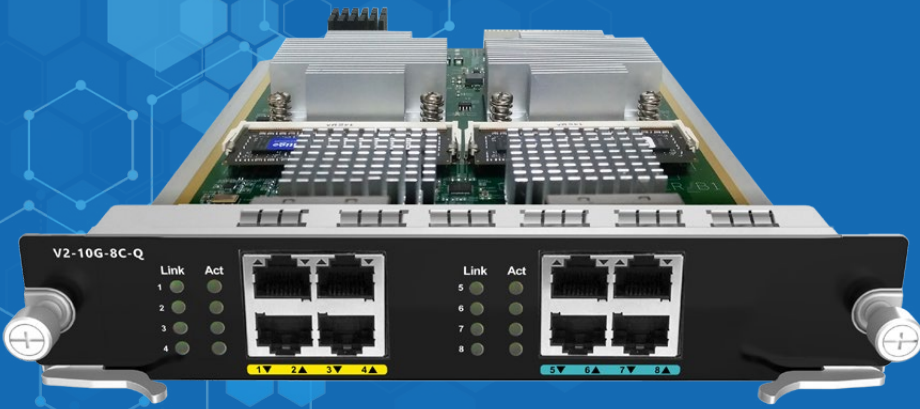# V2-10G series boards

The V2-10G series test module cooperates with Xinertel's new-generation test software Renix based on the PCT architecture to provide a complete test solution for Layer2-3. Each port of the V2-10G series test module supports wire-speed traffic generation and analysis, high-performance routing/multicast/user access emulation, and so on.

Key Features

- Support 10G/5G/2.5G/1G/100M five speeds
- Support 2-3 layer stream test and protocol simulation
- FPGA-based 100% line rate traffic generation, statistics and capture
- Supports RFC2544, RFC2889 and RFC3918 benchmark test suites
- Support Chinese and English test operation software
- Support Chinese and English test report system

Model List

V2-10G-8C-Q test module
8-port RJ45 100M/1G/2.5G/5G/10G five-speed function test module

Specification list

Hardware and electrical characteristics	
Port rate	Electrical port: 10G/5G/2.5G/1G/100M (full duplex)
Port density	Up to 8 interfaces per slot
Interface standard	100BASE-T、1000BASE-T、2.5GBASE-T、5GBASE-T、10GBASE-T、802.3 bz、NBASE-T、MGBASE-T
Port occupation	Occupied by single port
Rate switching	self-adaption
Module weight (kg)	1.1
Module size (width* height * depth)	196mm x 35.5mm x 271mm
Range of working temperature	0° C to 35° C
Working relative humidity	20% to 85%
Maximum power consumption	41 watts

Traffic Sending	
Stream per port	256
Frame length (bytes)	60-16383
Frame length type	Support fixed, increasing, decreasing, random, automatic, IMIX and other frame length types
Jump	Each stream supports 4 jump fields Support fixed, increasing, decreasing, list and random jump modes
Send mode	Port-based continuous transmission, burst and time burst Stream-based continuous transmission and burst
Speed mode	base on port , base on stream
Latency and jitter settings	Supports four latency test modes: LIFO (store and forward), FIFO (through-exchange), LILO, and FILO
Frame timestamp resolution	8ns
Built-in message template	A variety of newspaper templates are built in, such as VLAN, ICMP, PPPoE, GRE, DHCP, L2TP, IPv6, MPLS, GTP, GOOSE, VXLAN,OSPF、TCP、UDP...
Custom message	Support custom messages, and edited message templates can be saved; support checksum check of custom segments
User-defined data	Supports 16K bytes of user-defined message import, where the first 256 bytes support configuration jumps
Error frame	CRC error, undersize frame, oversize frame;
Flow Control	Full duplex flow control
Traffic Statistics	
Stream per port	1024
Statistical mode	Table statistics, chart statistics, automatically save EXCEL files
Statistics item (port)	Number of sent / received frames, sent / received frame rate, received bandwidth, errored frame statistics, filtering statistics and custom statistics, FCS error statistics, TCP / UDP Checksum errors, Pause frame statistics, average delay statistics
Statistics item (stream)	Send / receive frame number, send / receive stream rate, receive bandwidth, error frame statistics, real-time packet loss statistics, out-of-order statistics, delay jitter, and custom statistics
Statistical operation	Supports sorting statistical results, performing mathematical operations such as addition, subtraction, multiplication and division, and custom paging statistics
Traffic Capture	
Capture space/port (bytes)	1024M
Capture type	Capture data and control plane receive frames Capture the transmit and receive frames of the control plane Frame capture based on filtering template Frame capture based on error message Support cyclic capture Support to specify the number of captured capture packets
Protocol Simulation	
Routing	RIPv1v2、RIPng、 OSPFv2、OSPFv3、 ISISv4、ISISv6、BGP、 BGP4+ 、LDP、MPLS L3VPN、VPLS、VLL、6VPE、6PE
Access	PPPoE Client/Server、DHCPv4 Client/Server、DHCPv6 Client/Server、DHCPv6 PD Client/Server、L2TPv2、802.1x
Multicast	IGMPv1/v2/v3、 MLDv1/v2、IGMP/MLD Querier、PIM-SM
Data Center	VXLAN、OpenFlow、OVSDB、EVPN、LACP
Other	Automatic configuration of BFD, 802.1ag, 802.3ah and IPv6
Test suite	RFC2544, RFC2889, RFC3918, Asymmetric Testing, Intelligent Script
Software Platform	
Client software	Renix test platform: 2~3 layer stream test and protocol simulation
API secondary development	TCL、Python3.x、GUIToTCL、GUIToPython
Interface language	English、Simplified Chinese
Hardware platform	
Adapter chassis	BigTao220、BigTao6200
Chassis operating system	Linux CentOS7.X