

HoloWAN High Precision WAN Emulators

Exceptional Performance, Easy to Use, cost-effective.

Emulates: Bandwidth, Latency, Packet loss,
jitter, Other impairments.

Recruit global agency



HoloWAN®

WAN Emulator

Product Data Sheets

Shenzhen Maisiyuan Information Technology Co., Ltd / Jiangmen Yunzheng Technology Co., Ltd

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Comparison of HoloWAN Ultimate models :

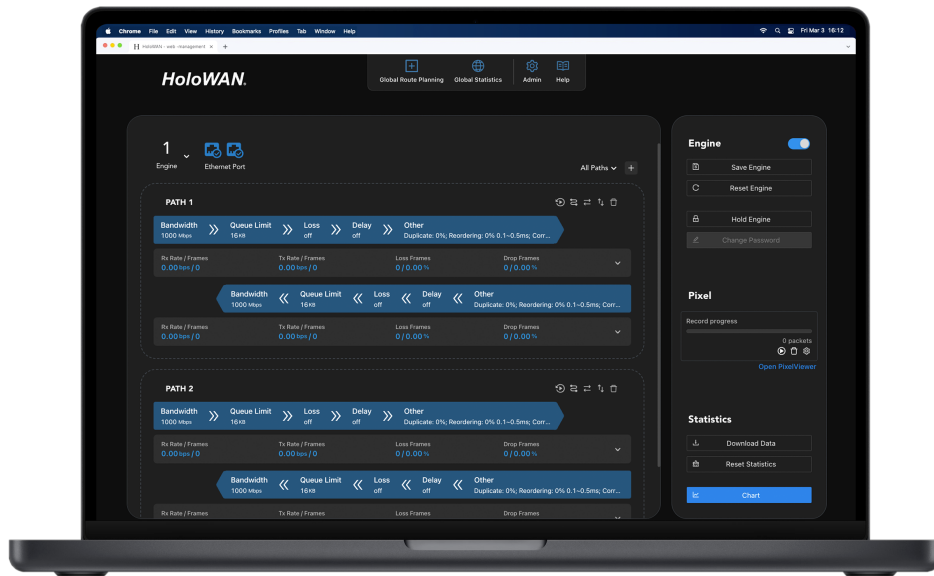
Models	1200U	2600U	10GEU	24GEU	25GEU
Capacity					
Engine Number	1	3	1	12	2
Maximum Bandwidth	1,000Mbps	1,000Mbps	10Gbps	1,000Mbps	25Gbps
Path Number Of Per Engine	15	15	15	15	15
Maximum Packet Rate	0.3Mpps	3Mpps	3Mpps	3Mpps	3Mpps
Emulation Capabilities					
Bandwidth	Fixed、 Jitter、 Token Bucket				
Queue Limit	Simple、 Drop Tail、 RED				
Corruption	Bit Error、 Bit Range Error、 Packet Error				
Delay	Constant、 Uniform、 Normal、 Custom、 Jitter、 Gamma、 Accumulate&Burst				
Loss	Random、 Cycle、 Burst、 Gilbert-Elliott、 Jitter、 4-State-Markov				
Modify	Normal、 Cycle、 Random				
Recordering	Normal、 Jitter、 Cycle				
Duplication	Normal、 Jitter				
Other Damage	Frame Overhead、 Background Utilization、 MTU Limit				
Packet Classification	IPv4 address、 IPv6 address、 MAC address、 VLAN、 TCP/UDP/SCTP port number、 MPLS Label、 PPPoE、 RAW 1-Byte offsets、 RAW 4-Byte offsets、 Tunnel(GRE)、 Combination				
Additional Parameters	<ul style="list-style-type: none"> ● Packet capture and analysis, comparing the message before and after the damage, Gantt chart display of the damage process ; ● Recording and playback of network bandwidth, latency, and packet loss, with a playback parameter change frequency of 0.1s, visualization of the network scenario playback process, and updates to the network scenario database ; ● Basic Network Data Template ; ● GRE Tunnel ; 				
Other Key Information					
Size	1U	2U	2U	2U	2U
Ethernet Ports	2* RJ45 1Gbps	6* RJ45 1Gbps	2* SFP+ 10Gbps	24* RJ45 1Gbps	4* SFP+ 25Gbps
GUI	web				
Hardware Warranty	3 year				
API	restful API , python API				
Technical Support	API technical support、 Remote technical support				

HoloWAN Ultimate Features :

