

A truly revolutionary OTDR

MT9090A/MU909014X/15X
μOTDR Module™

Anritsu

Discover What's Possible™



A truly revolutionary OTDR

MT9090A/MU909014X/15X μOTDR Module™ Product Introduction

October 2010
Anritsu Corporation

Introducing the MT9090A with MU909014x/15x μ OTDR Module™

A truly revolutionary OTDR

**Pocket-sized
Easy Operation
Excellent OTDR Performance
Unique Battery Operation
Low Cost**



MT9090A μ OTDR Module™ Pocket Size OTDR **FOR HIGHLY PORTABLE FIELD USE**

- **Easily held with one hand**
 - » Palm-size (190mm x 96mm x 48mm)
 - » Approximately 700g
- **Battery operation**
 - » Max. 8 hours operation (with STD Battery pack)
 - » 4 hour recharge (with STD Battery pack)
 - » NiMH battery pack or “AA Alkaline Dry Battery” operation
- **Rugged design**
 - » Sealed design – no vents or fans
 - » Wrist strap to prevent “accidental” drops
- **Color indoor/outdoor display standard**
 - » 4.3” high resolution
 - » Landscape format naturally fits OTDR trace



MT9090A μ OTDR Module™ Easy Operation

THE FOOLPROOF testing device

- **Easy to use**

- » True one-button fault location
- » Automatic testing parameters selection in Full-automatic mode
- » Quick fiber evaluation
- » Event analysis table and full Trace view



Truly
Easy!!



- **Quick boot-up**

- » Ready to test in <15 seconds

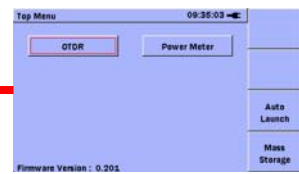
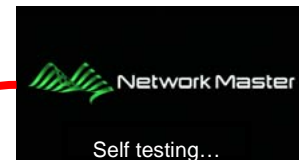
Easy Operation

MT9090A μ OTDR Module™

Simple,
One-button
Operation

Push  to Turn on power

Self Test
During start-up, Showing self test result.
Automatically moves to OTDR Menu from Top menu
Can be bypassed

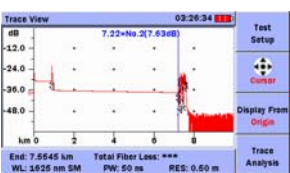


User selectable test parameters
(or select full automode)



Push  to start test

Automatically checks fiber connection,
proceeds if the result is good
(With Poor or Fair result check connection or start test manually)



During testing,
Trace (waveform) is displayed

Finish the measurement,
and displayed Trace analysis (Event table)

No.	Distance (km)	Type	Loss (dB)	RefL. (dB)
1	0.9030	↖	5.39	-48.4
2	7.2195	↖	7.63	-65.0
3	7.2845	↘	***	-29.6

End: 7.5545 km Total Fiber Loss: ***
WL: 1625 nm SM PW: 50 ns RES: 0.50 m

If you want to show trace then;
- Select F4 key
Or
- Select an event and select Autozoom

Trace Analysis 03:26:39

0 km 7.5545 km

Total Events Found 12
End/Fault Distance 7.5545 km
Total Fiber Loss ***
Cable Loss ***

No.	Distance (km)	Type	Loss (dB)	RefL. (dB)
1	0.9030	↖	5.39	-48.4
2	7.2195	↖	7.63	-65.0
3	7.2845	↘	***	-29.6

MT9090A μ OTDR Module™ Excellent Performance

Testing Optical Fiber anywhere

• Excellent OTDR Performance

» Tests all fibers

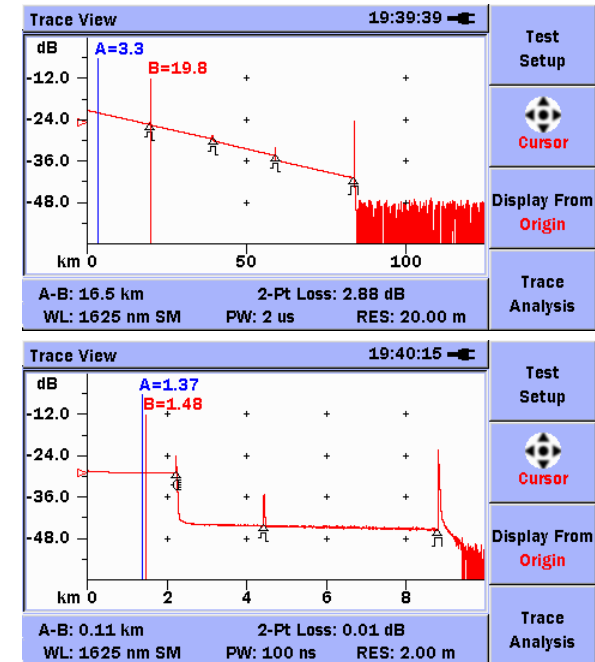
- A Core To Access Network I&M testing tool

