GW INSTEK

Simply Reliable

Good Will Instrument Co., Ltd. Oscilloscope Accessories

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GW INSTEK

Simply Reliable

We take prides in creating more than 43 years of satisfied customer experiences throughout the world. Today, GW Instek is considered the most Reliable Brand for professional measurement instruments with supreme quality and the **lowest TCO - Total Cost per Ownership**.
We invite you to be part of GW Instek success story and help perpetuate this value.

With an overriding commitment to provide highly durable products, GW Instek is your most **Reliable choice** when it comes to selecting the best measurement instruments with the **lowest TCO - Total Cost per Ownership.** Highly durable products mean long product lifetime capable of reducing operation & maintenance costs. This is definitely what you need to consider before investing.

Being your most trustworthy and **Reliable Partner,** GW Instek promises to proactively provide insightful business solutions and products with the **lowest TCO – Total Cost per Ownership**, assisting your business to thrive in the highly competitive world. From feasibility evaluation, product selection, solution adaptation to timely after-sales service, we are dedicated to serving each individual customer and making your professional life easier than ever.

Oscilloscope Education And Training Kit

The GDB-03 training kit allows you to learn both the basic and the advanced functions of the GDS-3000 Series, MSO-2000/GDS-2000A Series and GDS-1000B Series Digital Storage Oscilloscope (DSO). Following the training procedures of this training kit, you will quickly understand the basic operations of a DSO, and the unique features, which represents a typical hi-tech DSO today.

The training kit is a signal generator board capable of producing waveforms, which contain various real-life scenarios you might encounter. With the GDB-03 training kit and the included curriculums, you are able to acquire adequate knowledge in using a DSO with advanced features.

GDB-03

SPECIFICATIONS

SIGNAL OUTPUT

The GDB-03 provides
3 types of serial bus signals,
9 basic and 17 advanced oscilloscope training signals

BASIC OSCILLOSCOPE TRAINING

Lab 1 Connect and view a waveform
Lab 2 Compensate the probe (1kHz square wave)
Lab 3 Adjust waveform scale and position (square wave)
Lab 4 Measure the waveform by manual (square wave ; frequency counter, cursor measure)
Lab 5 Automatic measurement (GDB-03 including noise function ; auto measure, cursor getting measure)
Lab 6 VPO (VPO signal, color, gray mode)
Lab 7 Autoset function (Fit screen, AC priority)
Lab 8 Automatic range
Lab 9 Save data using hardcopy function

ADVANCE OSCILLOSCOPE TRAINING

Lab 1 Automatic measurement (gating measurement)
Lab 2 Using peak detect mode
Lab 3 Low speed signal measurement
Lab 4 Noisy signal measurement
Lab 5 Using zoom timebase function
Lab 6 Transient signal measurement
Lab 7 Lissajous waveform & phase measurement
Lab 8 Runt trigger
Lab 9 Video trigger
Lab 10 Rise & Fall trigger
Lab 11 Pulse width trigger
Lab 12 Hold off function
Lab 13 Split window 1
Lab 14 Split window 2
Lab 15 UART signal
Lab 16 I^2C signal
Lab 17 SPI signal

POWER SUPPLY

5V DC, USB or auxiliary power input

ORDERING INFORMATION

GDB-03 Oscilloscope Education And Training Kit

ACCESSORIES :
CD x 1
Singnal demo board with instructions
GTL-246 USB 2.0 A-B Type cable

ACCESSORIES

GTP-070B-4

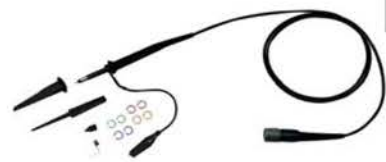
For: GDS-1052-U/1072-U/1072A-U,
GDS-2072A/2074A,
GDS-2072E/2074E

