DATA SHEET

Anue Net Tool Optimizer® 5288

High-Density 100GE/40GE/10GE Network Monitoring Switch

High-Availability Features

- Redundant, hot-swappable power supply/fan modules
- -48V DC or 120-240VAC power input
- Front to back air flow
- Redundant management ports
- Craft interface for out-of-band

Performance

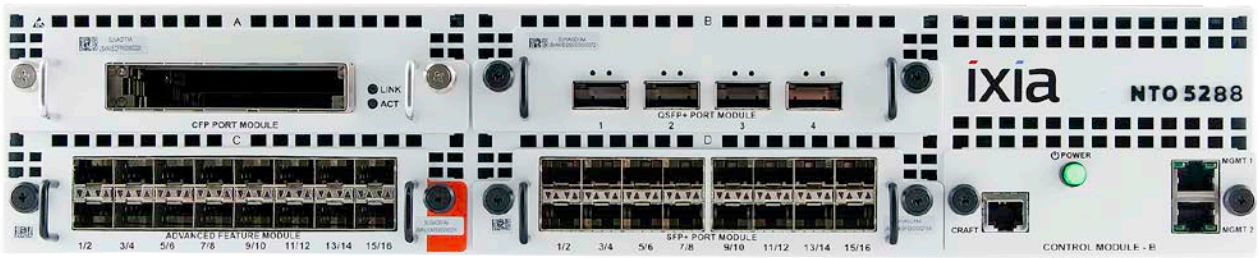
- 1GE, 10GE, 40GE, 100GE support
- Non-blocking architecture; 640Gbps total bandwidth
- Full line-rate across all ports with filtering enabled
- Port reconfiguration with no performance impact

Overview

Advancements in virtualization and server technologies have made 10GE commonplace in large enterprise data centers, and the transition to 100GE or 40GE is not far behind. The Anue Net Tool Optimizer® (NTO) 5288 provides up to 64 10GE ports, 16 40GE ports, or 4 100GE ports in a compact 2U form factor. The Anue NTO 5288 aggregates data from multiple visibility points in a network and ensures the delivery of critical network traffic to the essential monitoring tools.

The Anue NTO 5288 helps large enterprises monitor an increasing number of 1GE, 10GE, 40GE, and 100GE ports with their existing monitoring tools. By enhancing the performance of the network and security monitoring tools, companies can improve network performance, increase operation team productivity and reduce the risk of network outages.

The Anue NTO 5288 is designed for high availability with redundant management ports, power supplies and fan trays. It's an ideal solution for enterprise data centers with increased bandwidth requirements due to higher processor density, virtualization and SANs.



Port Flexibility

- Up to 64 ports available
  - Up to 64 1GE Copper (SFP)
  - Up to 64 1GE (SFP)
  - Up to 64 10GE (SFP+)
  - Up to 16 40GE (QSFP+)
  - Up to 4 100GE (CFP)
- Ingress/egress port programmability
- Software port licensing
- Timestamping (local, NTP, GPS)*
- Burst Protection*
- Port tagging
- Monitoring tool port load balancing (up to 32 ports)

Management

- SNMP v1, v2, v3 support
- Local, RADIUS, and TACACS+ support (members and groups)
- Granular access control features
- Event logging
- Syslog
- IT automation control (RESTful API)
- Dual IP-based management ports (RJ45 10/100/1000)

Filtering

- Centralized filter templates
- Custom dynamic filtering
- Overlapping filter engine
- Filter parameters (Layer 2-4)
  - MAC source/destination addresses
  - VLAN and Ethertypes
  - IP protocol and DSCP/TOS
  - Source/destination IP (IPv4/IPv6)
  - UDP, TCP ports
- Protocol stripping (GTP, MPLS, VLAN, VNTAG)*
- Packet trimming*
- Packet deduplication*

Physical Specifications

Size and Weight

- 2U high rack mountable enclosure
- Dimensions: 17.5W x 19.125L x 3.5H (inches)
- Weight: 35.0 lb (16 kg)

Power AC

- Input AC voltage: 90-240 VAC RMS auto-switching
- Frequency: 50-60Hz
- Nominal power requirement: 2.36A @ 110 VAC, 260W
- Maximum power requirement: 5A @ 110 VAC, 550W
- Heat/power dissipation for system with all 64 ports on the front panel at 100% traffic load: nominally 260W/887 BTU/hour

Power DC

- Operating input voltage: 36 to 75 VDC
- Maximum operating input current: 11.46A @ 48 VDC, 550W
- Nominal current: 5.41A @ 48 VDC, 260W
- Heat/power dissipation for system with all 64 ports on the front panel at 100% traffic load: Nominally 260W/887 BTU/hour

Operating Specifications

Operational Environment

Temperature

- Operating: 5°C to 40°C
- Short-term*: -5°C to 55°C (*not to exceed 96 consecutive hours)
- Short-term* with fan failure: -5°C to 40°C (*not to exceed 96 consecutive hours)

