TETRIS®1000

High Impedance Active Probe

Features:

- High Input Impedance
- Interchangeable Spring Tips
- Contacts adjacent Pins in 2,54 mm Pitch
- Useable with any 50 Ω Measuring Instrument

The TETRIS® active probe is a manufacturer independent measurement system, which can be used with any oscilloscope having 50 Ω input. Its small size and useful accessories are designed to make any measuring task easy.
System- dependency is known to be an issue in many work places and laboratories, not only concerning measurement instruments and accessories. With a standalone power supply and relying on 50 Ω input only, PMK probes are independent from the measuring instruments as such.
The small housing and the distinctive T-shape of the TETRIS® probe head make contacts in 2.54 mm pitches especially easy, as multiple TETRIS®'s probes can contact adjacent pins simultaneously. Connections to smaller parts are achieved either by an IC contacting system or famous clamps also available at PMK and partly enclosed in the standard scope of delivery.
The choice for an active probe instead of a low-Z passive one is simple, because passive probes, with their relatively high input capacitance, load the signal source already at frequencies above 100 kHz. The TETRIS® active probe offers high input impedance into the GHz-range.

© 2014 PMK GmbH

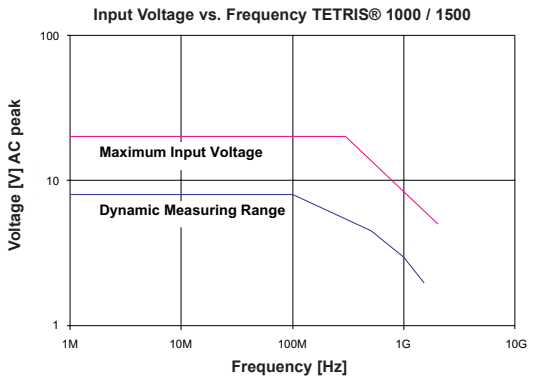
This datasheet supersedes all previously published material. Specifications that are not marked as quaranteed are published as general information to the user. The instrument should have warmed up for at least 20 minutes and the environmental conditions must not exceed the specified limits of the probe. Note that specifications are subject to change without notice.

Electrical Specifications

Attenuation Ratio	10:1	± 2 % at DC
Voltage Coefficient	0.00025 % / V	at DC
Input Voltage (max)	20 V	
Probe Bandwidth	1.0 GHz	(-3 dB)
System Bandwidth (1)	600 MHz	(-3 dB)
Input Dynamic Range	±8 V	

Maximum Input Voltage and Dynamic Range

The TETRIS Active Probe is secured against static overvoltage. Applying voltages above the ones stated here may damage or the destroy the amplifier at the Probe Tip.

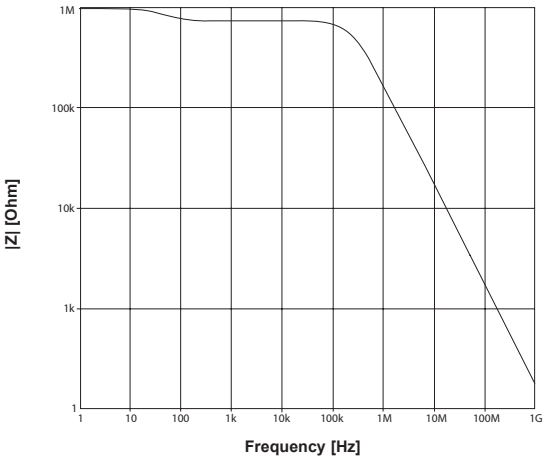


Make sure to comply with the max. Input Voltages stated here to avoid errors of linearity and damage to the probe.

(1) Connected to oscilloscope with an Input Impedance greater than 500 MHz

© 2014 PMK GmbH

Typical Input Impedance TETRIS® 1000



Note that the Input Impedance of the Probe decreases as the Frequency of the Applied Signal increases.

