

Application Traffic Monitor

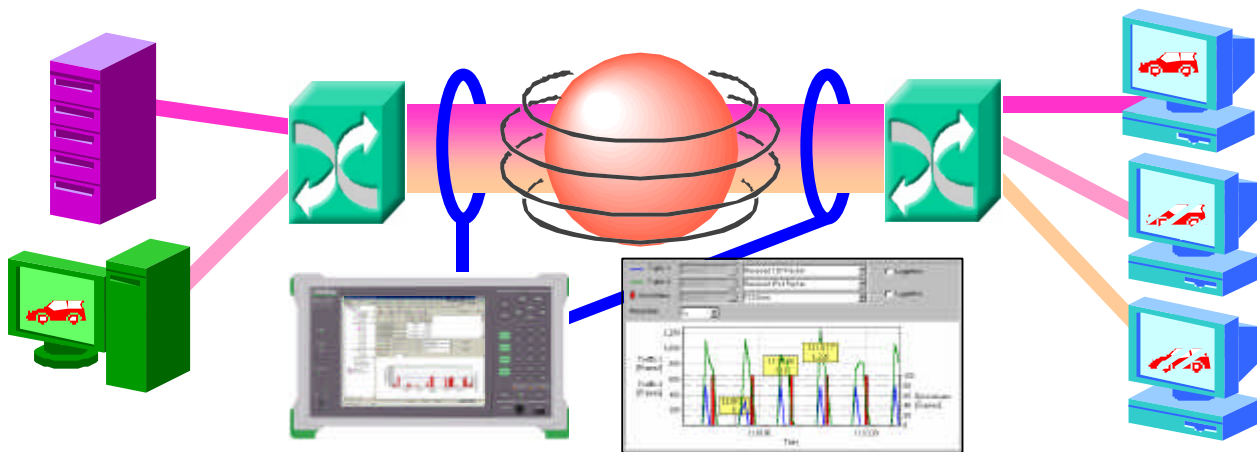
MD1230A-20/MD1231A-20 and MX123001A-20

Monitoring Video Streaming with 1 ms Resolution

Broadband Trends in Network Services

New network services are continuously impacted by technology advancement. One area of rapid progress is in streaming transmission service, used in applications such as video transport. Streaming transmission has critical latency time requirements, so real-time performance is much more important there than in traditional data transmission. Streaming networks are designed by calculating bandwidth utilizations, so it is necessary to measure the bandwidth of each traffic stream to design these networks and to investigate the cause of problems.

This MD1230A option allows for high-resolution analysis through high-resolution time-series monitoring that cannot be implemented by using existing measurement techniques



Errors in stream delivery cannot be found by traditional monitoring at one second intervals

MD1230A-20/MD1231A and MX123001A-20 Application Traffic Monitor

The High Resolution Traffic Monitor enables precise network traffic measurements with **1 ms resolution**.

Monitoring 4 Flows Simultaneously

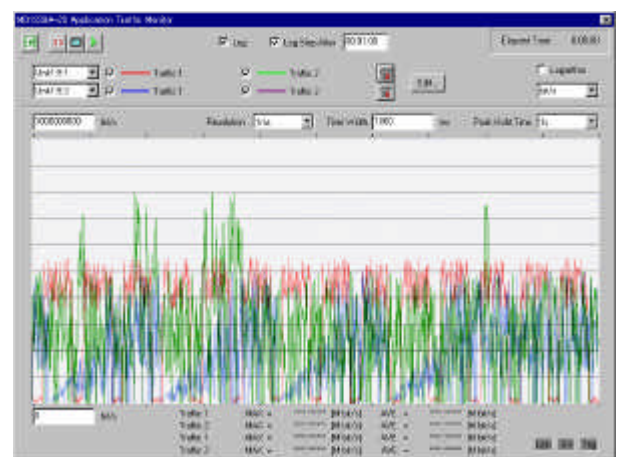
This application can monitor 2 flows per port on each of 2 GbE ports, thereby handling up to 4 flows simultaneously. (Note: normal test applications don't operate during high resolution traffic monitoring.)

