

IG/
11000 Series
10/20/88
MSR 116-47



Announcing the 11201 Digitizing Oscilloscope

The 11201 Digitizing Oscilloscope is the perfect entry level laboratory digitizing oscilloscope. This is the oscilloscope of choice when the customer can trade off flexibility of plug-ins , 1 GHz bandwidth, and specialty performance such as differential amplifiers for lower price. This is an important trade-off decision for the customer to make and LID now offers solutions for both decisions.

Some of the key market segments for the 11201 include:

Power Supply Design and Manufacture

Digital Design and Debug

Telecommunication

Bio Medical

Low End ATE

The customer will typically be one with a very tight capital budget limitation. The 11201 will allow them to use the right tool at a price they can afford.

Key Applications

Complex power supply measurements

Digital signal analysis

Eye Pattern Measurements

Complex waveform analysis and measurements

Product Description

The 11201 Digitizing Oscilloscope is a monolithic, 400 MHz, laboratory digital oscilloscope. It has four acquisition channels and an external trigger input. The sample rate is 20 MS/s with dual time base windows and 500 ps/div to 10 s/div timebase range.

It also includes many of the waveform processing and measurement capabilities of other 11000 series Tektronix digitizing oscilloscopes.

Competition

The Hewlett-Packard 54100A is the most direct competition for the 11201. For the entry level digital oscilloscope customer, the 11201 will be the product of choice. The added waveform processing, advanced measurements, four channels and high resolution of the 11201 sets it above the 54100A. For the customer that needs the added bandwidth of the 54100A, the 11402 continues to again be the better solution from Tektronix. Other applications require more than four channels or differential input capabilities. Here again, Tektronix Laboratory oscilloscopes provide the only solution.

Some of the other instruments that are available are listed below. This is not a complete list, but does include most of the serious competitive products.

Company	Product	Bandwidth	Channels	Price
Hewlett-Packard	HP54100A	1 GHz	2	\$12,900
Hewlett-Packard	HP54501A	100 MHz	4	\$ 3,465
Hewlett-Packard	HP54201D	300 MHz	2	\$ 9,950
Gould	4074	100 MHz	4	\$ 8,900
Philips	PM3320	200 MHz	2	\$10,885
LeCroy	9400A	175 MHz	2	\$ 9,900
Hitachi	V6165	100 MHz	2	\$ 9,780

Three oscilloscopes from PID are complementary products to the 11201. They offer near-laboratory scope performance in a portable package. The leader in this category is the 2440. It offers the best complementary benefits to the 11201 - especially against the HP54111D. Hewlett-Packard claims the HP54111D is a combination transient capture and equivalent time oscilloscope. However, the 2440 outperforms the HP54111D for glitch capture and the 11201 outperforms the 54111D in equivalent time applications. List price for the HP54111D is \$23,900. The combined list price of the 2440 and the 11201 is only \$23,400 - two superior Tek scopes for less than the price of one HP!

Tektronix	2430A	150 MHz	2	\$ 7,950
Tektronix	2432A	300 MHz	2	\$ 9,500
Tektronix	2440	300 MHz	2	\$11,500

Sales Strategy

Since the 11401/402 is the highest performance solution for the laboratory oscilloscope user, we recommend that you still use the 11402 to demonstrate the performance of the 11K architecture. We feel that it is important to start with the best solution, and unless you know going in that price is one of the most important issues, the 11402 should be the first choice for the live demonstration.

Support Activities

Demo units are orderable now from LID. Since the capabilities of the 11201 can be demonstrated using the 11402 in a top-down selling technique, demo levels are planned to be at one unit per district initially.

A limited number of demo units is available from LID inventory to help meet emergency requirements you may have. Contact Eldon Walters at 627-5261 for emergency demo loans.

Data Sheets are currently available.

A Press Release has been distributed. New Product announcements should begin to appear soon.

