

XM-2301 / XM-2301G

10/100 Mbps & 1000 Mbps ETHERNET TEST MODULES

FEATURES SUMMARY

- XM-2301:
 - 1-Port 10/100/1000 Mbps UTP Ethernet Test Module
 - Dedicated Motorola MPC8245 CPU and 1MB capture buffer for each port
- XM-2301G:
 - 1-Port 1000 Mbps Mini-GBIC Ethernet Test Module
 - Dedicated Motorola MPC8245 CPU and 1MB capture buffer for each port
- Traffic generation and analysis:
 - Synchronous generation and analysis of layer 2 to 7 traffic
 - Wire speed generation and receipt of layer 2 and 3 traffic
 - Single/burst/multi-burst/continuous packet generation
 - Generation of packets for protocols such as IP, UDP, IPX, TCP, IGMP, MPLS, VLAN, and OSPF etc.
- X-Trailer for frame data integrity verification
- Generation of ARP and Ping requests, and response to such messages.

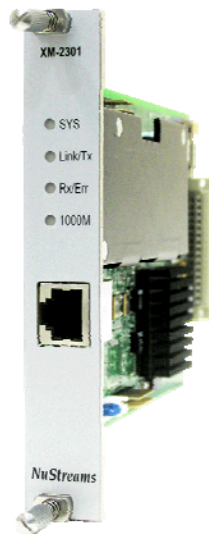
MAJOR BENEFITS

- Optimized Testing – Each test port supports an independent processor, an operating system, memory, and network interface to ensure the performance of high throughput and high transaction test applications.
- High Density – Up to 16 test modules are supported in a single 4U high NuStreams®-2000 chassis. Up to 256 NuStreams® -2000 chassis can be cascaded together to provide an extremely high scalability.
- Extensive Statistics – Each port supports a full set of transmit and receive network statistics, including:
 - Real-Time 64-bit counts and frame rates
 - Spread sheet format for convenient observation of statistic counters
 - External file logging for statistics and alerts

SUPPORTED APPLICATIONS

- NuWIN (virtual front panel for NuStreams®)
- NuApps-2889 (based on RFC2889 and RFC2285)
- NuApps-2544 (based on RFC1242, RFC2544)
- NuStreams® API (Application Programming Interface)
- Customized mass production test programs



XM-2301



XM-2301G



NuStreams® -2000/600 ETHERNET TEST MODULES

Model No.	XM-2301	XM-2301G
Photo		
No. of Test Port	1	1
Interface	RJ-45	Mini-GBIC
CPU and Memory	MPC8245 / 1MB (per port)	
Speed and Mode	10/100 Mbps: Half / Full Duplex; 1000 Mbps: Full Duplex	1000 Mbps: Full Duplex Only
Auto MDI / MDIX	Yes	n/a
NWay	Enable / Disable	
Preamble	4 ~ 16 Bytes	
Frame Length (w/o VLAN Tag)	48 ~ 16,380 Bytes Fixed / Increase / Decrease / Random / Loop	
Data Field	Fixed / increase / decrease / random in byte or in word; User defined; Pre-defined patterns	
Inter-frame Gap	Fixed / Random (10 Mbps: 400 ns ~ 2 sec; 100 Mbps: 40 ns ~ 2 sec; 1000 Mbps: 8 ns ~ 2 sec)	Fixed / Random (1000 Mbps: 8 ns ~ 2 sec)
Error Generation	10/100 Mbps: No CRC, CRC Error, Alignment Error, Collision, IP Check Sum Error, Dribble Error; 1000 Mbps: No CRC, CRC Error, IP Check Sum Error	1000 Mbps: No CRC, CRC Error, IP Check Sum Error
Collision	Single / Multi / Excess	
Data Integrity / Sequence Checking	Yes	
Source / Destination MAC Address	48 bits Fixed / Increase / Decrease / Random	
Source / Destination IP Address	Fixed / Increase / Random	
IP Generation	Hardware	
VLAN (VLAN ID / COS Field)	Fixed / Increase / Decrease / Random	
MPLS (Label / COS / TTL Field)	Fixed / Increase / Decrease / Random (Up to 2 stack labels)	
Flow Control	Asymmetric; Response to 802.3x Flow Control Frames (default as reception)	
Capture Buffer Size	512 packets (2K bytes / packet)	
Capture Mode	After / Before / Event / 8 Packets after Event	
Capture Event	All Condition, CRC Error, DI Error, Serial No. Error, Alignment Error, IP Checksum Error, Trigger 1 ~ 4, Any Defined Packet Size	
QoS Testing	Up to 4 Priority Queues	
Line Performance	Wire Speed	

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www.alloy.com.au

Melbourne

4/585 Blackburn Road
Notting Hill, VIC 3168
Tel: (03) 8562 9000
Fax: (03) 9561 7412

Sydney

99 Baxter Road
Mascot, NSW 2020
Tel: (02) 8080 9600
Fax: (02) 8080 9602

Canberra

2/42 Geils Court
Deakin, ACT 2600
Tel: (02) 6291 4922
Fax: (02) 6291 8100

sales@alloy.com.au

FREEcall 1800 817 807