

# CMA 5000

## Fibre Channel Application



The CMA 5000 Fibre Channel Module enables network operations personnel and installers in enterprise and government organizations to quickly and easily install, commission, troubleshoot and maintain their Storage Area Networks.



### Key Benefits:

- Accelerate Fibre Channel installation and commissioning with the Fibre Channel SANity test
- Decrease troubleshooting time during maintenance and restoration with the Fibre Channel SANalyzer

The CMA 5000 Fibre Channel Module enables network operations personnel and installers in enterprise and government organizations to quickly and easily install, commission, troubleshoot and maintain their Storage Area Networks.

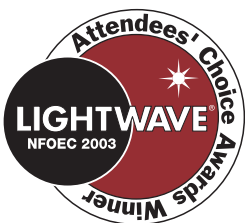
### This module is specifically designed to:

- Certify the optical links to carry Fibre Channel traffic
- Conduct non-intrusive performance monitoring of in-service Fibre Channel networks
- Conduct non-intrusive traffic monitoring and protocol analysis

The CMA 5000 Fibre Channel Module is a double (2-Bay) module that can be used in Small, Medium, and Large Bay Adapters, enabling customers to test 1 Gbps and 2 Gbps optical and electrical Fibre Channel networks. The module provides 2 optical (SFP) ports, and is specifically designed to facilitate installation

and maintenance of Fibre Channel systems. For installation, the module provides Link Qualification test functions to certify Fibre Channel link operation using user defined or worst case test patterns for Jitter, Power and Noise.

For maintenance and troubleshooting, the SANalyzer module provides complete, non-intrusive monitoring capabilities presenting comprehensive statistics to give insight into the network's health and status. Network data can be captured on each port into independent 256 Megabyte buffers that grab 100% of the data at full line speed. This data can be stored to disk for later analysis, using the free trace view software, or analyzed in real-time while it is being captured. The CMA 5000 Fibre Channel Module provides 32 hardware frame comparators per channel, which can be used to build complex filtering and start/stop capture triggering that respond instantly to the data flow. This is all done via a simple "drop and drag" procedure, building a flowchart representation on screen as you proceed.



### Fibre Channel Features

- Full Protocol Analysis - automatically decodes over 30 protocols including FC-VI, FCP-SCSI, FC-SB-2 (FICON), LLC and IP
- Runs End-to-End link tests at both 1.0625 and 2.125 Gbps
- Operates in 2 modes: Traffic Generation (sending) and Traffic Verification
- Can operate in box-to-box or loopback configuration
- Two ports permits pass-through monitoring of inter-device communication
- Small Form-Factor Pluggable (SFP) interface modules allow easy switching between Fibre Channel Physical Layers
- 256 MB of trace memory per channel
- 32 hardware frame comparators per channel
- FC-AL, point to point, and fabric support
- Simultaneously capture traffic while monitoring statistics
- Trigger on multiple consecutive events across all channels
- Display data in Frame, Word and Physical Signal views
- Generates worst case power, noise and jitter patterns for link testing
- Pre-defined trace displays for SCSI, IP and FICON traffic
- Real-time statistics

### Physical Layer Options

- 1 & 2 Gbps 850 nm Short Wave Transceiver
- 1 & 2 Gbps 1300 Long Wave Transceiver
- Copper solutions available on request

Please refer to the CMA 5000 Order Guide for valid NetTest module configurations and ordering information at [www.nettest.com/products/cma5000/literature.php](http://www.nettest.com/products/cma5000/literature.php).



#### NetTest A/S

Kirkebjerg Allé 90  
DK-2605 Brøndby  
Denmark  
Tel: +45 72 11 23 00  
Fax: +45 72 11 23 50  
E-mail: [nordic@nettest.com](mailto:nordic@nettest.com)  
Web: [www.nettest.com](http://www.nettest.com)

#### NetTest Sales Offices

Brazil	+55 11 5505 6688	Italy	+39 06 43 36 24 00
China	+86 10 6467 9888	Singapore	+65 6220 9575
Denmark	+45 72 11 22 00	Spain	+34 91 372 92 27
France	+33 1 49 80 47 48	USA	+1 315 266 5000
Germany	+49 89 99 89 01-0		

NetTest, the pioneer in multi-layer network testing, is a global provider of test and measurement systems, instruments and components for all types of networks and all stages of network development and operation. Our solutions offer leaders in optical, wireless and fixed networking vital insights into network performance, enabling informed business decisions that drive profitability.