TFN－T6300A

PRI INTEGRATED

NETWORK COMPREHENSIVE TESTER

ALL-IN-ONE PRI AND NETWORK TESTER

PRI COMPREHENSIVE TESTER

PRI NETWORK TESTER INTEGRATES 10/100/1000M ETHERNET, E1, PRI, V.35/V.24, OTDR, OPTICAL POWER METER TO TEST A VARIETY OF PHYSICAL INTERFACES, SUPPORTING ISDN PRI HANDHELD TEST AS ONE COMPREHENSIVE TESTER. VERIFY 30B+D SIGNALING AND VOICE CHANNEL RESOURCES BY HANDHELD, EASY TO USE, SIMPLE OPERATION, CHINESE DISPLAY INTERFACE.

INNOVATION TECHNOLOGY PRODUCT FEATURES

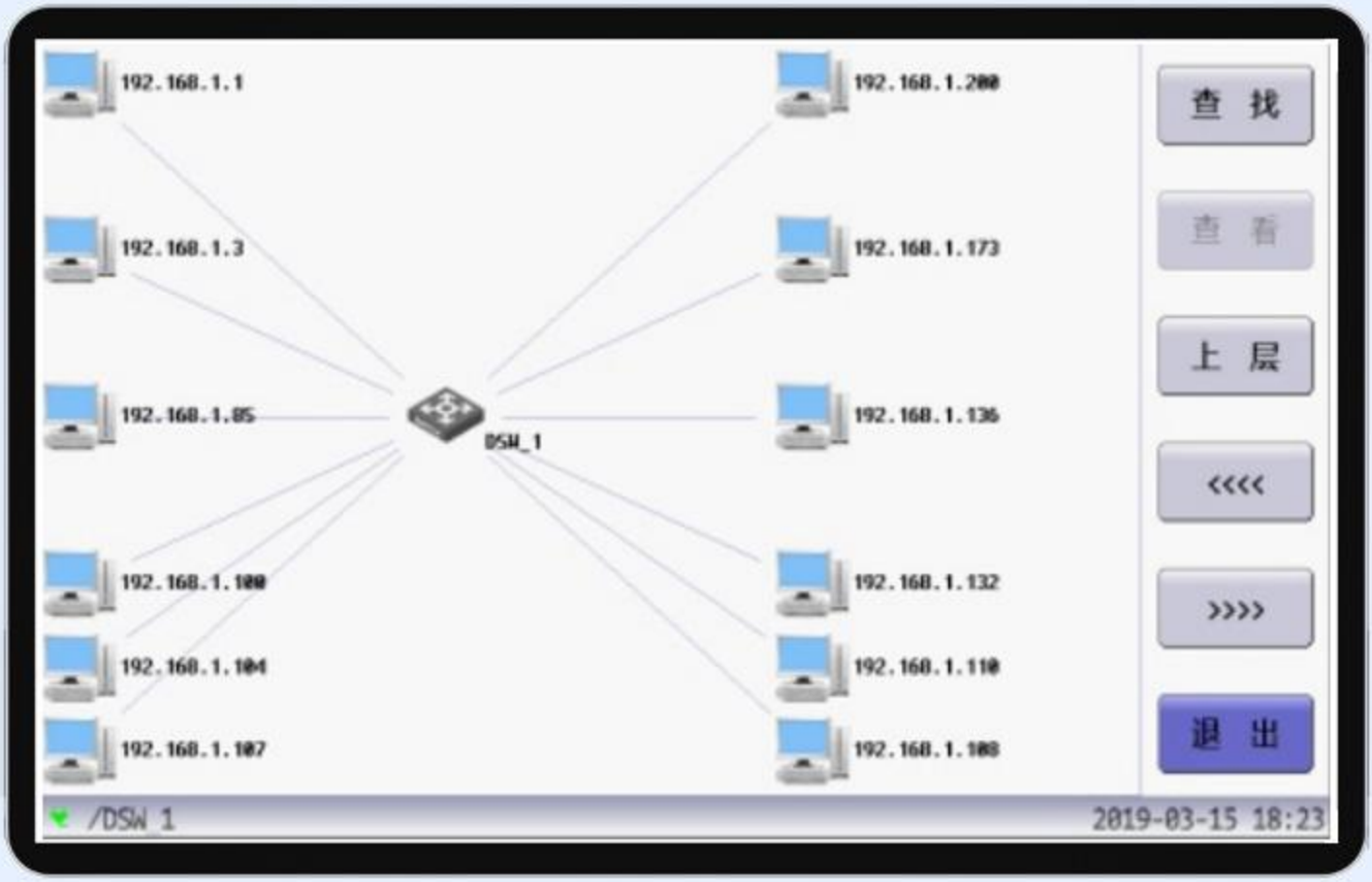
- 10/100/1000M INDEPENDENT DUAL ELECTRICAL AND OPTICAL PORTS
- AUTOMATICALLY IDENTIFIES 10/100/1000M NETWORK SERVICES
- SUPPORTS RFC2544 STANDARD THROUGHPUT, DELAY, JITTER, FRAME LOSS, AND BACK-TO-BACK TESTING
- THE RFC2544 SUPPORTS REMOTE LOOPBACK AND TWO-NODE CLUSTER TEST MODE
- TRAFFIC GENERATION AND ONLINE MONITORING, HISTORICAL EVENT LIST
- SUPPORTS THE THROUGH-THROUGH, PACKET CAPTURE, AND DATA FILTERING FUNCTIONS
- IT HAS LOOPBACK FUNCTION FROM L1 TO L4
- ROUTE EQUIVALENT LOOPBACK
- QUICK PING BRANCH
- SUPPORT THE MSTP TEST FUNCTION
- SUPPORT IPRAN CIRCUIT TEST
- SUPPORTS NETWORK DISCOVERY, DETECTION AND DISCOVERY OF THE INTRANET LINK LAYER TOPOLOGY, AND INTUITIVELY DISPLAYS THE INTRANET HIERARCHY.
- SUPPORTS THE BASE GROUP RATE INTERFACE PRI
- SUPPORT 30B+D, B CHANNEL STATUS, D CHANNEL STATUS, SET THE CALLING NUMBER AND CALLED NUMBER, TRACK MONITORING
- SUPPORTS VOICE INCOMING CALL, VOICE OUTGOING CALL, AND CALL PARAMETER SETTING
- SUPPORT CONVERGENCE PORT WITHOUT RING TO ACHIEVE POINT-TO-MULTIPOINT, POINT-TO-POINT TESTING
- SUPPORTS LOOP DISCOVERY AND VISUALLY VERIFIES RING STATUS
- 7.0 INCH TOUCH SCREEN, PROFESSIONAL AND FAST USER EXPERIENCE
- INTELLIGENT OPERATION, CAN QUICKLY GET TEST RESULTS

