

TECHNICAL DATA SHEET


Digital Probe

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Overview

Digital Probes connect to the Logic MSO via the USB-C auxiliary ports, enabling high-speed digital decoding. When connected, each probe lights up with the color that matches its assigned port. A wide range of logic levels is supported through a programmable comparator configured in the Logic 2 software. Each Logic MSO includes two Single-Ended Digital Probes, providing 8 channels of digital input. Up to three additional probes can be added, expanding the system to a total of 5 probes and 20 digital channels. The probes are sampled at 1.0 GS/s on the 100 MHz Logic MSO models and 1.2 GS/s on the 200 MHz models. An aggregate capture rate of 400 million transitions per second is shared across all digital probe channels, streaming in real time for a nearly unlimited duration (limited only by your computer’s memory, which could mean days of continuous capture.)

 Review the user manual and safety information carefully before using the device to ensure proper operation and prevent injury or equipment damage.

Performance Characteristics

General Specifications	
Digital Input Channels	4 Channels
Vertical Resolution	1-bit
Input Voltage	± 25V
Input Impedance	≥200 kΩ
Input Capacitance	≤3 pF
Comparator Threshold	Programmable per Cable
Threshold Range	+ 0.6 to + 3.1 V
Hysteresis	Adjustable
Bandwidth	100 MHz
Minimum Pulse Width	5 ns
Channel-to-Channel Skew	≤1 sample, ≤2 ns
Maximum Sample Rate (4 Ch)	1.2 GS/s per channel (200 MHz Logic MSO), or 1.0 GS/s per channel (100 MHz Logic MSO)
Maximum Memory Depth (4 Ch)	Limited only by available PC memory
Protocol Analyzers	More than 60 protocols supported. View complete list.

Physical Characteristics

Mechanical Specifications	
Connector Type	2 x 5, 10-pin female header, center key
Pin Receptacle Spacing	2.54 mm (0.1 in) spacing
Mating Round Pin Diameter (Min–Max)	0.635 - 0.940 mm (0.0250 – 0.0370 in)
Mating Square Pin Edge Length (Derived)	0.449 - 0.665 mm (0.0177 – 0.0262 in)
Connector Body	41 mm × 17.3 mm × 5 mm (1.61 in × 0.68 in × 0.24 in)
Cable Length	0.8 m (2.5 ft)
5-Wire Harness, Length	140 mm (5.5 in)
5-Wire Harness, Pin Socket	0.75 mm (0.03 in) round
Probe Weight	< 0.5 lbs (0.23 kg)
Operating Temperature (Logic MSO Pod)	0°C to +40°C
Operating Temperature (Included Power Supply)	0°C to +25°C
Storage Temperature	-20°C to +70°C
Power Requirements	USB-C PD 5V @ 0.5A (2.5W)

