



SP209 Series summary and safety notes

SP209 and SP209i 9 channels, 200 MSPS logic analyzer with industrial inputs option

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Detailed device manual

This document only contains summary of the specifications and important safety information. Please refer to the full user manual for detailed device characteristics and most up to date information regarding the usage of this product.

Latest user manual can be found on www.ikalogic.com

We also encourage you to read the knowledge base section on our website.

Product description

SP209 series logic analyzers and protocol decoders offer in depth analysis of logic signals and protocols with 200MHz (5ns) timing resolution. 9-channel operation allows 8-bit parallel data to be captured along with a clock or strobe signal. Below are the main characteristics of SP209(i) logic analyzer:

- 200 MHz sampling rate, with all 9 channels used.
- 2 Gb embedded memory
- Schmitt trigger input stages with adjustable thresholds
- External clock option (state mode), up to 50MHz
- Precise trigger-In and trigger-Out signals on SMA ports

SP209 Series is composed of two devices, SP209 and SP209i. Both offer 9 logic inputs, but SP209i integrates industrial receivers for CAN, LIN, RS232 and RS485 buses.¹



Figure 1: SP209 Logic Analyzer



Figure 2: sp209i logic analyzer (industrial version)

¹Industrial receivers in the SP209i are multiplexed with one or more of the existing 9 logic channels

Warning

Read **safety information** section carefully before using this instrument.

SP209(i) interfaces

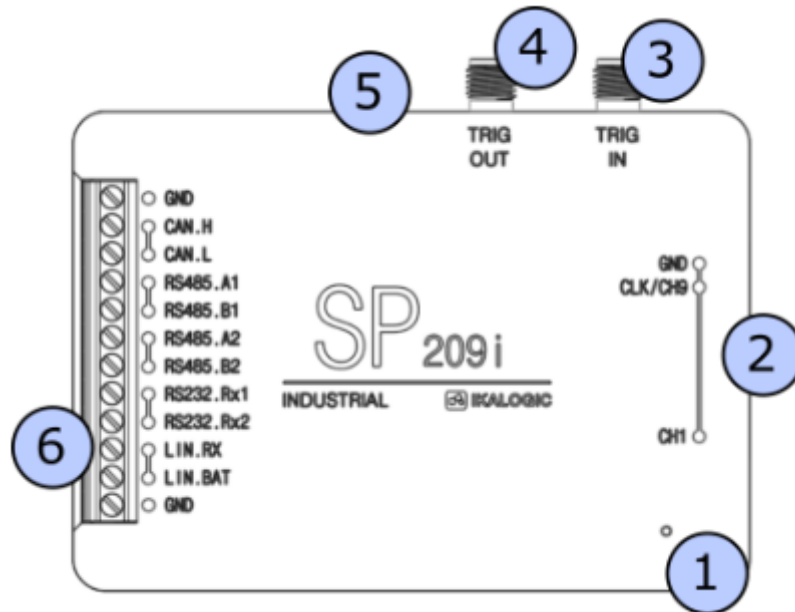


Figure 3: SP209(i) ports and interfaces

1. Status LED
2. 9-CH logic probes input
3. Trigger OUT SMA connector
4. Trigger IN SMA connector
5. USB (micro-B) port.
6. Industrial port²

Status LED behavior

Status LED	Meaning
Orange	Device powered up but not connected to software
White Fix	Device powered up and connected to software
White blinking	Device powered up, connected to software and detecting activity on one of the logic channels.

²Only on SP209i (industrial) version.

Power requirements

- Input power connector: Micro USB female
- Input current: 500 mA
- Input voltage: 5 V \pm 0.25 V

Getting started

To use this device, please download and install the latest version of ScanaStudio software from www.ikalogic.com. Please download and read latest datasheet from website. Contact Ikalogic customer support (support@ikalogic.com) if you have any questions regarding the usage of this product.

Safety information

This product complies with safety standards IEC NF/EN 61010-1: 2010, IEC NF/EN 61010-2-030 and UL 61010-1: 2015 To prevent possible electrical shock, fire, personal injury, or damage to the product, read all safety information before you use the product. The following international symbols are used on the product and in this manual.

Symbols definitions



Figure 4: Risk of Danger. Important information. See Manual.



Figure 5: WEEE logo. This product complies with the WEEE Directive (2002/96/EC) marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 Do not dispose of this product as unsorted municipal waste.



Figure 6: CE Logo. Conforms to European Union directives.

Important safety notes



Warning, to avoid electrical shock or fire:

- Carefully read all instructions.
- Use the product only as specified, otherwise the protection supplied by the product can be compromised.

- Do not use the product if it operates incorrectly.
- Before use, inspect device casing, probes, test leads and accessories for mechanical damage and replace if damaged.
- Never attempt to repair a defective device. Contact after-sale service.
- Do not use the product or its accessories in case of any damage.
- Remove all probes, test leads and accessories that are not in use.
- Never use the device for measuring mains circuits.
- Never use the device for measuring circuits which are not isolated from mains.
- Do not touch electrical wires with bare hands.
- Keep away from children's sight or from animals.
- Do not expose to water, heat or moisture.
- The device's ground connection through the USB cable is for measurement purposes only. The logic analyzer does not have a protective safety ground.
- Ensure there is no significant voltage between device ground and the point to which you intend to connect it.
- Do not apply more than the rated voltage ($\hat{A}\pm 25V$), between the terminals or between each terminal and ground.
- Do not apply input voltages above the rating of the instrument ($\hat{A}\pm 25V$).
- Measure a known voltage first to make sure that the product operates correctly.
- Do not work alone.
- Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame resistant clothes) to prevent shock.
- Do not use the device in wet or damp conditions, or around explosive gas or vapor.
- Do not operate the product with covers removed or the case open. Hazardous voltage exposure is possible.
- Do not use in a system in which the failure of the product might result in personal injury.

Limited warranty & limitation of liability

Each Ikalogic product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is three years for the test tool and two year for its accessories. This warranty extends only to the original buyer or end-user customer of an Ikalogic authorized reseller, and does not apply to fuses, disposable batteries or to any product which, in Ikalogic's opinion, has been misused, altered, neglected or damaged by accident or abnormal conditions of operation or handling.

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Document Revisions

30-July-2019	Updated safety information section Removed redundant information that is found in user manual Added Limited warranty & limitation of liability section
10-October-2018	Initial release of this document.

The information in this document is subject to change without notice.