Specifications

Analyzers

Oscilloscope

Channels	2
Data storage, cursors, autoscaling	
Max input bandwidth	50 kHz[1]
Max sampling rate	500 kHz/channel[1]
Range	±10 V
Input resolution	12, 16, or 18 bits[1]

Bode Analyzer

Frequency and phase plots
Frequency range and step control
Logarithmic or linear frequency spacing
Data storage, cursors, autoscaling

Frequency range	5 Hz to 35 kHz[1]

Dynamic Signal Analyzer

Input range	±10 V
Input resolution	12, 16, or 18 bits[1]

Impedance Analyzer

Measurement frequency range	5 Hz to 35 kHz

2-Wire Current Voltage Analyzer

Voltage range	±10 V
Current range	±10 mA

3-Wire Current Voltage Analyzer

NPN BJT transistor only
Data storage, cursors, autoscaling

Maximum collector voltage	10 V
Base current resolution	1 µA (16-bit analog output) 15 µA (12-bit analog output)

Digital Multimeter

Resistance

Accuracy	1%
Range	5 Ω to 3 M Ω

DC Voltage

Accuracy	0.3%
Range	±20 V
Input impedance	1 M Ω

AC Voltage

Accuracy	0.3%
Range	±14 V_{rms}

Current

DC accuracy	0.25% ±3 mA[2]
AC accuracy	0.25% ±3 mA[2]
Range	±250 mA
Shunt resistance	0.5 Ω
Maximum common-mode voltage	±20 V
Common-mode rejection	70 dB

Capacitance

Accuracy	2%
Range	50 pF to 500 µF
Test voltage range	1 V_{pp}

Continuity

Resistance threshold	15 Ω max

Inductance

Accuracy	1%
Range	100 µH to 100 mH
Test frequency	950 Hz
Test frequency voltage	1 V_{pp}

Digital I/O

Digital input resolution	8 bits
Digital output resolution	8 bits
Digital addressing	4 bits

Source

Function Generator

Manual or software control
Sine, triangle, square waveforms
Frequency sweep
TTL sync pulse out
AM, FM modulation

Frequency range	5 Hz to 250 kHz
Frequency accuracy	3%
Output amplitude	±2.5 V
Software amplitude resolution	8 bits
Offset range	±5 V
AM voltage	10 V max
Amplitude modulation	Up to 100%
FM voltage	10 V max

Amplitude Flatness

To 50 kHz	0.5 dB
To 250 kHz	3 dB

Arbitrary Waveform Generator

Channels	2, 1-shot or continuous generation

[1]Specification depends on data acquisition device functionality.

[2]Proper null correction at the common-mode voltage can reduce ±3 mA error to 200 µA noise.

Waveform Editor

Amplitude	±10 V
Frequency range	DC to 100 kHz[1]
Output drive current	25 mA max
Output impedance	1
Slew rate	1.5 V/µs

Power Supplies

+15 V

Output current	Self-resetting circuitry, not to shut down at or below 500 mA
Output voltage	15 V at ±5% no load
Line regulation	0.5% max
Load regulation	1% typ, 5% max 0 to full load[2]
Ripple and noise	1%

-15 V

Output current	Self-resetting circuitry, not to shut down at or below 500 mA[2]
Output voltage	-15 V at ±5% no load
Line regulation	0.5% max
Load regulation	1% typ, 5% max 0 to full load[2]
Ripple and noise	1%

+5 V

Output current	Self-resetting circuitry, not to shut down at or below 2 A
Output voltage	+5 V at ±5% no load
Line regulation	0.50% max
Load regulation	22% typ, 30% max 0 to full load[2]
Ripple and noise	1%

Variable Power Supplies

0 to +12 and -12 V

Ripple and noise	0.25%
Software resolution	7 bits
Current limiting	0.5 V at 130 mA, 5 V at 275 mA, 12 V at 450 mA

Safety and Compliance

Safety

This product is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CAN/CSA-C22.2 No. 61010-1

Note: For UL and other safety certifications, refer to the product label or visit **ni.com/certification**, search by model number or product line, and click the appropriate link in the Certification column.

Electromagnetic Compatibility

This product is designed to meet the requirements of the following standards of EMC for electrical equipment for measurement, control, and laboratory use:

- EN 61326 EMC requirements; Minimum Immunity
- EN 55011 Emissions; Group 1, Class A
- CE, C-Tick, ICES, and FCC Part 15 Emissions; Class A

Note: For EMC compliance, operate this device according to product documentation.

CE Compliance

This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

- 73/23/EEC; Low-Voltage Directive (safety)
- 89/336/EEC; Electromagnetic Compatibility Directive (EMC)

Note: Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit **ni.com/certification**, search by model number or product line, and click the appropriate link in the Certification column.

Waste Electrical and Electronic Equipment (WEEE)

EU Customers: At the end of their life cycle, all products must be sent to a WEEE recycling center. For more information about WEEE recycling centers and National Instruments WEEE initiatives, visit **ni.com/environment/weee.htm**.

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[2]Proper null correction at the common-mode voltage can reduce ±3 mA error to 200 µA noise.