Product Brochure

/Inritsu

CMA5000

Universal **T**ransport **A**nalysis Module

CMA 5000

Universal Transport Analysis Module

One tool is all you need!

Key Features and Benefits

- Multi-technologies module

- Reduce training and test time through targeted, user-friendly applications

- Protect your investment with a complete open architecture and future-proof technology

The last few years have witnessed a tremendous evolution of the transport networks with the emergence of new technologies. Engineers and technicians tasked with the installation, turn-up and maintenance of today's networks have to deal with this increasing complexity in their daily job. In this context, a test instrument like the CMA5000-UTA capable to manage all the main technologies in one single module is a great help.

Universal

The Universal Transport Analysis -UTA- module represents a new generation of tester with this ability to support almost all the existing transport standards: Ethernet, SONET/SDH, OTN, ... With its small size, the UTA module fits in the CMA5000 platform and provides a very portable solution for field engineer.
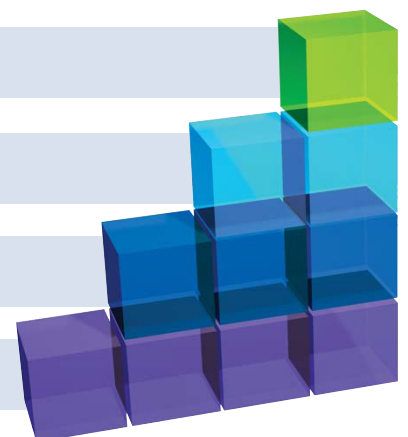
Flexible

The UTA module also supports hot pluggable XFP and SFP transceivers. This feature brings a lot of configurability to the module. Whatever the network or equipment to test, the field engineer has the insurance to be able to equip his UTA module with the right optical interface.

OTN (OTU-1, OTU-2, 11G)
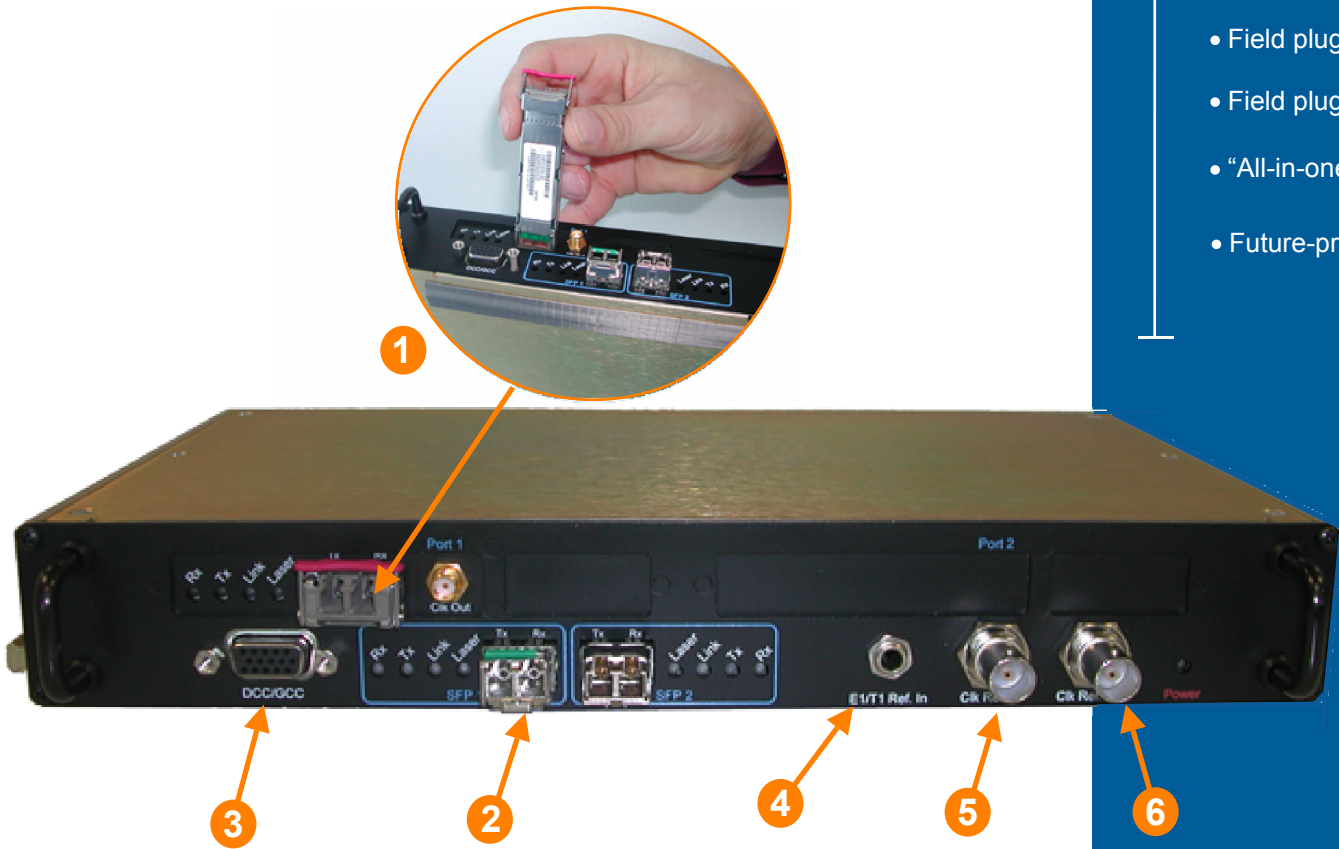
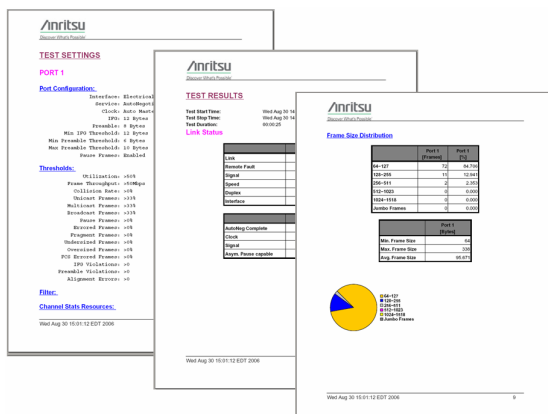**10 GigE (LAN & WAN-PHY)**