COMPREHENSIVE TESTER FUNCTION TEST

10/100/1000M ETHERNET TEST

- 10/100/1000M INDEPENDENT DUAL ELECTRICAL AND OPTICAL PORTS
- AUTOMATICALLY IDENTIFIES 10/100/1000M NETWORK SERVICES
- SUPPORTS THROUGHPUT, DELAY, JITTER, FRAME LOSS, AND RFC2544 STANDARDS. BACK TO BACK TESTING
- THE RFC2544 SUPPORTS REMOTE LOOPBACK AND TWO-NODE CLUSTER TEST MODE
- TRAFFIC GENERATION AND ONLINE MONITORING, HISTORICAL EVENT LIST
- SUPPORTS THE THROUGH-THROUGH, PACKET CAPTURE, AND DATA FILTERING FUNCTIONS
- IT HAS LOOPBACK FUNCTION FROM L1 TO L4
- THE ROUTE IS EQUIVALENT TO LOOPBACK
- LINE SPEED PING
- SUPPORTS THE MSTP TEST FUNCTION
- SUPPORT IPRAN CIRCUIT TEST
- SUPPORTS NETWORK DISCOVERY, DETECTION AND DISCOVERY OF THE INTRANET LINK LAYER TOPOLOGY, AND INTUITIVELY DISPLAYS THE INTRANET HIERARCHY.
- SUPPORT CONVERGENCE PORT WITHOUT RING TO ACHIEVE POINT-TO-MULTIPOINT, POINT-TO-POINT TESTING
- SUPPORTS LOOP DISCOVERY AND VISUALLY VERIFIES RING STATUS

