



Setting the Standards

SDH/PDH Transmission Analyzer



Description

SPA-200 is an advanced and convenient SDH and PDH transmission analyzer, satisfying all PDH interfaces and STM-1(155M), STM-4(622M), STM-16(2.5G) to stop business and test online. SPA-200 has unity function, convenient operation and good expansibility which satisfy the requirement of SDH/PDH transport network and access network installation and maintenance testing.

The products satisfy optical fiber installation, maintenance and other testing of SDH ring network, linear triangulation network and star network, which is widely used by operators in private network and other SDH/PDH systems opening and maintenance testing.

Features and Benefits

Embedded operation system, 10.4" TFT LCD, graphic user interface, touch screen and touch pen operation, practical function, easy and convenient operation, operation efficiency is 5 times of similar products

Widely used by operators in private network, SDH/PDH systems' opening and maintenance testing STM-1(155M), STM-4(622M), STM-16(2.5G) online and offline test

Multiple tasks can be created and deleted dynamically and freely

Mass data storage for BER and alarming event records, events can be displayed in tables or graphics with filtering

Test records may be saved as HTML or PDF format, and transferred to PC via USB

Different simulated indicators for current and history alarm and error status

External clock Tx & Rx interfaces the outputting internal clock and external clock can adjust the frequency offset singly

Simulated indicators for current and history alarm and error status, various information display, indicator quantity and type can be automatically set based on test signal and interface setting

Built-in USB printer support

Applications

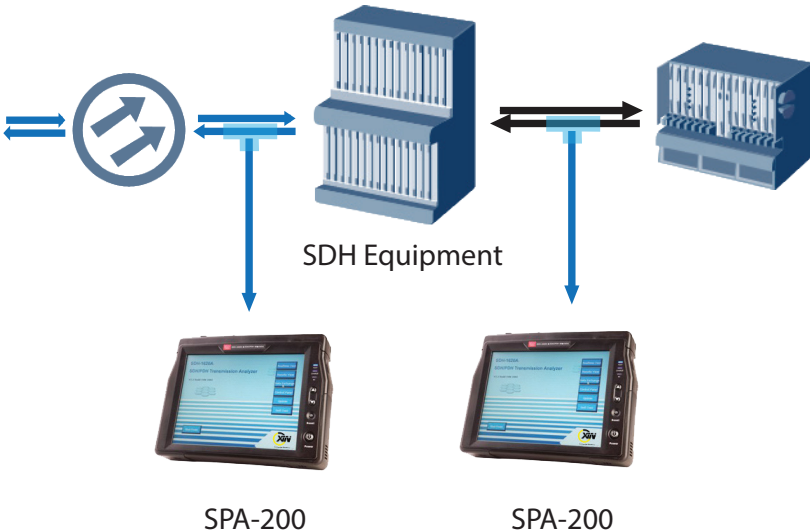
- Out-of-service testing: remote loopback testing or using two analyzers to perform end-to-end testing
- Online testing: Testing trough optical splitters or across the high resistance

SDH/PDH Transmission Analyzer

	Test	Function
Functions	BER analysis	BER testing for PDH and SDH, performance analysis per G.821, G.826, G.828, G.829, M.2100 and M.2101, automatically compare test results with ITU-T recommendation
	Anomaly and defect testing	Tx end transmitting anomaly and defect events, Rx end receiving anomaly and defect events with records and statistics, recorded events can be displayed in tables or graphics with filtering
	Overhead testing	Overhead emulating transmission and receiving analysis includes two parts. General part including J0/J1/J2/S1/V5/C2, and extended part, all the remaining overhead bytes except A1/A2, B1/B2/B3
	Pointer analysis	Generate G.783 pointer and NDF pointer, display pointer value in real-time, record pointer adjustment events including positive, negative and NDF
	APS timing measurement	Measure the network switchover time, insert K1K2 sequence at Tx end, preset protection switching trigger condition, capture K1K2 bytes at Rx end
	Round trip delay testing	Measure the signal transport time from Tx to Rx
	Timing and synchronization testing	Frequency accuracy testing, pull-in range and pull-out range testing
	Tributary scan	Auto scan each tributary status like E1, E4, E3/DS3 under AU4

