GDS-1000A-U Specifications

The specifications apply when the GDS-1000A-U is powered on for at least 30 minutes under +20°C~+30°C.

Model-specific specifications

GDS-1072A-U	Bandwidth (–3dB)	DC coupling: DC ~ 70MHz AC coupling: 10Hz ~ 70MHz
	Bandwidth Limit	20MHz (–3dB)
	Trigger Sensitivity	0.5div or 5mV (DC ~ 25MHz) 1.5div or 15mV (25MHz~70MHz)
	External Trigger Sensitivity	~ 50mV (DC~25MHz) ~ 100mV (25MHz~70MHz)
	Rise Time	< 5ns approx.
GDS-1102A-U	Bandwidth (–3dB)	DC coupling: DC ~ 100MHz AC coupling: 10Hz ~ 100MHz
	Bandwidth Limit	20MHz (–3dB)
	Trigger Sensitivity	0.5div or 5mV (DC ~ 25MHz) 1.5div or 15mV (25MHz~100MHz)
	External Trigger Sensitivity	~ 50mV (DC~25MHz) ~ 100mV (25MHz~100MHz)
	Rise Time	< 3.5ns approx.
GDS-1152A-U	Bandwidth (–3dB)	DC coupling: DC ~ 150MHz AC coupling: 10Hz ~ 150MHz
	Bandwidth Limit	20MHz (–3dB)
	Trigger Sensitivity	0.5div or 5mV (DC ~ 25MHz) 1.5div or 15mV (25MHz~150MHz)
	External Trigger Sensitivity	~ 50mV (DC~25MHz) ~ 100mV (25MHz~100MHz)
	Rise Time	< 2.3ns approx.

Common specifications

Vertical	Sensitivity	2mV/div~10V/Div (1-2-5 increments)
	Accuracy	± (3% x |Readout|+0.1div + 1mV)
	Bandwidth	See model-specific specifications
	Rise Time	See model-specific specifications
	Input Coupling	AC, DC, Ground
	Input Impedance	1MΩ±2%, ~15pF
	Polarity	Normal, Invert
	Maximum Input	300V (DC+AC peak), CAT II
	Math Operation	+, –, ×, FFT, FFT rms
	Offset Range	2mV/div~50mV/div: ±0.4V 100mV/div~500mV/div: ±4V 1V/div~5V/div: ±40V 10V/div : ±300V
Trigger	Sources	CH1, CH2, Line, EXT
	Modes	Auto, Normal, Single, TV, Edge, Pulse
	Coupling	AC, DC, LF rej, HF rej, Noise rej
	Sensitivity	See model-specific specifications
	Holdoff	40ns ~ 2.5s
External trigger	Range	DC: ±15V, AC: ±2V
	Sensitivity	See model-specific specifications
	Input Impedance	1MΩ±2%, ~15pF
	Maximum Input	300V (DC+AC peak), CATII
Horizontal	Range	1ns/div~50s/div, 1-2.5-5 increment Roll: 50ms/div – 50s/div
	Modes	Main, Window, Window Zoom, Roll, X-Y
	Accuracy	±0.01%
	Pre-Trigger	10 div maximum
	Post-Trigger	1000 div
X-Y Mode	X-Axis Input	Channel 1
	Y-Axis Input	Channel 2