PRI FUNCTIONAL TEST

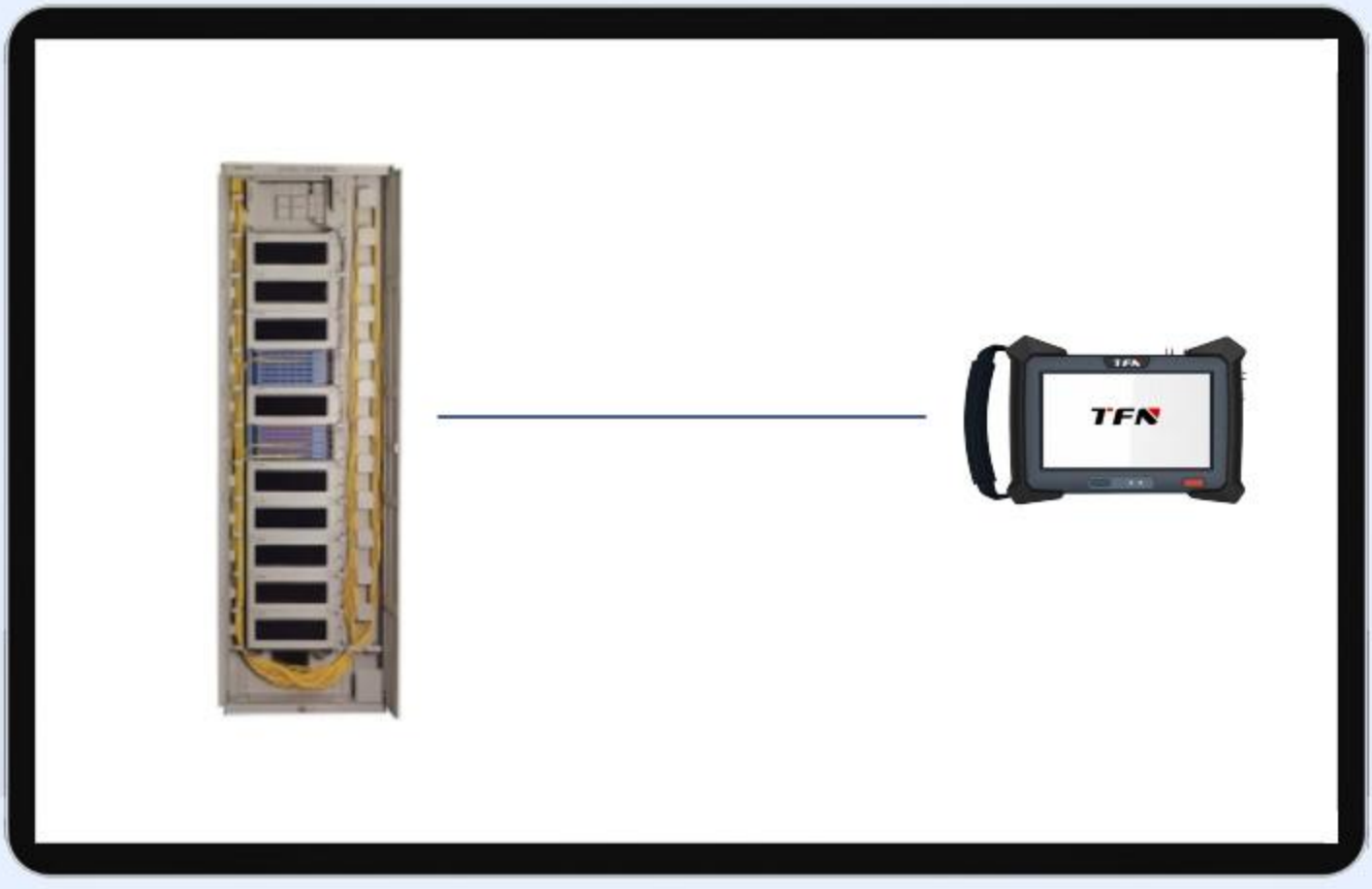


- SUPPORT 30B+D, B CHANNEL STATUS, D CHANNEL STATUS, SET THE CALLING NUMBER AND CALLED NUMBER, TRACK MONITORING
- THE LINK LAYER SUPPORTS THE LAPD, ITU-T Q.921 SPECIFICATION
- THE NETWORK LAYER SUPPORTS THE ITU-T Q.931 SPECIFICATION
- IT CAN SIMULATE TE AND N
- T SUPPORTS VOICE INCOMING AND OUTGOING CALLS
- SUPPORTS CALL PARAMETER SETTING
- INSERT AND REMOVE THE VOICE THROUGH THE HEADSET AND MICRO-PHONE

E1/V.35/V.24 FUNCTION TEST

- PROVIDES E1, V.35/V.24 PORT TESTS
- BERT ERROR CHARACTERISTIC TEST (G.821.G.826, M.2100/550)
- SUPPORTS FRAME RELAY, HDLC, PPP, AND ETHERNET PROTOCOL TESTS
- SUPPORTS THE PING AND LOOPBACK PING TESTS ON E1, V.35, AND V.24 LINKS
- THE FUNCTION OF AUTOMATICALLY DETECTING DESTINATION IP ADDRESSES (HDLC/PPP/FR)
- AUTOMATICALLY DETECTS LINK STATUS AND AUTOMATICALLY CONFIGURES PORT PARAMETERS
- LOOP DISCOVERY IS AUTOMATICALLY DISPLAYED

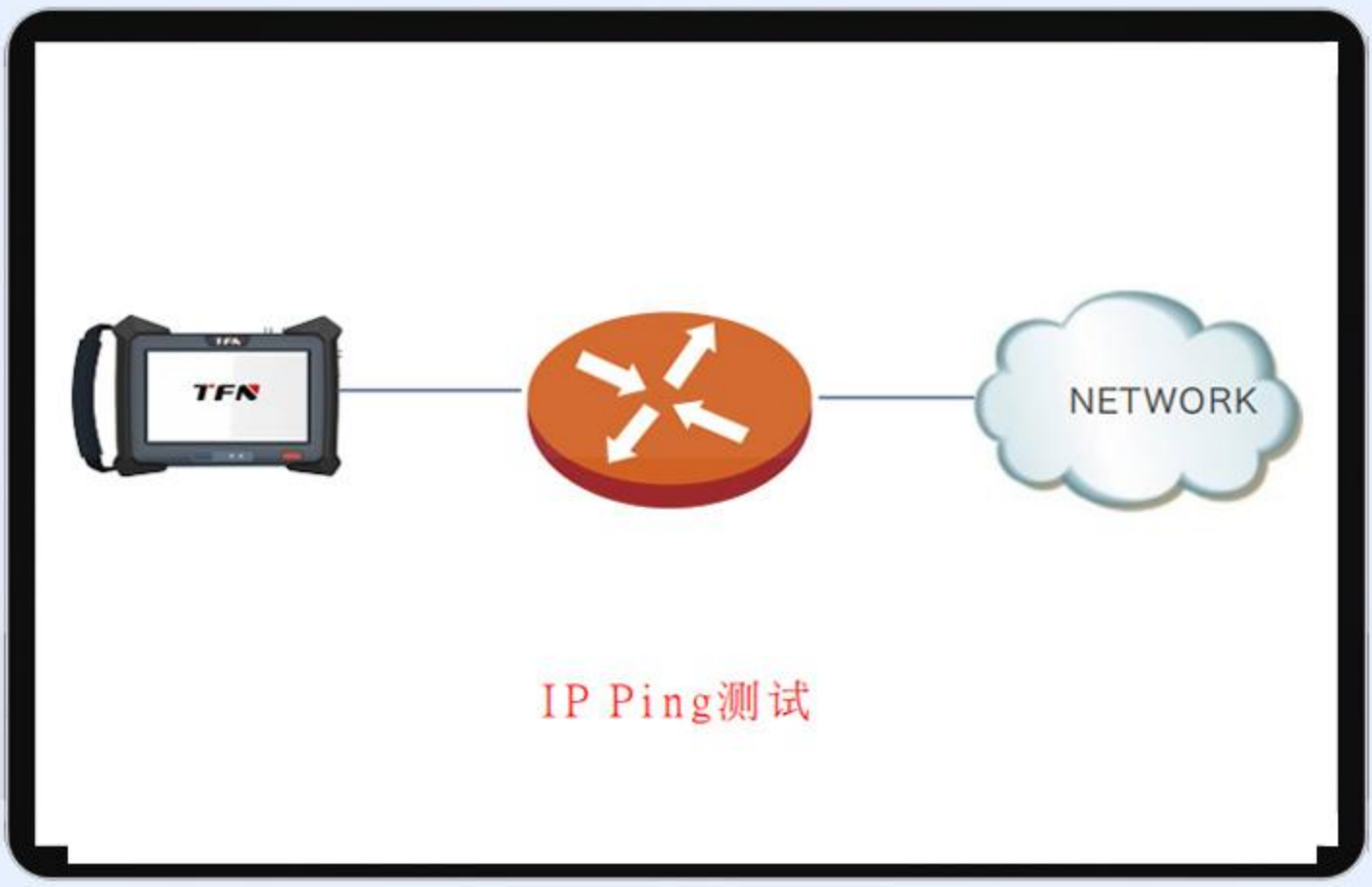
OPTICAL POWER METER/RED LIGHT SOURCE TEST