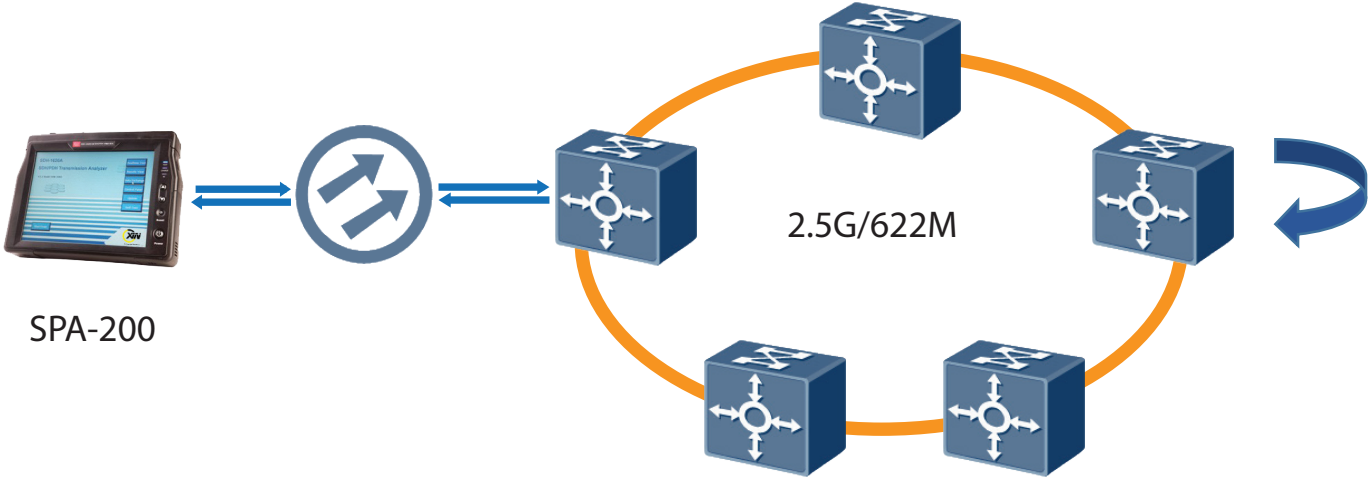
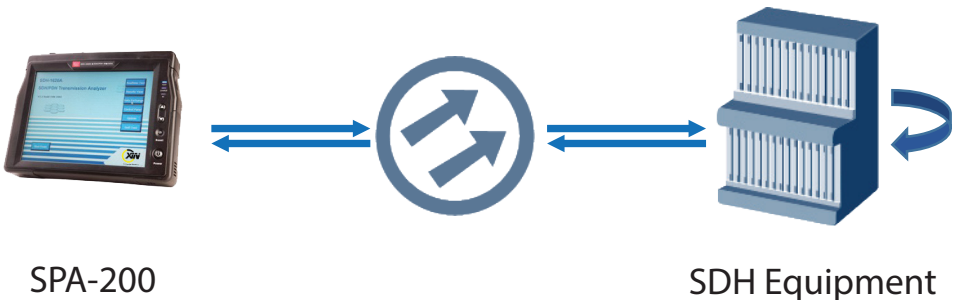
Applications

