

## QUICK CARD

### Ethernet Y.1564 SAMComplete Layer 2 Multiple Streams Service Acceptance Test

This guick card describes how to configure and run a Y.1564 SAMComplete Layer 2 Multiple Streams Test for Metro Ethernet service activation. The quick card documents a procedure to set up the OneAdvisor on a 1GigE Optical Interface, but the same workflow may be applied to other data rates.

👛 System

#### EQUIPMENT REQUIREMENTS

- OneAdvisor 800 equipped with the following:
  - RAxxMA-O Radio Analysis Module, SPA06MA-O Spectrum Analyzer Module, TM400GB-QQ 400G Module, or TM400GB-QO 400G Module.
  - Transport software release V5.1.0 or greater • CA10M1GE or ONA-SP-10M1GE 1-Gigabit Ethernet option
- Optical Transceiver supporting the Ethernet data rate to be tested (SFP, SFP+, SFP28, QSFP28, QSFP-DD, etc.)
- Cables to match the optical transceiver and the line under test
- Fiber optic inspection microscope (P5000i, FiberChek Probe, or INX-760)
- Fiber optic cleaning supplies



### LAUNCH TEST

- Press the Power button on the ONA-800 1. base top panel to turn on the OneAdvisor.
- 🔒 Home to display the Home Screen. Tap 2.
- Tap Tests to display the Tests menu. 3.
- Tap Radio Analysis Transport > or 4. 400G Transport > to show the Transport test application.
- 5. Tap the **Transport** icon. TRANSPORT
- If the **Select Test** menu is not displayed, tap 6. >> All Tests in the lower left screen corner.
- 7. Using the Select Test menu or favorite test list, launch the Ethernet Y.1564 SAMComplete Layer 2 Traffic test for the desired data rate and port (P1 or P2). For example:

### Ethernet ►1GigE Optical ►

Y.1564 SAMComplete ► L2 Multiple Streams

▶ P1 Terminate or

#### Ethernet ►1GigE Optical ►

**OneAdvisor 800 Transport and Wireless Platforms** 

Y.1564 SAMComplete ► L2 Multiple Streams ► Terminate.

Tap the  $Go \rightarrow$  button next to "Start a New 8. Configuration (reset to defaults)"



Figure 2: Transport Launch screen

🔒 Home	400	G Transport 🗙			📙 📣 🤝 🛷 🔽	9:47 AN
Select ~ Fort	1: 10	0/100/1000 Eth Layer	3 Traffic Term 🗙 🛛 🕂	1	What's This?	10
Ethernet	•	10/100/1000	•			
Fibre Channel	•	1GigE Optical	Optics Self-Test	• <u>n</u>		
OTN		10GigE LAN	5G NR Discovery	•		
Unframed		25GigE	▶ 🗸 QuickCheck	* n		
🗎 Add Test		40GigE	* a RFC 2544 (RFC 5180)	544		
B Remove Test		50GigE	Y.1564 SAMComplete	L2 Traffic		
Load Test		100GigE 100GigE KP4 FEC	Layer 2 Traffic	L2 Multiple Streams   II: P1 Terminate		
Save Test As		200GigE 4x100GigE 400GigE Single Port	Layer 3 Traffic	L3 Traffic IPv6		

#### Figure 3: Select Test

	G Transport 🗙					- 🛃 📣	🧏 🛷 📈	10:03
SAMCom							Layer 2 Stre	
Configu							Go To	
	Not Running							
🖏 Cor	figure							
🔹 Cor	figure							
	-							
	figure		Go	-				
🥕 Edit Previo	ous Configuration			+	]			
🥕 Edit Previo	-		60	+				
Edit Previo Load Conf	ous Configuration	efaults)		+ + +				

