

# CMA5000 10 Gigabit Ethernet Module SPECIFICATIONS

## Ethernet Test Set



The CMA5000 10 Gigabit Ethernet test set easily enables network installation, commissioning and troubleshooting. The module is a double size module featuring XFP modular optics. The user interface has dedicated modes for unsurpassed ease of use; these modes include Ping, Traffic generation/monitoring, Performance analysis (RFC2544), BERT, Sequence testing and Capture and decode. These targeted applications ensure easy and efficient measurement of critical networks parameters including throughput and frame loss.

### CMA5000 10 Gigabit Ethernet Module Specifications

CMA5000 10 Gigabit Ethernet Module	
Specifications	
<b>Traffic Generation</b>	<p>The CMA5000 10 Gigabit Ethernet Tester's traffic generation capabilities include:</p> <ul style="list-style-type: none"> <li>. Variable line rate traffic generation, up to full line rate</li> <li>. Configurable IP and Ethernet source and destination addresses (Support of IPv4 and IPv6 addressing)</li> <li>. Unicast and broadcast frames</li> <li>. EtherType II (DIX V.2), IEEE 802.3 with 802.2 (LLC1) and IEEE 802.3 with SNAP encapsulation</li> <li>. Adjustable frame size from 64 bytes to 9,600 bytes provides testing of undersize, oversize, and jumbo frames</li> <li>. User definable VLAN ID and VLAN priority</li> <li>. Configurable data field (payload) supporting PRBS or user defined payload</li> <li>. User definable traffic mix (Broadcast and Unicast)</li> <li>. Frame sizes may be set to constant, stepped, or random length to emulate real world traffic profiles</li> <li>. In addition, when used with Ethernet or IP address swapping, all measurements may be performed in loopback or point-to-point networks allowing the CMA5000 to measure any network topology for unsurpassed versatility</li> </ul>

CMA5000 10 Gigabit Ethernet Module		
Specifications		
Performance Analysis	Installation/Commissioning	<ul style="list-style-type: none"> <li>. Throughput</li> <li>. Frame loss</li> <li>. Latency</li> </ul>
	Ping Test	<ul style="list-style-type: none"> <li>. Burst</li> <li>. BERT</li> <li>. Sequence Test</li> </ul>
	General Health/Line Statistics	<ul style="list-style-type: none"> <li>. To quickly verify continuity and connectivity to network elements, the CMA5000 10 Gigabit Module provides a Ping Application. Supports both IPv4 and IPv6 addressing.</li> <li>. Link status</li> <li>. Remote fault</li> <li>. Signal present</li> <li>. Frames present</li> </ul>
	Performance Statistics	<ul style="list-style-type: none"> <li>. Local clock</li> <li>. Pause capable</li> <li>. Asymmetric pause capable</li> <li>. Link partner capabilities</li> <li>. Max., min., average utilization</li> <li>. Max., min., average throughput</li> </ul>
	Frame Statistics	<ul style="list-style-type: none"> <li>. Max., min., average frame rate</li> <li>. Total frames</li> <li>. Total good frames</li> <li>. Unicast frames</li> <li>. Multicast frames</li> <li>. Broadcast frames</li> <li>. Number of pause frames</li> <li>. Total errored frames</li> <li>. Number of fragments</li> <li>. Number of undersized frames</li> <li>. Number of jabbers/oversize frames</li> <li>. Number of FCS errored frames</li> </ul>
	Encapsulations (Frame Formats) Supported	<ul style="list-style-type: none"> <li>. EtherType II (DIX v.2)</li> <li>. IEEE 802.3 - LLC1</li> <li>. IEEE 802.3 - SNAP</li> </ul>

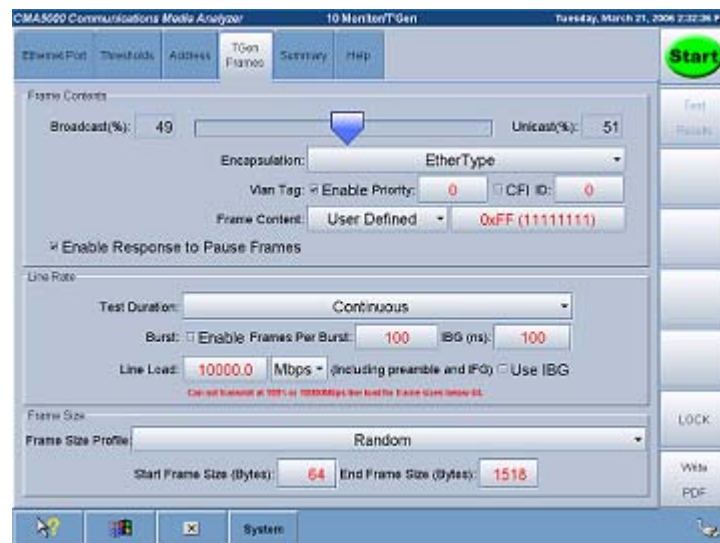


Fig.1: Complete control over frame contents and line rate allowing the CMA5000 10 Gigabit Ethernet application to emulate realnetwork traffic.



Fig.2: Automated RFC 2544 application for quick verification of network performance. All details results provided in comprehensive reports.