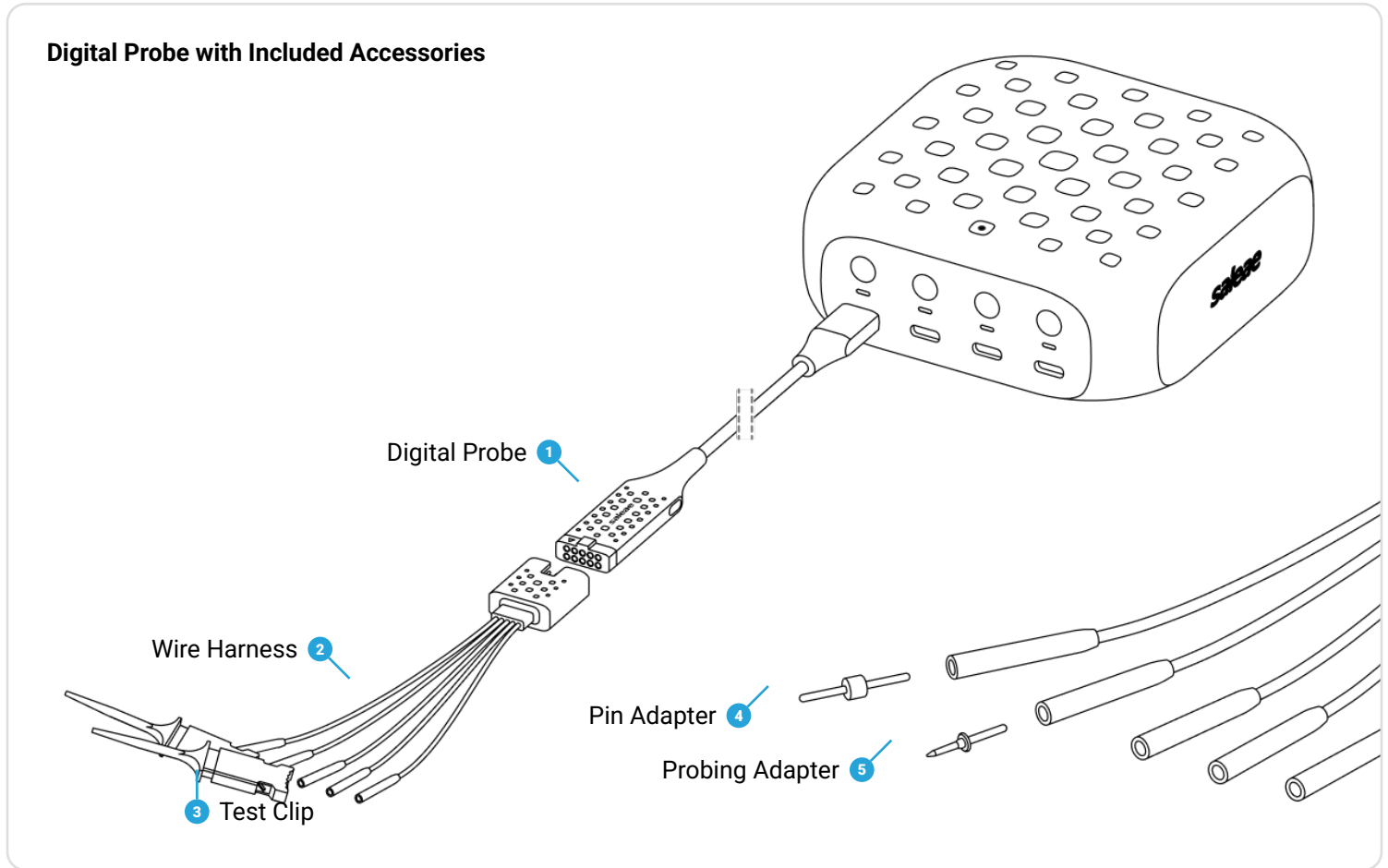
USB-C Auxiliary Ports

Logic analyzer, digital probes, can be connected to any of the 5 USB-C auxiliary ports on Logic MSO, 4 on the front and 1 on the back. The ports are USB-C compliant and will supply +5V to any connected device, however there is no USB data connection available.

How to Use

Digital Probes can be connected to any of the 5 USB-C auxiliary ports on Logic MSO, 4 on the front and 1 on the back. While Digital Probes can also plug into any USB-C port, they will only function when connected to Logic MSO.

Digital Probe with Included Accessories



- 1 Digital Probe for single ended digital measurements
- 2 5 Wire Harness includes 4 signal lines + 1 ground
- 3 Test Clips
- 4 Male-Male Pin Adapter (0.1 in)
- 5 Sharp Tip Probing Adapter

2x5 Keyed Pin Header

- **D0, D1, D2, D3** - Digital Inputs
- **GND** - Ground
- **DNC** - Do Not Connect

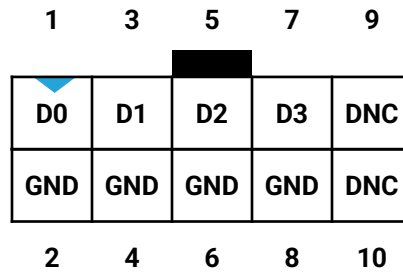


Figure 1: Standard 2x5 Pin Header. Center keyed.