* Requires optional Advanced Features Module

Regulatory/Safety

North American Safety

- UL 60950-1, 2nd Edition
- CSA C22.2 No. 60950-1, 2nd Edition

European Safety

- EN60950-1

International Safety

- CB Scheme : IEC 60950-1:2005 First Edition

EMI/EMC

North American EMC

- FCC part 15, Class A (USA)
- ICES-003 Issue 4, Class A (Canada)

European EMC

- EN55022 2006 Class A (Emissions)
- EN55024 1998 w/A2 (Immunity)
- EN61000-3-2:2006(Harmonics)
- EN61000-3-3 1995 w/A2(Flicker)

IEC/International EMC

- IEC/EN 61000-4-2:2001 Electrostatic Discharge Immunity
- IEC/EN 61000-4-3:2006 Radiated Immunity
- IEC/EN 61000-4-4:2004 Transient/Burst Immunity
- EN61000-3-3 1995 w/A2(Flicker)
- IEC/EN 61000-4-5:2005 Surge Immunity
- IEC/EN 61000-4-6:2007 Conducted Radio Frequency Immunity
- IEC/EN 61000-4-11:2004 Voltage Dips, Interruptions and Variations

RoHS Compliant

Included Accessories

- AC power cord
- USB flash drive with activation license key
- Front rack mount kit

Ordering Information	
Complete Systems	
SYS-5288-STD	Anue 5288 Net Tool Optimizer - base system
SYS-5288-ALL-10G	Anue 5288 Net Tool Optimizer - base system with all ports enabled: 64 1GE/10GE SFP/SFP+ ports • Includes 4 16-port interface module
Interface Modules	
MOD-528X-IFMOD-10G	Single (1) 5293 16-port interface module - supports up to 16 SFP/SFP+ ports.
MOD-528X-IFMOD-40G	Single (1) 5288 4-port interface module - supports up to 4 QSFP+ ports.
MOD-528X-IFMOD-100G	Single (1) 1-port interface module - supports a single CFP port. Includes port license.
Options, Upgrades & Accessories	
MOD-528X-ACMOD	Single (1) AC power module
MOD-528X-DCMOD	Single (1) DC power module
MOD-528X-FANMOD	Single (1) additional fan module (redundant)
ACC-5200-RBRACKET-19	4-Post 19” Bracket Extender 30”-42” for 5273 and 5288 Front brackets are included with system
ACC-5200-RBRACKET-23	4-Post 23” Bracket Extender 30”-42” for 5273 and 5288 Front brackets are included with system
1G Optical Licenses	
LIC-P5200-G1D	1GE SFP Port – quantity One
LIC-P5200-G4D	1GE SFP Ports – quantity Four
LIC-P5200-G8D	1GE SFP Ports – quantity Eight
LIC-P5200-G15D	1GE SFP Ports – quantity Fifteen
10G Optical Licenses	
LIC-P5200-X1D	10GE SFP+ Port – quantity One
LIC-P5200-X4D	10GE SFP+ Ports – quantity Four
LIC-P5200-X8D	10GE SFP+ Ports – quantity Eight
LIC-P5200-X15D	10GE SFP+ Ports – quantity Fifteen

Ordering Information	
40G Optical Licenses	
LIC-P5200-Q1D	40GE QSFP+ Port – quantity One
LIC-P5200-Q4D	40GE QSFP+ Ports – quantity Four
LIC-P5200-Q8D	40GE QSFP+ Ports – quantity Eight
Cold Spare Licenses	
LIC-P5200-X1D-UP	Upgrade 1GE SFP port to 10GE/1GE SFP+ port - quantity One (transceiver not included)
Cold Spare Licenses	
LIC-5288-SPARE	Cold spare system license
TRANSCEIVERS	
MM850	1GE SFP optical transceiver – SX 850nm (550 meters)
SM1310	1GE SFP optical transceiver – LX 1310nm (10km)
CGI	1GE SFP copper transceiver
MM850-PLUS	10GE SFP+ optical transceiver – SR 850nm (300 meters)
SM1310-PLUS	10GE SFP+ optical transceiver – LR 1310nm (10km)
XMM850-E	10GE XFP Ethernet only optical transceiver – SR 850nm (300 meters)
XSM1310	10GE XFP optical transceiver – LR 1310nm (10km)
QMM850-PLUS	40GE QSFP+ optical transceiver – 850nm (150 meters)
LRM1310-PLUS	LRM transceiver
CMM850	100GE CFP optical transceiver – 100GBASE-SR10 850nm (150m)
CSM1310	100GE CFP optical transceiver – 100GBASE-LR4 1310nm (10km)
ADVANCED FEATURE MODULE-16 (AFM16)	
MOD-P5200-X8D-ADV	8 x 10G Optical SFP+ Ethernet Port Advanced Feature Module
MOD-P5200-X16D-ADV	16 x 10G Optical SFP+ Ethernet Port Advanced Feature Module
LIC-P5200-X8D-ADV-UP	Upgrade MOD-P5200-X8D-ADV Advanced Feature Module to MOD-P5200-X16D-ADV.