2.5 GHz Active Probe

▶ TAP2500

Selecting the right probe for your application is key to attaining the best signal fidelity in your measurements. Active probes provide truer signal reproduction and fidelity for high frequency measurements. With our ultra-low input capacitance and unique interface, the TAP2500 Single-ended Active FET probe provides excellent high-speed electrical and mechanical performance required for today's digital system designs. Specifically designed for use and direct connection to the TekVPI probe interface used on the new Tektronix DPO7000 and DPO4000 Series oscilloscopes, the TAP2500 Active FET probe achieves high-speed signal acquisition and measurement fidelity by solving three traditional problems:

- Lower DUT loading effects with ≤0.8 pF input capacitance and 40 kΩ input resistance
- Versatile DUT connectivity for attaching to small SMDs
- Preserves oscilloscope bandwidth at the probe tip for DPO7000 and DPO4000 Series Oscilloscope models up to 2.5 GHz

▶ Characteristics

Bandwidth (Probe Only) – ≥2.5 GHz.
Attenuation (Probe Only) – 10:1.
Rise Time (Probe Only) – <140 ps.
Input Capacitance – ≤0.8 pF.
Input Resistance – 40 kΩ input resistance.
Input Dynamic Range – –4 V to +4 V.
Input Offset Range – –10 V to +10 V.
Max Input Voltage (Non-destruct) – ±30 V (DC + pkAC).
Propagation Delay – 5.3 ns.

Physical Characteristics

Dimensions	**mm**	**in.**
Width	7.6	0.30
Height	7.6	0.30
Depth	57.2	2.25
Cable Length	1300	51
Weight	**kg**	**lbs.**
Net	0.091	0.2

Power Requirements

TAP2500 is powered directly by the DPO7000 and DPO4000 Series Oscilloscopes, using TekVPI probe interface.

Recommended Oscilloscopes

- DPO7000 and DPO4000 Series Oscilloscopes with TekVPI probe interface.

▶ Features & Benefits

Outstanding Electrical Performance
- ≥2.5 GHz Probe Bandwidth
- <140 ps Rise Time
- ≤0.8 pF Input Capacitance
- 40 kΩ Input Resistance
- –4 V to +4 V Input Dynamic Range
- –10 V to +10 V DC Input Offset Range
- Max Input Voltage (Non-destruct): ±30 V (DC + pkAC)

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 DPO7000 and DPO4000 Series Oscilloscopes Using the New TekVPI™ Probe Interface
- Provides Automatic Units Scaling and Readout on the Oscilloscopes Display
- Easy Access to Oscilloscope Probe Menu Display for Probe Status/Diagnostic Information and to Control Probe DC Offset

▶ Applications

Verification, Debug and Characterization of High-speed Designs

Signal integrity, Jitter and Timing Analysis

Manufacturing Engineering and Test

Signals with Voltage Swings Up to 8 V_{p-p}

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▶ Ordering Information

TAP2500

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▶ Standard Accessories Included

Description	Quantity with TAP2500	Reorder Part Number
Ground Lead Kit – 3 in., and Y Lead Adapter	1 each	196-3456-xx
SMT KlipChip™ Adapter	1 each	206-0364-xx
Customizable Ground Lead (Set of 5)	1 set	196-3482-xx
Color Coding Clips	2 each of 5 colors	016-1315-xx
Pogo Pin Ground (Set of 10)	1 set	016-1772-xx
Square Pin Sockets (Set of 10)	1 set	016-1773-xx
SureToe™ (Set of 4)	1 set	131-6254-xx
Probe Tip (Set of 10)	1 set	131-5638-xx
Spring Adapter (Set of 10)	1 set	016-1774-xx
Wrist Strap	1 each	006-3415-xx
Nylon Carrying Case	1 each	016-1952-xx
Accessory Case	1	006-7164-00
Instruction Manual	1	071-1836-00

Environmental

Temperature –
Operating: 0 ºC to +50 ºC
Non-operating: -40 ºC to +71 ºC

Humidity –
Operating: 5% to 95% Relative Humidity (RH) at up to +30 ºC; 5% to 85% RH above +30 ºC up to +50 ºC; non-condensing.
Non-Operating: 5% to 95% Relative Humidity (RH) at up to +30 ºC; 5% to 85% RH above +30 ºC up to +75 ºC; non-condensing.

Altitude –
Operating: Up to 4,400 m (15,000 feet).
Non-operating: Up to 12,192 m (40,000 feet).

Regulatory

Emissions Compliance – EN 55011, Class A.

Compliance Labeling –
C-Tick (Australia/New Zealand).
CE (European Union).
WEEE (European Union).

Manual Options

Opt. L5 – Japanese instruction manual.

Opt. L7 – Simplified Chinese instruction manual.

Optional Accessories

Description	Package Quantity	Reorder Part Number
50 mm IC Adapter	12	SF501
25 mm IC Adapter	12	SF502
0.5 mm IC Adapter	12	SF503
IC Micro Grabber	2	SMK4
Sure Toe	12	ST501

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.

Opt. R5 – Repair Service 5 Years.

Opt. CA1 – Single calibration event, or coverage for the designated calibration interval, whichever comes first.

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www.tektronix.com

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