Mechanical Drawings

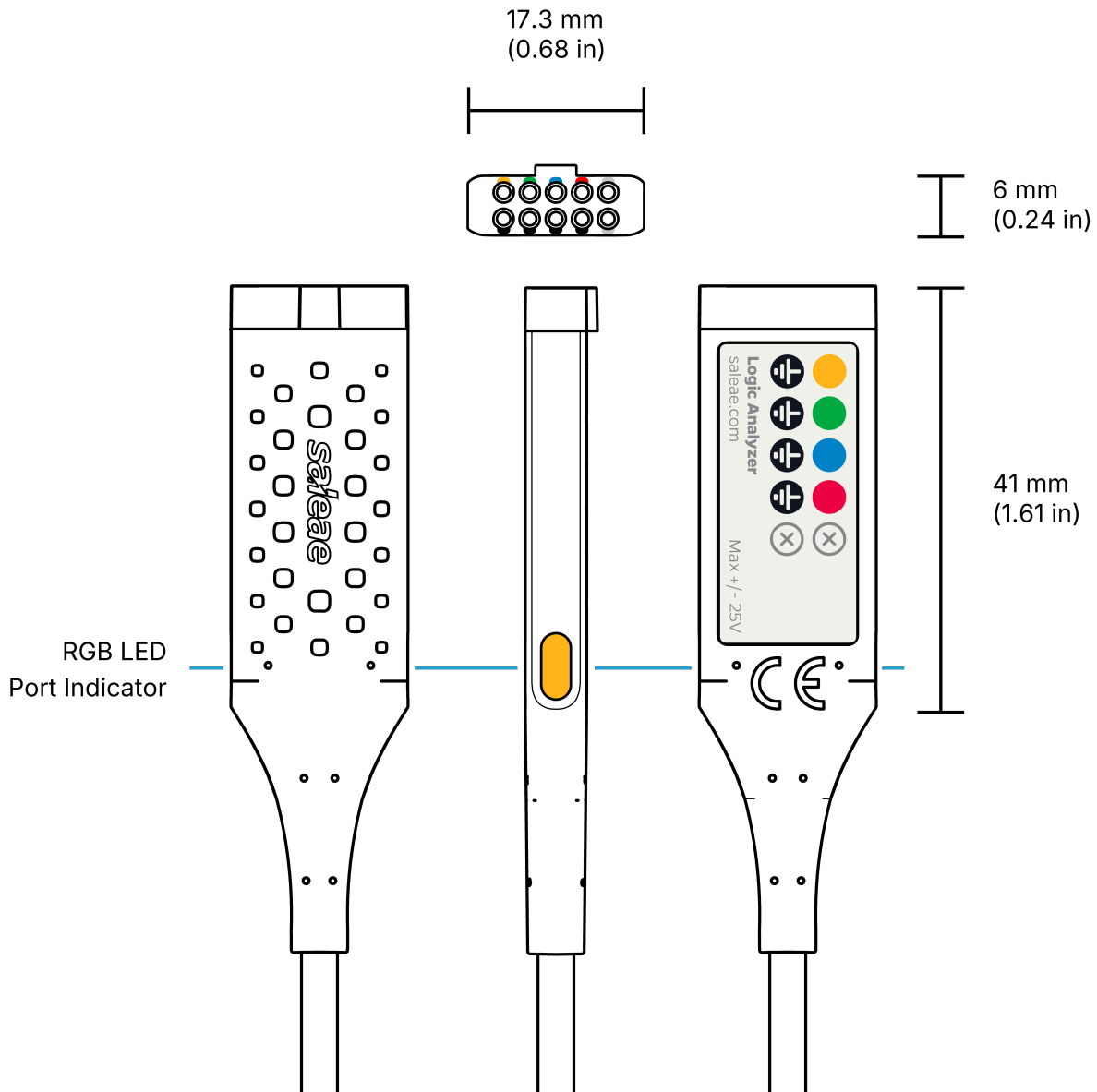


Figure 2: Digital Probe, Single Ended. 0.8 m (2.5 ft) cable length including USB-C connector.

Ordering Information

Logic MSO Models

Logic MSO Model	w/ US Power Supply	w/ EU Power Supply	w/ UK Power Supply	w/ AU Power Supply
4 Ch x 200 MHz • Pro	SAL-00228	SAL-00229	SAL-00230	SAL-00269
4 Ch x 200 MHz • Standard	SAL-00219	SAL-00220	SAL-00221	SAL-00266
4 Ch x 100 MHz • Pro	SAL-00216	SAL-00217	SAL-00218	SAL-00265
4 Ch x 100 MHz • Standard	SAL-00207	SAL-00208	SAL-00209	SAL-00262
2 Ch x 100 MHz • Pro	SAL-00204	SAL-00205	SAL-00206	SAL-00261
2 Ch x 100 MHz • Standard	SAL-00195	SAL-00196	SAL-00197	SAL-00258

Analog Probes

Description	SKU
200 MHz Oscilloscope Probe (fixed 10:1) • Yellow	SAL-00245
200 MHz Oscilloscope Probe (fixed 10:1) • Green	SAL-00246
200 MHz Oscilloscope Probe (fixed 10:1) • Blue	SAL-00247
200 MHz Oscilloscope Probe (fixed 10:1) • Red	SAL-00248

Digital Probes

Description	SKU
Digital Probe, Single Ended	SAL-00243
Digital Probe, Differential	Coming Soon

Power Adapters

Description	SKU
30W Power Adapter, USB-C • US (Type A)	SAL-00191
30W Power Adapter, USB-C • EU (Type C)	SAL-00192
30W Power Adapter, USB-C • UK (Type G)	SAL-00193
30W Power Adapter, USB-C • AU (Type I)	SAL-00194

Analog Probe Accessories

Description	SKU
Oscilloscope Probe Accessory Kit	SAL-00249
Pulse Generator (for probe compensation)	SAL-00255
BNC to SMB Adapter for 3rd Party Probes	SAL-00256
SMB to BNC Adapter for 3rd Party Instruments	SAL-00257

Digital Probe Accessories

Description	SKU
Digital Probe Accessory Kit, Single Ended	SAL-00244
Digital Probe, Accessory Kit, Differential	Coming Soon

Cables and Connectivity

Description	SKU
USB-A to USB-C Adapter	SAL-00270
Data Cable • USB 3.1 A-C • 0.5 Meter	SAL-00250
Data Cable • USB 3.1 A-C • 1.8 Meter	SAL-00251
Power Cable • USB 2.0 C-C • 0.5 Meter	SAL-00252
Power Cable • USB 2.0 C-C • 1.8 Meter	SAL-00254
Power Cable • USB 2.0 C-C • 3.0 Meter	SAL-00253

Support and Warranty

3-Year Warranty

Your new Logic MSO is covered against absolutely any malfunction, regardless of cause, for three years. Replacement units ship immediately, and shipping charges are on us.

180-Day Return Policy

Decide within 180 days that our products aren't for you, and return them for a full refund, including shipping. To arrange for a replacement or return, just contact us.

Contact Information

408 N. Canal St. Ste A
South San Francisco, CA 94080

support@saleae.com

www.saleae.com