

IAT-1710E Integrated Access Tester



□ Features

- Suitable for telecom operators clients verify bandwidth and fast troubleshooting
- Applicable to MSTP/MSAP network opening and maintenance testing with all service interfaces
- One tester with multiple functions, provide integrated testing of E1, V interface and Ethernet
- A number of ways to verify channel bandwidth, support for symmetric and asymmetric RFC2544 test

- Original high-speed PING test function, can be arbitrary set PING rate, the maximum rate support up to 1000 Mbps, able to quickly locate the fault for maintenance personnel
- Optimization of the defensive design to ensure the safety and solid of the instrument
- The operating interface similar to smartphone, more simple to use
- New hardware platform and optimized algorithm of the software make the device run more smoothly

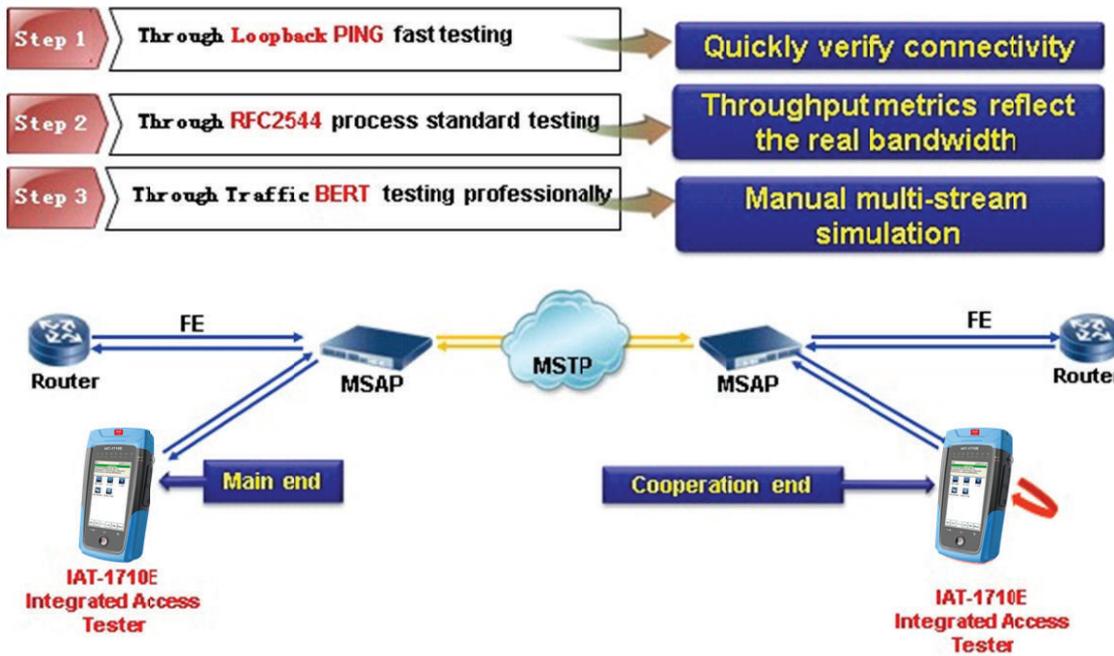
□ Overview

In the operator's client base, the government, the enterprise group, bank, insurance company are very important persons. These clients generally provide bandwidth adopting E1 leased line, MSTP special line and IP line, provide communication between the branches, Internet access and other services. For the maintenance of these customers, maintenance engineer mainly faces two problems, one is the customer may question the channel bandwidth especially when Ethernet circuit access via MSTP network; Second, in order to meet customer's requirement, provide higher service quality and faster response speed, when there is circuit failure, maintenance personal should quickly locate fault point and solve the problem, so the engineer in charge of higher work ability.