- OPTICAL POWER TEST WAVELENGTH: 850/980/1300/1310/1490/1550
- TEST RANGE: 800NM-1700NM
- RED LIGHT SOURCE OPERATING WAVELENGTH: 650NM
- FIBER OUTPUT POWER: >10MW

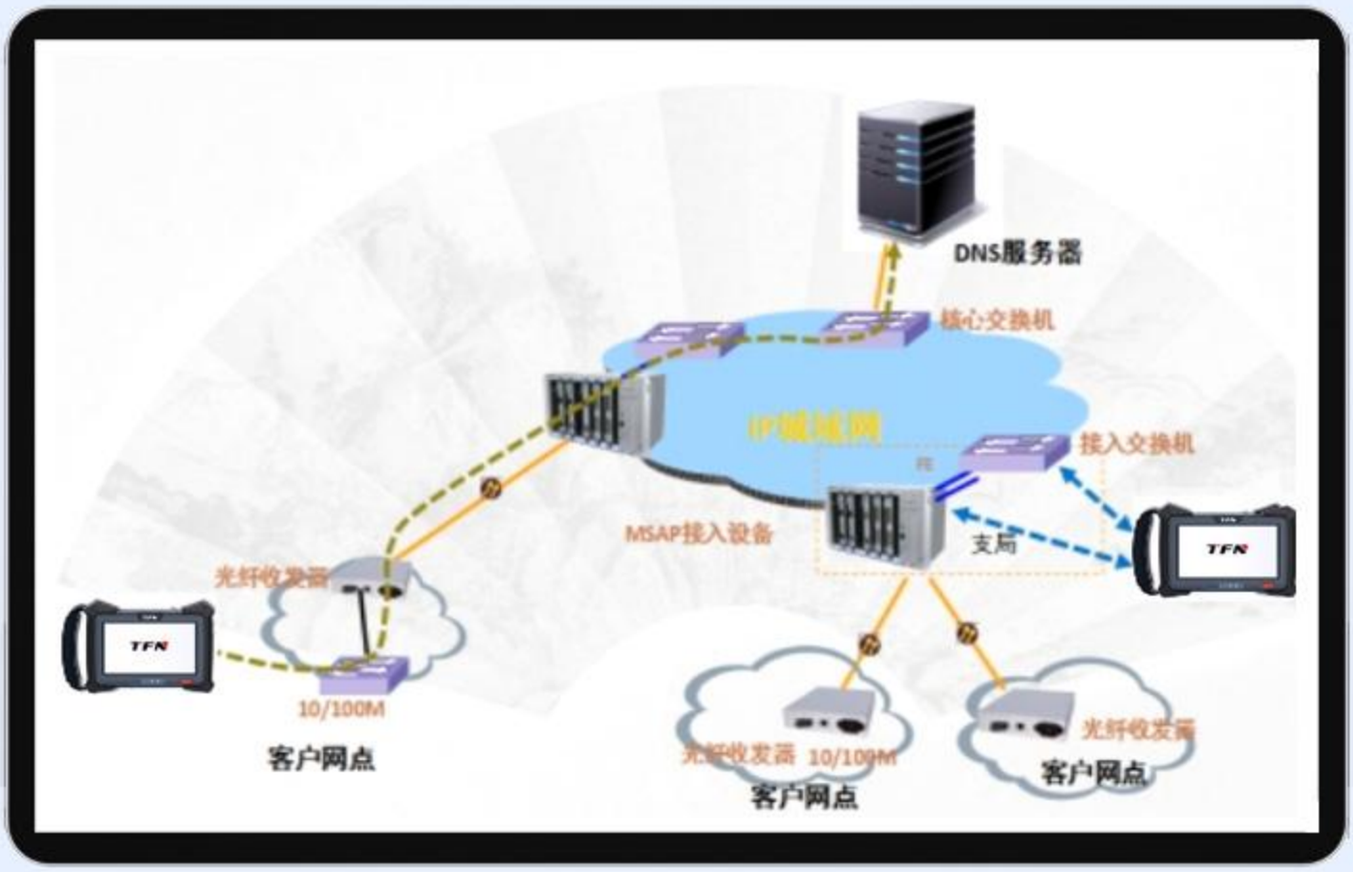
COMPREHENSIVE TESTER SPECIFIC INDICATORS

