

# N12U

## Mainframe Chassis for TestCenter

The N12U Mainframe Chassis for TestCenter is the foundation for VIAVI's next-generation of 10G, 40G, 100G, and 400G test modules. By optimizing the design with the latest hardware and software technology, the N12U lowers the cost of testing the devices and networks powering the always-on data network.

The N12U simultaneously scales to the highest port counts and test traffic rates in the industry, while incorporating innovative time- and money-saving capabilities such as: intelligent power and fan control, and fast booting and system firmware upgrades.

With its efficient architecture, the N12U supports a variety of environments from multi-user functional testing all the way up to multi-chassis switch fabric and core-router stress testing. A single chassis can scale to over 14 terabits of data traffic—more than double that of the competition—supporting enough protocol scale to push any modern router architecture beyond its limits.



### Key Features and Benefits

- Less rack space and power than equivalent competing systems
- Intelligent power and fan control
- Scales to over 14 terabits of cloud traffic per second
- Supports up to 576 x 25G or 10G ports, 288 x 50G ports, 144 x 100G or 40G ports, 48 x 200G, or 24 x 400G Ethernet ports per chassis
- Does not require learning new UIs or APIs
- Measurement reliability and accuracy
- Best-in-class timing precision and synchronization (ten times better than the nearest competition) for large-scale tests and site to-site latency/ jitter measurements
- Automatic calibration for chassis-to-chassis synchronization
- Innovative design
- Built-in LCD screen with controls for real-time chassis status and administration
- Higher inter-slot communication bandwidth for next generation of high performance test modules
- Built-in timing synchronization capability including 1588v2 connector
- Client software download from the chassis via Web browser

## Technical Specifications

Product Feature	Description
Chassis Design & Form Factor	<ul style="list-style-type: none"> <li>• EIA 19" rack compatible, 12RU high, front or mid-rack mounting</li> <li>• Front to back airflow</li> <li>• 12 test module slots</li> <li>• Field replaceable fan trays, system controller, system hard drive, and power supplies</li> </ul>
Administration & Operation	<ul style="list-style-type: none"> <li>• Up to 32 simultaneous users per chassis</li> <li>• Secure SSH terminal emulation via ethernet</li> <li>• IPv4 and IPv6 admin network compatible</li> <li>• Direct via external video connector and USB ports</li> <li>• LCD Display with navigated buttons</li> </ul>
Timing Synchronization	<p><b>Native support for:</b></p> <ul style="list-style-type: none"> <li>• PTP (IEEE 1588v2 Precision Timing Protocol)</li> <li>• NTP (Network Timing Protocol)</li> </ul> <p><b>Via connected External Timing Receiver (ETR):</b></p> <ul style="list-style-type: none"> <li>• GPS (Global Positioning System)</li> <li>• CDMA (Code Division Multiple Access) TIA/EIA-95B</li> </ul>
<p><b>Direct Chassis Chaining and Automatic Sync Cable Calibration</b></p>	
Indicators and Controls	<ul style="list-style-type: none"> <li>• System power on/off</li> <li>• Controller reset</li> </ul> <p><b>Front panel LEDs:</b></p> <ul style="list-style-type: none"> <li>• Temperature, fan, admin link, system and system power status</li> <li>• Test module slot power status</li> </ul> <p><b>Rear panel LEDs:</b></p> <ul style="list-style-type: none"> <li>• Admin ethernet link, speed and activity</li> <li>• Chassis synchronization Main/Subordinate and status</li> </ul>
Physical	<ul style="list-style-type: none"> <li>• Dimensions: 17.5" W x 21" H x 33.3" D (44.45 cm x 53.3 cm x 84.6 cm); 30" (76.2 cm) depth measured from front mounting flange</li> <li>• Installation and shipping weight: 127 lbs. (57.6 kg) (3 system and 2 slot PSUs and fans installed, and 11 blank panels installed)</li> <li>• Approximate weight fully loaded: 243 lbs. (110 kg)</li> </ul>
Power	<ul style="list-style-type: none"> <li>• Inlet AC for N12U-110: 7 x 115V @ 12 A, or 7 x 230V @ 6A; one circuit dedicated for system operation and one circuit per two test module slots</li> <li>• Inlet AC for N12U-220: 4 x 230V @ 12A; one circuit dedicated for system operation and one circuit per 4 test module slots</li> <li>• Peak power requirement: 8.8kW for fully loaded chassis</li> <li>• Protective Conductor Current &lt; 7mA</li> </ul>

Technical Specifications continued

Product Feature	Description
Environmental	<ul style="list-style-type: none"> <li>• Operating requirements: 59° to 95° F (15° to 35° C); 20% to 80% relative humidity. Some modules require 30° C ambient temperature. Please contact VIAVI for latest list.</li> <li>• Heat dissipation: 20,000 BTUs/h (assumes 80% heat load for air conditioning)</li> <li>• Warning: The N12U is designed for operation in an unattended room (e.g., datacom or telecom equipment room). The system can generate noise levels up to 90.7 dB (A weighted sound power level, LWA as measured per ISO 3741 Sound Power Noise Measurement), and appropriate ear protection should be worn when working in proximity to the chassis. Please contact your employer or local health and safety agencies for specific guidelines for your working environment.</li> </ul>
Connectors	<p><b>Front panel:</b></p> <ul style="list-style-type: none"> <li>• 4 x USB 2.0 (keyboard or mouse)</li> </ul> <p><b>Rear panel:</b></p> <ul style="list-style-type: none"> <li>• DVI-I / VGA D15 video (console)</li> <li>• 2 x USB 2.0 (keyboard or mouse)</li> <li>• 1 PPS and 10 MHz BNCs and DB9 serial DCE (for ETR support)</li> <li>• 10/100/1000M BASE-T RJ-45 Ethernet (admin)</li> <li>• Synch in/out RJ-45 (chassis synch chain)</li> <li>• 10/100/1000M BASE-T RJ-45 (IEEE 1588/NTP)</li> <li>• System hard drive access panel</li> </ul>

## Ordering Information

Part Number	Description
SPT-N12U-110	N12U chassis and controller with 110V AC power supplies
SPT-N12U-220	N12U chassis and controller with 220V AC power supplies
SPT-N12U-220-LC	N12U-LC chassis and controller with 220V AC power supplies
TRD-SPT-N12U-220	Trade in a SPT-11U or SPT-9000A or SPT-N11U chassis for SPT-N12U-220 chassis
TRD-SPT-N12U-110	Trade in a SPT-11U or SPT-9000A or SPT-N11U chassis for SPT-N12U-110 chassis
<b>Accessories</b>	
ACC-2020A	C20 to C19 PWR CORD, CHS-N11U or CHS-11U or CHS-12U to PDU, 20A 250V
ACC-2021A	4-post rackmount tray kit for CHS-N11U/12U



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