

« MTX MOBILE II »

Digital Graphic TRMS Multimeters

100,000 COUNTS



**From the laboratory to the field:
a single diagnostic instrument, powerful and complete!**

- Large swivelling graphic LCD display with low power LEDs backlighting
- Four 100,000-point digital display units, bargraph, graphic history of measurements
- Basic precision 0.02 %, pass band 200 kHz
- Three measurement terminals with automatic selection, complete "AUTORANGING" in current
- 8-key "virtual" measurement selector with "one-hand" direct access
- "SPEC" function for direct display of measurement uncertainties
- With the "AUTOPEAK" mode, no more peak factor limitation
- Frequency-domain measurements up to 2 MHz, durations, duty cycle, counting of events
- Temperature measurements using Pt 100, Pt 1000 probes, J and K thermocouples
- "Preferred measurement" key assigned to a physical quantity (conversion & unit)
- Storage of 6,500 measurements with date and time (up to 4 simultaneous parameters)
- Optical RS232, USB, or Bluetooth communication, depending on model
- Power supply by batteries, rechargeable NiMh storage batteries, or mains adapter

Technical specifications	MTX3281B
Man-Machine Interface	
Display	Swivelling graphic LCD (58 x 58 mm) - Contrast adjustable – LEDs Back-lighting, adjustable battery-saving
Characteristics	Graphic resolution 160 x 160 - 100,000-point digital display - Height of figures 9 and 6 mm
Modes	Main display + Bargraph + (graphic or selection of 3 secondary displays)
Measurement connections	3 Measurement terminals (V, A, COM) - Detection and automatic selection of Vac+dc or lac+dc
Controls	Virtual measurement selector, 8 «one-hand» direct access keys - « Preferred function » key
Ergonomy	2 complete languages (French, English) - Configuration menu & Browser - On-line help
DC, AC, and AC+DC voltages (automatic or manual ranges)	
Ranges	100,000 mV - 1,00000 V - 10,0000 V - 100,000 V - 1000,00 V
Résolution	1µV - 10µV - 100µV - 1mV - 10mV
DC Accuracy	0,1% L+30D - 0,1% L+8D - 0,1% L+8D - 0,1% L+8D - 0,2% L+8D
AC et AC+DC Accuracy	Basic accuracy 0,7% L+40D - Specified Bandwidth DC à 50 kHz
DC, AC and AC+DC current (automatic or manual ranges)	
Ranges	1000,00 µA - 10,0000 mA - 100,000 mA - 1000,00 mA - 10,0000A & 20,000A
Résolution	10nA - 100nA - 1µA - 10µA - 100µA - 1mA
DC Accuracy	0,1% L+15D - 0,08% L+8D - 0,08% L+8D - 0,15% L+8D - 0,5% L+15D
AC et AC+DC Accuracy	Basic accuracy 1% L+30D - Specified Bandwidth DC à 20 kHz
Protection / Allowable overload	Single « A » terminal, only one fuse, HBC, 11 A (1,000 V - 20 kA) / 20 Adc or 20 Arms (30 s max.)
Time measurements (automatic or manual ranges) (automatiques ou manuelles)	
Frequency and period	From 0.62 Hz to 2 MHz - 7 ranges from 10.0000 Hz to 2.0000 MHz - Basic accuracy 0.02 %L + 8D
Duty cycle	Resolution 0.01 % - Period of the signal from 200 µs to 0.8 s - Pulse duration > 5 µs
Elapsed time	Graph of events with zoom and measurement cursors: relative mode
Resistances & Continuity (automatic or manual ranges)	
Ranges	1000,00 Ω - 10,0000 kΩ - 100,000 kΩ - 1000,00 kΩ - 10,0000 MΩ - 50,000 MΩ
Résolution	10mΩ - 100mΩ - 1Ω - 10Ω - 100Ω - 1kΩ
Accuracy	0,1% L+8D - 0,1% L+8D - 0,1% L+8D - 0,1% L+8D - 0,5% L+8D - 2 % L+8D
Audible continuity detection	Range 1000,00 Ω - Response Time 5ms
Diode test	
Diode voltage measurements	From 0 to 2.6000 V – Accuracy n 2 % L + 30 D - Measurement current approx. 1 mA
Capacitance (automatic or manual ranges)	
Specifications	7 ranges from 10.00 nF to 10.00 mF - Basic accuracy 1 % L + 5 D - Measurement time < 2 s up to 100 µF
Temperature	
J or K thermocouple probes	Measurements from -40.0 °C to +750.0 °C (J TC) or + 1,200 °C (K TC)- Basic accuracy 0.1 % L + 3 °C
Other Measurements	
« Preferred measurement » key	Assignment of any physical quantity to the key (function y = Ax + B and unit can be defined)
V Peak > 250 µs and Peak Factor	One-time or periodic phenomena - Additional error, in voltage 3 % L + 50 D, in current 5 % L + 50 D
Other functions	
AUTOPEAK Function	Automatic management of ranges to comply with maximum Peak Factor specified for the instrument
SPEC Function	Triple secondary display: calculation of measurement tolerance (form Min & Max Values, and x % L + xD)
HOLD & AUTOHOLD Function	Manual hold of display (HOLD) or automatic hold on stable measurement (AUTOHOLD)
REL Function	Triple secondary display: adjustable reference, relative value, deviation in %
SURV Function	Survey and storage of «MIN», «MAX», and «AVG» values with timestamping of the events
MEM Function	Data Acquisition (up to 4 measurements at once) - Interval from 1 s to 24 h 4 x 150 measurements can be stored Direct sending of the timestamped measurements on the link as they are acquired

