

# XT Series

## 3<sup>1</sup>/<sub>2</sub> Digit, Large Character Display DMMs with Component Test Features

	VDC	VAC	ADC	AAC	Resistance $\Omega$	Capacitance	Frequency	Inductance	Transistor Test	Temperature	Logic Test	Diode	Continuity	Safety Tester Volt Checker	Max Hold	Data Hold	Auto-off
23XT	•	•	•	•	•				•	•	•	•	•	•	•		•
25XT	•	•	•	•	•	•	•		•		•	•	•			•	•
27XT	•	•	•	•	•	•	•	•			•	•	•		•		•
28XT	•	•	•	•	•	•	•			•		•	•		•	•	•

For the best value in digital multimeters everyone is turning to the Wavetek XT Series. These four compact test instruments feature full-function performance in an easy-to-carry design. Whether your applications are electronic or electrical, measuring or troubleshooting, there is an XT meter for you. Each of the convenient DMMs measures not only voltage, current, and resistance, but also a set of additional properties you work with every day. Inductance, Capacitance, Frequency, Temperature, Logic test, Transistor test, Continuity and more.

All Wavetek XT Series meters are further distinguished with many time-saving, Tech Preferred™ advantages that give you increased utility and greater performance in every application.

- ◆ Oversized character displays (a full 0.7 inch, 18mm high) also feature annunciators that echo the dial setting for even better operator accuracy
- ◆ Data Hold/Max Hold feature
- ◆ Low Battery Annunciator
- ◆ Auto-Power Off
- ◆ Spare fuse included
- ◆ Continuity Beeper

All XT Series DMMs have fully-fused current inputs, an industry-recognized standard usually only found in much more expensive meters. Input warning beepers indicate a test lead is incorrectly plugged into a current input jack and the meter switch is not set on a current range. Insulated test lead tips permit safe measurements in dense component areas without causing shorts. All XT meters are approved to IEC1010-1, Cat. II, designed to UL3111 safety standards, and bear the CE symbol. Optional accessories include H30 Holster and VC231 soft case.

### 23XT

*Electronic and electrical test functions for general duty and HVAC/R.*

- ◆ VAC Safety Tester™
- ◆ Temperature
- ◆ Transistor
- ◆ Logic

### 25XT

*A full C-meter in a DMM, and more! Ideal for A/V, cell-phone & antenna matching, component inspection.*

