SPIRENT TECH-X FLEX

T5645 COPPER REMOTE UNIT

The T5645 Copper Remote Unit is a low-cost, multi-function line test set, used for executing far end tests in conjunction with the main Tech-X Flex® Copper module.

FEATURES & BENEFITS

- Enables field personnel to perform remote copper test operations normally requiring two technicians.

- Controlled remotely by the Tech-X Flex WB Copper Module using DTMF tones for test execution

- Test Frequencies from 70Hz—2.5MHz

- Five different modes of testing including:

  - Through mode
  - Tone Generation Mode
  - Open Pair mode
  - Short Pair mode
  - Ground Pair mode

The Remote Unit (RU), when used in conjunction with the Tech-X Flex WB Copper Module, delivers state-of-the art techniques for pre-qualification and maintenance testing of the digital services network directly into the hands of the field technician.

The T5645 allows you to perform certain testing that requires action at the far end of a loop, without the need for a second technician to perform the action manually. Supported actions include the sending of tones and shorting/opening the loop.
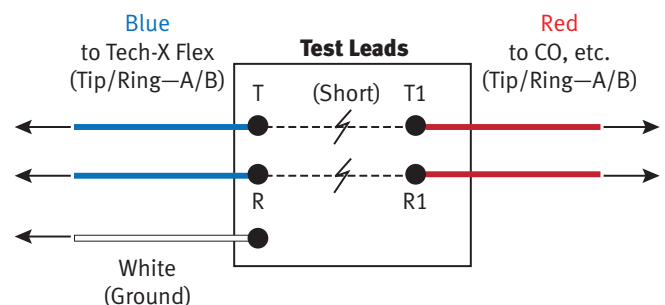
For all copper testing that specifically indicates RU support, the Tech-X Flex WB Copper module automatically controls the RU through DTMF tones and no manual intervention is required.

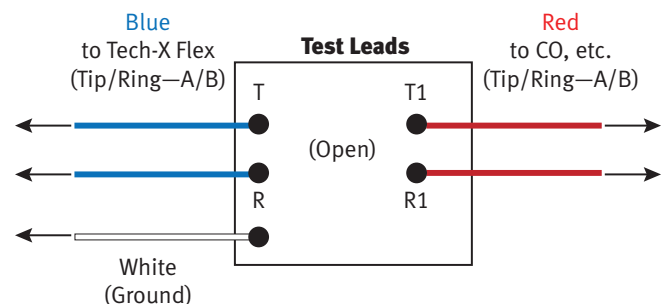### T5645 COPPER REMOTE UNIT MODES OF OPERATION

Through Mode

Through mode is the default state of the RU, in which the T and R (A and B) connectors are connected directly to T1 and R1 (C and D) respectively. This mode allows the RU to be passively connected inline with a working circuit until it is required to perform an intrusive operation.

Open Pair Mode

Open pair isolates all connections, typically used to simply open a pair for a field tester at the far end.
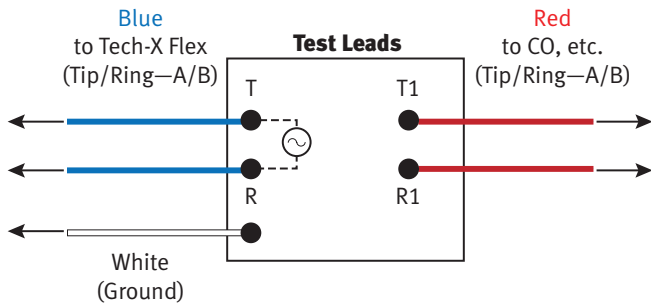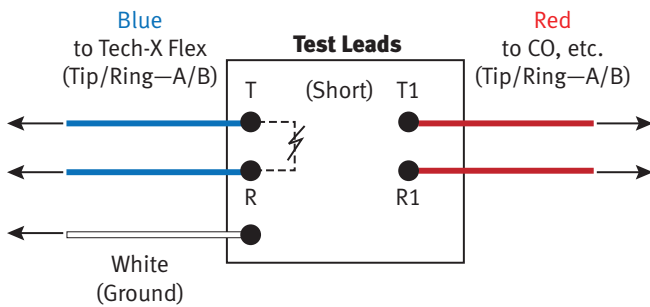
Tone Generation Mode

The Spirent T5645 Copper Remote Unit can produce:

- Short bursts of audio tones for general purpose usage to help identify the pair under test
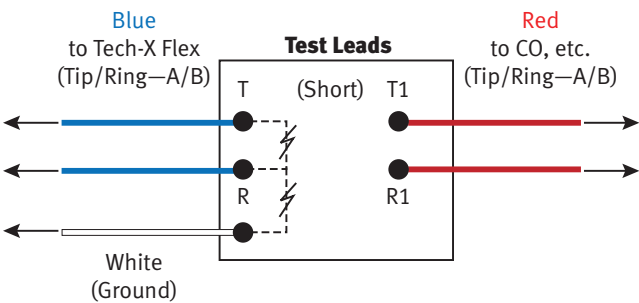- Continuous tones for insertion loss testing, including frequencies in the wideband range

Short Pair Mode

Short pair shorts together the tip and ring (A and B).

Ground Pair Mode

Pair ground shorts together the tip, ring, and ground (A, B, and E).

TEST FEATURES OF THE T5645 COPPER REMOTE UNIT

Remotely places Pair into: Thru, Open Pair or Pair Ground

- AC/DC voltage
- Loop resistance
- Opens capacitance
- Insertion loss
- Wideband weighted noise
- RFL testing
- Line balance
- 500V insulation resistance
- True multi-frequency line-loss measurements between 70 Hz – 2 MHz
- Noise measurement in four bands over the range 30 Hz – 2.2 MHz
- Separate AC/DC voltage measurements for foreign battery
- Open and short circuit remotely signaled for bridge-fault and pulse-echo testing
- Exchange connect-disconnect signaled

SPECIFICATIONS

Dimensions	216 x 100 x 40mm
Battery	9V alkaline
Battery Life	Typical 40 hours of continuous use
Operating Temperature Range	0 to 50°C
Humidity	‹80% non-condensing

ORDERING INFORMATION

Product Number	Product Name	Description
T5645	Copper Far End Unit (FEU)	A remote device used in conjunction with the Tech-X Flex Copper module, to provide Shorts, Grounds, Opens, Termination, Tones on a cable pair for testing at a distant location.
T5000	Tech-X Flex	With 10/100 Ethernet interface for IP Ping, Traceroute, DHCP/Static Addressing.
T5640	WB Copper Module	Provides WB Copper test functionality to 30MHz. Includes DVOM/VF, TDR, RFL, PSD and WB measurements.

SPIRENT SERVICES

Spirent Global Services provides a variety of professional services, support services and education services—all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services Website at www.spirent.com/gs or contact your Spirent sales representative.

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