- **No installation required, easy to use** : HoloWAN Ultimate is a standalone device that can be powered on simply by plugging it in. Control of the device is done through a web-based GUI on a browser, eliminating the need for any additional installation or software programs.
- **Single Engine with 15 links** : HoloWAN Ultimate provides 15 links through a pair of physical engines. The links share bandwidth between them, and any impairment on one link will not affect the others. Each link can be considered as an independent network impairment device!
- **Powerful Packet Classifier** : HoloWAN Ultimate supports packet classification based on IPv4 addresses, IPv6 addresses, MAC addresses, TCP/UDP/SCTP protocol port numbers, MPLS, PPPoE, packet offset, and combination classification rules. It can accurately classify and forward packets to specific links, enabling precise impairment for each packet.
- **High performance links** : HoloWAN Ultimate comes in different models with different business interface options. The bandwidth limitations can reach up to 1000Mbps with a precision of 1bps. The highest-level model can simulate network links ranging from 0-25Gbps.
- **Delay and jitter** : HoloWAN Ultimate allows you to add delay or uniformly distributed jitter to each packet. The maximum delay that can be added is 10 seconds, with a precision of 0.01ms. It supports 6 types of delay jitter modes, meeting all your testing needs.
- **Packet loss and bit error** : HoloWAN Ultimate supports truly random packet loss and bit error. The precision of packet loss can reach 0.0001%, and the bit error is accurate to the bit level. The packets affected by bit error can also choose whether to recalculate CRC.

- **Comprehensive impairment functionality** : HoloWAN Ultimate also supports packet modify, reordering, duplication, queue limit, frame overhead, background utilization, and MTU damage. The comprehensive impairment functionality can better simulate a real wide area network link.
- **Packet capture and analysis capability** : HoloWAN Ultimate can capture test packets and display the delay, packet loss, bit errors, and other impairments suffered by each packet in the form of a Gantt chart. It also allows for online comparison of packets before and after impairment or exporting of packets as a PCAP file.
- **Network recording and playback** : HoloWAN provides a free network recording tool that allows you to record changes in network bandwidth, latency, and packet loss over a period of time. The recorded data can be imported into HoloWAN for playback, accurately reproducing real network scenarios within HoloWAN.
- **OpenAPI** : HoloWAN Ultimate provides full access to every atomic function through Python API or Restful API, allowing for control and automation of testing through scripting, thus enhancing productivity.
- **Statistics list and charts** : HoloWAN Ultimate's statistics list provides real-time display of packet damage, allowing users to see the status of packet damage in real-time. It also allows users to save and download all the damage data since the device was started. The statistical charts show the variation of packet rate in the form of line graphs, helping users to better understand the damage situation and making testing simpler.

Interface & Products :



HoloWAN 1200U

one 1 Gbps emulation engines



HoloWAN 2600U

three 1 Gbps emulation engines



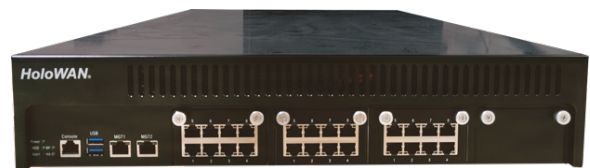
HoloWAN 10GEU

one 10 Gbps emulation engines



HoloWAN 24GEU

twelve 1 Gbps emulation engines



HoloWAN 25GEU

two 25 Gbps emulation engines



HoloWAN Ultimate can be used in :

- **simulate wireless networks,such as 2G、 3G、 4G、 5G**

Wireless networks such as 2G, 3G, 4G and networks have a lot of instability factors, and there are relatively large delays and delay jitters, packet loss, congestion and other phenomena. HoloWAN can simulate this complex network environment to verify the stability and adaptability of your wireless applications.

- **Simulating satellite networks**

The bandwidth of satellite networks is relatively small, and the delay is very high, often exceeding 500 milliseconds. The bit error rate is as high as 1×10^{-6} . Satellite networks can damage protocols and applications. HoloWAN is specially designed to adapt to the high delay and high bit error rate of satellite network. It has been successfully applied to Beijing Shenzhou Aerospace Software Technology Co., Ltd. in this field.

- **Evaluating the required network bandwidth**

Simulate bandwidth, delay and other loss characteristics. Determine how much bandwidth you need to keep your application running steadily.

- **Network Authentication**

When you are conducting network deployment and equipment selection between different offices of the company, you need to evaluate the delay, jitter, packet loss caused by various equipment or network solutions, and how much bandwidth can provide the corresponding quality of service.

- **Product testing**

HoloWAN can be used to verify the true performance of network accelerator, application delivery equipment, compression equipment, WAN optimization equipment, flow control equipment, network behavior monitoring equipment, network security equipment, etc. in the WAN environment.

- **Application testing**

At the development stage of your C/S and B/S systems, use HoloWAN to simulate the actual network environment to adjust the algorithms and policies of the server and client systems.

For example, financial system, stock trading system, online banking, medical management system, etc.

- **Website Testing**

Use HoloWAN to simulate the actual network environment to verify whether your website platform will not stop because of the slow network connection.

- **Audio and video applications**

Test VoIP, Video over IP, and online games in a real network environment, such as Skype, QQ, Sohu HD, Sina HD, Shanda Games, Nine Cities, and Video Cloud.

- **Product demonstration**

When you need to show your customers the application of your product in the actual network, take the HoloWAN and your device.

Connect us :

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