» High Dynamic range, Quick fiber evaluation

- 30 – 35dB Dynamic range
- Higher number of sampling points

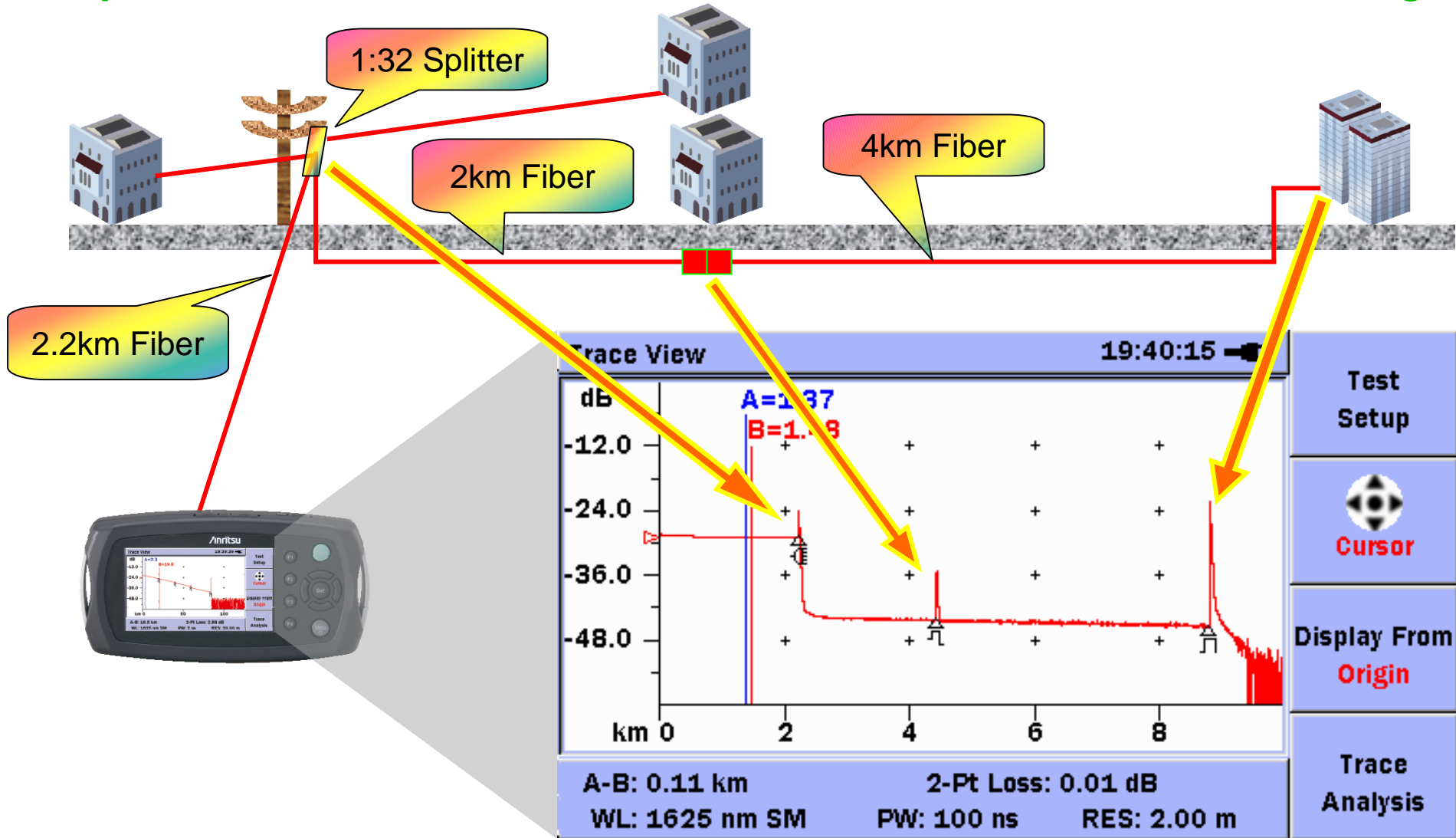
» Complete PON testing tool

- High resolution and extremely short dead zones ensure entire PON (1X32, 1X64 branches) network evaluation
- Available in both In-Service test and Out-Service test configurations
- 1625nm/1650nm wavelength for in-service maintenance of PONs without external filters