General characteristics	MTX3281B
Measurement rate	Digital and graphic display: 2.5 measurements/sec - 40-segment bargraph: 10 measurements/sec
Communication (various models)	Optical RS232 link, 9600 to 38400 baud - USB adapter - Bluetooth wireless link
Temperature	Reference 23 °C ± 5 °C - Operation -10 °C to +55 °C - Storage -40 °C to +70 °C
EMC/Safety	Emissions and immunity as per NF EN 61326-1, 1998 / IEC 61010, 2001, Cat IV-600 V or Cat III-1000 V
Power supply / Autonomy	3 LR6 batteries or AA NiMH storage batteries / approximately 80 h (batteries) or 65 h (NiMH storage batteries) (depends on use)
Housing	ABS V0 - Dimensions, closed H/W/D: 44 x 85 x 180 mm - Mass: 400g - protection index IP51

Models and versions: basic version = MTX3281B / Bluetooth version = MTX3281B-BT / RS232 Kit version = MTX3281B-COM

Accessories provided: 1 set of cables, 4 mm-dia. banana jack, 1 set of 3 LR6 batteries, 1 installed HBC fuse, 10 x 38 mm 1000 V-T11A-20 kA, user's manual on CD-Rom, calibration certificate, simplified operating guide, and safety instructions on paper.

Accessories, optional or according to version:

Fast charging kit (fast charger + 3 AA NiMH storage batteries) (HX0053), set of 3 AA NiMH storage batteries (HX0051), "Hands free" transport and operating kit (HX0052), communication kit (optical RS232 cable + PC software) (HX0050), optical/USB cable (HX0056), USB/RS232 adapter for PC (HX0055), USB/Bluetooth adapter for PC (HX0054), measurement adapter for K thermocouple (P06.2393.06), measurement adapter for Pt100 sensors (HX0091).