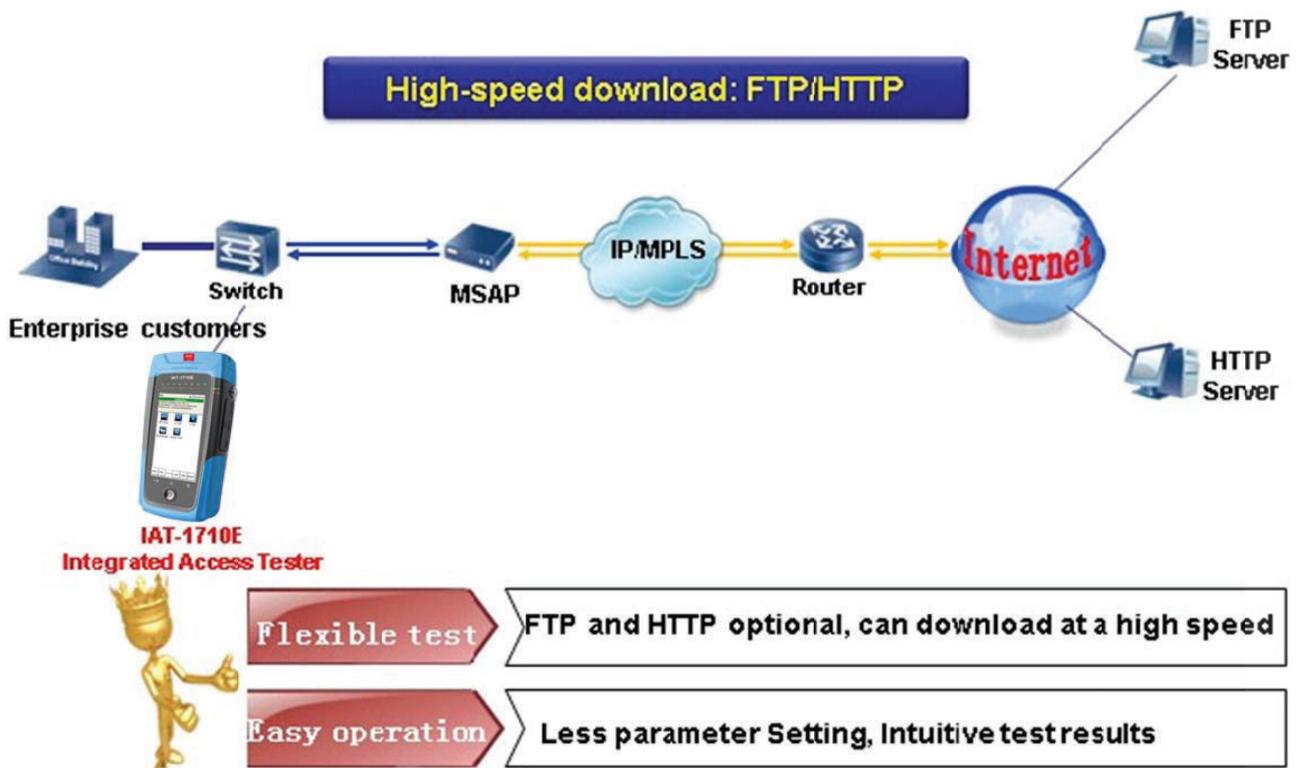
After many times go deep into the frontline practice and communication with operators maintenance engineer, DADI Telecom developed a new generation Integrated Access Tester, model of IAT-1710E which is combined with the function of DADI original instrument. IAT-1710E can verify the bandwidth through a variety of test methods to help maintenance engineers to settle the bandwidth question in MSTP and IP line access, and through a simple function of high-speed PING help maintenance engineers quickly locate the fault point.