GTP-070B-4 is a x1, x10 attenuator modular probe. Designed for use with DC to 70MHz oscilloscope with input impedance of 1MΩ The probe consists of following separate units;
1. BNC male connector and compensation box.
2. Probe body probe tip and R.C. assemblies.
3. Approx. 1.2M cable

Item	10:1	1:1
Bandwidth	DC~70MHz(±3dB)	DC~6MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	14.5~17.5pF	85~115pF
Att. Ratio	1/10	1/1
Max. Input Voltage	≤600V DC+AC peak	≤200V DC+AC peak
Accessories	1.Pincher tip 2.Ground lead 3.Cable marker 4.Screw driver 5.IC tip 6.Adjusting tool 7.Earth tip	

GTP-100B-4

For: GDS-2102A/2104A,
GDS-2102E/2104E,
GOS-6103/6103C/6112



The GTP-100B-4 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MΩ shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 5~30pF(10:1).The probe incorporates a two position slide switch in the head which selects attenuation of x1, x10 position.

Item	10:1	1:1
Bandwidth	DC~100MHz(±3dB)	DC~10MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	14.5~17.5pF	85~115pF
Att. Ratio	1/10	1/1
Max. Input Voltage	≤600Vpk	≤200Vpk
Accessories	1.Channel identifier clip 2.Hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Earth tip	

GTP-150B-4

For: GDS-1152A-U,
GDS-2102A/2104A

The GTP-150B-4 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MΩ shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 5~30pF. The probe incorporates a two position slide switch in the head which selects attenuation of x1, x10 position.

Item	10:1	1:1
Bandwidth	DC~150MHz(±3dB)	DC~6MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	8.5~18.5pF	45~65pF
Att. Ratio	1/10	1/1
Max. Input Voltage	600V DC+AC peak	200V DC+AC peak
Accessories	1.Channel identifier clip 2.hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Earth tip	

GTP-150B-2

For: GDS-300/200 Series

The GTP-150B-2 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MΩ shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 10~30pF. The probe incorporates a two position slide switch in the head which selects attenuation of x1,x10 position.

Item	10:1	1:1
Bandwidth	DC~150MHz(±3dB)	DC~6MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	13pF	65pF
Att. Ratio	1/10	1/1
Max. Input Voltage	500V CAT I , 400CAT II	150V CAT I , 150V CAT II
Accessories	1.Channel identifier clip 2.Hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Earth tip	
Compensatim Range	—	10~30pF

GTP-200B-4

For: GDS-Series

The GTP-200B-4 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MΩ shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 5~30pF.The probe incorporates a two position slide switch in the head which selects attenuation of x1, x10 position.

Item	10:1	1:1
Bandwidth	DC~200MHz(±3dB)	DC~10MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	10.5~17.5pF	65~105pF
Att. Ratio	1/10	1/1
Max. Input Voltage	600V peak	200V peak
Accessories	1.Channel identifier clip 2.hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Earth tip	
Compensation Range	5~30pF	—

GTP-250A-2

For: GDS-2202A/2204A

The GTP-250A-2 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MW shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 10~35pF. Connect this sentence to the end of the previous sentence.

Item	10:1	1:1
Bandwidth	DC~250MHz(±3dB)	DC~6MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	~17pF	~47pF
Att. Ratio	1/10	1/1
Max. Input Voltage	500V CAT I , 300CAT II	300V CAT I , 150V CAT II
Accessories	1.Channel identifier clip 2.Hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Earth tip	

Ordering Guide

If an accessory is ordered separately from the main product, please indicate the nomenclature of the accessory when placing order.

Example : GSC-006 Soft Carrying Case for GDS-1000A-U Series

If an accessory is ordered along with the main product, please indicate the option number of the accessory when placing order.

Example : GDS-3352 350MHz, 2-Channel, Visual Persistance DSO , GSC-008 Soft Carrying Case

ACCESSORIES

GTP-151R

For : GDS-3000 Series

The GTP-151R is compatible with readout function oscilloscopes that automatically detect and display the attenuation factor of the probe.

Item	10:1
Bandwidth	DC~150MHz(±3dB)
Input R	~10MΩ
Input C	~12pF
Att. Ratio	1/10
Max. Input Voltage	< 500 Vpk
Accessories	1.Channel identifier clip 2.Sprung hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Measuring tip 8. Sprung earth tip

GTP-251R

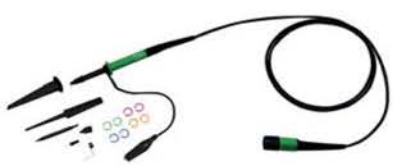
For: GDS-3000 Series

The GTP-251R is compatible with readout function oscilloscopes that automatically detect and display the attenuation factor of the probe.

Item	10:1
Bandwidth	DC~250MHz(±3dB)
Input R	~10MΩ
Input C	~12pF
Att. Ratio	1/10
Max. Input Voltage	DC 500V CAT Ⅰ, 300V CAT Ⅱ
Accessories	1.Channel identifier clip 2.Sprung hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Measuring tip 8. Sprung earth tip

GTP-250B-2

For: GDS-300/200 Seri



The GTP-250B-2 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MW shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 10~35pF. Connect this sentence to the end of the previous sentence.

Item	10:1	1:1
Bandwidth	DC~250MHz(±3dB)	DC~6MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	~13pF	~65pF
Att. Ratio	1/10	1/1
Max. Input Voltage	500V CAT Ⅰ, 400V CAT Ⅱ	150V CAT Ⅰ, 150V CAT Ⅱ
Accessories	1.Channel identifier clip 2.Hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Earth tip	

GTP-300B-4

For: GDS-2202E/2204E Series

The GTP-300A-4 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MΩ shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 10~35pF. The probe incorporates a two position slide switch in the head which selects attenuation of x1, x10 position.

Item	10:1	1:1
Bandwidth	DC~300MHz(±3dB)	DC~10MHz(±3dB)
Input R	~10MΩ	1MΩ (Oscilloscope)
Input C	10.5~17.5pF	65~105pF
Att. Ratio	1/10	1/1
Max. Input Voltage	600V DC+AC pk	200V DC+AC pk
Accessories	1.Channel identifier clip 2.Hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Earth tip	

GTP-351R/352R

For: GDS-3000 Series

Both GTP-351R and GTP-352R are passive high impendence oscilloscope probes designed and calibrated for use on instrument. GTP-351R has an input impendence of 1 MΩ shunted by 20pF while GTP-352R has an input impendence of 1 MΩ shunted by 15pF. However, GTP-351R may be compensated for use with instruments having an input capacitance of 10~35pF while GPT-352R has an input impendence of 10~30pF.

	GTP-351R	GTP-352R
Item	10:1	20:1
Bandwidth	DC~350MHz	DC~350MHz
Input R	~10MΩ	~10MΩ
Input C	~12pF	~7pF
Att. Ratio	1/10	1/20
Max. Input Voltage	500V CAT Ⅰ, 300V CAT Ⅱ	1kV CAT Ⅱ
Accessories	1.Channel identifier clip 2.Sprung hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Measuring tip 8. Sprung earth tip	

GTP-350A-2

For: GDS-3000 Series
GDS-2302A/2304A

The GTP-352A-2 is a passive high impendence oscilloscope probe designed and calibrated for use on instrument having an input impedance of 1MW shunted by 15pF. However, it may be compensated for use with instruments having an input capacitance of 10~30pF. Connect this sentence to the end of the previous sentence.

Item	10:1	1:1
Bandwidth	DC~350MHz	DC~6MHz
Input R	~10MΩ	~1MΩ
Input C	~13pF	~46pF
Att. Ratio	1/10	1/1
Max. Input Voltage	500V CAT Ⅰ, 300V CAT Ⅱ	300V CAT Ⅰ, 150V CAT Ⅱ
Accessories	1.Channel identifier clip 2.Sprung hook 3.Ground lead 4.Insulating tip 5.IC tip 6.Adjusting tool 7.Measuring tip 8. Sprung earth tip	

GKT-100 Deskew Fixture

The GKT-100 deskew fixture is used to compensate for the propagation delay between a passive voltage probe and current probe. It is used with the GDS-3000 Series, Required tools.

1.GDS-3000 x 1
2.GKT-100 x 1
3.USB type A-B cable x1 -used for deskew fixture
4.Standard passive probe x1
5.Current probe x1 (GCP-530 or GCP-1030)

ACCESSORIES

Current Probe and Differential Probe Selections

Dual-channel Differential Probe

GCP-100/020

GCP-530/1030,GCP-206P/425P

GDP-025

GDP-050/100

GDP-040D (for GDS-300/200 only)

In addition to the standard passive probes, the optional current or differential probes can be used to perform additional tests or power analysis. The differential probes come in three bandwidths: 25MHz, 50MHz and 100MHz. The current probes come in a broad variety of bandwidth and current ranges (ranging from 50MHz/30A, 100MHz/30A, 40kHz/240A and 100kHz/100A), to cover any number of power supply testing applications.

** The GCP-530/1030 must be used in conjunction with the GCP-206P/425P current probe power supply.*

** The GCP-100 requires a standard 9V battery; The GCP-020 do not require batteries or a power supply source.*

CURRENT PROBE

	GCP-100	GCP-020	GCP-530	GCP-1030
Probe Bandwidth	DC~100kHz	40Hz~40kHz	DC~50MHz	DC~100MHz
Rise Time	–	–	7ns or less	3.5ns or less
Maximum Continuous Input Range	0.05~10A(100mV/A) 1~100A(10mV/A)	0.1~24A(100mV/A) 0.5~240A(10mV/A)	30Apeak	30Apeak
Maximum Peak Current Value	100A	60A(100mV/A) 600A(10mV/A)	50A	50A
Output Voltage Rate	100mV/A;10mV/A	10mV/A;100mV/A	0.1V/A	0.1V/A
Amplitude Accuracy	≤3%±5mV (50mA~10A peak) ≤4%±500μV (0.5A~40A peak) ≤15%(40~100A peak)	≤2%±50mV (100mA~20A peak) ≤3.5%±5mV (0.5~10A peak) ≤3%±5mV (10~40A peak) ≤1.5%±5mV (100A~240A peak)	±1.0%rdg±1mV (0~30Arms/DC, 45~66Hz);±2.0%rdg (30Arms~50A peak /DC, 45~66Hz)	±1.0%rdg±1mV (0~30Arms/DC, 45~66Hz);±2.0%rdg (30Arms~50A peak /DC, 45~66Hz)
Noise	–	–	2.5mArms or less	2.5mArms or less
Rate Supply Voltage	–	–	±12V± 0.5V	±12V± 0.5V
Maximum Rated Power	–	–	5.6VA	5.3VA
Maximum Rated Voltage	600V, CAT Ⅲ	600V, CAT Ⅲ	300V, CAT I	300V, CAT I

CURRENT PROBE POWER SUPPLY

	GCP -206P	GCP-425P
Compatible Current Probe	GCP-530 GCP-1030	GCP-530 GCP-1030
Number of Power Supply Connectors	2	4
Output Voltage	±12V± 0.5V	±12V± 0.5V
Rated Output Current	±600mA	±2.5A
Rated Supply Voltage (50/60Hz)	110V/120V, 220V/240V AC±10%	100V~240V AC±10%
Maximum Rated Power	20VA	170VA
Dimensions & Weight	73(W)x110(H)x 186(D)mm ; Approx.1.1kg	80(W)x119(H)x 200(D) mm ; Approx.1.1kg
Accessories	Power cord, fuse	Power cord, fuse

HIGH-VOLTAGE DIFFERENTIAL PROBE

	GDP-025	GDP-050	GDP-100
Probe Bandwidth	DC ~ 25MHz (attenuation x50, x200) ; DC ~ 15MHz(attenuation x20)	DC ~ 50MHz(attenuation x200, x500, x1000) ; DC ~ 25MHz(attenuation x100)	DC ~ 100MHz(attenuation x200, x500 , x1000); DC ~ 50MHz(attenuation x100)
Attenuation	x20 , x50 , x200	x100 , x200 , x500 , x1000	x100 , x200 , x500 , x1000
Accuracy	±2%	±2%	±2%
Voltage Input Range (DC+AC peak to peak)	≤140Vp-p for x 20 , ≤350Vp-p for x 50 , ≤1400Vp-p for x 200	≤ 700Vp-p for x 100 ≤ 1400Vp-p for x 200 ≤ 3500Vp-p for x 500 ≤ 7000Vp-p for x 1000	≤ 700Vp-p for x 100 ≤ 1400Vp-p for x 200 ≤ 3500Vp-p for x 500 ≤ 7000Vp-p for x 1000
Permitted Max Input Voltage	Maximum differential voltage: Max voltage between input terminal and ground: 600Vrms	Maximum differential voltage: Max voltage between input terminal and ground: 6500Vrms	Maximum differential voltage: Max voltage between input terminal and ground: 6500Vrms
Input Impedance	Differential:4MΩ/1.2pF ; Between terminals and ground: 2MΩ/2.3pF	Differential:54MΩ/1.2pF ; Between terminals and ground:27MΩ/2.3pF	Differential: 54MΩ/1.2pF ; Between terminals and ground: 27MΩ/2.3pF
Output	≤7.0V	≤7.0V	≤7.0V
Output impedance	50Ω	50Ω	50Ω
Rise Time	14ns (x50, x200 attenuation) ; 23.4ns (x20 attenuation)	7ns (x200, x500, x1000 attenuation) ; 14ns (x100 attenuation)	3.5ns (x200, x500, x1000 attenuation) ; 7ns (x100 attenuation)
Rejection Rate on Common Mode(CMRR)	60Hz>80dB , 100Hz>60dB, 1MHz>50dB	60Hz>80dB , 100Hz>60dB, 1MHz>50dB	60Hz>80dB , 100Hz>60dB, 1MHz>50dB
Power Supply	External DC adapter	External DC adapter	External DC adapter
Consumption	Maximum 35mA (0.4Watt)	Maximum 35mA (0.4Watt)	Maximum 35mA (0.4Watt)

DUAL-CHANNEL DIFFERENTIAL PROBE

	GDP-040D
Channel	2
Bandwidth (-3dB)	DC ~ 40MHz (x200)
Attenuation	200 X
Voltage Input Range	600Vpp Max. CAT Ⅲ
Output	≤ ±3V
Maximun Input Voltage to Earth	600Vpp for x200
Typical CMRR	80dB@60Hz ; 60dB@100Hz ; 50dB@1MHz
Input Impedance	Differential : 2MΩ//1.2pf, Ground 1MΩ//2.4pF
Output Impedance	50Ω
Rise Time	8.75ns for x200
Power Supply	5V DC from GDS-300/200 Series
Accuracy	±2%
Dimension	81.7(H) x 123.0(W) x 28.0(D) mm

ACCESSORIES

GTL-248

GTL-250

GTL-101

GTL-246

GTL-253

GTL-110

GTL-232

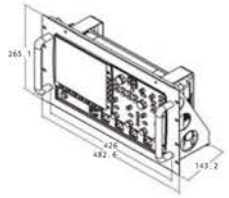
GTL-207A

GTC-001

GTC-002

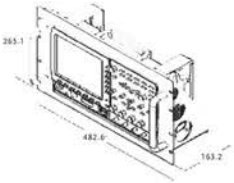
GRA-411 Rack Mount Kit

For : GDS-3000 Series



GRA-420 Rack Mount Kit

For : GDM-2000A Series



GRA-426 Rack Mount Kit

For : GDS-1000B Series