	Phase Shift	±3° at 100kHz
Signal Acquisition	Real-Time	1G Sa/s maximum
	Equivalent	25G Sa/s maximum
	Vertical Resolution	8 bits
	Record Length	Maximum; 2M points (1 channel), 1M points (2 channels)
	Acquisition	Normal, Peak Detect, Average
	Peak Detection	10ns (500ns/div ~ 50s/div)
	Average	2, 4, 8, 16, 32, 64, 128, 256
Cursors and Measurement	Voltage	Vpp, Vamp, Vavg, Vrms, Vhi, Vlo, Vmax, Vmin, Rise Preshoot/ Overshoot, Fall Preshoot/ Overshoot
	Time	Freq, Period, Rise Time, Fall Time, + Width, – Width, Duty Cycle
	Delay	FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF
	Cursors	Voltage difference (ΔV) and Time difference (ΔT) between cursors
	Auto Counter	Resolution: 6 digits, Accuracy: ±2% Signal source: All available trigger source except the Video trigger
Control Panel Function	Autoset	Automatically adjust Vertical Volt/div, Horizontal Time/div, and Trigger level
	Save/Recall	Up to 15 sets of measurement conditions and waveforms
Display	LCD	5.7 inch, TFT, brightness adjustable
	Resolution (dots)	234 (Vertical) x 320 (Horizontal)
	Graticule	8 x 10 divisions
	Display Contrast	Adjustable
Interface	USB Slave Connector	USB 2.0 full speed (CDC ACM)
	USB Host connector	Image (BMP) and waveform data (CSV)
Probe Compensation Signal	Frequency range	1kHz ~ 100kHz adjustable, 1kHz step
	Duty cycle	5% ~ 95% adjustable, 5% step
	Amplitude	2Vpp±3%
Power Source	Line Voltage	100V~240V AC, 47Hz~63Hz
	Power Consumption	18W, 40VA maximum
	Fuse Rating	1A slow, 250V
Operation Environment	Ambient temperature 0 ~ 50°C Relative humidity ≤ 80%, 40°C or below ≤ 45%, 41°C~50°C	
Storage Environment	Storage Temperature: -10°C~60°C, no condensation- Relative humidity 93% @ 40°C 65% @ 41°C~60°C	
Dimensions	310(W) x 142(H) x 140(D) mm	
Weight	Approx. 2.5kg	

Probe Specifications

GDS-1072A-U Probe

Applicable model & probe		GDS-1072A-U GTP-070B-4*
Position x 10	Attenuation Ratio	10:1
	Bandwidth	DC ~ 70MHz
	Input Resistance	10MΩ when used with 1MΩ input
	Input Capacitance	28pF~32pF
	Maximum Input Voltage	≤600Vpk, Derating with frequency
Position x 1	Attenuation Ratio	1:1
	Bandwidth	DC ~ 6MHz
	Input Resistance	1MΩ when used with 1MΩ input
	Input Capacitance	120pF~220pF
	Maximum Input Voltage	≤200Vpk, Derating with frequency
Operating Cond.	Temperature	–10°C ~ 50°C
	Relative Humidity	≤85%
Safety Standard	EN 61010-031 CAT II	

GDS-1102A-U Probe

Applicable model & probe		GDS-1102A-U GTP-100B-4*
Position x 10	Attenuation Ratio	10:1
	Bandwidth	DC ~ 100MHz
	Input Resistance	10MΩ when used with 1MΩ input
	Input Capacitance	14.5~17.5pF approx.
	Maximum Input Voltage	≤600Vpk, Derating with frequency
Position x 1	Attenuation Ratio	1:1
	Bandwidth	DC ~ 6MHz
	Input Resistance	1MΩ when used with 1MΩ input
	Input Capacitance	85~115pF approx.
	Maximum Input Voltage	≤200Vpk, Derating with frequency
Operating Cond.	Temperature	–10°C ~ 50°C
	Relative Humidity	≤85% @35°C
Safety Standard		EN 61010-031 CAT II

GDS-1152A-U Probe

Applicable model & probe		GDS-1152A-U GTP-150B-4*
Position x 10	Attenuation Ratio	10:1
	Bandwidth	DC ~ 150MHz
	Input Resistance	10MΩ when used with 1MΩ input
	Input Capacitance	17pF approx.
	Maximum Input Voltage	500V CAT I, 300V CAT II (DC+Peak AC)Derating with frequency
Position x 1	Attenuation Ratio	1:1
	Bandwidth	DC ~ 6MHz
	Input Resistance	1MΩ when used with 1MΩ input
	Input Capacitance	47pF approx.
	Maximum Input Voltage	300V CAT I, 150V CAT II (DC+Peak AC)Derating with frequency
Operating Cond.	Temperature	–10°C ~ 55°C
	Relative Humidity	≤85% @35°C
Safety Standard		EN 61010-031 CAT II

* Note: GW Instek reserves the right to change the probe model type (GTP-070A-4, GTP-100A-4, GTP-150A-2) at anytime without notice for probe model types of similar specification.