



# TeraRouting Tester™ Software Module RIP

## Product Overview

The RIP routing protocol software module works together with all of the basic TeraRouting Tester (TRT) features such as the Flap Scheduler, Traffic Generator, and integrated results. This module emulates hundreds of RIPv1, RIPv2, or RIPng (IPv6) routers. Millions of routes can be generated from these virtual devices, and bi-directional traffic can be sent to/from the emulated routers. All tests can be conducted in a fully interactive mode with real-time results. Tests can also be automated using the comprehensive SmartBits Automation product.

## RIP Router Emulation Features

- Per module: 500 RIP routers with multicast, or 1000 RIP routers with broadcast, or 500 RIPng routers
- Millions of routes
- Route Generator with Internet prefix length distribution
- VLAN IDs and priority per router
- Support for RIPv1, RIPv2, and RIPng
- Destination addresses: broadcast, multicast, and unicast
- Update interval
- Max jitter value
- Support for MD5 authentication
- Traffic wizard builds data streams to all of the emulated routes
- Support for Q-in-Q VLAN stacking

## RIP Network Option

- Supports millions of routes
- Can copy/paste and duplicate one or more route blocks
- Prefix length
- Number of networks
- Start route IP address
- Increment value for IP address range
- Route tag
- Next hop
- Metric or hop count

## RIP Flap Event

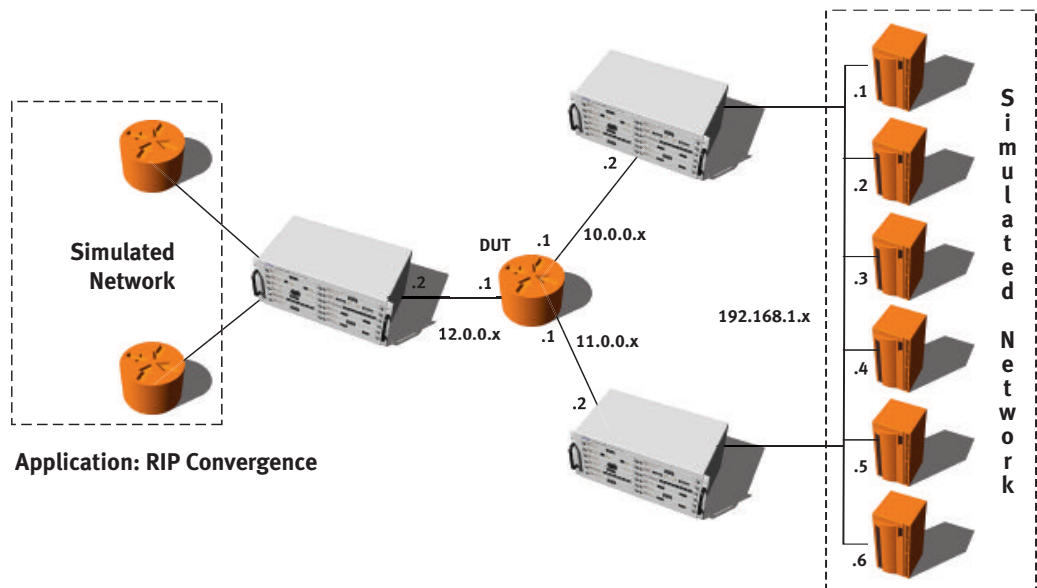
- Break physical link
- Restore physical link
- Stop updates (all or a set of routers)
- Resume updates (all or a set of routers)
- Withdraw networks (all or a set of routers)
- Re-advertise networks (all or a set of routers)

## RIP Real-time and Final Result

- Router IP address
- Router state
- Received advertisements
- Sent advertisements
- Received withdrawals
- Sent withdrawals

## Related RFCs

- RFC 1058 –Describes RIP Version 1
- RFC 2453 –Describes RIP Version 2
- RFC 2080 –RIPng for IPv6



Application: RIP Convergence

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TeraRouting Tester RIP applications