Price/Options

11201 Digitizing Oscilloscope

\$11,900

Includes:

Introduction Manual	070-7274-00
User Reference Manual	070-7275-00
Programmer Reference Manual	070-7276-00
Programmer Quick Reference Manual	070-7277-00
Service Reference Manual	070-7279-00

Available Options

1R	Rack Mount Option	\$	250
2D	Memory Expansion		600
4D	DMA Controller		400
A1	Universal Euro Plug		N/C
A2	UK		N/C
A3	Australian		N/C
A4	North American		N/C
A5	Switzerland		N/C

Availability/PAL: AP906.1 October 24, 1988 / 4 Weeks

Export Classification: Schedule B 712.5032 G CCL 6599

Contacts:

Eldon Walters
Marketing Product Line Mgr
(503) 627-5261
39-327

Tom Freeman
Product Marketing Mgr
(503) 627-2909
39-327

T&M/
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SPECIAL 11300 AND 11400 DEMO AND RECON PROGRAM

Here are two new programs for 11K demo and recon units you should know about. One deals with 11401 units, the other with 11300 (non-A) units.

11401 UNITS - Now Selling at 25% Discount!

Effective immediately, you may sell all 11401 units at a discount of 25%, regardless of age. Up to three (3) plug-ins per mainframe on the same order can also be included at this discount. If you need to replace these 11401 units, please order either an 11402 or 11201.

11300 UNITS - Upgrade and 25% Discount on Mainframe and Plugs!

LID will upgrade ten (10) 11302's per region as identified by each RSM. The upgrade will place all 11302A features, except video trigger, into a non-A unit. As these units are moved, 30 more will be identified.

11301 SPECIAL - Effective immediately, "as is" (no upgrade) 11301 units with up to ONE 11A32 will be offered at 40% DISCOUNT.

No other discounts apply with any of these programs.

For questions:

LID CORE PRODUCTS MARKETING

Dave Hayes (503) 627-1387
Tom Freeman (503) 627-2909

M/S 39-327, FAX (503) 641-7245

T&M/
11000 Series
2/20/89
126-47

Introducing
S47P108
11000 Series/IBM PC DSO
Menu Driven Utility Software
from
Laboratory Instruments Division

Product Description:

S47P108 is a function key driven software product operating on the IBM PC family in support of the 11000 Series Digitizing Oscilloscopes (11200, 11400, 11800) . It consists of a stand-alone executable program, sample waveform and measurement data files, and source code that is compatible with Microsoft Basic Compiler 4.0 or 6.0. Data transfer with the 11000 Series DSO is accomplished either through a National Instruments PC GPIB card or through the standard IBM RS-232 communications port.

S47P108 provides function key menu access to:

- + **Archival storage on floppy or hard disk of waveform data and front panel settings.**
- + **Acquisition of waveforms in average, envelope, & fill and single trigger modes. Building and act-on-delta templates.**
- + **Acquisition of 11000 measurements and subsequent logging to disk files. Data logging occurring at selected time intervals, on operation complete or at probe tip or RQS Icon activation.**
- + **Screen graphing of either waveform data or measurement data from disk files. Waveform data can also be plotted to selected HPGL compatible GPIB plotters. A waveform stack provides for multiple waveform plots or graphs.**
- + **Hardcopy dump to standard IBM printer port.**
- + **Transmission of ASCII language interface commands through a menu table, disk file or user input.**

Source code is provided for those users who may wish to add features to the product.

Waveform and measurement data files are stored in ASCII format and can be easily imported to other data analysis packages such as ASYST, Framework and Lotus 123.

Pricing and Ordering Information:

Order: S47P108 Option 1 5 1/4" Media
 Option 2 3 1/2" Media
 for 11000 Series /IBM PC DSO Utility
 Software.

Price: \$ 450.00 U.S.D.
PAL: 6 Weeks
On PAL: 1 February 1989
Export Control Number: GTDRG Schedule B 8524.90.50000

S47P108 replaces S47P102-11400 Series IBM PC Utility Software. Unshipped orders for S47P102 will be upgraded to S47P108 at the time of availability of the DSO Utility Software.

Literature:

11000-Series Digitizing Oscilloscope Utility Software
Data Sheet: 47W-6582 (In stock)

Required Configuration:

The 11000-Series DSO PC Utility Software operates on the following hardware:

- with:
- Tektronix PEP-301, IBM PC/AT, or 100%-compatible computer
 - Two or more disk drives (including one double-sided floppy drive).
 - 640 Kbytes minimum RAM
 - DOS 2.1 or higher
 - Hercules, CGA, EGA or VGA video display adapter or equivalent (VGA will display only in 16-color EGA)
 - GPIB card installed in the PC (Tektronix GURU/GURU II, National Instruments PC-2, PC-2A, PC-3, or MC-GPIB), or RS-232 card.

