

OTM2500 Series MSTP Transport Test Module



Product Introduction

OTM2500 next-generation MSTP transport test module can be configured on OTP6200 test platforms to achieve complete next-generation MSTP test functionalities and offer comprehensive test solutions for metro network. It is a high cost-effective next-generation network test product.

Features

- Offer test functions from PDH/DSn1.5M to 2.5G/10G SDH/SONET/MSTP
- MSTP testing via GFP, VCAT and LCAS options
- Optional support 2.7G/10.7G OTN test
- Automatic signal structure discovery in smartmode, automatically detect and monitor error paths
- Intuitionistic user interface, fast configuration of signal paths
- Customizable various forms of test report

PRODUCT INTRODUCTION

Specifications

SPECIFICATIONS		
Test Interfaces		
XFP 10G optical interface (STM-64/OC-192)		
SFP 155M/622M/2.5G optical interface (STM-1/4/16, OC-3/12/48)		
BNC 155M electrical interface (STM-1e/STS-3e)		
BNC 1.5M/2M/34M/45M/140M PDH electrical interface (DS1/E1/E3/DS3/E4)		
RJ-45 10/100/1000M Base-T Ethernet electrical interface		
SFP 1000M BASE-X gigabit Ethernet optical interface		
Test Features		
MSTP		
Virtual concatenation (VCAT)	High-order path	VC-4-X-v, X=1-16
	Low-order path	VC-11-X-v, VC-12-X-v, X=1 – 64; VC-3-X-v, X=1-48 (from 16 different AU4)
	Differential delay test and generation(each-member based)	Individual and group test Test and generation range: 256ms VCAT regrouping range: up to 256ms
	Error(member-based)	Bit, B3, HP-REI, LP-BIP, LP-REI
	Alarm(member-based)	AU-AIS, AU-LOP, HP-AIS, HP-RDI, HPERDI, HP-UNEQ,HP-TIM, TU-LOM, TU-AIS, TU-LOP, LPRDI,LPERDI, LP-UNEQ,LP-TIM
	Error performance analysis(member-based)	Per ITU-T G.821, G.826, G.828, M.2101,M.2120
GFP-F	Conform to ITU-T G.7041, G.707 and ANSI T1.105.02-2001	
	Traffic generation	Ethernet frame
	Frame size	Maximum: 65535 bytes
	Bandwidth	Depend on virtual concatenation
	GFP payload type frame header control	PTI, PFI, EXI(linear and empty), CID(linear) and UPI
	GFP-F (Frame) generation	Test: idle frame, total frames, total bytes, client frame client frame with FCS, client management frame, extension header OK frame, type header OK frame, null-extension frame, linear frame, ring frame, Ethernet-mapping frame Error(GFP-F): correctable cHEC, uncorrectable cHEC, correctable tHEC, uncorrectable tHEC, correctable eHEC, uncorrectable eHEC, payload FCS, not available payload
	Alarm	GFP synchronization failure
Link capacity adjustment scheme (LCAS)	Conform to ITU-T G.7042, G.707 and ANSI T1.105.02-2001	
	LCAS mode	On, off
	H4, K4/Z7 monitoring	Control packet

SPECIFICATIONS	
MSTP	
LCAS protocol emulation	Transmit and receive emulation of status machines(member-based) Direct command -send: add/remove member, add/remove multiple members -receive: add/remove member, add/remove multiple members Adapt accepted member status(transmit): norm, fail, automated Adapt generated member status(receive): fail, automated Force re-sequence acknowledgement: RX RS-Ack (transmit), TX RS-Ack (receive) Force member status alarm (receive): MSU
Generation and capture of member status message	Transmit (transmit end) and receive (receive end) sequence Receive (transmit end) and transmit (receive end) re-sequence acknowledgement Transmit equipment status decoding: idle, add, NORM, DNU(not using), remove Receive equipment status decoding: idle, fail, NORM Send transmitted control byte: ADD, NORM, EOS, IDLE, DNU Receive end receive control byte: ADD, NORM(normal transmit) , EOS (sequence end indication and normal transmit), IDLE, DNU, FIXED(non-LCAS mode) Receive end receive alarm: LOS (sequence loss), MSU(member status unavailable), FOP CRC(extra CRC error fail of protocol) Receive end receive error: extra CRC error fail of protocol (CRC fail)
LCAS error generation and monitoring	Send end (Tx): LCAS-CRC member-based Error injection: single
Ethernet over SDH (EoS)	
10/100/1000M Base-T Ethernet interface and gigabit optical interface	
Add/drop of Ethernet payload in SDH line with GFP mapping	
Ethernet frame generation and analysis, including layer2 and layer3 test with VLAN and MPLS label	
Various Ethernet payload pattern (PRBS)	
PHYSICAL SPECIFICATIONS	
Temperature	Operating: -10°C to 50°C; Storing: -40°C to 70°C
Relative humidity	0% to 95% (non-condensing)
Size (H×W×D)	50 mm x 97 mm x 259 mm
Weight	0.7 kg

PRODUCT INTRODUCTION

Ordering Information

Category	Model	Description
Standard Configuration		
Test Modules (one of four)	OTM2503	Dual-slot 2.5G SDH/MSTP test module, support 155M/622M/2.5G optical interface, 155M SDH electrical interface and 1.5M/2M/34M/45M/140M PDH electrical interface, support MSTP, compatible with OTP6200 platforms
	OTM2504	Dual-slot 10G SDH/MSTP test module, support 155M/622M/2.5G/10G optical interface, 155M SDH electrical interface and 1.5M/2M/34M/45M/140M PDH electrical interface, support MSTP, compatible with OTP6200 platforms
	OTM2513	Dual-slot 2.5G SDH/OTN/MSTP test module, support 155M/622M/2.5G optical interface, 155M SDH electrical interface and 1.5M/2M/34M/45M/140M PDH electrical interface, support MSTP, support OTN test with 2.7G optical interface, compatible with OTP6200 platforms
	OTM2514	Dual-slot 10G SDH/OTN/MSTP test module, support 155M/622M/2.5G/10G optical interface, 155M SDH electrical interface and 1.5M/2M/34M/45M/140M PDH electrical interface, support MSTP, support OTN test with 2.7G/10.7G optical interface, compatible with OTP6200 platforms
LC/LC fiber jumper	LCLC-0203	One duplex fiber jumper with LC/LC interface, single mode, 9/125, 3m.
1.25G optical module	GA14023230	One 1.25G SFP optical module, 130nm, 10km, LX.
2.5G optical module	GA14022310	One 2.5G SFP optical module, 1310nm, 2km, LX.
10G optical module	GA14021220	One 10G XFP optical module, 1310nm, 2km, LX.(standard configuration for OTM2504/2514)
Optional Configuration		
Accessories	GA14020010	1.25G SFP optical module, 850nm, 550m, SX
	GA14020020	1.25G SFP optical module, 1310nm, 10km, LX
	GA14020030	1.25G SFP optical module, 1550nm, 80km, ZX
	GA14020040	2.5G SFP optical module, 850nm, 550m, SX
	GA14020050	2.5G SFP optical module, 1310nm, 10km, LX
	GA14020060	2.5G SFP optical module, 1550nm, 80km, ZX
	GA14020070	10G XFP optical module, 850nm, 550m, SX
	GA14020080	10G XFP optical module, 1310nm, 10km, LX
	GA14020090	10G XFP optical module, 1550nm, 80km, ZX

Notes: Product ordering information may update along with the product upgrade, please refer to the final version provided by our sales.