□ Typical Application

- Verify the bandwidth of MSTP special line



- Verify the bandwidth of IP line

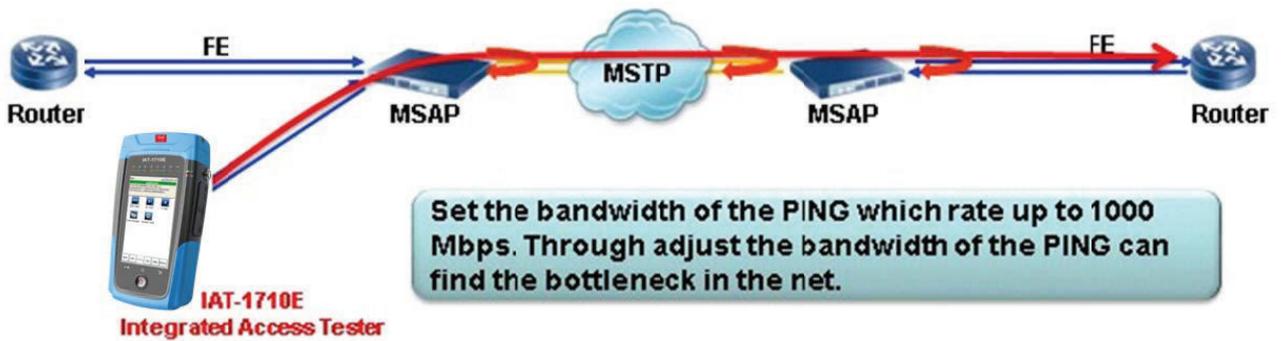


■ Fault fast positioning of MSTP special line

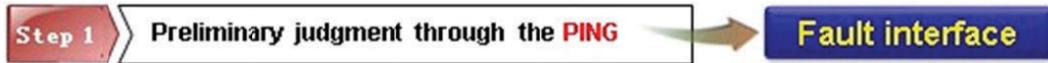
Step 1 Preliminary judgment through the **PING** → **Fault interface**

Instrument can PING the remote router check that link no problem and failure occurs on the client side. If there is problem, please use step 2.

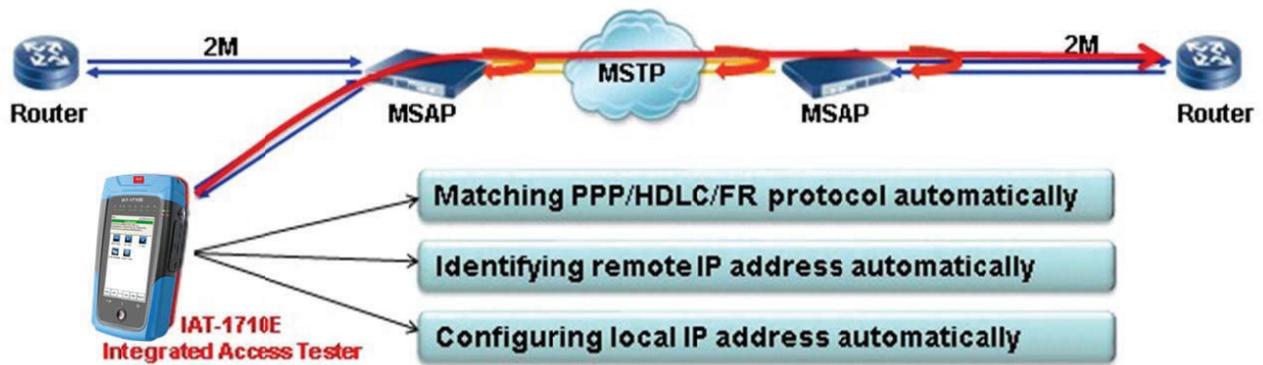
Step 2 Accurate positioning through **loopback PING** → **Loop back point by point and judge the failure point**



■ Fault fast positioning of E1 special line



Instrument can PING the remote router check that link no problem and failure occurs on the client side. If there is problem, please use step 2.