Demo Units: U.S. and International

A limited number of copies of the DSO Utility software are available for demo purposes. US field offices should order their demo copies on normal stock regs, international offices should use option 64. Only manufacturing costs will be charged.

Licensing and Warranty:

Software licensing for S47P108 11000-Series/IBM DSO Utility Software is "Break the Seal". This software is protected under U.S. Copyright law. Copies may be made only for backup and archiving by the purchaser.

Each software product is covered under warranty Class 9 (b). This warrant the product for 90 days against defects in the medium and the encoding of the medium only. Excepting the medium on which it is encoded, this software is provided "as is", without warranty of any kind, either expressed or implied.

Registration and Support:

A registration card is provided with the software package. This card should be completed by the actual end-user of the software and returned to the address specified on the card to ensure receipt of correspondence and media during the warranty period.

Initial bug reports, program enhancements, and support issues will be co-ordinated by Dennis Kucera, LID Application Software, MS 39-327, Telephone (503) 627-2908.

Contacts:

Dennis Kucera, LID Application Software
Delivery Station 39-327
Telephone (503) 627-2908

Paul Kristof, LID Application Software
Delivery Station 39-327
Telephone (503) 627-2746

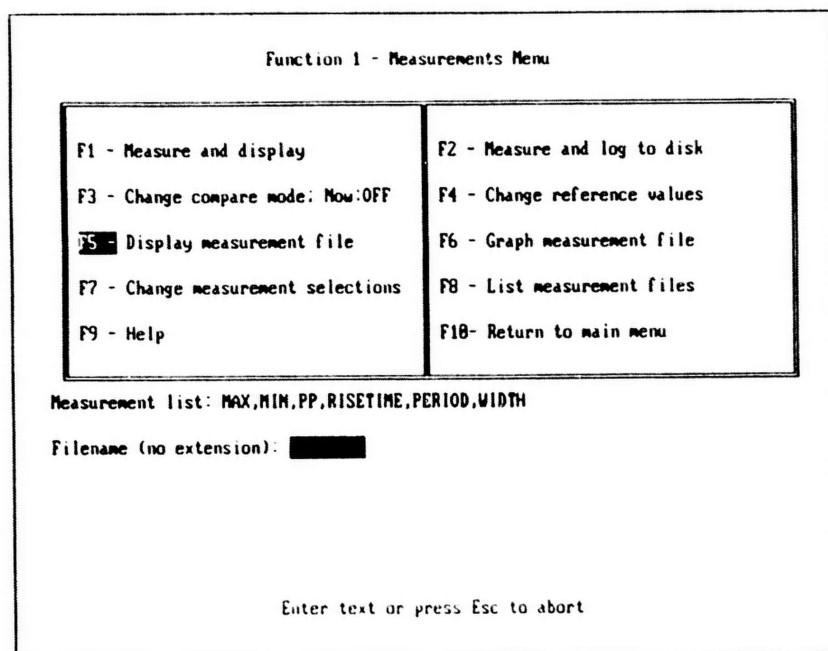


Figure 1. Interaction with the software is simplified through the use of function-key-driven menus as shown above in the Measurements menu.