MT9090A μ OTDR Module™ Excellent Performance

Complete PON Measurement for both In-service & Out-of-service Testing



Slide 7

MT9090A μ OTDR Module™ Unique Battery Operation

No need to worry about batteries

- **Long battery life**

- 8 hours typical / 4 hour recharge with Standard NiMH Battery pack (Supplied with the original unit)

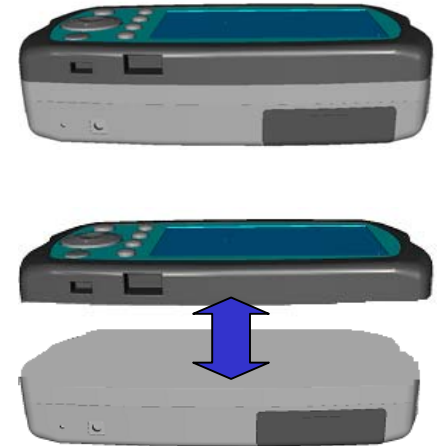
- **General Dry Battery operation available**

- General NiMH (*readily available*) operation is available
- Alkaline battery (“AA”) operation is also available



MT9090A μ OTDR Module™ Low cost **VALUE...without compromise!**

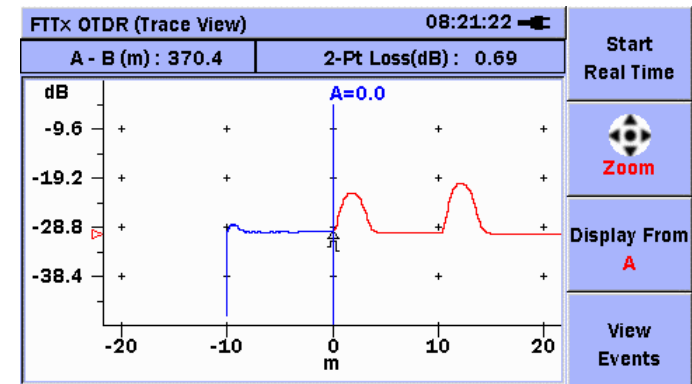
- **Cost-effective installation and maintenance tool**
 - » Modular platform ensures maximum return on investment
 - » Simple module swap for testing additional technologies
 - 10/100/1000MB Ethernet
 - CWDM channel analyzer
 - In-service OTDR maintenance



MT9090A μ OTDR Module™**Additional Highlights**

- **Built-in 30 ft (10 m) launch fiber**

- » Measure front-end connection without additional patchcords
- » Can be enabled or disabled



- **Complete data management**

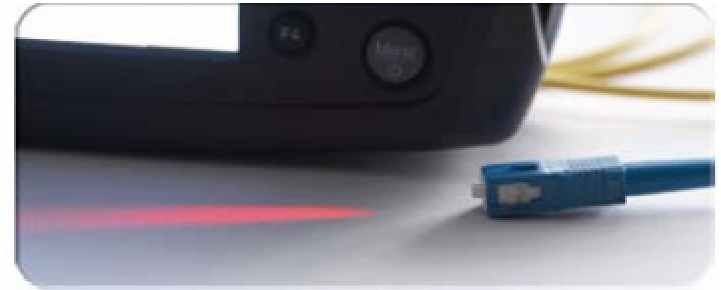
- » ~1,000 traces internal/10,000+ with USB
- » Easy “drag and drop” transfers to PC
- » Reporting and printing with “NETWORKS” PC software

MT9090A μ OTDR Module™

Option Features

- **Visual Fault Locator Option**

- » Integrated 650nm laser
- » Can also be used to identify a particular fiber
- » Can be used simultaneously with power meter or OTDR



- **Connector inspection option**

- » 400x image displayed
- » All software pre-loaded
- » Eye-safe
- » Image save/recall
- » Hardware includes probe/tips



