirement from FTTx networks to long haul telephony links to multimode LAN, and CATV.

CMA5 Optical Power Meter and Light Source

The CMA5 Series Power Meters are ideal for attenuation and power throughput measurements on point-to-point fiber optic links. The CMA5 Series Light Sources provide an economical and stable laser source for use in point-to-point attenuation measurement. They feature a rugged design, built to withstand the difficult testing environment of fiber optic cable installation and maintenance.

CMA3000 Mobile and Fixed Access Network Tester

CMA 3000 is designed specifically for field technicians who install and maintain mobile-access and fixed-access networks. The CMA 3000 is a powerful tool for a wide range of applications, including fast first-aid troubleshooting to comprehensive, in-depth and all-layer analysis of transmission problems. The basic CMA 3000 configuration, with its two 2 Mbps receivers and transmitters, supports framed and unframed testing and monitoring of 2 Mbps systems.

Anritsu Corporation
5-1-1 Onna, Atsugi-shi, Kanagawa, 243-8555
Japan
Phone: +81-46-223-1111
Fax: +81-46-296-1264

● **U.S.A.**
Anritsu Company
1155 East Collins Blvd., Richardson, TX 75081,
U.S.A.
Toll Free: 1-800-ANRITSU (267-4878)
Phone: +1-972-644-1777
Fax: +1-972-671-1877

● **Canada**
Anritsu Electronics Ltd.
700 Silver Seven Road, Suite 120, Kanata,
Ontario K2V 1C3, Canada
Phone: +1-613-591-2003
Fax: +1-613-591-1006

● **Brazil**
Anritsu Electrônica Ltda.
Praca Amadeu Amaral, 27 - 1 Andar
01327-010-Paraiso-São Paulo-Brazil
Phone: +55-11-3283-2511
Fax: +55-11-3288-6940

● **U.K.**
Anritsu EMEA Ltd.
200 Capability Green, Luton, Bedfordshire LU1
3LU, U.K.
Phone: +44-1582-433280
Fax: +44-1582-731303

● **France**
Anritsu S.A.
9, Avenue du Québec Z.A. de Courtabœuf
91951 Les Ulis Cedex, France
Phone: +33-1-60-92-15-50
Fax: +33-1-64-46-10-65

● **Germany**
Anritsu GmbH
Nemetschek Haus, Konrad-Zuse-Platz 1
81829 München, Germany
Phone: +49 89 442308-0
Fax: +49 89 442308-55

● **Italy**
Anritsu S.p.A.
Via Elio Vittorini, 129, 00144 Roma, Italy
Phone: +39-6-509-9711
Fax: +39-6-502-2425

● **Sweden**
Anritsu AB
Borgafjordsgatan 13, 164 40 KISTA, Sweden
Phone: +46-853470700
Fax: +46-853470730

● **Finland**
Anritsu AB
Teknobulevardi 3-5, FI-01530 Vantaa, Finland
Phone: +358-20-741-8100
Fax: +358-20-741-8111

● **Denmark**
Anritsu A/S
Kirkebjerg Allé 90 DK-2605 Brøndby, Denmark
Phone: +45-72112200
Fax: +45-72112210

● **United Arab Emirates**
Anritsu EMEA Ltd.
Dubai Liaison Office
P O Box 500413 - Dubai Internet City
Al Thuraya Building, Tower 1, Suit 701, 7th
Floor
Dubai, United Arab Emirates
Phone: +971-4-3670352
Fax: +971-4-3688460

● **Singapore**
Anritsu Pte Ltd.
10, Hoe Chiang Road, #07-01/02, Keppel
Towers,
Singapore 089315
Phone: +65-6282-2400
Fax: +65-6282-2533

● **P.R. China (Hong Kong)**
Anritsu Company Ltd.
Suite 923, 9/F., Chinachem Golden Plaza, 77
Mody Road,
Tsimshatsui East, Kowloon, Hong Kong, P.R.
China
Phone: +852-2301-4980
Fax: +852-2301-3545

● **P.R. China (Beijing)**
Anritsu Company Ltd.
Beijing Representative Office
Room 1515, Beijing Fortune Building,
No. 5, Dong-San-Huan Bei Road,
Chao-Yang District, Beijing 10004, P.R. China
Phone: +86-10-6590-9230
Fax: +86-10-6590-9235

● **Korea**
Anritsu Corporation, Ltd.
8F Hyunjuk Building, 832-41, Yeoksam dong,
Kangnam-ku, Seoul, 135-080, Korea
Phone: +82-2-553-6603
Fax: +82-2-553-6604

● **Australia**
Anritsu Pty Ltd.
Unit 21 / 270 Ferntree Gully Road,
Notting Hill, Victoria 3168 Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

● **Taiwan**
Anritsu Company Inc.
7F, No. 316, Sec. 1, Neihu Rd., Taipei 114,
Taiwan
Phone: +886-2-8751-1816
Fax: +886-2-8751-1817

● **India**
Anritsu Corporation
India Liaison Office
Unit No. S-3, Second Floor, Esteem Red Cross
Bhavan,
No. 26, Race Course Road, Bangalore 560
001, India
Phone: +91-80-32944707
Fax: +91-80-22356648