

T3MIL50 & T3MIL50X Fact Sheet

D.C. Milli-Ohm Meters



Tools for Improved Debugging

- 3.5" Large TFT LCD Display. ✔ Clear visibility of your measurement results.
- Fast measurement rate of 60 readings per second with an accuracy of up to 0.05 %. ✔ Faster measurements without losing accuracy.
- Various drive modes:
T3MIL50X: DC+/DC-, Pulsed, PWM, Zero, Standby
T3MIL50: DC+, Standby ✔ Suitable for various measuring applications.
- Built-in temperature compensation measurement function. ✔ Accurate Temperature measurements.
- Standard interfaces:
USB, RS-232C, HANDLER/SCAN/EXT I/O ✔ Remote control your measurements.
- 3 Years Warranty as standard. ✔ Reliable product gives peace of mind.

Key Specifications

Specification	T3MIL50/T3MIL50X
Resistance Measurement Range	5 mΩ to 5 MΩ
Sampling Rate	Fast: 60 readings/s Slow: 10 readings/s
Display	50,000 counts
Interface	USB, RS-232C, HANDLER/SCAN/EXT I/O

For more information, please contact:



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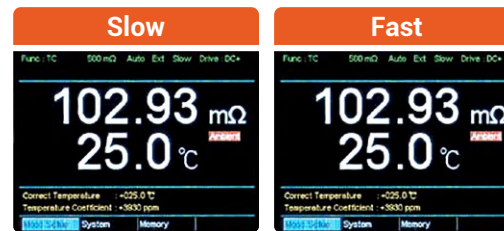
Features

- 50,000 Counts Display
- 3.5" (320 x 240) TFT LCD Display
- Accuracy of up to 0.05 %
- Alarm setting for function-specific PASS/FAIL test results
- 1 Amp Test Current, 0.1 $\mu\Omega$ Resolution
- Fast measurement of 60 readings per second
- Four wire resistance measurement
- Temperature Compensation measurement function
- Delayed measurement
- 20 sets of panel setting memory
- Dry circuit testing (T3MIL50X only)
- Drive Modes:
 - T3MIL50X: DC+/DC-, Pulsed, PWM, Zero, Standby
 - T3MIL50: DC+, Standby
- Interface: USB Device, RS-232C, Handler/Scan/EXT I/O

Application Fields

- Production testing of contact resistance of switches, relays, connectors, cables, and other low Resistance Devices
- Production testing of various inductive components (coil, choke, and transformer winding etc.)
- Testing of low value resistors, fuses, and heating elements
- Winding resistance of motors, transformers, solenoids, and ballasts
- Conductivity evaluation in product design
- Incoming inspection and quality assurance testing

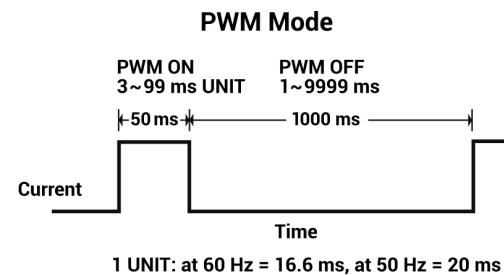
Faster Measurement without Sacrificing Resolution



T3MIL series offers Fast (60 readings per second) and Slow (10 readings per second) measurement speeds.

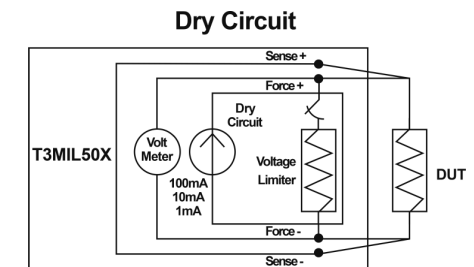
The measurement speed does not affect the measurement accuracy. The number of digits displayed remains the same irrespective of the measurement speed. The user can measure in Fast mode without losing accuracy.

Various Drive Modes (T3MIL50X only)



T3MIL50X provides various current output drive modes to satisfy diversified and accurate low resistance measurement applications. The pulsed current output mode is suitable for interacting conductors of different materials to reduce the influence of thermal EMF on the measurement. Thermal EMF is caused by electric potential difference generated from different conductors acting on different temperatures while conducting low resistance measurements. The DC+ and DC output modes are best for the measurement requirements of inductive components.

Dry Circuit Test (T3MIL50X only)



Dry circuit testing is used to detect contaminates and oxides on mating contact surfaces. Typically, a dry circuit test is performed in conjunction with environmental stress tests intended to create contamination or metal oxides on connector contact surfaces. Based upon MIL-STD-1344 method 3002-1 low signal level contact resistance tests must be applied under the maximum open circuit voltage of 20 mV (or lower), and short circuit current of 100 mA (or lower) to avoid over voltage for the both ends of components. The over voltage will damage the oxide coating and the thin layer of contact surface, as a result, losing the validity of the measurement. T3MIL50X provides three levels (500 m Ω : 100 mA / 5 Ω : 10 mA / 50 Ω : 1 mA) to limit open circuit voltage at 20mV to execute Dry circuit tests.