# V6000 Test Module


The V6000 is a new generation test module launched by Xinertel , which can meet the needs from basic function test, consistency test to high-density port performance test. At the same time, it can verify network solutions when deployed in enterprises, operators and data centers whether its network system can achieve the expected goal.

## Key features

- 10/100/1000M RJ45 auto-negotiation (cooper port)
- 100/1000M SFP (fiber port)
- Support L2-3 traffic generation and protocol emulation
- Support FPGA based 100% line rate traffic generation, statistics, and packet capture
- Support the benchmark test suites such as RFC2544, RFC2889, and RFC3918
- Language for test software GUI: English and Chinese
- Language for test report: English and Chinese

## Models

**V6004C Test Module**
4-port RJ45 1G test module

**V6008C Test Module**
8-port RJ45 1G test module

**V6016M Test Module**
8-port RJ45 and 8-port SFP 1G test module

**V6016F Test Module**
16-port SFP 1G test module

**V6004F Test Module**
4-port SFP 1G test module

**V6008M Test Module**
4-port RJ45 and 4-port SFP 1G test module

**V6016C Test Module**
16-port RJ45 1G test module

## Specifications

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|---|---|
| **Hardware and electrical characteristics** | |
| Port speed | Cooper port: 10M/100M/1000M; Fiber port: 100M/1000M |
| Port density | Up to 16 ports for single test module |
| Interface standards | 1000BASE-SX、1000BASE-LX、10/100/1000BASE-T |
| User reservation | reservation by port |
| Port speed switching | Auto negotiation |
| Weight (kg) | 1.1 |
| Dimensions (W*H*D) | 196mm x 35.5mm x 271mm |
| Temperature | 0° C to 35° C |
| Humidity | 20% to 85% |
| Max power consumption (W) | 31W |
| **Traffic generation** | |
| Max streams per port | 64/128(V6004C) |
| Frame length (byte) | Cooper port: 58-16383; 1000M fiber port: 58-16383; 100M fiber port: 58-9215 |
| Frame length controls | Fixed, Increment, Decrement, Random, Auto, and IMIX |
| Dynamic fields | 4 dynamic fields are available for each stream ; Support multiple dynamic controls such as Fixed, increment, Decrement, List, and Random. |
| Transmit mode | Continuous, Burst, and Time Burst modes based on port; Continuous and Burst modes based on flow |
| Bandwidth modification | Modify by port or flow |
| Latency and jitter | LIFO, FIFO , LILO, and FILO |
| Timestamp resolution | 8 nanoseconds |
| Built-in protocol templates | VLAN, ICMP, PPPoE, GRE, DHCP, L2TP, IPv6, MPLS, GTP, GOOSE, VXLAN, OSPF, TCP and UDP, etc. |
| Customized frame | Support customizing the frame, and the edited frame template can be saved; Customized field can be checked with checksum. |
| Customized payload | Support importing the 32K bytes customized payload and the first 256 bytes can be adjusted with jumping |
| Packet error generation | CRC error, Undersize frame,Oversize frame |
| Flow control | Full duplex flow control, half duplex back pressure |
| **Satistics** | |
| Statistical streams per port | 256/512(V6004C) |
| Statistical pattern | Csv statistics, chart statistics, automatic saving of csv files |
| Statistics(Port) | Tx/Rx Frames, Tx/Rx Frame Rate, Rx Bandwidth, Error Frame Statistics, Filter Statistics, and Customized Statistics, FCS Error Statistics, TCP/UDP Checksum Errors, Pause Frame Statistics, etc. |
| Statistics(Flow) | Tx/Rx Frames, Tx/Rx Flow rate, Rx Bandwidth, Error frame statistics, Real-time packet loss statistics, out of order statistics, delay, jitter and customized statistics, etc. |
| Statistics operation | Support sorting of statistical results, performing mathematical operations such as addition, subtraction, multiplication, and division, and customizing the number of statistical entries for each page, etc.. |
| **Capture** | |
| Capture buffer (Byte) | 512M/1024M per port (V6004C) |
| Capture pattern | Capture of data and receive frames of the control plane,； Capture of transmitted and received frames of the control plane; Capture based on filter templates; Capture filtered error packets; Capture buffer overwriting; Support specifying the number of downloaded capture packets. |
| **Protocol emulation** | |
| Routing and MPLS | RIPv1v2, RIPng, OSPFv2, OSPFv3, ISISv4, ISISv6, BGP, BGP4+, SR for BGP/OSPF/ISIS, SRv6 for ISISv6/BGP BGP SR TE Policy, LDP, MPLS IP VPN, 6VPE/6PE, BGPVPLS, LDPVPLS, PWE, LSP Ping |
| 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-SMv4/v6、PPPoE over Multicast |
| Data center | VXLAN IPv4/IPv6, VXLAN EVPN IPv4/IPv6, OVSDB, OpenFlow 1.3 Controller, BGP/EVPN for VxLAN, LACP |
| other | BFD, 802.1ag, 802.3ah, IPv6 automatic configuration, Y.1731 |
| Test suites | RFC2544, RFC2889, RFC3918, Asymmetric Test, Smart Scripter |
| **Software platform** | |
| Client software | RENIX |
| API | Tcl, Python3.x, GUIToTcl, GUIToPython |
| GUI language | English, Simplified Chinese |
| **Hardware platform** | |
| Chassis | BigTao220、BigTao6200 |
| Chassis operating system | Linux CentOS7.X |