⭐10/100/1000M GIGABIT ETHERNET PART



- PROVIDES CONNECTIVITY VERIFICATION SERVICES FOR 10/100/1000M ELECTRICAL AND 100/1000M OPTICAL PORTS
- DOUBLE LIGHT, ELECTRICITY, LIGHT MOUTH FOR 850/980/1300/1310/1490/1550 NM
- PACKET SENDING, PACKET RECEIVING, PACKET ERROR, PACKET LOSS, AND PACKET LOSS RATE
- RFC2544 LAYER1, LAYER2, AND LAYER3 TESTS ARE SUPPORTED
- RFC2544 SPECIFICATION TEST: PACKET LOSS RATE TEST, THROUGHPUT TEST, DELAY TEST, BACK TO BACK TEST
- TEST UP TO GIGABIT WIRE SPEED
- FAST TRAFFIC PING, LOOPBACK PING, JUMBO FRAME AND LONG PACKET PING ON ETHERNET LINKS
- IP RAN TESTS ARE SUPPORTED, INCLUDING PHYSICAL LOOPBACK, LAYER 2 LOOPBACK, LAYER 3 LOOPBACK, AND LAYER 4 LOOPBACK
- FTP BANDWIDTH TEST, NETWORK DISCOVERY, PACKET CAPTURE ANALYSIS, ROUTE TRACING, AND ARP SCANNING
- FINE FLOW MONITORING IN THROUGH-THROUGH MODE
- DHCP AUTOMATICALLY OBTAINS AND CONFIGURES IP ADDRESSES
- LOOP DISCOVERY DISPLAY

⭐ E1 PART



E1 PORT ERROR TEST AND IP PING(PPP/HDLC/ FRAME RELAY) FUNCTION TEST (SEE THE E1 TEST APPLICATION DIAGRAM ON THE NEXT PAGE)

TEST PURPOSE

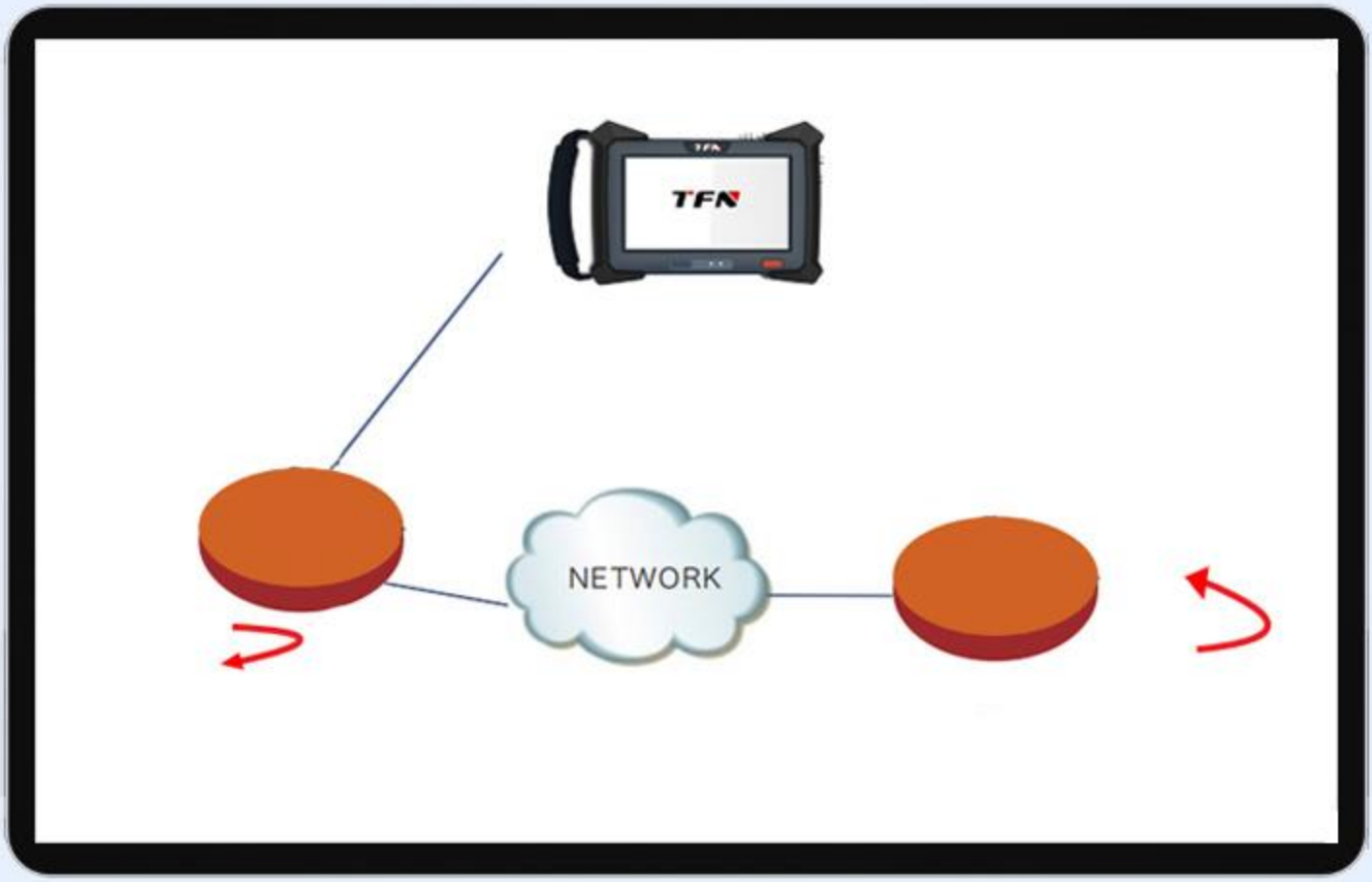
1. LOOPBACK TESTS THE BIT ERROR RATE AND TRANSMISSION PERFORMANCE OF THE E1 LINK

