



## Spirent E-Series E2520 HANDHELD TDR TESTER

Spirent's E2520 Handheld TDR Tester is a long-range, handheld time domain reflectometer that accurately locates faults on twisted pairs up to 9800 feet away. The E2520 is uniquely suitable for accurately measuring the length of cable and locating a variety of faults and conditions such as metallic shorts, metallic sheaths, crosses, metallic opens, resistive joints or splices, open sheaths, splits and re-splits, water ingress, bridge taps, and load coils.

### TDR OPERATION

The principle of TDR operation is that a test pulse transmitted down a cable is reflected by a fault such as an open or short circuit. The time between the transmission of the test pulse and receipt of the reflected pulse at the instrument is proportional to the distance to the fault. As the velocity of the test pulse depends on the cable dielectric, a velocity factor compensates for different types of cables so that the distance to the fault can be correctly measured in feet, meters, or nanoseconds. The distance to the fault is measured by moving an onscreen cursor to coincide with the start of the reflected pulse.

### NO DEAD ZONE WITH INTERNAL BALANCE CONTROL

An internal balance control is provided to cancel the mismatch between the unit and the line under test, making it easier to locate faults close to the unit.

### VARIABLE VELOCITY FACTOR

Variable VF from 0.30 to 0.99 in steps of 0.01 ensures that accurate results can be obtained on a variety of cables.

### USER-FRIENDLY, INTUITIVE INTERFACE

The E2520's simple, easy-to-use interface automatically begins testing when the unit is turned on.

### RUGGED AND BATTERY-POWERED

The E2520 is supplied in a rugged, padded pouch. It can be powered by manganese-alkali or nickel-cadmium rechargeable batteries.

### LIGHTWEIGHT—IDEAL FOR FIELD USE

Weighing in at only 1.32 lb. with batteries, the E2520 is a lightweight instrument, ideal for use in the field.

### AUTOMATIC POWER-DOWN FEATURE

After five minutes with no user action, the unit automatically switches off to conserve battery power.

### CLEAR LCD GRAPHIC DISPLAY

The E2520's clear LCD with backlight facility ensures easy reading of results regardless of the working environment.

### INSTANT RESPONSE KEYS

Instant response keys ensure there are no annoying delays between key-presses and display updates.

### SPIRENT GLOBAL 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.spirentcom.com/gs](http://www.spirentcom.com/gs) or contact your Spirent sales representative.



## General Specifications

### Physical Characteristics

**Case dimensions (L x W x H)** 7.48 x 3.54 x 2.12 in.

**Display dimensions** 1.73 x 2.28 in.

**LCD** 128 x 64 graphic with backlight

**Case material** ABS & Polycarbonate

**Weight** 1.32 lb. (with batteries)

**Connectors** 6 feet

### Power

**Batteries** 6 AA size manganese-alkali or nickel-cadmium cells

**Battery life** 54 hours (using AA alkaline batteries)  
50 hours (before low battery indicator)

**Auto shutoff** Approximately 7 minutes with no key press

### Environmental Requirements

**Bump** To IEC 68-2-29

**Drop** To IEC 1010, Clause 8.4

**Vibration** To IEC 1010, Clause 8.3

**Impact** To IEC 1010, Clause 8.2

**Humidity** 0 to 93% RH @ +104°F

**Operational temperature** 5° to 122°F

**Storage temperature** -4° to 158°F

**Cold temperature** To IEC 68-2-1

**Dry heat** To IEC 68-2-2

**Damp heat** To IEC 68-2-3

**Water/dust ingress** IP54

### Protection, Safety and EMC

**Protection** Withstands 250 V AC/DC and ringing tone

**Safety** Complies in general with IEC 1010

**EMC** EN50081-1 and EN50082-1

## Technical Specifications

**Range** 300 ft.  
900 ft.  
3000 ft.  
9000 ft.  
Auto range

**Accuracy** 1% of range

**Resolution** 1% of range

**Gain** Auto-configured for range selected

**Velocity factor** Variable from 0.30 to 0.99 in steps of 0.01

**Output pulse amplitude** 5 V peak to peak in open circuit

**Output impedance** 120 Ω

**Pulse width** Automatically based on range and output impedance selected

## Ordering Information

### Model

**E2520 Handheld TDR Tester (North America)** E2520-NA

### Spares

**Battery 1.5V IEC LR6** CEJ0006

**Carry Case** DDP0035

**Test Lead Set** DFK0136

**Instruction Manual** CMR0045

All units are shipped standard with carrying case, leads, batteries, and instruction manual.



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