MT9090A μ OTDR Module™

Specifications

MT9090A CONTROLLER SPECIFICATIONS					
Dimension and Mass		Size (WxHxD, including mainframe and module): 190mm x 96mm x 48mm (7.5" x 3.8" x 1.9")			
		Weight (including mainframe, module and Standard battery): <700g (1.54 lbs.)			
MU909014X/15X μ OTDR MODULE™ SPECIFICATIONS					
Model name		MU909015B/B1-056/066	MU909014B/B1-056/066	MU909014A/A1-053/063	MU909014A/A1-054/064
Center Wavelength *		1310/1550 \pm 20 nm *	1310/1550 \pm 20 nm *	1625 \pm 15 nm	1650 \pm 15 nm
Dynamic range *	PW=20 μ sec	37/36dB	32.5/31dB	32.5dB * (1490/1550 cut filter included)	32.5dB * (1490/1550 cut filter included)
	PW=500nsec	28/26dB	24.5/23dB	24.5dB * (1490/1550 cut filter included)	24dB * (1490/1550 cut filter included)
Fiber Type		10 μ m/125 μ m SMF (ITU-T G.652)			
Pulse width		5ns/10ns/20ns/50ns/100ns/200ns/500ns/1 μ s/2 μ s/5 μ s/10 μ s/20 μ s			
Dead zone *		Fresnel: <1 m, Backscatter: <5m			
Number of Sampling Points *		<125,001 pts (Course: <6,251 pts, Medium: <25,001 pts, Fine: <125,001 pts)			
Testing Modes		Full automatic, Manual, Real time, Optical Power Meter, Visible Fault Locator (Option), Video Inspection Probe (Option)			
Fiber Event Analysis		Automatic, Displayed in table format based on user defined PASS/FAIL thresholds			
Loss Measurement mode		2 point loss, Splice loss, dB/km Loss LSA, ORL, Event			
Other Functions		Integrated launch fiber: 10m (30ft)			
		Connection check: Automatic check of OTDR to FUT connection quality			
		Live Fiber detect (Option 056/066 only): Verifies presence of communication light in fiber			
		Real time sweep: <1sec (Typ.)			
Optical Power meter (same port as OTDR port)		Wavelength: 1310/1490/1550nm		Not applicable	
		Measurement Range: -50 to -5dBm			
		Accuracy: \pm 0.5dB (at -20dBm, CW)			
Visible Laser Diode (only for MU909014A1/B1/15B1)		Output Power: 0 \pm 3dBm (CW)			
		Modulation: CW, 1Hz			
Language		User Selectable (English, Simplified Chinese, Traditional Chinese, Danish, Finish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Spanish (L.America) and Swedish)			
Battery		Type: NiMH (Standard battery), NiMH (AA Type), Alkaline Dry Battery (AA Type) *			
		Operating time (Standard Battery): 8 hours (typ.) *			
Environment		Operating temperature and humidity: -5 to +40 °C *10, <80%(no condensation)			

* Please see detailed on Product brochure

MT9090A μ OTDR Module™

Ordering Guide

Must be ordered as separate line items

(1) Main frame
(if customer already owns a MF this item may not be required)

Product Number	Product Name
MT9090A	Mainframe
Product Number	Product Name
MU909014A	μ OTDR Module
MU909014A1	μ OTDR Module
MU909014B	μ OTDR Module
MU909014B1	μ OTDR Module
MU909015B	μ OTDR Module
MU909015B1	μ OTDR Module
Product Number	Product Name
MU909014A-053	SMF 1625nm μ OTDR Module (UPC)
MU909014A1-053	SMF 1625nm μ OTDR Module (UPC/VLD)
MU909014A-063	SMF 1625nm μ OTDR Module (APC)
MU909014A1-063	SMF 1625nm μ OTDR Module (APC/VLD)
MU909014A-054	SMF 1650nm μ OTDR Module (UPC)
MU909014A1-054	SMF 1650nm μ OTDR Module (UPC/VLD)
MU909014A-064	SMF 1650nm μ OTDR Module (APC)
MU909014A1-064	SMF 1650nm μ OTDR Module (APC/VLD)
MU909014B-056	SMF 1310/1550nm μ OTDR Module (UPC)
MU909014B1-056	SMF 1310/1550nm μ OTDR Module (UPC/VLD)
MU909014B-066	SMF 1310/1550nm μ OTDR Module (APC)
MU909014B1-066	SMF 1310/1550nm μ OTDR Module (APC/VLD)
MU909015B-056	SMF 1310/1550nm μ OTDR Module (UPC)
MU909015B1-056	SMF 1310/1550nm μ OTDR Module (UPC/VLD)
MU909015B-066	SMF 1310/1550nm μ OTDR Module (APC)
MU909015B1-066	SMF 1310/1550nm μ OTDR Module (APC/VLD)