2. CHECK WHETHER THE IP PING LINK IS NORMAL.

3. ONLINE MONITOR WHETHER THE E1 PHYSICAL LAYER LINK HAS BIT ERROR INDICATORS

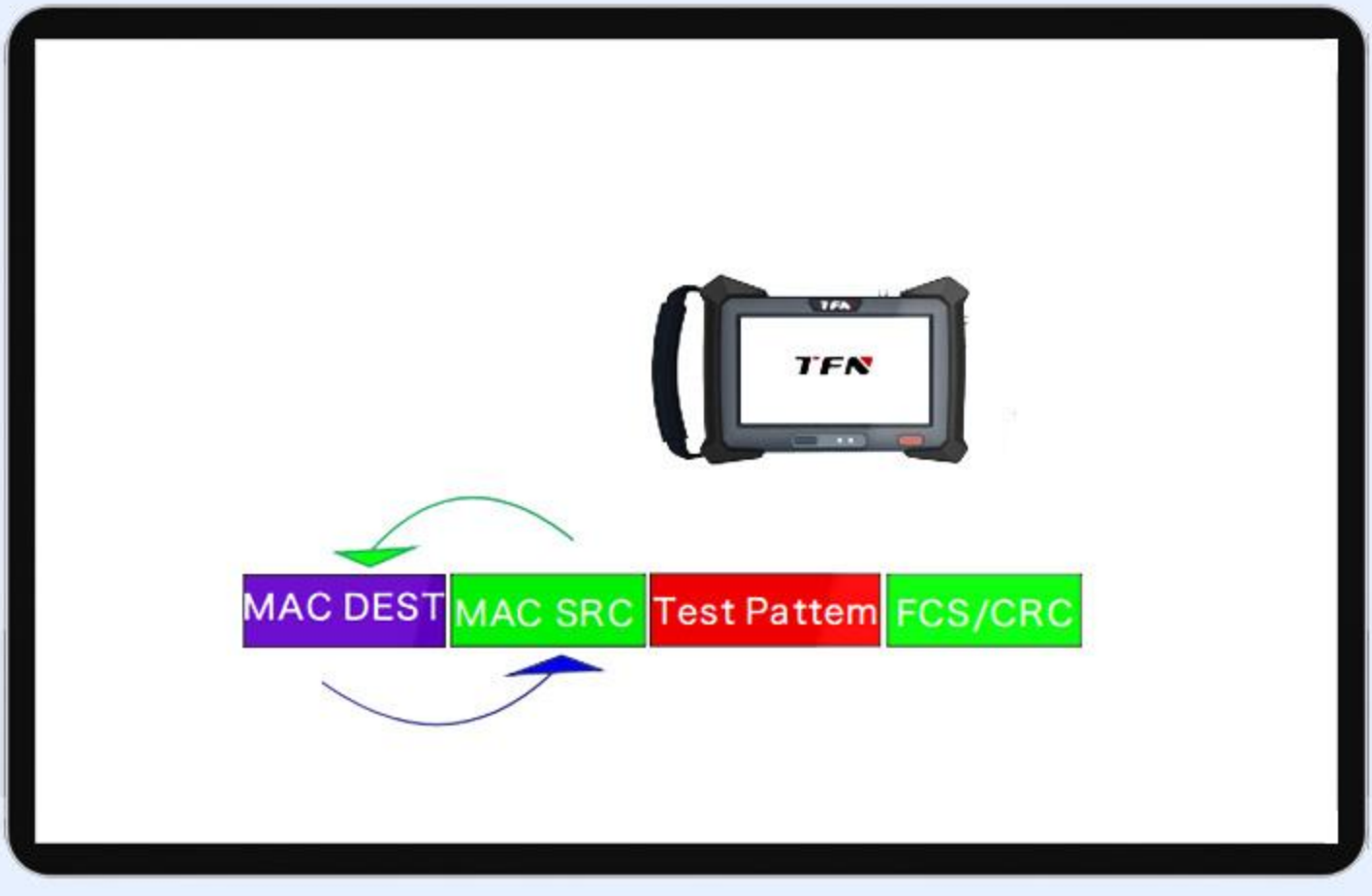
- TEST RATE: 2.048MBPS, N (CONTINUOUS) AND M (NON-CONTINUOUS) X64KBPS(N&M=1 TO 31) INSERT/REMOVE N OR MX64KBPS
- LINE CODE: HDB3&AMI
- FRAME TYPE: NON-FORMING, PCM-30, PCM30C, PMM-31, PMM-31C, IN LINE WITH ITU-T G.704
- TEST FUNCTIONS ONLINE AND OFF - LINE