Electrical Characteristics

Input Resistance (system)	1 MΩ	(± 1 %)
Input Capacitance (system)	0.9 pF	
Input Coupling of the Measuring Instrument	50 Ω AC / DC	

Mechanical Characteristics

Weight (probe only)	48 g
Cable Length	1.3 m

© 2014 PMK GmbH

Environmental Specifications

Altitude	operating	up to 2000 m
	non-operating	up to 15000 m
Temperature Range	operating	0 °C to +50 °C
	non-operating	-40 °C to +71 °C
Maximum Relative Humidity	operating	80% relative humidity for temperatures up to +31 °C, decreasing linearly to 40 % at +50 °C

Accessories for TETRIS® Active Probes

Tetris Active Probes support a vast number of accessories. From different Tips & Pins over Leads and Adapters to popular Clips you might know from other applications. Most of them are found in the standard scope of delivery marked (x) in the table below. Differing in quantity from the sets being sold seperately, (x) states the number of individual accessories enclosed.

See illustrations on the following page for clarification or ask our sales department for detailed information on the part in question.

Probe Tips

- Set 5 Spring Tips (1)
  890-800-001
- Set 5 Solid Tips (1)
  890-800-000
- L-In Adapter (1)
  890-50-800

Ground Connectors

- Ground Blade (1)
  018-291-103
- Z-Ground (1)
  890-400-800
- 10 self-adhesive Cu-Pads (2)
  890-100-150
- Set 10 PCB Adapter (1)
  890-700-108
- Set 25 PCB Adapter
  890-700-258
- Ground Leaf (1)
  890-291-105

Ground Leads

- Ground Lead 6 cm (1)
  890-400-801
- Ground Lead 12 cm (1)
  890-400-802
- Ground Lead 90° 5 cm (1)
  890-400-803
- Ground Lead 90° 10 cm (1)
  890-400-804

Sprung Hooks

- Pico Hook™ black (1)
  P25-0
- Pico Hook™ red (1)
  P25-2

Micro Clips

- 1 Pair QFP IC-Clips short
  890-502-000
- 1 Pair QFP IC-Clips long
  890-502-130

