# XINERTEL

## BIGTAO SERIES L2-3 NETWORK TEST PLATFORM

The BigTao series network tester is a R&D test platform for middle and low-end routers, switches and other network forwarding equipment. Its modular design is comprised of chassis, test modules and a powerful and easy to use software UI and fully integrated API. This platform is available in either 2 or 6 slot configurations and can support any combination of test modules from 10M to 400GbE. This platform boasts a small lab footprint and is very efficient in power consumption.

Bring the test lab to the field! With an added handle, the two slot BigTao220 is also ideal for use in the field to troubleshoot and demonstrate for field requirement. Our noise reduction technology makes this solution a great fit for work bench or office-based use. The BigTao is supported by our Renix software is incredibly easing to use and provides Layer 2-3 traffic emulation, control plane protocol simulation and comprehensive test suites Designed to meet the complex requirements of hardware and software development for chip/component, telecommunications equipment test in a simplified way, this platform offers a unique mix of portability, usability, and affordability.



#### Features

- Choice of either a 6-slot or 2 slot chassis, with full interchangeability of modules between chassis.
- Speeds Supported: 400G, 100G, 40G, 25G, 10G, 5G, 2.5, 1G,100MB,10MB
- Multi-user system allowing for independent test configuration and port reservation
- Emulation of complex network topologies, protocols, and industry benchmark test scenarios
- GUI to script automation with support of TCL & Python
- Quiet operation on 2U (just 65dBa)

#### **Benefits**

- Cost reduction with single platform capable of testing Layer 2-3
- Low power consumption, providing a more environmentally friendly test platform
- Lightweight and portable suitable for onsite/off-site testing
- Configure complex tests with just a few clicks

#### Applications

- Validate both unit and system performance in R&D and preproduction verification
- Great for both fault isolation and end to end system performance
- Flexible platform allows for both on-site and off-site testing of infrastructure, network equipment, emulating complex test scenarios with ease

BigTao 6200

Test Module	V2-400G-2QDD-Q	X2-100G-4QSFP28-HQ
Speed	2*400/200/100GbE	4*100/40/25/10GbE
Port density	2	4
MSA Interface	QSFP-DD	QSFP28
Operational modes	PAM4 - 400/200/100GbE	100GbE: 100GBASE-SR4, 100GBASE-LR4; 40GbE: 40GBASE-SR4, 40GBASE-LR4; 25GbE: 802.3by 25GBASE-SR; 10GbE: 10GBASE-SR; 100GbE FEC: 100GBase-SR4 RS-FEC91; 25GbE FEC: 25GBase-SR RS- FEC108, 25GBase-SR FEC CL74, 25GBase-SR RS-FEC CL91
Port CPU	multi-core CPU	multi-core CPU
User reservation	Per port	Per port
Test Port speed configuration	Per QSFP-DD Port	2 test port speed groups per rack mount unit
Max power draw	133 watts	48 watts
Product Dimensions	196mm x 70mm x 271mm (7.7inches×2.8inches×10.7inches)	196mm x 70mm x 271mm (7.7inches×2.8inches×10.7inches)

### **Technical Specifications**

BigTao 6200/220 400G Appliance		
Slots	BigTao 6200: 6 BigTao 220: 2	
Size	BigTao 6200: 446 mm × 413 mm× 132 mm (17.6inches×16.3inches×5.2inches) BigTao 220: 400mm×340mm×95mm (15.7inches×13.4inches×3.7inches)	
Weight	BigTao 6200: Empty chassis: 12.5kg (27.6 lbs) / Full chassis: 20kg (44.1 lbs) BigTao 220: Empty chassis : 6.6kg (14.6 lbs) / Full chassis: 9.2kg (20.3 lbs)	
Max Power Draw	BigTao 6200: 600W BigTao 220: 200W	
Generator and Analyzer		
Number of Streams	<ul> <li>Stats/Streams 400G: 256; 200G:256; 100G:64</li> <li>Stats/Stream: Tx Count (frames),Rx Count(frames), Tx Rate (fps), Rx Rate (fps), Tx Rate (bps), Rx Rate (bps), Rx Rate (bps), Rx Sig Count (Frames), Avg Latency (us), Min Latency (us), Max Latency (us)</li> </ul>	
Frame Transmit Modes	Port-based: Continuous, Burst and Time (V2-400G-2QDD-Q only support Por-based) Stream-based: Continuous, Burst	
Min/max Frame Size (w/CRC)	64-16000 bytes	
Real-time Tx Stream Adjustments Per-stream Statistics Analyzed in Real Time	<ul> <li>Change rate and frame length settings without stopping the generator or analyzer for truly interactive, cause and effect analysis</li> <li>Tx and Rx frame counts and rates</li> <li>Out of sequence errors, frame statistics, real-time packet loss statistics, out-of-order statistic</li> <li>FCS errors and rate</li> <li>Rx Filter Frames and custom statistics</li> <li>Real Time Dropped Frame count</li> </ul>	
Flow Control	Full duplex flow control	
Per-port Statistics Analyzed in Real Time Transmit Timestamp Resolution	<ul> <li>Tx and Rx frame counts and rates</li> <li>Tx and Rx Layer 1 byte counts and rates</li> <li>Out of sequence errors, frame statistics, real-time packet loss statistics, out-of-order statistic</li> <li>PRBS errors</li> <li>FCS errors and rate</li> </ul>	
Supported Encapsulations	Layer 2: Ethernet II, 802.1Q, 802.1ad, FCoE     Layer 3/4: IPv4, IPv6, TCP, UDP	
Capture Bufer Size	32 KB per port	
Capture Buffer Controls	Capture the Rx frame of data and control plane Capture Tx and Rx frame of control plane Capture frame based on filter template Capture frame based on error message Support loopback capture Support downloading a specified number of captured message	
Latency Modes	Benchmark tests support LIFO, LILO, FIFO or FILO latency calculation methods (V2-400G-2QDD-Q Benchmark tests support: LILO)	
VFD Entries per Stream	4 VFD insertions per stream	
Layer 2-3 Additional Specs		
Routing and MPLS	RIPv2/RIPng, OSPFv2/v3, BGP4/4+, IS-ISv4/v6, SR for BGP, BGP SR TE Policy, LDP, BGP VPLS	
Access	PPPoE Client/Server, DHCPv4 Client/Server, DHCPv6 Client/Server, DHCPv4 Option 60, L2TPV2	
Multicast	IGMPv1/v2/v3, IGMP/MLD querier, MLD, PIM, PPPoE over Multicast	
Data Center	VXLAN IPv4/IPv6, VXLAN EVPN IPv4/IPv6, OpenFlow 1.3 Controller	
Test Suite	RFC2544, Smart Script	
Others	BFDv4/v6, 802.1ag, 802.3ah, Y.1731	
Software		
Renix Test Platform: L2-3 traffic test and protocol emulation	Renix is Windows-based software that offers L2-3 efficient and convenient configuration wizards, statistical result views. test result analysis and supports TCL/Python automation test API	

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