Technical specifications		MTX3282B	
Man-Machine Interface			
Display		Swivelling graphic LCD (58 x 58 mm) - Contrast adjustable – LEDs Back-lighting, adjustable battery-saving	
Characteristics		Graphic resolution 160 x 160 - 100,000-point digital display - Height of figures 9 and 6 mm	
Modes		Main display + Bargraph + (graphic or selection of 3 secondary displays)	
Measurement connections		3 Measurement terminals (V, A, COM) - Detection and automatic selection of Vac+dc or Iac+dc	
Controls		Virtual measurement selector, 8 «one-hand» direct access keys - « Preferred function » key	
Ergonomy		2 complete languages (French, English) - Configuration menu & Browser - On-line help	
DC, AC, and AC+DC voltages (automatic or manual ranges)			
Ranges		100,000 mV - 1,00000 V - 10,0000 V - 100,000 V - 1000,00 V	
Résolution		1µV - 10µV - 100µV - 1mV - 10mV	
DC Accuracy		0,1% L+30D - 0,05% L+8D - 0,03% L+8D - 0,03% L+8D - 0,035% L+8D	
AC et AC+DC Accuracy		Basic accuracy 0,3% L+40D - Specified Bandwidth DC à 100 kHz	
DC, AC and AC+DC current (automatic or manual ranges)			
Ranges		1000,00 µA - 10,0000 mA - 100,000 mA - 1000,00 mA - 10,0000A & 20,000A	
Résolution		10nA - 100nA - 1µA - 10µA - 100µA - 1mA	
DC Accuracy		0,1% L+15D - 0,08% L+8D - 0,08% L+8D - 0,15% L+8D - 0,5% L+15D	
AC et AC+DC Accuracy		Basic accuracy 0,3% L+30D - Specified Bandwidth DC à 50 kHz	
Protection / Allowable overload		Single « A » terminal, only one fuse, HBC, 11 A (1,000 V - 20 kA) / 20 Adc or 20 Arms (30 s max.)	
Time measurements (automatic or manual ranges)tomatiques ou manuelles)			
Frequency and period		From 0.62 Hz to 2 MHz - 7 ranges from 10.0000 Hz to 2.0000 MHz - Basic accuracy 0.02 %L + 8D	
Duty cycle		Resolution 0.01 % - Period of the signal from 200 µs to 0.8 s - Pulse duration > 5 µs	
Positive and negative pulses		Counting up to 99,999, min duration 5 µs - Measurement of duration from 100 µs to 12.5 s, resolution 10 µs	
Elapsed time		Graph of events with zoom and measurement cursors: relative mode	
Resistances & Continuity (automatic or manual ranges)			
Ranges		1000,00 Ω - 10,0000 kΩ - 100,000 kΩ - 1000,00 kΩ - 10,0000 MΩ - 50,000 MΩ	
Résolution		10mΩ - 100mΩ - 1Ω - 10Ω - 100Ω - 1kΩ	
Accuracy		0,1% L+8D - 0,07% L+8D - 0,07% L+8D - 0,07% L+8D - 0,5% L+8D - 2% L+8D	
Audible continuity detection		Range 1000,00 Ω - Response Time 5ms	
Diode test			
Diode voltage measurements		From 0 to 2.6000 V - Precision 2 % L + 30 D - Measurement current approx. 1 mA	
Capacitance (automatic or manual ranges)			
Specifications		7 ranges from 10.00 nF to 10.00 mF - Basic accuracy 1 % L + 5 D - Measurement time < 2 s up to 100 µF	
Temperature			
J or K thermocouple probes		Measurements from -40.0 °C to +750.0 °C (J TC) or + 1,200 °C (K TC)- Basic accuracy 0.1 % L + 3 °C	
Pt 100 or Pt 1000 probes		Measurements from -125.0 °C to + 800.0 °C - Basic a ccuracy 0.5 °C	
Other Measurements			
« Preferred measurement » key		Assignment of any physical quantity to the key (function y = Ax + B and unit can be defined)	
V Peak > 250 µs and Peak Factor		One-time or periodic phenomena - Additional error, in voltage 3 % L + 50 D, in current 5 % L + 50 D	
Other functions			
AUTOPEAK Function		Automatic management of ranges to comply with maximum Peak Factor specified for the instrument	
SPEC Function		Triple secondary display: calculation of measurement tolerance (form Min & Max Values, and x % L + xD)	
HOLD & AUTOHOLD Function		Manual hold of display (HOLD) or automatic hold on stable measurement (AUTOHOLD)	
REL Function		Triple secondary display: adjustable reference, relative value, deviation in %	
SURV Function		Survey and storage of «MIN», «MAX», and «AVG» values with timestamping of the events	
MATH Function		Automatic management of ranges to comply with maximum Peak Factor specified for the instrument	
MEM Function		Data Acquisition (up to 4 measurements at once) - Interval from 1 s to 24 h 6500 measurements can be stored Direct sending of the timestamped measurements on the link as they are acquired	

General characteristics		MTX3282B	
Measurement rate		Digital and graphic display: 2.5 measurements/sec - 40-segment bargraph: 10 measurements/sec	
Communication (various models)		Optical RS232 link, 9600 to 38400 baud - USB adapter - Bluetooth wireless link	
Temperature		Reference 23 °C ± 5 °C - Operation -10 °C to +55 °C - Storage -40 °C to +70 °C	
EMC/Safety		Emissions and immunity as per NF EN 61326-1, 1998 / IEC 61010, 2001, Cat IV-600 V or Cat III-1000 V	
Power supply / Autonomy		3 LR6 or AA NiMH storage batteries / 80 h (batteries) or 65 h (NiMH storage batteries) (depends on use)	
Mains power		Switching mode Adapter / Charger 100-240 V ±10%, 50/60 Hz - Charging time 7H30 (2600mAh)	
Housing		ABS V0 - Dimensions, closed H/W/D: 44 x 85 x 180 mm - Mass: 400g - protection index IP51	

Models and versions: basic version = MTX3282B / Bluetooth version = MTX3282B-BT / RS232 Kit version = MTX3282B-COM

Accessories provided: 1 set of cables, 4 mm-dia. banana jack, 1 set of 3 AA NiMH storage batteries, 1 mains adapter/charger, 1 installed HPC fuse 10 x 38 mm 1000 V-T11A-20 kA, user's manual on CD-Rom, calibration certificate, simplified operating guide, and safety instructions on paper.

Accessories, optional or according to version:

Fast charging kit (fast charger + 3 AA NiMH storage batteries) (HX0053), set of 3 AA NiMH storage batteries (HX0051), "Hands free" transport and operating kit (HX0052), communication kit (optical RS232 cable + PC software) (HX0050), optical/USB cable (HX0056), USB/RS232 adapter for PC (HX0055), USB/Bluetooth adapter for PC (HX0054), measurement adapter for K thermocouple (P06.2393.06), measurement adapter for Pt100 sensors (HX0091).