□ Functions

■ 10/100/1000M Ethernet Test Functions

- Link & Network
 - ✓ VLAN: available for 2 layers VLAN traffic frames
 - ✓ MPLS: available for 3 layers VLAN traffic frames
- Network Performance
 - ✓ RFC2544 testing: provide throughput test, latency test, frame loss test, back-to-back frame test
 - ✓ Traffic testing: Traffic generation at full line rate to test service at layer 2, layer 3, layer 4, support 8 configurable streams to count the received traffic and filter and analyze the received data. Carry out BERT and IPDV data jitter testing at the same time
 - ✓ High-speed PING: high speed PING whose rate is up to 1000Mbps and based on hardware, support loopback PING and multiple address' PING
 - ✓ High-speed download speed testing: available for multithreading 1000

Mbps line rate download rate testing which is based on FTP and HTTP

- ✓ Service performance testing: test the response time of DNS, POP3, SMTP, and the WEB server
- ✓ Data loopback: available for 1~3 layer's data loopback
- ✓ Mutual cooperation: cooperate with other instruments of DADI Telecom to test RFC 2544
- Network Tools
 - ✓ PING: ordinary PING function to verify network connectivity
 - ✓ Trace route: display the information of each router that data packets target by
 - ✓ WEB browse: surf the Internet through the browser
 - ✓ PPPoE: PPPoE dial up, PING and traffic testing
- Network Analysis
 - ✓ Net scan: scan and identify network equipment in LAN
- Cable & Port
 - ✓ Wire length testing: test the length of twisted-pair cable
 - ✓ Wire order testing: to recognize the cables are parallel or cross
 - ✓ Port blink: determine which port of the switch connected to the cable
 - ✓ Cable find: cooperate with Tone generator to find the cable
 - ✓ POE testing: Identification of PoE equipment
- E1 Testing
 - PING: ducking with router, detect the protocol (HDLC/PPP/FR) type of E1 interface and configure IP address automatically. Support the loopback PING
 - Abnormal Defects Analysis: online or offline BERT
 - Loop Delay Testing: Accuracy of 1 us
 - Switching Time Testing: the time interval from the main channel switch to the standby channel
- V Series Interfaces Testing (V.24/V.35)
 - PING: ducking with router, detect the protocol (HDLC/PPP/FR) type of V.35 interface, identify the router's IP address, configure the tester's IP address

automatically.Support the loopback PING.

- Abnormal Defects Analysis: offline BERT
- Loop Delay Testing: Accuracy of 1 us
- Switching Time Testing: the time interval from the main channel switch to the standby channel

□ Specifics

General Indicators		
Size	216x109x56mm	
Weight	<1.5kg	
Display	5"LED, 480×272 color screen	
Operation	Touch	
Storage	2G SD card	
Rechargeable li-ion battery	Charging time	3~4H
	Operating time	>5H
Environment	Operating temperature	-10~50℃
	Storage temperature	-20~70℃
	Operating humidity	10% ~ 90%
	Storage humidity	5% ~ 95%

E1 Interface Specifics	
TX clock	Internal clock, received clock
Clock frequency offset setting	Range: +/-50ppm,resolution of 0.1ppm,precision of +/-15ppm
Clock frequency offset	Range: +/-1000ppm, resolution of 0.1ppm, precision of +/-15ppm

testing	
Signal level detection	Range: 0~37.5dB, precision of 2.5dB
Interface resistance	75 Ω unbalance, 120 Ω RJ48 balance interface
Frame	UnFramed,PCM30,PCM31,PCM30C,PCM31C
Code type	HDB3, AMI
Analysis standard	G.821,G.826,M2100

V Series Interface Specifics	
Type of Vinterface	V.35,V.24
Working mode	DTE,DCE
Transmission mode	synchronous
Rate	2048K, Nx64K, Nx56K
Analysis standard	G.821

10/100/1000M Ethernet test specifics	
Frame type	DIX, 802.3SNAP
Custom frame length	40-10000
Typical frame length	64, 128, 256, 512, 768, 1024, 1280, 1518
RFC2544 testing	Throughput, Latency, Frame loss, Back-to-back frame
Precision of Throughput test	0.001Mbps
Precision of Latency	1us
Precision of Frame Loss test	0.001%
Protocol type of Network Layer	IP, IPX, ARP, RARP, Banyan, DECnet, Apple Talk, DADI, Custom
Data loopback level	Physical Layer, Date Link Layer, Network Layer