

Model 27XT

Digital Multimeter



- Component checker and DMM
- Most functions for testing electronics
- 11 functions/32 ranges
- Only meter with inductance
- Max Hold
- 2000-count
- CAT II 1000 V, CAT III 600 V rated

27XT Specifications (at 23 °C ± 5 °C, < 70 % R.H. non-condensing)

DC Voltage	
Ranges	200 mV, 2 V, 20 V, 200 V, 1000 V
Accuracy	± (0.5 % rdg + 1 dgt)
Resolution	100 µV in 200 mV range
Input Impedance	10 MΩ
CMRR	> 120 db to 1000 V
NMRR	> 60 db at 50/60 Hz
AC Voltage (50-1000 Hz)	
Ranges	200 mV, 2 V, 20 V, 200 V, 750 V
Accuracy	All Ranges 50-500 Hz: ± (1.0 % rdg + 4 dgts) 500 Hz- 1 kHz: ± (1.5 % rdg + 4 dgts)
Resolution	100 µV in 200 mV range
Input Impedance	10 MΩ
DC Current	
Ranges	200 µA, 2 mA, 20 mA, 200 mA, 20 A*
Accuracy	200 µA- 200 mA: ± (1.0 % rdg + 1 dgt) 20 A*: ± (2.0 % rdg + 3 dgts)
Resolution	100 nA in 200 µA range
Burden Voltage	200 µA range: 1 mV / 1 µA 2 mA range: 100 mV / 1 mA 20 mA range: 11 mV / 1 mA 200 mA range: 2 mV / 1 mA 10 A range: 30 mV / 1A
AC Current (50-500 Hz)	
Ranges	200µA, 2, 20, 200mA, 20A*
Accuracy	200 µA- 200 mA: ± (1.5 % rdg + 4 dgts) 20 A*: ± (2.5 % rdg + 4 dgts)
Resolution	100 nA in 200 µA range
Burden Voltage	See DC Current
Resistance	
Ranges	200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ, 20 MΩ, 2000 MΩ
Accuracy	200 Ω-2 MΩ: ± (1.0 % rdg + 4 dgts) 20 MΩ: ± (2.0 % rdg + 4 dgts) 2000 MΩ: ± [(5.0 % rdg - 10 dgts) + 10 dgts]
Resolution	100 mΩ in 200 Ω range
Open Circuit Voltage	200 Ω, 2000 MΩ: 3 V DC All other ranges: 0.3 V DC
Diode Test	
Test Current	1 mA (typical)
Test Voltage	3.0 V DC (typical)
Accuracy	± (1.5 % rdg + 1 dgt)
Display, 2 V Range	Forward junction voltage
Continuity Test	
Audible Indication	Tone at < 75 Ω
Response Time	500 ms
Open Circuit Voltage	3.0 V DC

*15-20 A for 30 sec max

Model 27XT

Digital Multimeter

27XT Specifications (at 23 °C ± 5 °C, < 70 % R.H. non-condensing) cont.

Logic Test	
Logic Type	TTL, CMOS
Thresholds, Logic 1 (HI)	TTL: 2.8 V ± 0.8 V / CMOS: 4.0 V ± 1.0 V
Thresholds, Logic 0 (LO)	TTL: 0.8 V ± 0.5 V / CMOS: 2.0 V ± 0.5 V
Test Voltage	TTL: 5 V DC / CMOS: > 5 V DC and < 10 V DC
Frequency Response	20 MHz
Pulse Width	25 nsec min
Pulse Rise Time	10 µsec
Pulse Repetition Rate	1 Mpps
Indication	40 ms beep @ logic 0 (LO)
Frequency	
Ranges	2kHz, 20MHz (Autoranging)
Accuracy (> 10 Hz)	± (0.5%rdg + 3dgts)
Sensitivity	Low (10 Hz to 1 MHz): 600 mV rms Low (1 MHz to 20 MHz): 2V rms High (10 to 100 kHz): 2V rms
Min Pulse Width	> 25 nsec
Duty Cycle Limits	> 30 % and < 70 %
Capacitance	
Ranges	2nF, 20nF, 2µF, 20µF, 2000µF
Accuracy	± (5.0%rdg + 10dgts)
Test Frequency/Response Time	2 nF-20 µF range: 200 Hz/8 sec 2000 µF range: 2 Hz/20 sec
Overload Protection	
Voltage	1000 V DC/750 V rms
Current	AC and DC mA input: 500 mA/250 V fuse 20 A input: 20 A/600 V fuse
Resistance	500 V DC or AC rms
Diode/Continuity/Frequency	500 V DC or AC rms
Capacitance	0.5 A/250 V Fast Blow Fuse



General Specifications

Display: 3½ digit LCD, 1999 counts; **Display:** 2.5/second nominal; **Power:** Battery 9 V DC, NEDA type 1604; **Battery Life:** 300 hours (alkaline); **Dimensions (HxWxD):** 18.3 x 7.9 x 3.8 cm (7.2" x 3.1" x 1.5"); **Weight:** 299 g (10.0 oz); **Storage Temperature:** -20 to 60 °C, 0 to 80 % R.H.; **Operating Temperature:** 0 °C to 50 °C, 0 to 70 % R.H.; **Temperature Coefficient:** 0.1 x (spec. accur) per °C (0-18 °C, 28-50 °C); **Included Accessories:** Test leads, operators manual, AL35A Alligator Clips, holster

Features

Max Hold; Auto-Power Off (after 60 min); AC/DC Function Switch; Low Battery Indication;
Warranty: One-year

Optional Accessories

H30Y Protective Holster; VC221A Vinyl Case; DL243C Basic Test Lead Kit; DL248C Deluxe Test Lead Kit; TL35A Test Lead Set with Alligator Clips

For additional accessories, see the Accessories Compatibility Guide at www.metermantesttools.com

Meterman.
The right tool for the job.™

Meterman Test Tools
website: www.metermantesttools.com
email: info@metermantesttools.com

6920 Seaway Blvd.
Everett, WA 98203
fax: 425-446-4882
tel: 877-596-2680

Meterman Test Tools Europe
P.O. Box 1186
5602 BD Eindhoven
The Netherlands

©2002 Meterman Test Tools. All rights reserved.
Printed in U.S.A. 1/2002 1646547 D-ENG-N Rev A