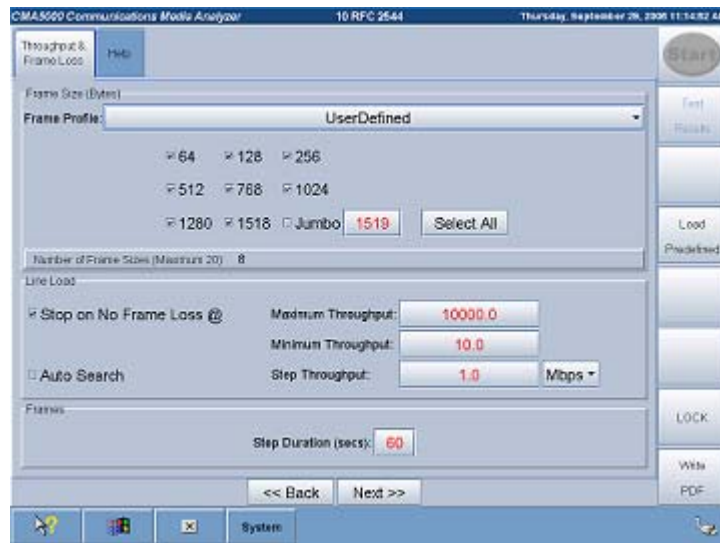


Fig.3: Easy and automated test setups for RFC2544 testing.

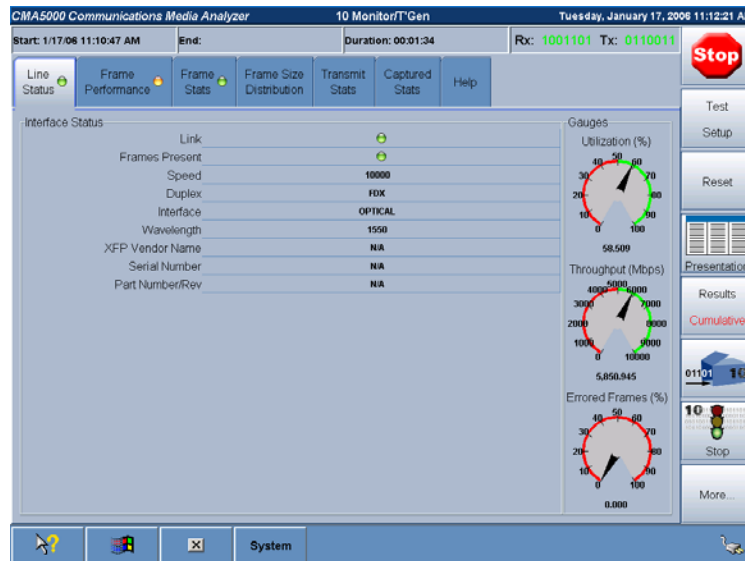


Fig.4: One button test provides important network parameters including utilization, throughput and Frame Loss.

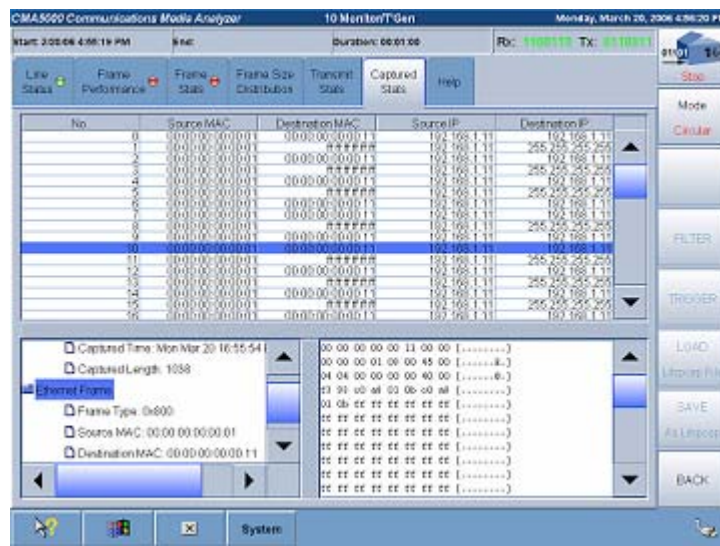


Fig.5: Capture and decode capability provides ultimate detail for troubleshooting

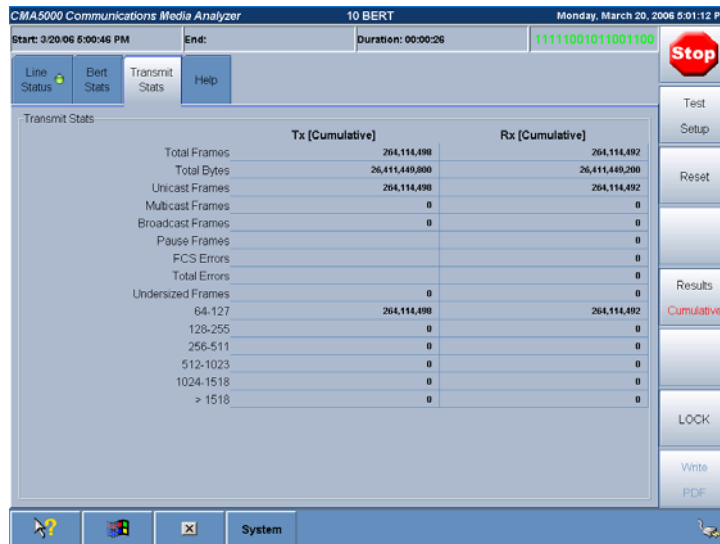


Fig.6: Specific applications for all field test requirements including BERT.



Fig.7: Automated RFC 2544 application for quick verification of network performance. All details results provided in comprehensive reports.

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