

1.5 GHz Active Probe

TAP1500 Datasheet



TAP1500 Single-ended Active FET Probe provides excellent high-speed electrical and mechanical performance required for today's digital system designs.

Key features

- Outstanding electrical performance
 - ≥ 1.5 GHz probe bandwidth
 - < 267 ps rise time
 - ≤ 1 pF input capacitance
 - $1\text{ M}\Omega$ input resistance
 - -8 V to $+8\text{ V}$ input dynamic range
 - -10 V to $+10\text{ VDC}$ input offset range
- Versatile mechanical performance
 - Small compact probe head for probing small geometry circuit elements
 - DUT attachment accessories enable connection to SMDs as small as 0.5 mm pitch
 - Robust design for reliability

- Easy to use
 - Connects directly to oscilloscopes with the TekVPI™ probe interface
 - Provides automatic units scaling and readout on the oscilloscope display
 - Easy access to oscilloscope probe menu display for probe status/ diagnostic information, and to control probe DC offset
 - Remote GPIB/USB probe control through the oscilloscope
- Applications
 - High-speed Digital Systems Design
 - Component Design and Characterization
 - Manufacturing Engineering and Test
 - Educational Research
 - Signals with Voltage Swings up to 16 V

1.5 GHz active probes for TekVPI™ probe interface

- Lower DUT loading effects with ≤ 1 pF input capacitance and $1\text{ M}\Omega$ input resistance
- Versatile DUT connectivity for attaching to small SMDs
- Preserves instrument bandwidth at the probe tip for ≤ 1 GHz oscilloscopes

Specifications

All specifications are guaranteed unless noted otherwise. All specifications apply to all models unless noted otherwise.

Warranted electrical characteristics

Attenuation (probe only)	10X \pm 2%
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Typical characteristics

Bandwidth (probe only)	\geq 1.5 GHz
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Rise time (probe only)	<267 ps
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Input capacitance	<1 pF
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Input resistance	1 M Ω
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Linearity	\pm 8 V (16 V _{p-p})
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Input offset range	\pm 10 V
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Maximum non-destructive input voltage	\pm 15 V (DC + peak AC)
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Propagation delay	5.3 ns
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Physical characteristics

Probe head size

Height	4.83 mm (0.19 in)
Width	7.87.1 mm (0.31 in)
Length	59.18 mm (2.30 in)

Other dimensions

Cable length	1300 mm (51 in)
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Weight

Net	0.45 kg (1.0 lbs)
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Power requirements

The probe is powered directly by oscilloscopes with the TekVPI probe interface.

EMC, environment, and safety**Temperature**

Operating	0 °C to +50 ° (+32 °F to 122 °F)
Nonoperating	-40 °C to +71 °C (-40 °F to 160 °F)

Humidity

Operating	5% to 95% Relative Humidity up to +30 °C (+86 °F) 5% to 85% Relative Humidity at 30 °C to +50 °C (+86 °F to +122 °F) noncondensing
Nonoperating	5% to 95% Relative Humidity up to +30 °C (+86 °F) 5% to 85% Relative Humidity at 30 °C to +75 °C (+86 °F to +167 °F) noncondensing

Altitude

Operating	Up to 4,400 m (14,436 ft)
Nonoperating	Up to 12,192 m (40,000 ft)

Regulatory

Compliance labeling	WEEE (European Union)
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Ordering information**TAP1500 models**

TAP1500	1.5 GHz Active Probe
TAP1500X2	1.5 GHz Active Probe. Discounted two TAP1500 probe package

Standard accessories**Standard accessories**

Description	Quantity with TAP1500 or TAP1500X2	Reorder part number	Reorder quantity
Low-inductance 1 in. Z-Ground lead	2 each	196-3438-xx	1 each (Pkg of 10)
3 in. Ground lead	2 each	196-3437-xx	1 each (Pkg of 2)
6 in. Ground lead	2 each	196-3436-xx	1 each (Pkg of 2)
Y-Lead adapter	2 each	196-3463-xx	1 each (Pkg of 2)
Color-coding clips	2 each of 5 colors	016-1315-xx	2 each of 5 colors
Solderable probe tips,	10 each	131-5638-xx	1 each (Pkg of 10)
Micro CKT test tip,	4 each	206-0569-xx	1 each
Right angle square pin adapter	2 each	214-4227-xx	1 each
0.1 in square pin ground adapter	2 each	131-5777-xx	1 each
User manual ¹	1 each	071-1809-xx English or 071-1810-xx Japanese or 071-1811-xx Simplified Chinese	1 each
Nylon carrying case ²	1 each	016-1952-xx	1 each

¹ Manual language must be specified when ordering.

² The TAP1500X2 does not include individual probe cases. Users who desire the individual probe case should order the TAP1500 probe.

Recommended oscilloscopes

Oscilloscopes with the TekVPI™ probe interface.

Warranty

One-year warranty covering all parts and labor.

Options

Manual options

Opt. L5	Japanese manual
Opt. L7	Simplified Chinese manual

Service options

Opt. C3	Calibration Service 3 Years
Opt. C5	Calibration Service 5 Years
Opt. D1	Calibration Data Report
Opt. D3	Calibration Data Report 3 Years (with Opt. C3)
Opt. D5	Calibration Data Report 5 Years (with Opt. C5)
Opt. R3	Repair Service 3 Years (including warranty)
Opt. R5	Repair Service 5 Years (including warranty)
Opt. SILV600	Standard warranty extended to 5 years

Recommended accessories

013-0309-xx	IC Micro-grabber, Qty 2
006-3415-xx	Antistatic wrist strap
067-1707-xx	TekVPI calibration fixture (for PV)

CE Marking Not Applicable.



Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.

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