(2) μ OTDR Module

(3) μ OTDR Option
- Wavelength,
- Connector polish type
- VLD

(4) Optical Connector type

Product Number	Product Name
MU909014A-037	FC Connector
MU909014B-037	FC Connector
MU909015B-037	FC Connector
MU909014A-038	ST Connector
MU909014B-038	ST Connector
MU909015B-038	ST Connector
MU909014A-039	DIN 47256 Connector
MU909014B-039	DIN 47256 Connector
MU909015B-039	DIN 47256 Connector
MU909014A-040	SC Connector
MU909014B-040	SC Connector
MU909015B-040	SC Connector
MU909014A-043	HMS-10/A Diamond connector
MU909014B-043	HMS-10/A Diamond connector
MU909015B-043	HMS-10/A Diamond connector
MU909014A-025	FC-APC Connector key width 2.0mm
MU909014B-025	FC-APC Connector key width 2.0mm
MU909015B-025	FC-APC Connector key width 2.0mm
MU909014A-026	SC-APC Connector
MU909014B-026	SC-APC Connector
MU909015B-026	SC-APC Connector
MU909014A-047	HRL-10 (D-4108) Connector
MU909014B-047	HRL-10 (D-4108) Connector
MU909015B-047	HRL-10 (D-4108) Connector

Note

Anritsu Corporation

5-1-1 Onna, Atsugi-shi, Kanagawa, 243-8555 Japan
Phone: +81-46-223-1111
Fax: +81-46-296-1238

● U.S.A.

Anritsu Company

1155 East Collins Blvd., Suite 100, Richardson,
TX 75081, U.S.A.
Toll Free: 1-800-267-4878
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 Eletrônica Ltda.

Praça Amadeu Amaral, 27 - 1 Andar
01327-010 - Bela Vista - São Paulo - SP - Brasil
Phone: +55-11-3283-2511
Fax: +55-11-3288-6940

● Mexico

Anritsu Company, S.A. de C.V.

Av. Ejército Nacional No. 579 Piso 9, Col. Granada
11520 México, D.F., México
Phone: +52-55-1101-2370
Fax: +52-55-5254-3147

● U.K.

Anritsu EMEA Ltd.

200 Capability Green, Luton, Bedfordshire, LU1 3LU, U.K.
Phone: +44-1582-433200
Fax: +44-1582-731303

● France

Anritsu S.A.

12 avenue du Québec, Bâtiment Iris 1- Silic 612,
91140 VILLEBON SUR YVETTE, 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.r.l.

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: +46-8-534-707-00
Fax: +46-8-534-707-30

● Finland

Anritsu AB

Teknobulevardi 3-5, FI-01530 VANTAA, Finland
Phone: +358-20-741-8100
Fax: +358-20-741-8111

● Denmark

Anritsu A/S (Service Assurance)

Anritsu AB (Test & Measurement)

Kirkebjerg Allé 90, DK-2605 Brøndby, Denmark
Phone: +45-7211-2200
Fax: +45-7211-2210

● Russia

Anritsu EMEA Ltd.

Representation Office in Russia

Tverskaya str. 16/2, bld. 1, 7th floor.
Russia, 125009, Moscow
Phone: +7-495-363-1694
Fax: +7-495-935-8962

● 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.

60 Alexandra Terrace, #02-08, The Comtech (Lobby A)
Singapore 118502
Phone: +65-6282-2400
Fax: +65-6282-2533

● India

Anritsu Pte. Ltd.

India Branch Office

3rd Floor, Shri Lakshminarayan Niwas, #2726, 80 ft Road,
HAL 3rd Stage, Bangalore - 560 075, India
Phone: +91-80-4058-1300
Fax: +91-80-4058-1301

● P.R. China (Hong Kong)

Anritsu Company Ltd.

Units 4 & 5, 28th Floor, Greenfield Tower, Concordia Plaza,
No. 1 Science Museum Road, Tsim Sha Tsui East,
Kowloon, Hong Kong
Phone: +852-2301-4980
Fax: +852-2301-3545

● P.R. China (Beijing)

Anritsu Company Ltd.

Beijing Representative Office

Room 2008, Beijing Fortune Building,
No. 5, Dong-San-Huan Bei Road,
Chao-Yang District, Beijing 100004, 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

Please Contact: