

Virtual Front Panel for NuStreams®-2000/600 Network Testing System

FEATURES SUMMARY

- Typical NuWIN Tests:
 - Throughput, Packet Loss, Illegal Packets, Broadcast Traffic, Address Table Learning, Flow Table Learning, Congestion Testing
- General Main Menu Controls:
 - Transmit Setup (Frame Data, Stream Control Mode, Protocol), Copy / Paste Port Settings, Capture Setup, Media Type Setup (Forced or Nway for Speed and Duplex), MII Setup
- Frame Data Setups:
 - DA/SA: Mask, Mode (Fixed, Increase, Random)
 - DIP/SIP: Mask, Mode (Fixed, Increase, Random)
 - TxUDF for fine tuning the settings of DA/SA, DIP/SIP, VLAN Tag, MPLS Tag, MPLS Tunnel Tag, and User Defined Tag via Mask and Mode (Fixed, Increase, Random),
 - Collision: Back Off (Continuous / Retry Count), Forced Collision, Late Collision
 - Data Pattern: Pre-defined, or User-defined
- Stream Control Mode Setups:
 - Frame Length: Fixed, Increase, Random, Loop
 - Stream Control Mode: Continuous, Single, Burst, Multi-Burst
 - Error Generation: CRC Error, Alignment Error, Dribble Error, IP Checksum Error
 - Inter-Frame Gap: Bit Time, Packet / Second, Utilization
 - Inter-Frame Gap Control: Fixed, Random

FEATURES SUMMARY

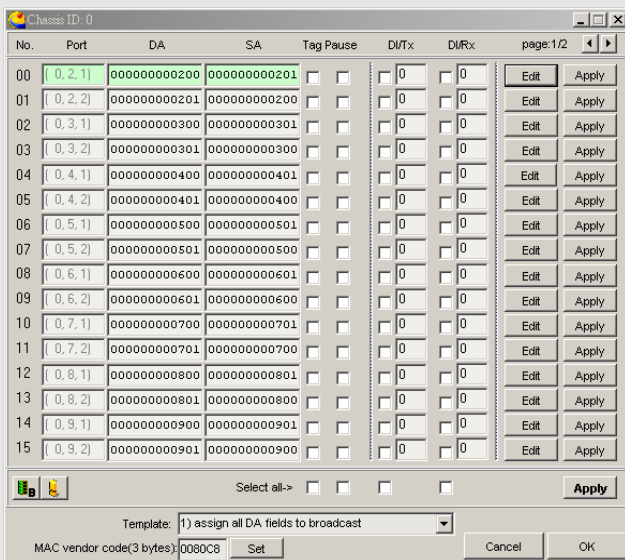
- Protocol:
 - Data Link Layer: Ethernet SNAP, 802.2(IPX), 802.2 (2 bytes), 802.3 Raw
 - Protocol: IPv4, IPv6, IPX, ARP, Pause Control, TCP/IP, OSPF/IP, ICMP/IP, IGMP/IP, UDP/IP
- Copy / Paste of Port Settings:
 - Frame Length Control, Inter-Frame Gap Control, Inter-Burst Control, Stream Mode Control, Padding Setup, Transmit Control, Media Type, DA/SA, DIP/SIP, All
- Capture Setup:
 - 4 Triggers with logical controls
 - Pre-defined patterns: All Packets, IP Checksum Error, Data Integrity Checksum Error, Serial No. Error, CRC Error, Alignment Error, Dribble Error
 - Capture by size*
 - Mode: Matched, Before, After, After 8*

*only for XM-2301/2301G modules

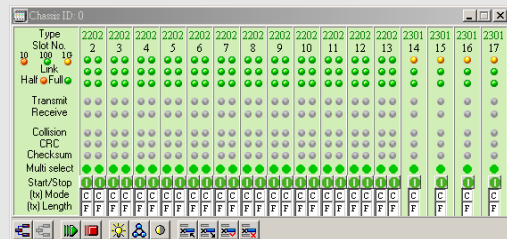
MAJOR BENEFITS

- User-friendly and intuitive interface
- Browse Setup Window for easy configuration of DA/SA, Flow Control, and Data Integrity Verification
- X-Trailer for data integrity verification for all test modules and for both Layer 2 and Layer 3 tests.

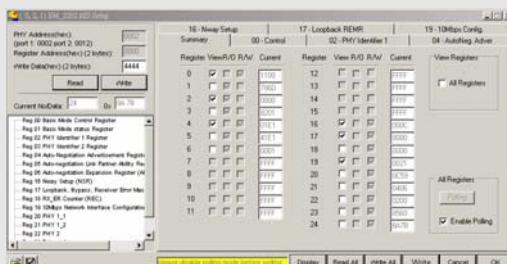
Sample Screen Shots



Browse Setup Window



Chassis Virtual Panel



MII Setup Window

OVERVIEW

SPECIFICATIONS

Application Type	Client and/or server application executable on PCs running Microsoft Windows
Platforms	NuStreams®-2000/600
Operating Systems	Microsoft Windows® 2000, XP
Chassis Management	Displays and provides control for multiple chassis chains with up to 256 chassis in each chain
Statistics	Multiple views for statistics display, including spread sheet like table
Streams	Manual control of stream parameters such as frame size, data patterns, protocols, and rates
Filters	Manual control of traffic filtering parameters, such as addresses, patterns, errors, and frame sizes
Multi-User	Yes
Protocols*	IPv4, IPv6, IPX, ARP, TCP/IP, ICMP/IP, IGMP/IP, OSPF/IP, UDP/IP

*More will be supported in newer version of NuWIN

NuWIN provides a powerful and sophisticated virtual front panel to manage the hardware of the NuStreams®-2000/600. Each test port can be independently configured with parameters to define streams, filters, and capture capabilities. In addition, traffic for various network protocols can be customized, transmitted, and received on each port. Comprehensive statistics allow users to perform an in-depth performance analysis of the Device Under Test.

NuWIN provides a flexible and intuitive interface for controlling the test modules in a single or multiple chassis by using the simple click of a mouse button. Any combination of test modules can be put into the chassis of the NuStreams®-2000/600 and be automatically identified by the **NuWIN**.

Each port can be configured to analyze and count packets to match user-defined criteria such as source and destination MAC addresses, custom patterns, errors, and frame size ranges.

Each port is equipped with capture memory, which can store packets in real time. A comprehensive set of user-defined triggers and filters is available based on source and/or destination MAC and/or IP addresses, data pattern, and error conditions.

NuWIN is designed to allow multiple users to independently access individual ports of every test module installed in every chassis. This feature enables users to execute tests on their assigned ports without disrupting the tests being executed by other users on the system.

	(0, 2, 1)	(0, 2, 2)	(0, 3, 1)	(0, 3, 2)	(0, 4, 1)	(0, 4, 2)	(0, 5, 1)	(0, 5, 2)	(0, 6, 1)
Speed	100	100	100	100	100	100	100	100	100
Transmitted packets	21,349,276	21,213,843	21,254,452	21,198,109	21,167,752	21,194,265	21,178,178	21,171,899	21,163,993
Received packets	21,338,004	21,200,916	21,198,140	21,254,452	21,194,265	21,178,178	21,171,871	21,176,408	21,167,438
Transmitted bytes	1,366,129,896	1,367,830,544	1,367,287,680	1,366,679,148	1,366,200,600	1,366,793,152	1,366,402,584	1,366,289,720	1,364,499,982
Received bytes	1,365,653,664	1,365,198,916	1,365,449,088	1,365,095,700	1,365,791,432	1,366,209,600	1,364,469,632	1,364,414,240	1,364,098,962
Transmitted packets rate	148,810	148,810	148,809	148,809	148,809	148,809	148,809	148,810	148,806
Received packets rate	148,810	148,810	148,809	148,809	148,809	148,809	148,810	148,809	148,806
Transmitted byte rate	9,523,873	9,523,847	9,523,787	9,523,814	9,523,793	9,523,800	9,523,814	9,523,809	9,523,829
Received byte rate	9,523,826	9,523,805	9,523,787	9,523,814	9,523,801	9,523,803	9,523,814	9,523,847	9,523,829
Collisions	0	0	0	0	0	0	0	0	0
Multi collisions	0	0	0	0	0	0	0	0	0
Excess collisions	0	0	0	0	0	0	0	0	0
Late collisions	0	0	0	0	0	0	0	0	0
Total collisions	0	0	0	0	0	0	0	0	0
Unicast	21,338,004	21,200,916	21,198,140	21,254,452	21,194,265	21,178,178	21,171,871	21,176,408	21,167,438
Multicast	0	0	0	0	0	0	0	0	0
Broadcast	0	0	0	0	0	0	0	0	0
Undersize	0	0	0	0	0	0	0	0	0
Oversize	0	0	0	0	0	0	0	0	0
View	0	0	0	0	0	0	0	0	0
Pause	0	0	0	0	0	0	0	0	0
Capable	0	0	0	0	0	0	0	0	0
Double error	0	0	0	0	0	0	0	0	0
Alignment error	0	0	0	0	0	0	0	0	0
CRC error	0	0	0	0	0	0	0	0	0
Checksum error	0	0	0	0	0	0	0	0	0
Sequence error	0	0	0	0	0	0	0	0	0
IP check sum error	0	0	0	0	0	0	0	0	0
Receive IEEE1	0	0	0	0	0	0	0	0	0
Receive IEEE2	0	0	0	0	0	0	0	0	0
Receive IEEE3	0	0	0	0	0	0	0	0	0
Receive IEEE4	0	0	0	0	0	0	0	0	0
TARP Reply	0	0	0	0	0	0	0	0	0
TARP Request	0	0	0	0	0	0	0	0	0
TARP	0	0	0	0	0	0	0	0	0

Counter Window

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