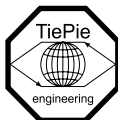


Handyscope TP450

Datasheet



TiePie engineering

Specifications

Acquisition system

Number of input channels	1 analog		
Connector	2 slide contacts		
Type	galvanically isolated differential		
Resolution	16 bit		
Amplitude Accuracy	0.5% of full scale		
Ranges (full scale)	±2 V ±4 V ±8 V	±20 V ±40 V ±80 V	±200 V ±400 V ±450 V
Coupling	DC		
Impedance	1 MΩ / 20 pF		
Protection	600 V _{RMS} CAT II (DC + AC peak < 10 kHz)		
Maximum Common Mode voltage	600 V in all ranges		
	TP450-250	TP450-50	
Bandwidth (-3dB)	200 kHz	25 kHz	
Galvanic isolation			
between input and USB port	5000 V _{RMS} for 1 minute		
Sampling rate	TP450-250	TP450-50	
Block mode real time			
Maximum	250 kS/s	50 kS/s	
Minimum	1 S/s	1 S/s	
Streaming mode real time			
Maximum	250 kS/s	50 kS/s	
Minimum	1 S/s	1 S/s	
Sampling source	internal		
Accuracy	±0.25 ppm		
Memory	standard model	XM option	
	16 kS	1 MS	

Trigger system

System	digital, 2 levels	
Source	CH1	
Trigger modes	TP450-250	TP450-50
	rising slope, falling slope, inside window, outside window	rising slope, falling slope
Level adjustment	0 to 100% of full scale	
Hysteresis adjustment	0 to 100% of full scale	
Resolution	0.025% (16 bits)	
Pre trigger	0 to selected record length (0 to 100%, one sample resolution)	
Post trigger	0 to selected record length (0 to 100%, one sample resolution)	

Interface

Interface	USB 2.0 High Speed (480 Mbit/s) (USB 1.1 Full Speed and USB 3.0 compatible)
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Power

Power	from USB port
Consumption	5 V _{DC} , 100 mA max

Physical

Instrument height	70 mm / 2.75"
Instrument length	72 mm / 2.83"
Instrument width	42 mm / 1.65"
Weight	160 gram / 5.6 ounce
USB cord length	3 m / 118"

I/O connectors

CH1	slide contacts with exchangeable adapters for EU, US, AU and UK mains wall sockets
USB	fixed cable with USB 2 type A plug

System requirements

PC I/O connection	USB 2.0 High Speed (480 Mbit/s) (USB 1.1 Full Speed and USB 3.0 compatible)
Operating System	Windows 7 / 8 / 10

Environmental conditions

Operating	
Ambient temperature	20°C to 25°C (10°C to 40°C without specs)
Relative humidity	10 to 90% non condensing
Storage	
Ambient temperature	-20°C to 70°C
Relative humidity	5 to 95% non condensing

Certifications and Compliances

CE mark compliance	Yes
RoHS	Yes

Measure lead

Model	TP-C812C
Type	differential
Connectors	
Instrument side	dual 4 mm banana socket, 19 mm apart
Test point side	red and black 4 mm shrouded banana plugs
Bandwidth	7 MHz
Safety	CAT III, 1000 V, double isolated
Dimensions	
Total length	2000 mm
Length to split	800 mm
Length individual ends	1200 mm
Weight	75 g
Color	black
Heat resistant	yes
Certification and compliances	
CE conformity	yes
RoHS	yes
Accessories	
Color coding rings	5 x 3 rings, various colors
Suitable instrument	Handyscope TP450

Package contents

Instrument	Handyscope TP450
Test lead	low noise differential with 4 mm banana plugs
Accessories	2 test probes with 4 mm banana socket 2 crocodile clips with 4 mm banana socket Color coding rings Mains wall socket adapters for EU, US, AU and UK
Software	Windows 7 / 8 / 10
Drivers	Windows 7 / 8 / 10
Manual	Instrument manual and software manual

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