Figure 4: Configure

# **OneAdvisor 800 Transport and Wireless Platforms**



## QUICK CARD

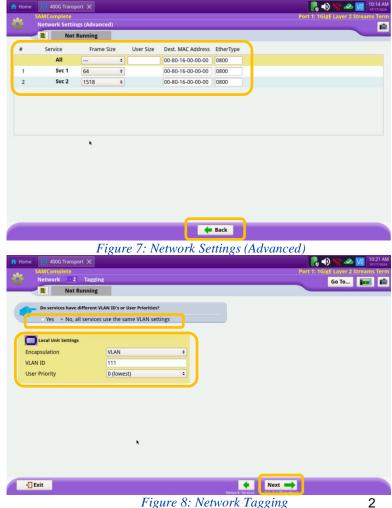
### CONFIGURE TEST

- The following Information is needed to configure the test:
  - Number of Streams to generate
  - VLAN ID(s), if VLAN tagging is used
  - Frame Size for each stream
  - Committed Information Rate (CIR) for each stream
  - Pass/Fail Threshold for Frame Loss Ratio, Delay and Delay Variation (Jitter)
- 1. Tap the **Next**  $\rightarrow$  button twice to display the Network Services screen. Set Number of Services to the number of streams you wish to generate.
- 2. If you want different Frame Sizes, Destination MAC Addresses, or Ethertypes for each stream, tap DA MAC, Frame Size settings and Ethertype, enter desired values, and tap the **Gack** button.
- 3. Tap the **Next**  $\rightarrow$  to display the **Network** Tagging screen.
  - If you are not testing a VLAN, set Encapsulation to None.
  - If you are testing a single VLAN, tap the **No** radio button set **Encapsulation** to VLAN and enter the VLAN ID.
  - If you are testing multiple VLANs, tap the Yes radio button and enter the VLAN IDs and Priorities.



	🖹 Not Run	ining			
lumi	ber of Services	2	Test Mode	Traffic	
ayei		(a)	N. C.		
#	Service Name	Service Properties			
1	Svc 1	Configure Triple Play			
2	Svc 2	Configure Triple Play			
		*			
			DA MAC	, Frame Size settings and EtherType	

#### Figure 6: Network Services





## QUICK CARD

- Tap the Next → button to display the SLA Throughput screen.
  - Enter the CIR allocated to each stream of traffic or service.
  - Under EIR, Enter the additional bandwidth available when only one stream of traffic is being generated,
  - ► If the streams are not policed individually, uncheck all **Policing** checkboxes.

5.	Tap the	Next 🔿	button twice to	display the	SLA
	Perform	nance sci	reen.		

Enter the Frame Loss Ratio, Frame Delay, and Delay Variation pass/fail criteria for each service.

Tap the Next → button 5 times to display the J-QuickCheck screen.

	SLA 1	SLA Throug	hput				Go To
-	E Not I	Running					
nable	Aggregate Mode	0					
				6	SLA Throughput L1 M	hbps	
	Service	CIR	EIR	Policing	@Max Load		
	All	500.00	500.00				
1	Svc 1	500.00	500.00		1000.00		
2	Svc 2	500.00	500.00		1000.00		
-	3412						
	542						
							Set advanced Traffic s
							Set advanced Traffic s

Figure 9: SLA Throughput

Home	400G Transpo	ort X				💦 🜒 🍗	2 🗠 🔽	/C 07/	:34
	SAMComplete SLA 3	SLA Performanc	:e			Port 1: 1GigE L	ayer 2 Str o To		
	E Not F	tunning				G	5 10		
_	and and a second se			SLA Performance					
#	Service	Frame Loss Ratio	Frame Delay (RTD, ms)	C Delay Variation (ms)					
	All	0.000000000	10.000	2.000					
1	Svc 1	0.000000000	10.000	2.000					
2	Svc 2	0.000000000	10.000	2.000					
						Set as		LA Set	
						Set as		iLA Set	
Ð	Exit			LA LIA Ber	Next 🔿	Set ar		iLA Set	
Ð	Exit		Figure 1	0: SLA Perform	Prove Party	Set ac	dvanced S	iLA Set	ti
Home	400G Transpo	ят Х	Figure 1		ance		R 🛷 🛛	10:	:3
Home	400G Transpo SAMComplete	nt X	Figure 1		ance	Port 1: 1Gige Li	📚 📣 🔽 ayer 2 Str	10: 77 reams	30
Home	400G Transpo SAMComplete J-QuickCheck	ert X	Figure 1		ance	Port 1: 1Gige Li	R 🛷 🛛	10: 77 reams	30
Home	400G Transpo SAMComplete J-QuickCheck		Figure 1		ance	Port 1: 1Gige Li	📚 📣 🔽 ayer 2 Str	10: 77 reams	:3

