# 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 devicerun more smoothly

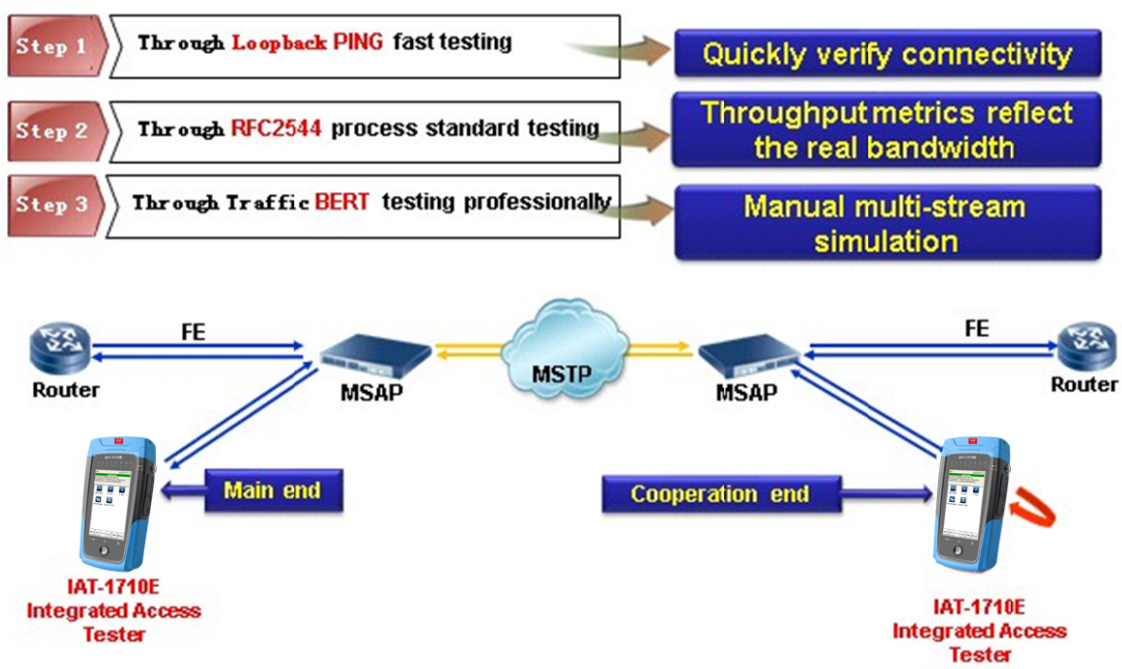
## Overview

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 customermay 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.

