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# DA200025X

# Specifications

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# DA200025X Specifications

The DA200025X is an active differential probe with 2 GHz input bandwidth and a 25:1 attenuation ratio, allowing it to be used with NI high-speed digitizers and oscilloscopes. This document contains the detailed product specifications.

Typical values listed in this document are representative of an average unit operating at room temperature. The probe and connected measurement instrument should be warmed up for at least 20 minutes prior to use. Check the module-specific documentation for the oscilloscope warm-up time. Specifications are subject to change without notice.

**Typical** specifications are unwarranted values that are representative of a majority (90%) of units within certain operating conditions and include the effects of temperature and uncertainty unless otherwise noted.

# Electrical Specifications

All specifications are typical.

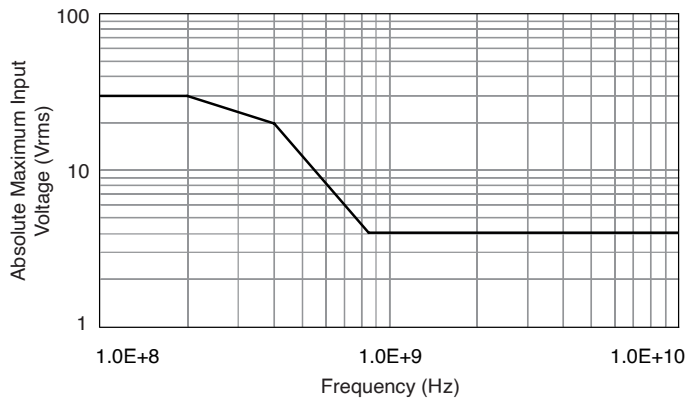
**Table 1.** DA200025X Electrical Specifications

Specification	Value	Comment
Physical connector	BNC	BNC connection to the scope
Bandwidth (–3 dB)	2 GHz	Dual-signal pin configuration
Attenuation ratio	25:1	—
Input impedance	500 k $\Omega$    1.2 pF	Either input to ground
Gain accuracy	$\pm 2\%$	—
Differential input voltage	$\pm 20$ V	DC + peak AC
Common-mode input voltage	$\pm 60$ V	DC + peak AC
Absolute maximum rated input voltage	$\pm 60$ V	DC + peak AC Either input to ground
Single-ended output voltage	$\pm 1.5$ V	Into 50 $\Omega$ load
Output impedance	50 $\Omega$	—
Offset	$\pm 5$ mV	—
Common-mode rejection ratio (CMRR)	DC: > 70 dB 1 MHz: > 50 dB 10 MHz: > 45 dB 100 MHz: > 35 dB 500 MHz: > 25 dB 1 GHz: > 25 dB	—

# Derating Curve

Figure 1 shows a DA200025X typical derating curve of absolute maximum input voltage (either input to ground).

**Figure 1.** DA200025X Derating Curve




# Power Requirements

**Table 2.** DA200025X Power Requirements

Specification	Value
Power supply input range	5 V (500 mA) to 9 V (300 mA)
Required power source	Supplied USB power cable

# Physical Specifications



**Note** If you need to clean the DA200025X, use a soft dry cloth. Avoid immersing the probe and using abrasive cleaners or chemicals containing benzene or similar solvents.

Table 3. DA200025X Physical Specifications

Specification	Value	Comment
Approximate weight	103 g (3.6 oz)	Not including power supply unit or attached accessories
Output BNC cable length	1.3 m (51.2 in.)	—
Probe main body dimensions	78.62 mm × 18.5 mm × 10.86 mm (3.1 in. × 0.7 in. × 0.4 in.)	—
Included power supply cable length	2 m (78.7 in.)	—

# Environmental



**Note** The DA200025X is intended for indoor use only.

**Table 4.** DA200025X Environmental Specifications

Specification	Value
Operating temperature	0 °C to +50 °C
Storage temperature	–40 °C to +71 °C
Operating relative humidity	80% relative humidity for temperatures up to +31 °C, decreasing linearly to 40% at +50 °C
Storage relative humidity	95 % relative humidity for temperatures up to +40 °C



## Safety

This product meets the requirements of the following standards of safety for hand-held probe assemblies for electrical measurement and test:

- IEC 61010-031
- EN 61010-031



**Note** For UL and other safety certifications, refer to the product label or the **Online Product Certification** section.

## Electromagnetic Compatibility

This product meets the requirements of the following EMC standards for electrical equipment for measurement, control, and laboratory use:

- EN 61326-1 (IEC 61326-1): Class B emissions; Basic immunity
- EN 55011 (CISPR 11): Group 1, Class B emissions
- AS/NZS CISPR 11: Group 1, Class B emissions
- FCC 47 CFR Part 15B: Class B emissions
- ICES-001: Class B emissions



**Note** Group 1 equipment (per CISPR 11) is any industrial, scientific, or medical equipment that does not intentionally generate radio frequency energy for the treatment of material or inspection/analysis purposes.



**Note** For EMC declarations and certifications, and additional information, refer to the **Online Product Certification** section.

## Online Product Certification


To obtain product certifications and the Declaration of Conformity (DoC) for this product, visit [ni.com/certification](https://ni.com/certification), search by model number or product line, and click the appropriate link in the Certification column.

# Environmental Management


NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to NI customers.

For additional environmental information, refer to the ***Engineering a Healthy Planet*** web page at [ni.com/environment](https://ni.com/environment). This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

# EU and UK Customers

-  **Waste Electrical and Electronic Equipment (WEEE)**—At the end of the product life cycle, all NI products must be disposed of according to local laws and regulations. For more information about how to recycle NI products in your region, visit [ni.com/environment/weee](https://ni.com/environment/weee).

# 电子信息产品污染控制管理办法（中国RoHS）

-  **中国RoHS**— NI符合中国电子信息产品中限制使用某些有害物质指令 (RoHS)。关于NI中国RoHS合规性信息，请登录 [ni.com/environment/rohs\\_china](http://ni.com/environment/rohs_china)。 (For information about China RoHS compliance, go to [ni.com/environment/rohs\\_china](http://ni.com/environment/rohs_china).)

# NI Services

Visit [ni.com/support](https://ni.com/support) to find support resources including documentation, downloads, and troubleshooting and application development self-help such as tutorials and examples.

Visit [ni.com/services](https://ni.com/services) to learn about NI service offerings such as calibration options, repair, and replacement.

Visit [ni.com/register](https://ni.com/register) to register your NI product. Product registration facilitates technical support and ensures that you receive important information updates from NI.

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