



**WISE**  
Indústria de  
Telecomunicações

**TSW800TP+**

Product developed  
and manufactured in  
Brazil, without  
national  
similar.

# TSW800TP+



**TSW800TP+ is a module test equipment developed with a state of the art technology, used to installation and maintenance of the new services provided by the telecom providers, which cover voice, data and video, also known as Triple Play.**

The possibility of gathering several features from different equipment into a single device is an old demand from telecom service providers. WISE who is always aware to its clients needs and always focusing in the broadband market, decided to invest into an equipment to attend all these needs.

Continuing the TP family line, this new product makes available in only one equipment a set of tests in several different technologies which use the metallic pair, with a bunch of electric tests that define the real pair conditions.

Therefore, the TSW800TP+ gather features from its predecessors and the electric tests which virtually turn into a multimeter and megometer. Making it an extremely versatile and powerful product capable of greatly facilitate the work of technicians.



[wise@wi.com.br](mailto:wise@wi.com.br)

+55 (61) 3486-9100

SIBS QD 01 conjunto D lote 12

Brasília - DF

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## Features

- High resolution color graphic display;
- Rechargeable batteries with external source;
- Monitoring of available battery charge via display;
- Real time clock;
- Memories to store test results;
- Printing of test results;
- Software update via the Internet;
- Case made of injected ABS plastic, with modern and ergonomic design;
- Protective, enveloping and safer rubbers;
- Dimensions: 250mm x 140mm x 60mm;
- Weight : 1.1kg.

### XDSL Module (Optional)

#### **XDSL TESTS SPECIFICATIONS**

XDSL TECHNOLOGIES: ADSL, ADSL2, ADSL2+, VDSL, VDSL2

#### **Showtime**

- Maximum downstream connection speed (center direction => subscriber);
- Maximum upstream connection speed (subscriber direction => central);
- Speed established in the negotiation for downstream data transfer;
- Speed established in negotiation for upstream data transfer;
- Signal to Noise Ratio Margin (SNR);
- Attenuation;
- Histogram of the number of bits per channel for downstream;
- Histogram of the number of bits per channel for upstream;
- Standard in which the connection was established (ANSI, G-DMT, G.lite, ADSL2, ADSL2+, Auto);
- VDSL, VDSL2, AutoVDSL);
- Counters and faults;
- Navigation tests: PING, BROWSER, THROUGHPUT;
- Tool: UPLOAD.

#### **Settings**

- Protocols: PPPoE, RFC 2684 (Metro Ethernet), RFC 2684 (IpoA) and BRIDGE;
- Lines: Auto, ANSI (T1.413), G.DMT (G.992.1), G.lite (G.992.2), ADSL2 (G.992.3), ADSL2 + (G.992.5), AutoVDSL, VDSL (G.993.1), VDSL2 (G.993.2).

#### **Modem (Through mode)**

- Subscriber Modem Emulation

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## APPLICATIONS

### Internet

- Protocols: DHCP, DNS, PING, HTTP (browsing);
- UP / DOWN Link Sign;
- Statistics: Number of TX and RX packets, wrong TX and RX packets.

### IPTV (Optional)

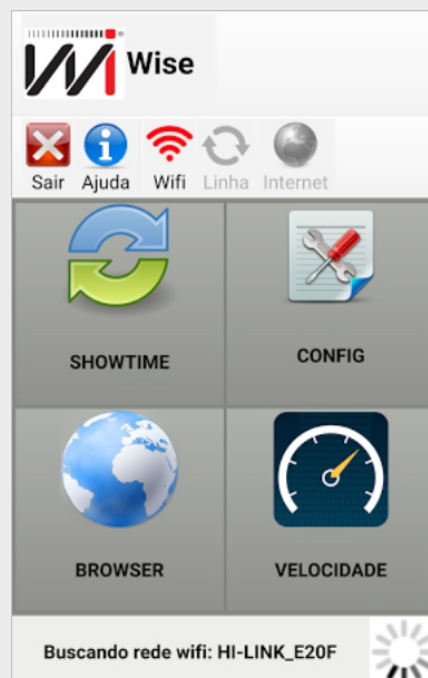
Protocols: MPEG-2 Broadcast (UDP and RTP), MPEG-2 VOD (RTSP-UDP).