SENDER



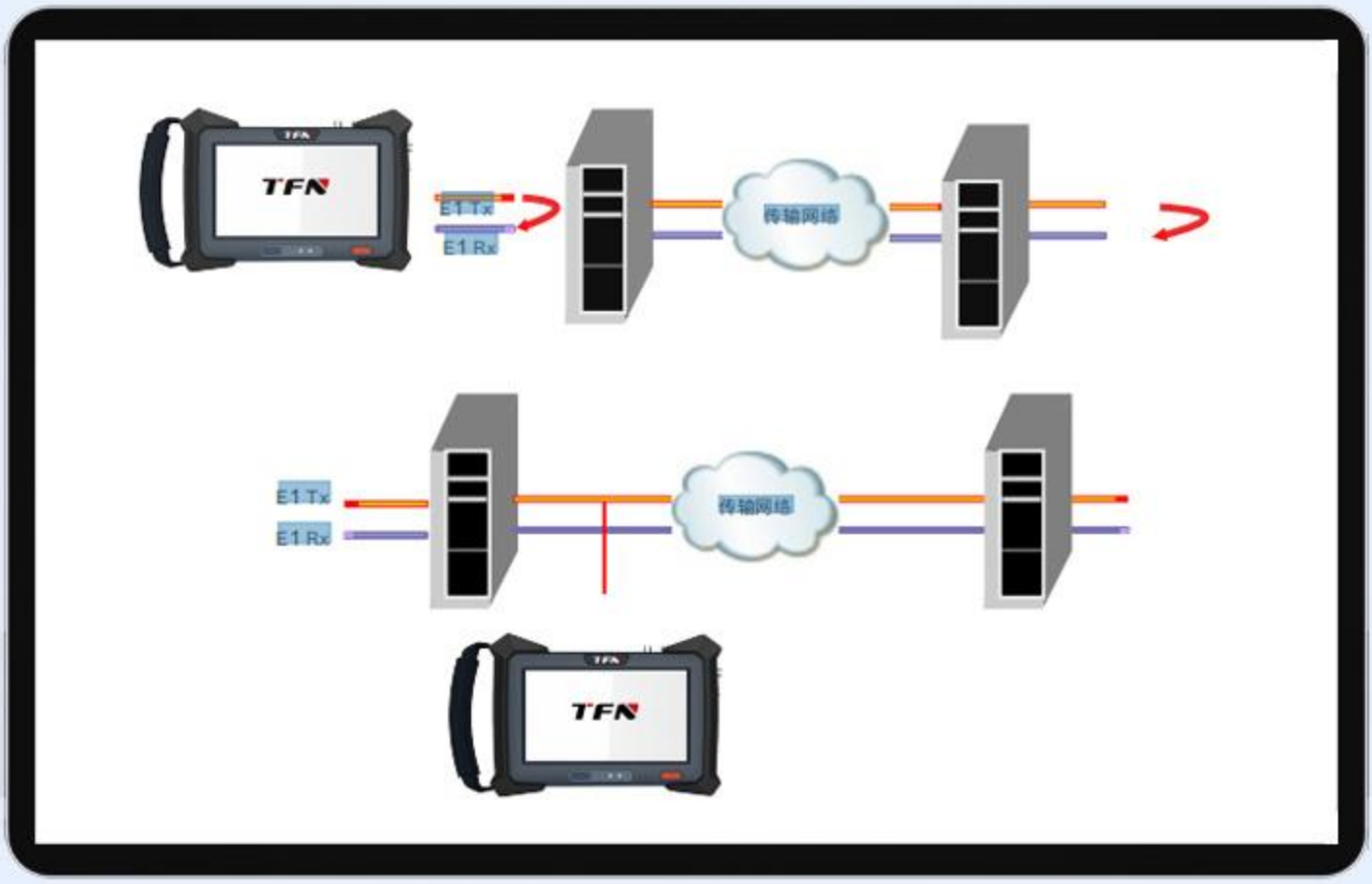
- CLOCK SOURCE, INTERNAL CLOCK: 2.048MHZ±50PPM
- RECEIVE: LOCK THE RECEIVED SIGNAL
- LINE CODE: HDB3 AND AMI
- PULSE WAVEFORM: CONFORMING TO ITU-TG.703
- ERROR INSERTION: BIT, CODE, BIT+CODE; SINGLE OR 1X10-7 TO 1X10-7 RATES

RECEIVING END



- FREQUENCY RANGE: 2.048MBPS±50PPM
- INPUT SENSITIVITY: 0 TO -43DB
- LOSS LOSS PERFORMANCE CONFORMS TO ITU-TG.703 BUFFETING TOLERANCE
- COMPLY WITH ITU-T G823

MEASUREMENT



- E1 RECEIVED SIGNAL LEVEL
- E1 RECEIVING FREQUENCY MEASUREMENT
- VOLTAGE OF THE E1 INTERFACE
- CODE/BPV ERROR (ERROR COUNT AND RATIO)
- FRAME ERROR (FAS, MFAS, AND CRC-4 ERROR COUNT AND ERROR RATIO) LOS, SYNC LOSS, LOF, AIS, FAS, RAI, AND MFAS SECONDS COUNT
- G.821 ANALYSIS, G.826, M.2100/550 TEST, E-BIT ERROR COUNT AND RATIO
- SUPPORTS PPP AND HDLC LAYER 2 ROUTING PROTOCOL ANALYSIS
- TESTING FAST TRAFFIC IP PING AND LOOPBACK PING
- LOOP DISCOVERY IS AUTOMATICALLY DISPLAYED

E1 PART

V.35 INTERFACE ERROR TEST AND IP
PING(PPP/HDLC/ FRAME RELAY) FUNCTION TEST

TEST PURPOSE

- 1. THE METER AUTOMATICALLY DETECTS THE PROTOCOL TYPE AND IP ADDRESS OF THE REMOTE ROUTER, PERFORMS IP PING, AND PERFORMS CONNECTIVITY TEST
- 2.V.35 LINK LAYER ERROR TEST