Remote	
test.	Star
Remote Loop:	
Status Unknown	
	Maximum Frame Search test

Figure 11: J-QuickCheck



## QUICK CARD

## CONNECT TO LINE UNDER TEST AND LOOP BACK DEVICE

#### ► For Optical Interfaces:

- Use the VIAVI P5000i, FiberChek Probe or INX 760 microscope to inspect both sides of every connection being used (SFP, attenuators, patch cables, bulkheads)
  - Focus the fiber on the screen.
  - If it appears dirty, clean the fiber end-face and re-inspect.
  - If it appears clean, run the inspection test.
  - If it fails, clean the fiber and re-run inspection test. Repeat until it passes.
- Insert desired Optical Transceiver into the Port 1 SFP or QSFP slot on the top of the OneAdvisor.
- 3. If necessary, insert optical attenuators into the SFP TX and/or RX ports.
- 4. Connect the SFP to the port under test using a jumper cable compatible with the line under test.

#### ► For Copper 10/100/1000BASE-T interfaces:

- 1. Insert Copper SFP into the Port 1 SFP or slot on the top of the OneAdvisor.
- 2. Connect the copper SFP to the port under test using CAT 5E or better cable.
- Verify that Local Port status is UP and Full Duplex (FD)
- ► Tap the **Start** button.
- ► Verify that the **Remote Loop** is recognized.
- ► Tap the Next → button to display the Run Y.1564 Tests screen.



Figure 12: Inspect Before You Connect

A Home	400G Transport X		🕞 📣 🧐 🛩 🚾 10:48 AM
8	SAMComplete J-QuickCheck		Port 1: 1GigE Layer 2 Streams Term Go To
	E Not Running		
C		kemote	
Press th	ne 'Start' button to begin J-QuickChee	G Maximum Frame Search k test.	Start
	Local Port:	Remote Loop:	
	UP (1000 / FD)	Status Unknown	
	Auto Negotiation:		
	ON		
			•
	xit	e Ne	ext 📫

Figure 13: Local Port status

A Home 400G Transport X		Port 1: 1GigE Layer 2 Streams Term
J-QuickCheck		Go To 🖬 🛍
	Active Remote	
Press the 'Start' button to begin J-QuickCheck to	Maximum Frame Search st.	Start
Local Port: UP (1000 / FD)	Remote Loop: Active Loop	
Auto Negotiation:	ALIVELOUP	ע
<u>u</u>		
- Exit	Select Texts	Next 📫

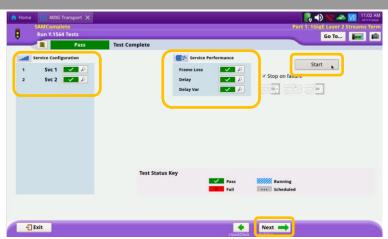
Figure 14: Run J-QuickCheck

# **OneAdvisor 800 Transport and Wireless Platforms**





- 1. Tap the **Start** button.
- 2. Wait for the test to complete and verify that all tests pass as indicated by green checkmarks.



VI AVI

**VIAVI** Solutions

Figure 15: Run Y.1564 Tests

### CREATE REPORT

- Tap the Next → button three times to display the Report screen.
- 2. Tap the **Create Report**. The report will be created in the **/user/bert/reports** folder.
- Tap the ← Exit buttons three times to close the report and exit the Y.1564 SAMComplete test.

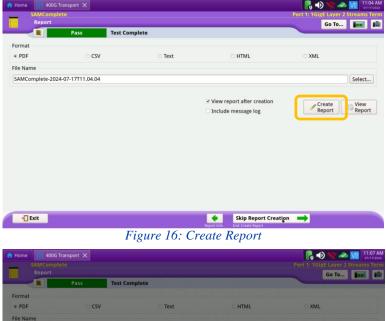




Figure 17: Exit

Contact Us

+1 844 GO VIAVI (+1 844 468-4284)

To reach the VIAVI office nearest you, visit viavisolutions.com/contact