

Datasheet

150MHz/100MHz/70MHz Digital Storage Oscilloscope

Stock No. : Model :

124-0229 **IDS-6072A-U**

123-3539 **IDS-6102A-U**

124-0230 **IDS-6152A-U**



FEATURES

- 150/100/70 MHz Bandwidth, 2 Input Channels
- 1GSa/s Real-Time and 25GSa/s Equivalent-Time Sampling Rate
- 2Mega Point Record Length
- 2mV~10V Vertical Scale
- 1ns~50s Horizontal Range
- Up to 27 Auto Measurements
- Versatile Math Function: + , - , x , FFT, FFTrms, Zoom FFT
- 5.7" Color TFT LCD Display
- USB Host & Device Ports
- Go/NoGo Function
- Data Logger



IDS-6000A-U is a general purpose 2-channel oscilloscope designed to meet diversified educational demands and basic industrial requirements. This series provides bandwidths ranging from 70MHz to 150MHz. Together with intuitive human machine interface design and 5.7 inch color TFT LCD, IDS-6000A-U allows users to enjoy better measurement experiences.

IDS-6000A-U Series offers dual sampling modes, 1GSa/s Real-Time and 25GSa/s Equivalent sampling rates, giving users a more flexible option to process incoming signals. With fast waveform process capability, more advanced triggering functions, and 2.5Kg light-weight design, IDS-6000A-U is a very capable oscilloscope to enhance users' returns on their investments in terms of price versus performance. IDS-6000A-U is also viewed as a replacement of analog oscilloscope. With its good functionality and capability, IDS-6000A-U can satisfy diversified educational demands as well as fulfill industrial basic requirements in servicing, maintenance, or production.

IDS-6000A-U also provides great accessibility through its USB Host and Device ports. Via USB Device port, user can easily build a remote control program to manipulate the machine. Via USB Host port, user is capable of not only storing data directly into flash disk for further analysis but also activating data logging function to monitor waveform data in designated time sequence.

Easy to use

Several acquisition mode and 27 auto measurement functions help user to measure the accurate property of waveforms. The advanced auto-set function makes IDS-6000A-U Series catch waveform automatically and display waveform quickly. With arithmetic functions, FFT function keeps user being aware of the results by updating value immediately. Without almost extra-calculation IDS-6000A-U Series can provide sufficient information of testing.

USB Host & USB Device supported

A total of 15 waveforms could be saved into the internal memory for later recall and display, and 2 saved reference waveforms plus 2 live waveforms could be shown on the screen at the same time for comparison. USB Host mass storage and USB device port are supported, providing storage/transfer of measurement data and remote control for diversified solutions.

APPLICATIONS

- **Laboratories and Educational Facilities**
- **Product Testing and Quality Assurance**
- **Service Operation and Post-Sales Support**
- **Product Development and Debugging**