Technical specifications	MTX3283B
Man-Machine Interface	
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Modes	Main display + Bargraph + (graphic or selection of 3 secondary displays)
Measurement connections	3 Measurement terminals (V, A, COM) - Detection and automatic selection of Vac+dc or Iac+dc
Controls	Virtual measurement selector, 8 «one-hand» direct access keys - « Preferred function » key
Ergonomy	2 complete languages (French, English) - Configuration menu & Browser - On-line help
Tensions DC, AC et AC+DC (gammes automatiques ou manuelles)	
Gammes	100,000 mV - 1,00000 V - 10,0000 V - 100,000 V - 1000,00 V
Résolution	1µV - 10µV - 100µV - 1mV - 10mV
Précision DC	0,1% L+20D - 0,05% L+8D - 0,02% L+8D - 0,02% L+8D - 0,03% L+8D
AC et AC+DC	Basic accuracy 0,3% L+40D - Specified Bandwidth DC à 200 kHz
DC, AC and AC+DC current (automatic or manual ranges)	
Ranges	1000,00 µA - 10,0000 mA - 100,000 mA - 1000,00 mA - 10,0000A & 20,000A
Résolution	10nA - 100nA - 1µA - 10µA - 100µA - 1mA
DC Accuracy	0,1% L+15D - 0,08% L+8D - 0,08% L+8D - 0,15% L+8D - 0,5% L+15D
AC et AC+DC Accuracy	Basic accuracy 0,3% L+ 30D - Specified Bandwidth DC à 50 kHz
Protection / Allowable overload	Single « A » terminal, only one fuse, HBC, 11 A (1,000 V - 20 kA) / 20 Adc or 20 Arms (30 s max.)
Time measurements (automatic or manual ranges)tomatiques ou manuelles)	
Frequency and period	From 0.62 Hz to 2 MHz - 7 ranges from 10.0000 Hz to 2.0000 MHz - Basic accuracy 0.02 %L + 8D
Duty cycle	Resolution 0.01 % - Period of the signal from 200 µs to 0.8 s - Pulse duration > 5 µs
Positive and negative pulses	Counting up to 99,999, min duration 5 µs - Measurement of duration from 100 µs to 12.5 s, resolution 10 µs
Elapsed time	Graph of events with zoom and measurement cursors: relative mode
Resistances & Continuity (automatic or manual ranges)	
Ranges	1000,00 Ω - 10,0000 kΩ - 100,000 kΩ - 1000,00 kΩ - 10,0000 MΩ - 50,000 MΩ
Résolution	10mΩ - 100mΩ - 1Ω - 10Ω - 100Ω - 1kΩ
Accuracy	0,1% L+8D - 0,07% L+8D - 0,07% L+8D - 0,07% L+8D - 0,5% L+8D - 2% L+8D
Audible continuity detection	Range 1000,00 Ω - Response Time 5ms
Diode test	
Diode voltage measurements	From 0 to 2.6000 V - Accuracy 2 % L + 30 D - Measurement current approx. 1 mA
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Specifications	7 ranges from 10.00 nF to 10.00 mF - Basic accuracy 1 % L + 5 D - Measurement time < 2 s up to 100 µF
Temperature	
J or K thermocouple probes	Measurements from -40.0 °C to +750.0 °C (J TC) or + 1,200 °C (K TC)- Basic accuracy 0.1 % L + 3 °C
Pt 100 or Pt 1000 probes	Measurements from -125.0 °C to + 800.0 °C - Basic accuracy 0.5 °C
Other Measurements	
« Preferred measurement » key	Assignment of any physical quantity to the key (function y = Ax + B and unit can be defined)
V Peak > 250 µs and Peak Factor	One-time or periodic phenomena - Additional error, in voltage 3 % L + 50 D, in current 5 % L + 50 D
Measurement in dBm	Resolution 0.01 dBm - Adjustable reference from 1 Ω to 10,000 Ω
Resistive power U2/R or R I2	Resolution 100 µW - Adjustable reference from 1 Ω to 10,000 Ω
dB function	Triple secondary display: signal frequency, variation in dB in comparison with the reference, maths function
Other functions	
AUTOPEAK Function	Automatic management of ranges to comply with maximum Peak Factor specified for the instrument
SPEC Function	Triple secondary display: calculation of measurement tolerance (form Min & Max Values, and x % L + xD)
HOLD & AUTOHOLD Function	Manual hold of display (HOLD) or automatic hold on stable measurement (AUTOHOLD)
REL Function	Triple secondary display: adjustable reference, relative value, deviation in %
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Power supply / Autonomy	3 LR6 or AA NiMH storage batteries / 80 h (batteries) or 65 h (NiMH storage batteries) (depends on use)
Mains power	Switching mode Adapter / Charger 100-240 V ±10%, 50/60 Hz - Charging time 7H30 (2600mAh)
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