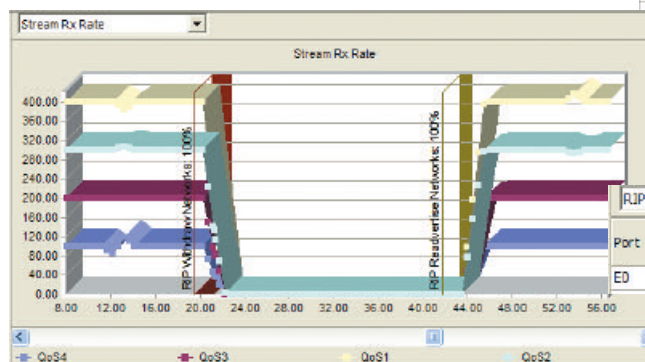
## Supported Modules

Module	Description
<b>ATM-3451A</b>	ATM OC-3c (STM-1c), 2-port, multi-mode, 1300nm, TeraMetrics
<b>ATM-3451As</b>	ATM OC-3c (STM-1c), 2-port, single mode, 1310nm, TeraMetrics
<b>ATM-3453A</b>	ATM OC-3c/OC-12c (STM-1c/STM-4c), 2-port, multi-mode, 1300nm, TeraMetrics
<b>ATM-3453As</b>	ATM OC-3c/OC-12c (STM-1c/STM-4c), 2-port, single mode, 1310nm, TeraMetrics
<b>LAN-3301A</b>	10/100/1000Base-T Ethernet, Copper, 2-port, TeraMetrics
<b>LAN-3302A</b>	10/100Base-T Ethernet, Copper, 2-port, TeraMetrics
<b>LAN-3306A</b>	10/100Base-T Ethernet, Copper, 4-port, TeraMetrics XD
<b>LAN-3321A</b>	10/100/1000 Mbps and Gigabit Ethernet Fiber, 2-port, TeraMetrics XD
<b>LAN-3325A</b>	10/100/1000 Mbps and Gigabit Ethernet Fiber, 4-port, TeraMetrics XD
<b>LAN-3327A</b>	10/100/1000 Mbps and Gigabit Ethernet Fiber, 1-port, TeraMetrics XD
<b>POS-3505As</b>	POS OC-48c (STM-16c), 1-port, single mode, 1310nm, TeraMetrics
<b>POS-3505Ar</b>	POS OC-48c (STM-16c), 1-port, single mode, 1550nm, TeraMetrics
<b>POS-3511A</b>	POS OC-3c/OC-12c (STM-1c/STM-4c), 2-port, multi-mode, 1300nm, TeraMetrics
<b>POS-3511As</b>	POS OC-3c/OC-12c (STM-1c/STM-4c), 2-port, single mode, 1310nm, TeraMetrics
<b>POS-3519As</b>	POS OC-192c (STM-64c), 1-port, 2-slot, single mode, 1310nm, TeraMetrics
<b>POS-3519Ar</b>	POS OC-192c (STM-64c), 1-port, 2-slot, single mode, 1550nm, TeraMetrics
<b>XFP-3731A</b>	10GBase Ethernet, XFP MSA, 1-slot, TeraMetrics
<b>XLW-3721A</b>	10GBase Ethernet, XENPAK MSA, 1-port, 2-slot, TeraMetrics

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## Requirements

- TeraRouting Tester Software (SWF-1230A; comes with RIP)
- A SmartBits 600x or 6000x chassis, with the appropriate SmartBits modules.
- A Pentium™ or greater PC running Windows® 2000/NT/XP, with mouse and color monitor

## Ordering Information

### SWF-1230A

TeraRouting Tester with RIP software module

### SWF-1231A

OSPF software module for TRT

### SWF-1232A

IS-IS software module for TRT

### SWF-1233A

MPLS software module for TRT

### SWF-1234A

BGP software module for TRT

### SWF-1235A

IPv6 software module for TRT

### SWF-1236A

Multicast software module for TRT

### SWF-1237A

Spanning Tree (STP/RSTP) software module for TRT

### SWF-1239A

All available software modules for TRT

### SWF-1255A

SmartBits Automation

## Spirent Global Services

Spirent Global Services provides a variety of professional services, support services and education services — all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services website at [www.spirentcom.com/gs](http://www.spirentcom.com/gs) or contact your Spirent sales representative.

Test	Tx Port	Stream	Expected Frames	Tx Frames	Lost Frames	% Loss	Expected	Rx Port	Rx Frames	Avg Latency
Test			59976	59976	23275	38.81			36701	211.653
FAO	QoS4		5998	5998	2327	38.8	yes	E0	3671	211.1897
FAO	QoS3		11996	11996	4695	38.8	yes	E0	7341	211.6121
FAO	QoS1		23990	23990	9310	38.81	yes	E0	14680	211.7941
FAO	QoS2		17992	17992	6983	38.81	yes	E0	11009	211.6468

Port	Tester IP	Received Advertisements	Sent Advertisements	Received Withdrawals	Sent Withdrawals
E0	10.1.1.3	0	26275	2	3000

TeraRouting Tester RIP test result windows