

# ACCESSORIES

## Current Probe and Differential Probe Selections

## Dual-channel Differential Probe



GCP-100/020

GCP-300/500/1000

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, 300kHz/200A, 500kHz/150A, 1MHz/70A, 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-206P is capable of powering 2 units of GCP-530 or GCP-1030 and the GCP-425P is capable of powering 4 units.

\* 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-300	GCP-500	GCP-530	GCP-1000	GCP-1030
Probe Bandwidth	DC~100kHz	40Hz~40kHz	DC~300kHz	DC~500kHz	DC~50MHz	DC~1MHz	DC~100MHz
Rise Time	—	—	1.17μs (Typ.)	0.7μs (Typ.)	7ns or less	0.35μs (Typ.)	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)	200A(10mV/A) 20A(100mV/A)	150A(20mV/A) 15A(200mV/A)	30Apeak	7A(50mV/A) 70A(500mV/A)	30Apeak
Maximum Peak Current Value	100A	60A(100mV/A) 600A(10mV/A)	DC : 200A AC : 140Arms	DC : 150A AC : 100Arms	50A	DC : 70A AC : 50Arms	50A
Output Voltage Rate	100mV/A; 10mV/A	10mV/A; 100mV/A	100mV/A ; 10mV/A	200mV/A; 20mV/A	0.1V/A	500mV/A; 50mV/A	0.1V/A
DC 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)	±3% ±50 mA at 100 mV/A (50 mA ~ 20A peak range) ±4% ±50 mA at 10 mV/A (500 mA ~ 80A peak range) ±15% max at 10 mV/A (80A peak ~ 200A peak range)	±3% ±30 mA at 200 mV/A (30 mA ~ 15 A peak range) ±4% ±300 mA at 20 mV/A (300 mA ~ 80 A peak range) ±15% max at 20 mV/A (80A peak ~ 150A peak range)	±1.0%rdg±1mV (0~30Arms/DC, 45~66Hz); ±2.0%rdg (30Arms~50A peak /DC, 45~66Hz)	±3% ±20 mA at 500 mV/A (20 mA ~ 7A peak range) ±4% ±200 mA at 50 mV/A (200 mA ~ 50 A peak range) ±15% max at 50 mV/A (50A peak ~ 70A peak range)	±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	CAT III 300V/CAT II 600V	CAT III 600V	300V, CAT I	CAT III 600V	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)x186(D)mm ; Approx.1.1kg	80(W)x119(H)x200(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
Maximum Input Voltage to Earth Typical CMRR	600Vpp for x200 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