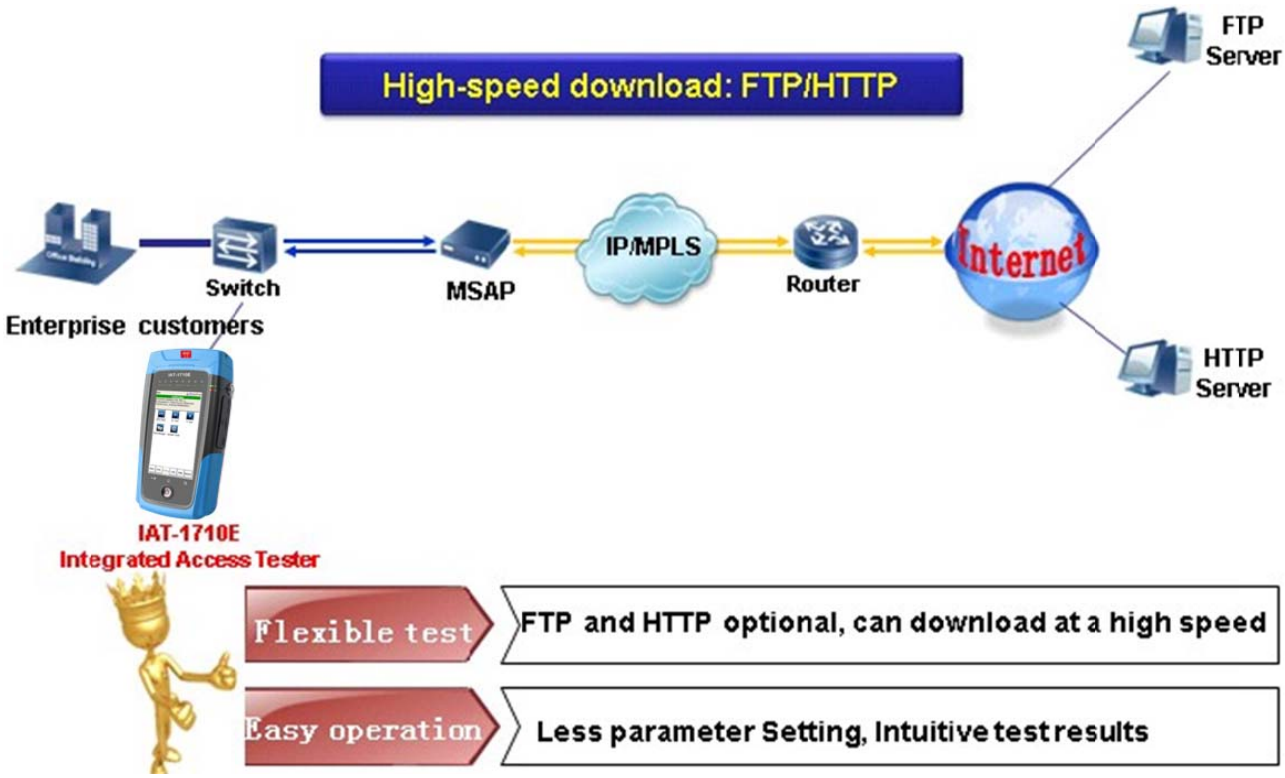
After many times go deep into the frontline practice and communication with operators maintenance engineer, DADITelecom developed a new generation Integrated Access Tester, model of IAT-1710E which is combined with the function of DADI original instrument.IAT-1710E can verify the bandwidth through a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

# Typical Application

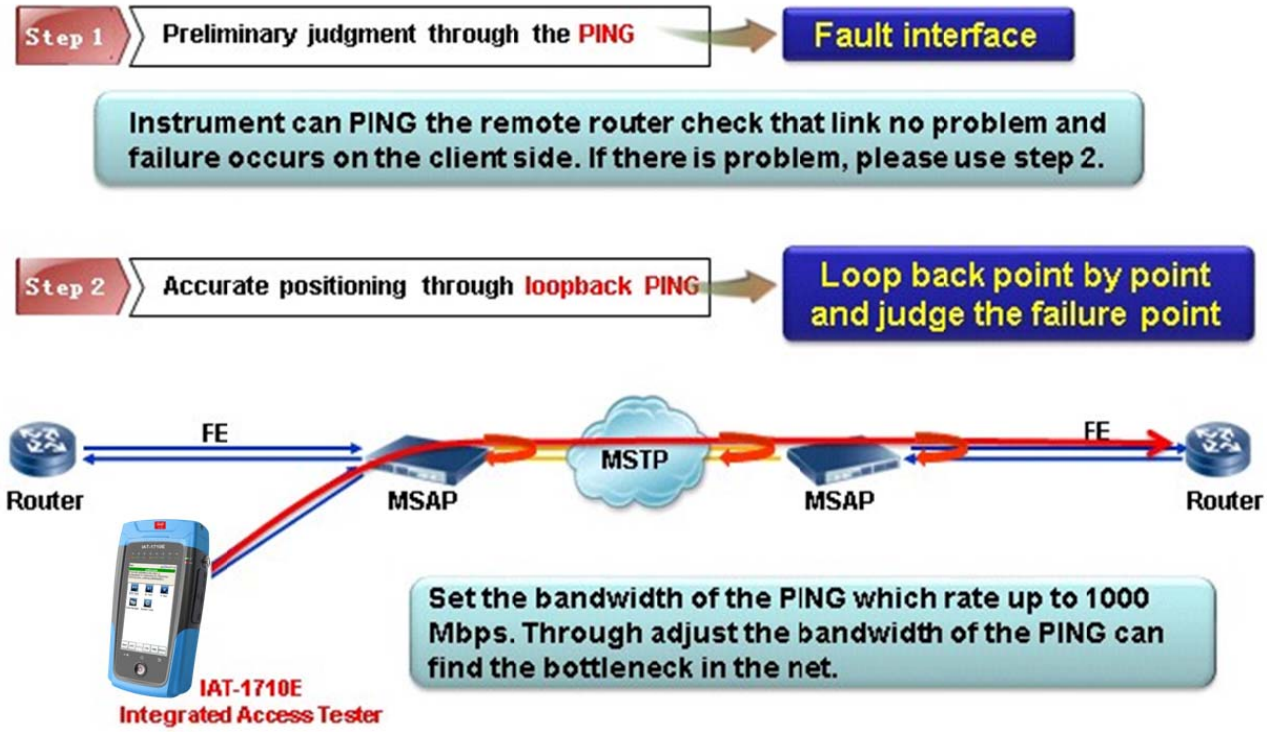
- Verify the bandwidth of MSTPspecial line



