

# S3280-TST Series

## Remotely Managed NID with Built-in Traffic Generator



Transition Networks' managed S3280 NID provides advanced packet performance metering and service creation directly at customer premises and cell sites. The S3280 is optimized for business Ethernet and mobile backhaul deployments.

The S3280 is a multi-service NID that provides SLA-assurance and advanced fault management that is MEF CE2.0 certified. IEEE 802.1ag Service OAM, ITU Y.1731 Performance Monitoring and IEEE 802.3ah Link OAM are standard features.

The S3280 supports advanced features such as IPv6 and IPv4, VLANs, QoS, bandwidth allocation, ring protection, jumbo frames and numerous security features.

The S3280 can be managed and provisioned with Transition Networks Converge™ EMS or via Web, CLI and SNMP (v1, v2c & v3). The product supports SSL/SSH, RADIUS, TACACS+, Management VLAN and ACL rules.

The S3280 offers three power inputs for redundancy and DC inputs for extended operating temperature in extreme environments.

The SFP ports support 100Mbps, 1000Mbps or SGMII SFPs. CWDM and Bi-Di SFPs are also supported, allowing for flexible network architectures.

### Product Features

- ▶ 4 x 10/100/1000Mbps Base-T ports  
4 x 100/1000Mbps SFP ports  
Any port can be network or client
- ▶ SNMP v1, v2c, and v3
- ▶ IPv6 and IPv4 support
- ▶ VLAN (802.1Q)  
Q-in-Q (C-Tag / S-Tag)
- ▶ RMON and Syslog
- ▶ OAM Support:  
IEEE 802.3ah Link OAM.  
IEEE 802.1ag Service OAM and  
ITU Y.1731 Performance Monitoring
- ▶ Protection:  
ITU G.8032/G.8031  
STP, RSTP, MSTP
- ▶ IEEE 1588v2
- ▶ SyncE (S3280-S-TST model)
- ▶ Two DC power (18-57 VDC) inputs  
and one AC input
- ▶ Jumbo Frame Support (9.6K)
- ▶ Fan-less design
- ▶ Wire speed loopbacks  
Port, VLAN & EVC
- ▶ RFC 2544 Traffic Generator / Reports



### Applications

- ▶ MEF 2.0 Certified Services
- ▶ Mobile Backhaul
- ▶ Business Ethernet
- ▶ Fiber to the Premise (FTTP)
- ▶ SLA Enforcement  
Performance Statistics
- ▶ Migration to Packet Networks
- ▶ QoS for Differentiated  
Services
- ▶ IEEE 1588v2 / SyncE

### Specifications

Standards	IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-TX IEEE 802.3z for 1000Base-X, IEEE 802.3ab for 1000Base-T, IEEE 802.3x for Flow control, IEEE 802.3ad for LACP, (Link Aggregation Control Protocol) IEEE 802.1D for STP (Spanning Tree Protocol), IEEE 802.1p for COS (Class of Service), IEEE 802.1Q for VLAN Tagging, IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol), IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol), IEEE 802.1x for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol), IEEE 802.3ah Link OAM, IEEE 802.1ag SOAM FM, IEEE 1588-2008 (v2) Precision Time Protocol (PTP), ITU G.8261 Synchronous Ethernet ITU Y.1731 PM
Maximum MAC Addresses	8K
Maximum Frame Size	9,600 bytes (9.6K)
Data Rate	Copper ports (RJ-45): 10/100/1000 Mbps SFP ports (empty): 100/1000 Mbps or SGMII
Status LEDs	Power, Port Activity and Port Duplex
Dimensions	<b>Width:</b> 9.775" [248.23 mm] <b>Depth:</b> 6.5" [165 mm] <b>Height:</b> 1.75" [44.45 mm]
Input Power	AC: 12 VDC via barrel connector using 100-240VAC Redundant DC: 18-57VDC via terminal block
Environment	-20°C to +65°C Long term operating temperature -40°C to +75°C Short term operating temperature 5% - 95% humidity non-condensing -40°C to +85°C storage temperature
Safety Compliance	UL listed, CE, EN55022 Class A
Warranty	5 Year Hardware
Support	TNCARE packages available for Technical Support, Hardware Support, Training and Consulting Services

### Ordering Information

#### S3280-TST

- (4) 10/100/1000Mbps RJ45 ports with  
(4) 100/1000Mbps SFP ports.  
Includes IEEE 1588v2  
and RFC2544 traffic generator

#### S3280-S-TST

- (4) 10/100/1000Mbps RJ45 ports with  
(4) 100/1000Mbps SFP ports.  
Includes IEEE 1588v2, SyncE  
and RFC2544 traffic generator

#### Mounting Options

#### S3280-19RM

- 19" Rack Mount Kit for S3280-TST &  
S3280-S-TST

### Software Features

- ▶ E-LINE (EPL and EVPL)  
E-LAN (EP-LAN and EVP-LAN)  
E-ACCESS (ACCESS EPL and EVPL)
- ▶ UNI or NNI configuration
- ▶ TOS/Diffserv
- ▶ Quality of Service (802.1p):  
8 queues; strict priority and WRR,  
shaping, policing, P-bit and DSCP
- ▶ Management via Converge™ EMS,  
CLI, Web, SSH/SSL and SNMP  
(V1, V2, & V3)
- ▶ Port configuration, status, statistics  
and monitoring
- ▶ RADIUS, TACACS+ and ACL
- ▶ Remote backup / restore  
configuration
- ▶ Remote firmware upgrades
- ▶ Alarms via Syslog & SNMP
- ▶ Remote loopbacks
- ▶ L2CP
- ▶ LLDP
- ▶ Diagnostic Monitoring Interface  
- SFF-8472
- ▶ Dying/Last Gasp
- ▶ Port Mirroring
- ▶ Link Aggregation Control Protocol  
(LACP)