SONET

SDH

Module Overview

1 Field pluggable XFP

2 Field pluggable SFP

3 Data Communication Channel connector for add & drop

4 Clock reference input at 2.048 Mbit/s or 1.544 Mbit/s (Bantam 100 ohms)

5 Clock reference input at 2.048 Mhz, 1.544 Mhz or 10 MHz (BNC 75 ohms)

6 Clock output at 10 Mhz synchronous with the transmitted signal

Ease of use

Spend your time analyzing the results, instead of trying to understand the equipment. All the UTA applications use the same user-friendly graphical interface. This reduces the time it takes to learn how to use the instrument and increases measurement time efficiency: Pre-configured tests, On-line help, Automatic test reports as shown below:
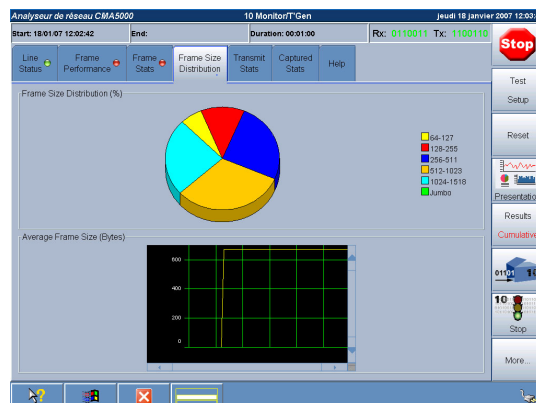
UTA Applications Family