Real-Time Disk Logging

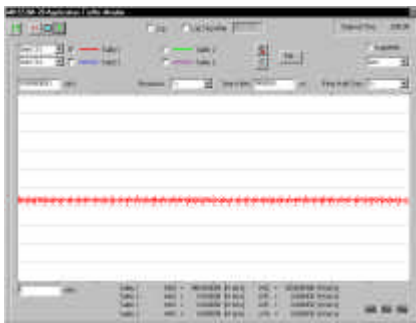
Monitored 1 ms traffic counts are logged to the hard drive in real time. The log results are exported in CSV format, and graphics can be displayed with regeneration software.

Robust Trigger Function

With the High Resolution Traffic Monitor, the trigger for data capture is traffic exceeding a specified level. 1 ms resolution captures sudden peaks that are ignored when the monitoring resolution is only 1 second.

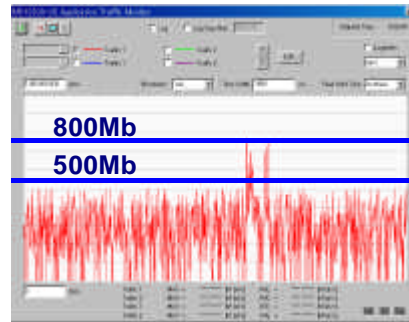


Application Examples



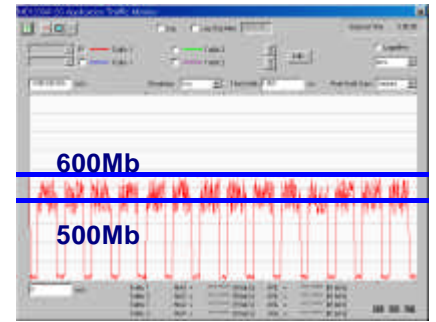
Case 1 (No Problem)

500 Mb data is sent on a 500 Mb bandwidth link. Traffic monitoring at one second intervals is sufficient.



Case 2 (Bandwidth Problem)

Video data with 800 Mb peaks is sent on a 500 Mb link, leading to occasional traffic loss. The network manager has to ascertain the cause of the problem and configure the network properly.



Case 3 (Bandwidth Problem)

1 ms monitoring on this link shows that there is alternating 20 Mb and 600 Mb data, although the average bandwidth is 500 Mb. The solution will require a 600 Mb bandwidth link or the use of data smoothing.

Errors in video stream delivery, such as stream peaks and lack of sufficient bandwidth, can be found easily by measuring traffic stream details with 1 ms monitoring.

Specifications

MD1230A-20/MD1231A-20, MX123001A-20 Application Traffic Monitor		Modules Supported	MU120112A 2-Port GbE
Measurement Resolution	1 ms	Ports	MAC Address, IP Address Netmask, Gateway
Display Resolution	1 ms/10 ms/100 ms/500 ms/1 s	Duplex Mode	Full duplex
IP Packets	IPv4, IPv6 (including L2 tag)	Flow Control	On/off, Direct Address, Multicast, Port Address
Log Storage	Depends on file system and HDD space File System: Theoretical/Guaranteed values FAT16: 15.6 hours / 15 hours FAT32: 19 hours / 30 hours NTFS: 1193 hours / 400 hours	External PC Minimum Requirements for MX123001A-20	
Graph	Vertical: Monitored value Horizontal: Time	Architecture	Compatible with IBM-PC/AT
Operation	MD1230A Mainframe External PC (via Ethernet/IP)	CPU	Intel Pentium II 400MHz
		OS	Windows 98/2000 (Japanese/English)
		Memory	64 MB (128 MB recommended)
		Disk Space	50 MB (plus log file capacity)

Ordering Information

Model/Order No.	Item	Requirements
MD1230A-20	High Resolution Application Traffic Monitor Option	Use of MD1230A and MU120112A GbE Module
MD1231A-20	High Resolution Application Traffic Monitor Option	Use of MD1231A and MU120112A GbE Module
MX123001A-20	High Resolution Application Traffic Monitor Option for MX123001A Remote PC Control Software	Installation of MX123001A/-05/-08 Remote PC Control Software
<u>Optional Accessories</u> W2134AW	Traffic Monitor Operation Manual	

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Specifications are subject to change without notice.

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