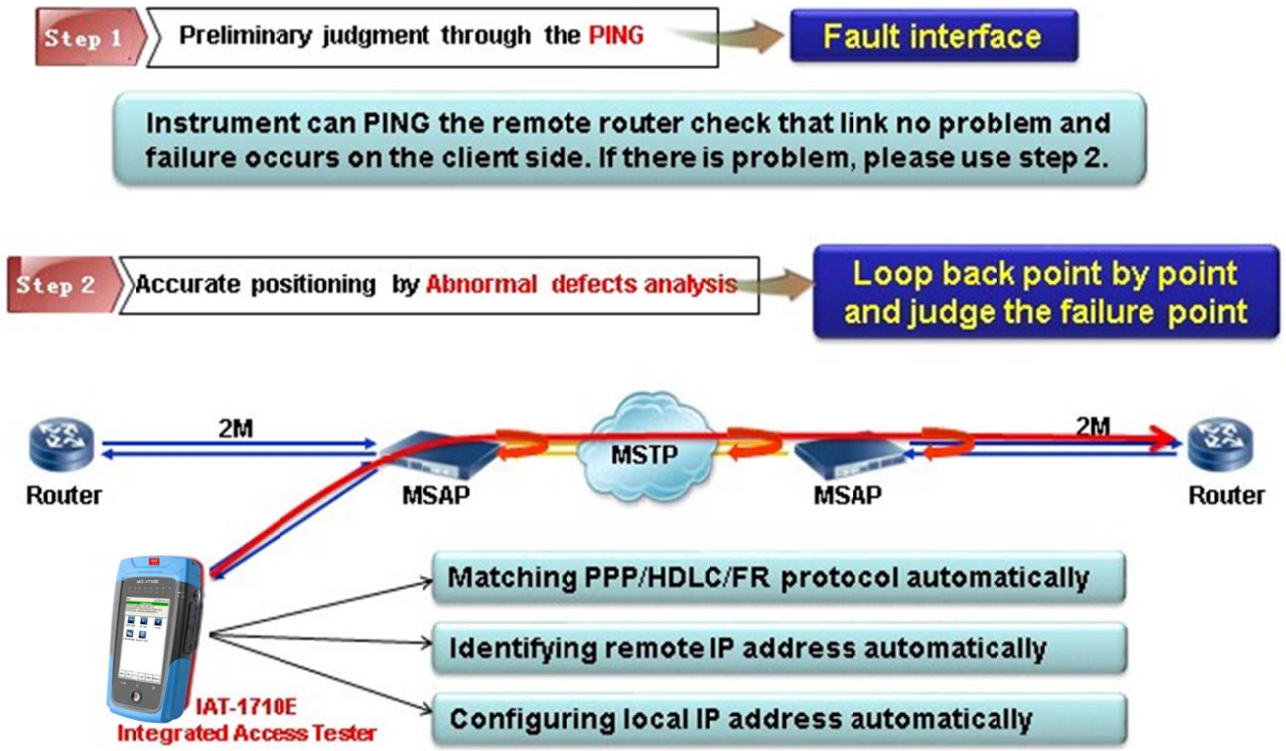

- Verify the bandwidth of IP line



- Fault fast positioning of MSTP special line



- Fault fast positioning of E1 special line




# Functions

- 10/100/1000M Ethernet Test Functions
  - Link & Network
    - ✓ VLAN: available for 2 layersVLAN 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 rete 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 functionto 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: determinewhich 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 | 75Ω unbalance, 120Ω 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 |