

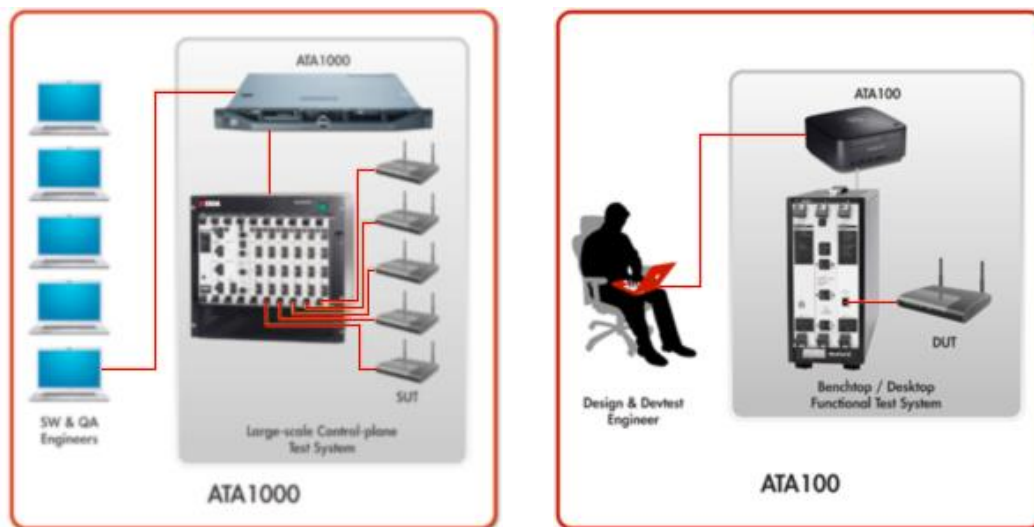
Test Automation Appliance (ATA 1000 and ATA 100)



The ATA1000 and ATA100 Test Automation Appliances offer users the ability to access and control high-scale WaveTest systems via user-written scripts. An optional CLI mode is also available for script development and limited manual testing. The appliances enable large-scale and long-term testing scenarios requiring clients and flows that connect and reconnect automatically and persistently.

Highlights

- Run long, scaled, control-plane soak and system stress tests
- Integrates into your own test automation framework using
- Test time dramatically reduced
- Command Line Interface (CLI) used to create test cases before they are automated
- Functional sanity test suites target specific controller/AP features



ATA1000 and ATA100

Key Features

- Ability to run long, scaled, control-plane soak and system stress tests
- IxVeriWave test systems integrate into users' own test automation framework using a well-documented and common API
- Test time reduced greatly by avoiding the need to bind test ports, create/associate clients, start flows, then tear it all down prior to the next test case
- Command Line Interface (CLI) used to create test cases before they are automated and to build test scripts around the IxVeriWave API
- Functional sanity test suites target specific controller/AP features
- Powerful appliance offers automation of large number of IxVeriWave test ports and Devices Under Test (DUTs)
- Changes to IxVeriWave-created client behavior made on the fly while tests are running

Specifications

Feature	ATA100	ATA1000
Maximum supported test ports per ATA	8	256
Maximum supported WLAN test ports per ATA	8	64
Maximum sustainable active clients per WLAN test port	400	400
Maximum active WLAN clients per ATA	1,600	25,000
Maximum active flows per ATA	3,200	50,000 (stateless) 25,000 (stateful – i.e., TCP)
Maximum concurrently roaming clients per ATA	1,000	4,000
Maximum active Ethernet servers per ATA	4,000	25,000
Maximum IPv4 multicast groups per ATA	16	16
Maximum IPv6 multicast groups per ATA	16	16
Flow types supported	IPv4/IPv6, ICMPv4/ICMPv6, UDP, TCP (stateful & stateless), RTP, HTTP, FTP, SMTP, G.711, G.729a, G.723, IPv4/IPv6 multicast	
Client types supported	IEEE 802.11b, IEEE 802.11b/g, IEEE 802.11a, IEEE 802.11a/b/g, IEEE 802.11 a/b/g/n	
Security and AAA modes supported	Open, WEP-40 (open and shared-key), WEP-128 (open and shared-key), WPA/WPA2-PSK, WPA/WPA2-PEAP-MSCHAPv2, WPA/WPA2-EAP-TLS, WPA/WPA2-EAP-TTLS-GTC, WPA/WPA2-EAP-FAST, LEAP, WPA-LEAP, DWEP (with different EAP types), WebAuth (for specific captive portal algorithms)	