Key Features

10 GigE Application

- Support of LAN-PHY and WAN-PHY

- Field pluggable XFP: 10GBASE-SR, -LR, -ER, -SW, -LW, -EW

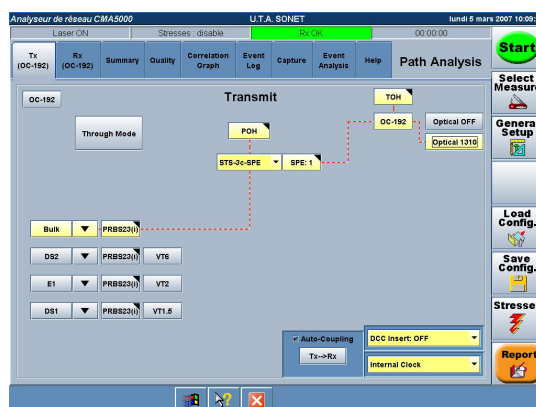- Automated RFC 2544 tests

- BERT Test

- Sequence test

SONET / SDH Application

- Generates and analyzes SONET/SDH frames down to the tributary level

- Round trip delay measurement with 100 ns resolution

- APS measurement with 125 μs resolution

OTN Application

- Test OTN networks up to 11.095 Gbps

- Support Poisson error generation (O.182) for accurate FEC evaluation **Unique Feature**

- SDH/SONET mapping into OTU-2/OTU-1

- ODU-1 mapping into ODU-2

10 GigE Application

To ensure proper and efficient deployment of services, the **UTA 10 GigE application** measures critical parameters during network installation, including throughput, latency, burstability and frame loss (as detailed in RFC 2544). Full line rate traffic generation and shaping up to 10 Gbps, combined with comprehensive professional reporting, ensures the easy installation, maintenance, troubleshooting and documentation of 10 GigE LAN-PHY and WAN-PHY networks.

SONET / SDH Application

For characterizing and documenting network performance levels, the **UTA SONET / SDH** application provides efficient, reliable testing of a multitude of parameters, including Alarm and Error analysis, APS with 125 μs resolution, Round Trip Delay measurement with 100 ns resolution, network availability and performance evaluation. The UTA application characterizes SONET/SDH networks from 10 Gbps down to the tributary level (DS1/E1).

OTN Application

The CMA5000-UTA module supports the OTU-1 (2.66 Gbps) and OTU-2 (10.709 Gbps) frame formats as defined in the G.709 recommendation. In addition, the UTA module also supports the 11.049 Gig FEC and 11.095 Gig FEC formats. Both formats are identical to standard OTU-2 frame but with overclocking in order to authorize the mapping of LAN traffic directly into the OTN frame. Error generation according to the O.182 recommendation is also supported for acccurate FEC evaluation.

More applications to come

The UTA module is a future-proof tester. It has been designed to support most of the transport standards. You can ask to your Anritsu contact for the latest update.

General Information

General Specifications

- The UTA hardware is a double size plug-in module compatible with the CMA 5000 Muli-Layer Network Test Platform (small, medium or large bay adapters)
  Note 1: For best performance, the CMA5000 platform must have 512M RAM when using UTA with more than one application.

- AC power: 100 to 250 VAC via CMA 5000 platform

Environmental specifications:	Operating Temperature: 0°C to +40°C Storage Temperature: -20°C to +70°C Humidity: 10% to 80%
Safety:	Electrical: EN 61010-1 Optical: see specifications of XFP / SFP that are used
EMC:	EN 61326
Warranty:	1 year standard

Ordering Information

5610-000-UTA	**UTA base module** *Applications must be ordered separately
5610-101-UTA	10 GigE LAN-PHY application
5610-102-UTA	10 GigE WAN-PHY application
5610-201-UTA	10 Gig SONET/SDH application
5610-216-UTA	"STM-1/4/16 & OC-3/12/48" option for 10 Gig SONET/SDH application
5610-301-UTA	OTN application for UTA module supporting OTU-2 interface
5610-311-UTA	"OTU-1" option for OTN application

Note 2: For more detailed ordering information related to each application (accessories list and options), see the corresponding application datasheet.
Note 3: The XFP/SFP interfaces of the UTA module meets the requirements stated in the MSA standard.
Note 4: All the 10G/11G applications are field upgradeable.
For upgrades with references 5610-216-UTA and 5610-311-UTA, customers must call their Anritsu contact with module Serial Number as hardware upgrade might be required

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