In-service monitoring



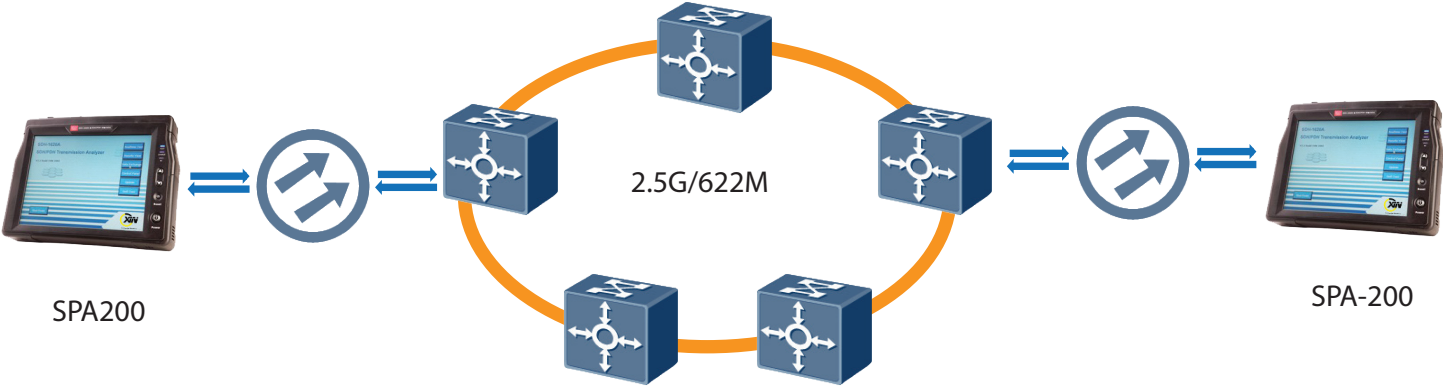
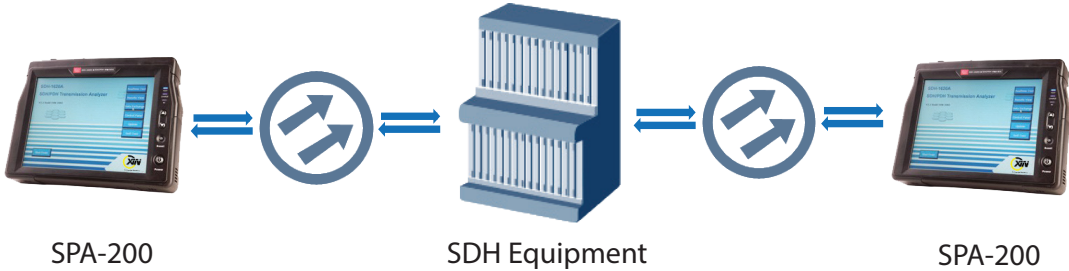
SDH/PDH Transmission Analyzer Applications

Remote loopback testing test



SDH/PDH Transmission Analyzer Applications

End to End Testing



SDH/PDH Transmission Analyzer



	Parameter	Value
Testing Optical Interface	Line rate	STM-155 :1.520Mbit/s STM-622 :4.080Mbit/s
	Connector	SFP/LC
	Optical Tx wavelength	1310nm, 1550 nm
	Tx optical power 1310nm	-8 to -15dBm
	Tx optical power 1550nm	0 to -5dBm
	Rx sensitivity	-28dBm
	Rx overload	≥ -8dBm
	Rx wavelength range	1260nm to 1580nm
	Line rate	STM-2 :16488.320Mbit/s
	Connector	SFP/LC
	Optical Tx wavelength	1310nm, 1550 nm
	Tx optical power 1310nm	-3 to -10dBm
	Tx optical power 1550nm	0 to -5dBm
	Rx sensitivity	-21dBm
	Rx overload	≥ -9dBm
	Rx wavelength range	1260nm to 1580nm
Testing Electrical Interface	Parameter	Value
	Line rate	155.520Mbit/s
	Code	CMI
	Resistance	75Ω
	Connector	Siemens L9, unbalanced
	Standard	ITU-T G.703 standard
	Line rate	E2.048 :1 Mbit/s, HDB3, AMI, 75Ω unbalanced, 120Ω balanced E8.448 :2 Mbit/s, HDB75 ,3Ω unbalanced E34.368 :3 Mbit/s, HDB75 ,3Ω unbalanced E139.264 :4 Mbit/s, CMI, 75Ω unbalanced DS1.544 :1 Mbit/s, B8ZS, AMI, 100Ω balanced DS44.736 :3 Mbit/s, B3ZS, 75Ω unbalanced
	Connector	Siemens L9 unbalanced, RJ48 balanced
Standard	ITU-T G.703 standard	

SDH/PDH Transmission Analyzer



Ordering Information	Description	Part Number
	SDH/PDH Transmission Analyzer	SPA-200
Packaging	Description	
	Cardboard box, 1 unit per box	
General Characteristics	Parameter	Value
	Display	TFT true color, 640x480
	Operation mode	Touch screen, keyboard
	Interfaces	RJ45 port, USB port, DC power
	Data storage	1G
	Battery	Li-ion battery
	Operation time	3 hours
Physical Characteristics	Parameter	Value
	Dimensions	290 mm x 210 mm x 60 mm
	Weight	2.2 Kg
Mechanical Characteristics	Parameter	Value
	Operation temperature	-10 ~ 50°C
	Storage temperature	-20 ~ 70°C
	Operation humidity	10 ~ 90 %
Storage humidity	5 ~ 95 %	



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SPA-200 Data Sheet
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