- The ATA100 and ATA1000 expose the IxVeriWave-generated client behavior in a controlled and portable fashion by allowing the user to reserve ports, set channels, scan for APs, capture packets, create/destroy clients, set security modes & MAC/PHY options, send/receive arbitrary frames, set up traffic flows (stateful/stateless), roam clients, create and handle groups of clients & flows, and read back port/client/flow statistics
- The system creates persistent clients and adapts to changes advertised by the SUT, essential for large-scale tests and long-term soak tests
- ATA100 and ATA1000 offer a highly interactive script or command-line interface (CLI) that allows the user to connect via Telnet or standard sockets interface
- The ATA 1000 and ATA1000 support a single user
- Users can issue commands, disconnect at any time, reconnect, and resume a session later

ATA100 and ATA1000 API Example

To illustrate the simple API, and how effective this approach is at quickly generating clients and traffic at large scale, refer to the commands listed below. In advance of these commands, a system administrator will already have configured the test appliance to bind some number of wireless ports and at least one Ethernet port.

The example illustrates the creation of two client groups, each with 100 clients. Each group is directed to connect to the network named “test_network,” and the ATA will distribute these 200 clients uniformly across all bound ports that are connected to APs advertising “test_network”. The client group myClientGroupA is directed to generate UDP traffic upstream, 100 packets per second per client, while the client group myClientGroupB is directed to generate UDP traffic downstream and 10 packets per second.

```
createclientgroup myClientGroupA 100 test_network distribute=uniform
createclientgroup myClientGroupB 100 test_network distribute =uniform
createserver myServer IP=192.168.16.30 gateway=192.168.16.7
createflowgroup flowDown 100 myServer myClientGroupB intendedRate=10
createflowgroup flowUP 100 myClientGroupA myServer intendedRate=100
getflowgroupinfo flowDown
getflowgroupinfo flowUp
```

In response to these commands, the ATA100 or ATA1000 creates 200 clients on the WaveBlades it is bound to, and connects those to the network. The ATA will attempt to connect clients to the most favorable AP, just as actual clients do. The ATA will then create and distribute the 200 flows across the 200 clients and start those flows maintaining per-flow and per-client statistics and returning them upon command. This client and traffic load will remain active until further commands are issued. If any event occurs that causes the clients to be deauthenticated from the network, the Test Appliance will reconnect the clients and resume the flows.

Minimum Requirements

IxVeriWave Test System	<ul style="list-style-type: none"> • 1 x IxVeriWave WaveTest 90™ or WaveTest 20™ system • 1 x IxVeriWave WLAN port (WBW1101 or WBW1104N or WBW1101P or WBW2000) • 1 x IxVeriWave Ethernet port (WBE1101 or WBE1104)
IxVeriWave Software Licenses	<ul style="list-style-type: none"> • No licenses required to support full range of existing ATA API commands

Ordering Information

980-2033

IxVeriWave ATA100, Test automation appliance. Offers users the ability to access and control WaveTest client and flow resources at scale, through a CLI API or user-scripted interface. Enables large-scale, and long-term testing scenarios requiring clients and flows that connect and reconnect automatically and persistently. Supports a single user and up to 4 wireless test ports. Note: Product shipped with 1-yr limited hardware warranty -- Extended Warranty can be purchased for up to 2 additional years (maximum). Note to U.S./Canada Customers: Hardware 3-day Advanced Replacement Technical Support Service not available on this product.

980-2034

IxVeriWave ATA1000, Test automation appliance. Offers users the ability to access and control WaveTest client and flow resources at scale, through a CLI API or user-scripted interface. Enables large-scale, and long-term testing scenarios requiring clients and flows that connect and reconnect automatically and persistently. Supports multiple simultaneous users and controls multiple WT20/90 chassis' and up to 48 wireless test ports. Note: Product shipped with 1-yr limited hardware warranty -- Extended Warranty can be purchased for up to 2 additional years (maximum). Note to U.S./Canada Customers: Hardware 3-day Advanced Replacement Technical Support Service not available on this product

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