SPECIFICATIONS

| | | IDS-6072A-U | IDS-6102A-U | IDS-6152A-U |
|---|---|--|--|--|
| VERTICAL | Channels Bandwidth Rise Time Sensitivity Accuracy Input Coupling Input Impedance Polarity Maximum Input Waveform Signal Process Offset Range Bandwidth Limit | 2 DC~70MHz(-3dB) <5ns Approx. | 2 DC~100MHz(-3dB) <3.5ns Approx. | 2 DC~150MHz(-3dB) <2.3ns Approx. |
| TRIGGER | Source Mode Coupling Sensitivity | 2mV/div ~ 10V/div (1-2.5 increments) $\pm (3\% \times \text{Readout} + 0.1 \text{ div} + 1\text{mV})$ AC, DC & Ground 1M Ω \pm 2%, ~15pF Normal & Invert 300V (DC+AC peak), CATII +, -, x, FFT, FFTrms, Zoom FFT DC ~ 25MHz: Approx. 0.5div or 5mV; 25MHz ~ 70/100/150MHz: Approx. 1.5div or 15mV | | |
| EXT TRIGGER | Range Sensitivity Input Impedance Maximum Input | 15V DC ~ 25MHz: ~ 50mV; 25MHz ~ 70/100/150MHz: ~15mV 1M Ω 2%, ~ 15pF 300V (DC + AC peak), CATII | | |
| HORIZONTAL | Range Modes Accuracy Pre-Trigger Post-Trigger | 1ns/div ~ 50s/div (1-2.5 increments); ROLL: 50ms/div ~ 50s/div MAIN, WINDOW, WINDOW ZOOM, ROLL, X-Y 0.01% 10 div maximum 1000 div | | |
| X-Y MODE | X-Axis Input Y-Axis Input Phase Shift | Channel 1 Channel 2 3 at 100kHz | | |
| SIGNAL ACQUISITION | Real-Time Sample Rate Equivalent Sample Rate Vertical Resolution Record Length Acquisition Mode Peak Detection Average | 1GSa/s maximum 25GSa/s maximum 8 Bits 2Mega Points maximum Normal, Peak Detect, Average 10ns(500ns/div ~ 50s/div) 2, 4, 8, 16, 32, 64, 128, 256 | | |
| CURSORS AND MEASUREMENT | Voltage Measurement Time Measurement Delay Measurement Cursors Measurement Auto Counter | V_{pp} , V_{amp} , V_{avg} , V_{rms} , V_{hi} , V_{lo} , V_{max} , V_{min} , Rise Preshoot/Overshoot, Fall Preshoot/Overshoot Freq, Period, Rise Time, Fall Time, Positive Width, Negative Width, Duty Cycle Eight different delay measurement Voltage difference between cursors(ΔV) Time difference between cursors(ΔT), frequency measurement($1/\Delta T$) Resolution: 6 digits Accuracy: 2% Signal Source: All available trigger source except the Video trigger mode | | |
| ADJUSTABLE PROBE COMPENSATION SIGNAL | Frequency Range Duty Cycle Range | 1kHz ~ 100kHz, 1kHz/STEP 5% ~ 95%, 5%/STEP | | |
| CONTROL PANEL FUNCTION | Autoset Save Setup Save Waveform | Adjust Vertical VOLT/DIV, Horizontal TIME/DIV, and Trigger level automatically Up to 15 sets of measurement conditions 15 sets of waveform | | |
| DISPLAY | TFT LCD Type Display Resolution Display Graticule Display Brightness | 5.7 inch 234(Vertically)x 320 (Horizontally) Dots 8 x 10 divisions Adjustable | | |
| INTERFACE | USB Device USB Host | USB1.1 & 2.0 full speed compatible (PictBridge Compatibility Printers Supported) Image (BMP) waveform data (CSV) and setup (SET) | | |
| POWER SOURCE | Line Voltage Range | AC 100V ~ 240V, 48Hz ~ 63Hz, Auto selection | | |
| MISCELLANEOUS | Go/NoGo Function Data Logger Multi-Language Menu Online Help | Available Available Available Available | | |
| DIMENSIONS & WEIGHT | 310(W) 142 (H) 140(D)mm, Approx. 2.5kg | | | |

The specifications apply when the oscilloscope is powered on for at least 30 minutes under +20°C~+30°C.

Specifications subject to change without notice.

ORDERING INFORMATION

| | |
|-------------|---|
| IDS-6072A-U | 70MHz, 2 channel, 1GSa/s & 2Mega Memory DSO |
| IDS-6102A-U | 100MHz, 2 channel, 1GSa/s & 2Mega Memory DSO |
| IDS-6152A-U | 150MHz, 2 channel, 1GSa/s & 2Mega Memory DSO |

ACCESSORIES

User manual x1, Power cord x1
Probe GTP-070A-4 or equivalent:70MHz(10:1/1:1)Switchable passive probe for IDS-6072A-U(one per channel)
Probe GTP-100A-4 or equivalent:100MHz(10:1/1:1)Switchable passive probe for IDS-6102A-U(one per channel)
Probe GTP-150A-2 or equivalent:150MHz(10:1/1:1)Switchable passive probe for IDS-6152A-U(one per channel)

OPTIONAL ACCESSORIES

GTL-242 USB Cable, USB 2.0 Type A - Type B, 4P
GSC-006 Soft Carrying Case
GTL-110 Test Lead, BNC-BNC Heads

FREE DOWNLOAD

PC Software FreeWave software
Driver USB driver; LabView Driver



P. O. Box 99
Corby
Northants NN17 9RS
England
Tel: +44(0) 1536 201234