Adapters

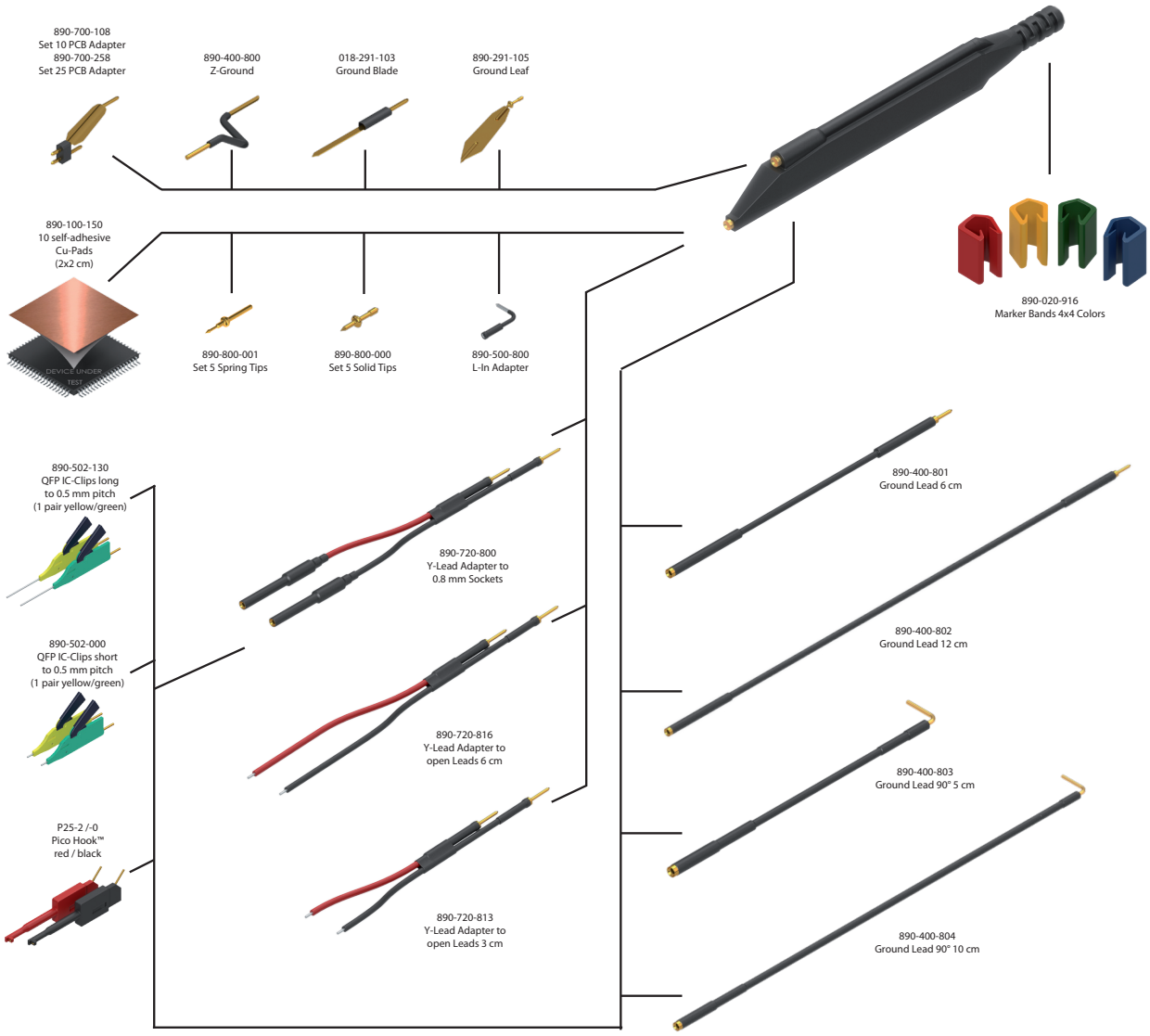
- Y-Lead Adapter (1)
  to 0.8 mm sockets
  890-720-800
- Y-Lead Adapter
  to open Leads 3 cm
  890-720-813
- Y-Lead Adapter
  to open Leads 6 cm
  890-720-816

Miscellaneous

- Marker Bands 4x4 Colors (1)
  890-020-916
- Tetris Accessory Set
  899-180-000
- Power Supply PS-01 (1)
  889-000-001

© 2014 PMK GmbH

Accessories for TETRIS® Active Probes



© 2014 PMK GmbH

WEEE/ RoHS Directives

PMK electronic products are classified within the WEEE/ RoHS* category list as monitoring and control equipment (category 9). Category 9 products are exempt from the restrictions under the scope of the RoHS directive.

Your help and efforts are required to protect and keep clean our environment. Therefore return any electronic product at the end of its life either to Service Department of PMK Mess- und Kommunikationstechnik GmbH or take care of separate WEEE collection and professional WEEE treatment yourself. Do not dispose as unsorted municipal waste.

* EC Directives:

WEEE Directive 2002/96/EC	–	Waste Electrical and Electronic Equipment
RoHS Directive 2002/95/EC	–	Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment

Safety Information

To avoid personal injury and to prevent fire or damage to this product or products connected to it, review and comply with the safety informations stated in the manual before using this product.
Be aware that if you use this probe assembly in a manner not specified the protection this product provides may be impaired.

Only qualified personnel should use this probe assembly.

Manufacturer

PMK Mess- und Kommunikationstechnik GmbH
Königsteiner Str. 98
65812 Bad Soden, Germany

Internet: www.pmk.de

Tel: +49 (0) 6196 5927 - 930
Fax: +49 (0) 6196 5927 - 939

E-Mail: sales@pmk.de

© 2014 PMK GmbH