- ◆ Full Capacitance 0.1pF to 20mF
- ◆ Capacitance Zeroing & Test Slots

### 27XT

*A unique combination of DMM and component checking in a single meter.*

- ◆ Inductance
- ◆ Capacitance
- ◆ Logic
- ◆ Frequency

### 28XT

*A thermometer + DMM for HVAC/R, building or plant maintenance.*

- ◆ Temperature
- ◆ Capacitance
- ◆ Frequency
- ◆ Max Hold



## XT Series Specifications *(at 23°C ±5°C; <70% R.H. ±% reading +digits)*

MODEL	23XT	25XT	27XT	28XT		
<b>AC &amp; DC Voltage</b>						
DC Volt Ranges	200mV, 2V, 20V, 200V, 1000V	200mV, 2V, 20V, 200V, 1000V	200mV, 2V, 20V, 200V, 1000V	200mV, 2V, 20V, 200V, 1000V		
DC Accuracy/Max Resolution	±0.5% +1/100µV	±0.5% +1/100µV	±0.5% +1/100µV	±0.5% +1/100µV		
AC Volts Ranges	200mV, 2V, 20V, 200V, 750V	200mV, 2V, 20V, 200V, 750V	200mV, 2V, 20V, 200V, 750V	200mV, 2V, 20V, 200V, 750V		
AC Accuracy	±1% +4 (50–500Hz); ±1.5%+4 (500–1kHz)	±1%+4 (50–500Hz); ±1.5% +4 (500–1kHz)	±1%+4 (50–500Hz); ±1.5% +4 (500–1kHz)	±1% +4 (50–500Hz); ±1.5%+4 (500–1kHz)		
Input Impedance	10MΩ	10MΩ	10MΩ	10MΩ		
<b>DC &amp; AC Current</b>						
Ranges	200µ, 2m, 20m, 200m, 10A	200µ, 2m, 20m, 100m, 10A	200µ, 2m, 20m, 200m, 20A (20A for 60s)	200µ, 2m, 20m, 100m, 20A (20A for 60s)		
DC Accuracy	±1%+1/±2%+3 (10A)	±1%+1/±2%+3 (10A)	±1%+1/±2%+3 (20A)	±1%+1/±2%+3 (20A)		
AC Accuracy (50–500Hz)	±1.5%+4/±2.5% +4 (10A)	±1.5%+4/±2.5% +4 (10A)	±1.5%+4/±2.5% +4 (20A)	±1.5%+4/±2.5% +4 (20A)		
Resolution	0.1µA in the 200µA range	0.1µA in the 200µA range	0.1µA in the 200µA range	0.1µA in the 200µA range		
Input Protection mA Input:	500mA/250V fast-acting ceramic fuse	0.1A/250V fast-acting ceramic fuse	500mA/250V fast-acting ceramic fuse	0.1mA/250V fast-acting ceramic fuse		
10A/20A Input:	10A/600V fast-acting ceramic fuse	10A/600V fast-acting ceramic fuse	20A/600V fast-acting ceramic fuse	20A/600V fast-acting ceramic fuse		
<b>Resistance</b>						
Ranges	200, 2k, 20k, 200k, 2M, 20M, 2000MΩ	200, 2k, 20k, 200k, 2M, 20M, Ω	200, 2k, 20k, 200k, 2M, 20M, 2000MΩ	200, 2k, 20k, 200k, 2M, 20M, Ω		
Accuracy	200Ω to 20MΩ 20MΩ 2000MΩ	±1% +4 ±2% +4 —	±1% +4 ±2% +4 ±(5%-10) +10	±1% +4 ±2% +3 —		
<b>Continuity Test Beeper</b>						
	< 75Ω	< 75Ω	< 75Ω	< 75Ω		
<b>Diode Test</b>						
Test Current/Voltage	1.0mA/3.0VDC	1.0mA/3.0VDC	1.0mA/3.0VDC	1.0mA/3.0VDC		
<b>Logic Thresholds</b>						
Logic 1 (HI)	TTL 2.8V±0.8V, CMOS 4.0V±1.0	TTL 2.8V±0.8V, CMOS 4.0V±1.0	TTL 2.8V±0.8V, CMOS 4.0V±1.0	—		
Logic 0 (LO)	TTL 0.8V±0.5V, CMOS 2.0V±0.5V	TTL 0.8V±0.5V, CMOS 2.0V±0.5V	TTL 0.8V±0.5V, CMOS 2.0V±0.5V	—		
Test Voltage	TTL 5VDC, CMOS >5VDC & <10VDC	TTL 5VDC, CMOS >5VDC & <10VDC	TTL 5VDC, CMOS >5VDC & <10VDC	—		
Frequency Response	20MHz	20MHz	20MHz	—		
<b>Capacitance</b>						
Ranges	—	200pF, 2nF, 20nF, 200nF, 2µF, 20µF, 200µF, 2000µF, 20mF	2nF, 20nF, 2µF, 20µF, 2000µF	2nF, 20nF, 200nF, 2µF, 20µF, 200µF, 2mF, 20mF		
Accuracy	—	200pF(±2.0%rdg + 0.5pF) 2nF–2000µF (±2.0% + 4) 20mF (±3.0% + 4)	±5%+10	2nF–2mF: ±2%rdg +4 20mF: ±3%rdg +4		
Overload Protection	—	0.1A/250V fast-acting ceramic fuse	0.5A/250V fast-acting ceramic fuse	0.1A/250V fast-acting ceramic fuse		
<b>Frequency</b>						
Accuracy/Resolution	—	40kHz, autoranging	20MHz, autoranging	2kHz, 20kHz		
Sensitivity	—	±0.1%+3 / 1Hz	±0.1%+3 / 1Hz	±0.5%+3 / 0.1Hz		
Overload Protection	—	500VDC/AC RMS	500VDC/AC RMS	500VDC/AC RMS		
<b>Transistor h<sub>FE</sub></b>						
Range/Type	√	√	—	—		
Inductance Ranges	0 - 1000 / NPN, PNP	0 - 1000 / NPN, PNP	—	—		
Accuracy/Max. Resolution	—	—	2m, 20m, 200m, 2H, 20H	—		
Test Frequency	—	—	±5% +30/1µH	—		
Safety Tester™	—	—	1000Hz, 2mH; 20mH; 200Hz, all others	—		
Signal Voltage Levels	50V, 110V, 220V, 440V AC	—	—	—		
Overload Protection	500V RMS for 30 minutes	—	—	—		
<b>Temperature</b>						
Type K Thermocouple	(23XT)Range	Resolution	Accuracy	(28XT)Range	Resolution	Accuracy
	200°C	0.1°C	-20°C to 200°C, ±1%rdg +2°C	200°C	0.1°C	-30°C to 200°C, ±1%+1°C
	750°C	1°C	200°C to 750°C, ±3%+2°C	1300°C	1°C	201°C to 1300°C, ±1%+1°C
	200°F	0.1°F	-4°F to 200°F, ±1%+4°F	200°F	0.1°F	-22°F to 200°F, ±1%+2°F
	1400°F	1°F	200°F to 1400°F, ±3%+4°F	2000°F	1°F	201°F to 2000°F, ±1%+2°F

### GENERAL

**Display:** 3½ digit LCD, 2000 counts, 17.8mm (0.7") high numerals; **Display Update:** 2.5/second; **Operating Temperature:** 0°C to 50°C (32°F to 122°F), 0 to 70% RH; **Storage Temperature:** -20°C to 60°C (-4°F to 140°F), 0 to 80% RH, no battery; **Power/Battery Life:** Standard 9V battery, NEDA 1604, JIS 006P, IEC 6F22/300hr (typical alkaline); **Auto-off:** 60 minutes; **Dimensions (H x W x D):** 183mm x 80mm x 38mm (7.2" x 3.1" x 1.5"); **Weight:** 311g (11 oz) including battery; **Included Accessories:** Test leads, one pair alligator clips (25XT, 27XT, 28XT), spare fuse, battery, beaded Type K T/C probe (23XT, 28XT), Operator's Manual; **Agency Approvals:** IEC1010-1, CAT II; TUV/GS; **CE**; **Warranty:** One year.