Results: Video stream statistics, speeds and QoS, errors, jitter, PID Map and Band Usage

### Wi-Fi + APP (Optional)

- Sync Status
- Showtime Screen
- XDSL Parameter Settings
- Browser
- Speed test\*

*\*Uses third party apps.*



*Figure 1 - Application home screen.*

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- ✓ DVOM Module (Optional) ;
- ✓ TAP Module (Optional) ;

|                                       | TAP Module | DVOM Module |
|---------------------------------------|------------|-------------|
| AC/DC Voltage Meter                   | Ok         | Ok          |
| AC/DC Current Meter                   | Ok         | Ok          |
| Resistance Meter                      | Ok         | Ok          |
| Distance to the short calculation     | Ok         | Ok          |
| Capacitance Meter                     | Ok         | Ok          |
| Distance to the open calculation      | Ok         | Ok          |
| Capacitive Balance                    | Ok         | Ok          |
| Megometer                             | Ok         | Optional    |
| Longitudinal Balance                  | Optional   | Optional    |
| Pass/Fail Test with report generation | Ok         | Ok          |
| Noise Meter                           | Ok         | -           |
| Stress Balance                        | Optional   | -           |

## DVOM and TAP Electrical Test Specifications

### AC / DC voltage

- **AC voltage:** This measurement checks for the presence of AC voltage in Vrms in the metallic pair.
  - **Range:** 0 to 400 Vrms
  - **Resolution:** 0.1 Vrms
- **DC Voltage:** This measurement checks for the presence of DC voltage in Volts in the metallic pair.
  - **Range:** - 250 to +250 V
  - **Resolution:** 0.1 V

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#### Current

- Range: 0 to 90mA;
- Resolution: 0.1mA;
- Accuracy: 1%  $\pm$  0.5mA.

#### Short Distance / Link Test (Resistance)

This measurement checks for resistance in a cable. A pair of cables in good condition must have “infinity” resistance between the pair. A lower resistance identifies the presence of a short at a certain point on the line. The equipment provides resistance value and distance to short, if the resistance is nonzero. The distance calculation is made considering the cable gauge, which can be configured.

- **Range:0 to 1.0 G $\Omega$**
- **Resolution::**
  - 0.1 for measurements between 0 and 999.9  $\Omega$
  - 0.1 k for measurements between 1.0 and 999.0 k $\Omega$
  - 0.1 M for measurements between 1.0 and 1000.0 M $\Omega$

#### Open Distance (Capacitance)

Measure capable of identifying the cable length from its capacitance. The measure will be performed only if the opposite end of the line is open, if not, the will notify the display of the presence of short.

- **Range:0 to 3000.0 nF**

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### Megometer (Insulation)

Measure that determines resistance failures along the metallic pair. Cable failures, humidity, etc., can generate short high strength points along the pair. metallic, which ends up generating noise in the line. The megometer can be used generating a voltage of 100 V or a voltage of 500 V.

- **Voltage: 100 V/ 500 V**
  - Insulation: 1.0 to 20 G $\Omega$
  - Resolution: 0.1 M $\Omega$

### Noise

- Noise range: - 80 dBm to +10 dBm @ 600 $\Omega$
- Resolution: 0.1 dBm

### Longitudinal Balance

Ensures the balance of the locked pair.

### Stress Balance

The purpose of this measurement is to find electrical differences, such as resistance and capacitance, in the wires of a given metallic pair.

- Range: 0 to 90.0 dB<sub>rnC</sub>
- Resolution: 0.1 dB<sub>rnC</sub>

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### TDR Module (Optional)

It is a time domain reflectometer that sends energy pulses and measures the time interval. of the reflections. The way energy is reflected and the amount of energy reflected indicates the cable condition. It can accurately identify problems as short and open. A TDR also provides a rough estimate of the total amount of wet cable and the location approximate wet section.

- Wrist Mode
- Auto mode
  - ~ Range: 7 km
- Mode Step
  - ~ Range: 500 m
- Mode Offsets Cable
  - ~ Range: 20 m

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## Applications

### MODEM CONFIGURATOR

The instrument can configure a series of modems, so it is not necessary for the instrument to technician has a notebook to do this type of setup.

### PASS / FAIL FUNCTION

The equipment is capable of approving or disapproving line connection measures and electrical test line measurements. The values obtained in the tests are compared with thresholds entered on the TSW800TP + Management screen. At the end of each test sequence (xDSL or electrical), the equipment submits a final report approving or failing that test.

In case of disapproval is displayed as it generated the disapproval and a help screen is displayed, showing the steps that can be taken to resolve the defective measure.

### WISE MANAGEMENT SYSTEM (SGW)

SGW allows the user to send data stored in the equipment to a certain website, facilitating real-time facility management and analysis. The data sent are exactly the parameters obtained when connecting to DSLAM, such as downstream, upstream, noise margins, attenuation, plus the time and date the test was performed, equipment serial number, identification of the technician who performed the test and others.

### SYSTEM TOOLS

#### File manager

The results obtained can be stored in memory. There is memory available for Store over 100 consecutive tests. There is also the ease of printing data from any of the memories or the last test. This data may also be transmitted to a computer via Ethernet interface. Test results are divided into:

- AdslResults
- EthernetResults
- IptvResults

#### Setup

- Date / Time Adjustment
- Buzzer
- Display (backlight)
- Contrast
- Power off time

#### Software update

It is made via Line or Ethernet interface, directly from the internet.