CONCRETE INDEX

- V.35. DCE/DTE ACCESS MODE &V.24 SYNCHRONOUS TEST MODE TEST PATTERN
- PRBS:2N-1, N=9,11,15,20,23, IN LINE WITH ITU-TO.152,0.153
- BERT ERROR CHARACTERISTIC TEST IS CONSISTENT WITH G.821 ANALYSIS
- PROVIDES THE V.35/V.24 MONITORING FUNCTION
- SUPPORTS PPP AND HDLC LAYER 2 ROUTING PROTOCOL ANALYSIS
- TESTING FAST TRAFFIC IP PING AND LOOPBACK PING

FRAME RELAY SECTION

- SUPPORTS E1, V.35, AND V.24 PHYSICAL INTERFACES
- UNI DTE/DCE FRAME RELAY MONITORING AND ANALOG USER END (CPE) TESTING
- COMPLIANCE STANDARDS: ITU Q.933, ANSI T1.618/T1.617 CISOCO LMI,LMI ANALYSIS, PVC STATUS
- DLCI STATISTICS (32 DLCI AVAILABLE SIMULTANEOUSLY)
- CIR SERVICE QUALITY TEST
- TIMER: T391, T392, N391, N392,N393 PERFORMANCE STATISTICS
- SUPPORTS AUTOMATIC LINK IP ADDRESS DETECTION AND FAST TRAFFIC IP PING TEST
-
- LOOP DISCOVERY IS AUTOMATICALLY DISPLAYED

OPTICAL POWER METER PART

ADVANTAGE

THE INDEPENDENT OPTICAL POWER METER INTERFACE IS USED TO MEASURE OPTICAL POWER, WITH A MUCH HIGHER ACCURACY THAN THE SFP OPTICAL MODULE

- BUILT-IN OPTICAL POWER MODULE
- WAVELENGTH RANGE: 800NM TO 1700NM
- WAVELENGTH CALIBRATION: 850/980/1300/1310/1490/1550
- PROBE TYPE: INGAAS
- POWER MEASUREMENT RANGE: -70DBM~+6DBM
- UNCERTAINTY: +-0.25DB
- LINEARITY: 0.03DB
- DISPLAY RESOLUTION: 0.01DB

RED LIGHT SOURCE

- OPERATING WAVELENGTH: 650NM
- FIBER OUTPUT POWER:>10MW
- FREQUENCY BLINKING: STEADY ON /2HZ

OTDR SECTION

- THE MEASUREMENT WAVELENGTH IS 1550NM±10NM
- LASER TYPE PULSE FP LASER
- DYNAMIC 20DB RANGE
- 500 M / 1 KM / 2.5 KM / 5 KM / 10 KM / 20 KM, 40 KM
- PULSE WIDTH 10 NS / 25 NS / 50 NS / 100 NS / 250 NS 500 NS / 1 / US / 2.5 US / 5 US/US
- DEAD ZONE EVENT DEAD ZONE <4M, ATTENUATION BLIND AREA <10M

GENERAL CHARACTERISTICS/ENVIRONMENT

- CAN STORE 1000 TEST RESULTS, SCREEN DISPLAY OR PRINT
- HIGH RESOLUTION 7.0 "COLOR LCD DISPLAY WITH LED BACKLIGHT
- INTERNAL BATTERY POLYMER LITHIUM BATTERY 6000MA 4.2V
- BATTERY OPERATION TIME: 6 HOURS; CHARGING TIME: 5 HOURS
- OPERATING TEMPERATURE: 0°C TO 50°C
- STORAGE TEMPERATURE: -20°C TO +70°C
- TEMPERATURE: 5% TO 90% NON-CONDENSING
- DIMENSIONS: 190MMX120MMX35MM
- WEIGHT: LESS THAN 1KG

PRODUCT DISPLAY

T6300A
TFN
网口1 状态
基本设置
PING设置
网络发现
带宽测试
TCP测试
辅助功能
链路状态
1000M
100M
10M
全双工
半双工
环路发现
广播风暴
端口模式
自适应100M
环回模式
正常收发
使用VLAN
禁用
VLAN优先级
0
VLAN号
100
等效环回
禁用
MAC地址
0007E9078A10
IP发现
抓包
端口定位
流量检测
2000-04-06 19:44

TFN INSTRUMENTS
Made in China
Model code:
Serial number:
Production date:
Charging input: DC5-12V/3A
Dimensions: 224x139x53mm
CAUTION!
81C285

T6300A
网口1 状态
基本设置
PING设置
网络发现
带宽测试
TCP测试
辅助功能
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0007E9078A10
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端口定位
流量检测
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E1R TEST INTERFACE

E1 BILLION TEST INTERFACE

OTDR INTERFACE

OPTICAL PORT 2 PORT

DOUBLE CABLE INTERFACE

OPTICAL PORT 1 INTERFACE

OPTICAL POWER METER INTERFACE

RED LIGHT INTERFACE

E1(120) PORT

V.35 TEST THE INTERFACE

HEADPHONE JACK

USB INTERFACE
MANAGEMENT INTERFACE
T6300A
网口1 状态
基本设置
PING设置
链路状态
1000M
100M
10M
全双工
半双工
环路发现
广播风暴
端口模式
自适应10
环回模式
正常收发
使用VLAN
禁用
VLAN优先级
0
VLAN号
100
等效环回
禁用
MAC地址
0007E90

CONFIGURATION LIST

CAUTION

AC/DC ADAPTER
FLATEN Technology
CAUTION