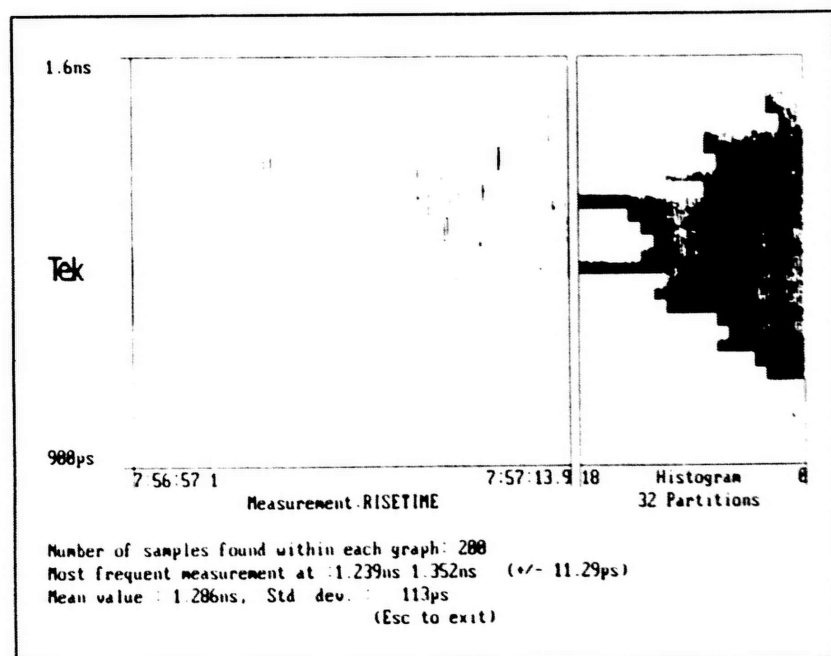


Figure 2. All of the measurement features of the 11000-series scopes are available through the menus and are supported by measurement logging, statistics, and screen graphics.

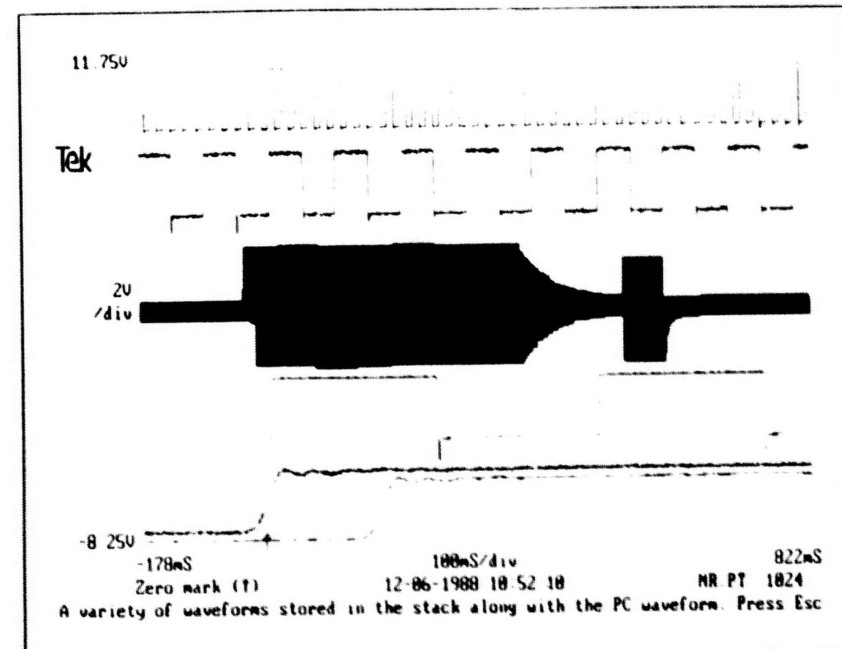


Figure 3. Waveforms can be acquired and displayed on the PC screen and output to a plotter or dot-matrix printer.

```

CMD = ID?
RSP = ID TEK/11402,U01 1,DIG/3.8,DSV/3.3,EXP/3.7
Total bytes : 42

CMD = TRA?
RSP = TRACE1 DESCRIPTION:"C1 ON MAIN",ACCUMULATE OFF,ACSTATE:MEMMANCED,GRLOCATIO
N:UPPER,GRTYPE:LINEAR,UFMCALC:FAST,XUNIT:SECONDS,YUNIT:VOLTS,TRACE7 DESCRIPTION:
"STO200 ON MAIN",ACCUMULATE:OFF,ACSTATE:MEMMANCED,GRLOCATION:UPPER,GRTYPE:LINEAR
,UFMCALC:HIPREC,XUNIT:SECONDS,YUNIT:VOLTS
Total bytes : 275

CMD = OUTPUT?
RSP = OUTPUT TRACE1
Total bytes : 13

CMD = TR?
RSP = TRMAIN MODE:AUTO,ALEVEL:5.0E+1,COUPLING:DC,SLOPE:PLUS,SOURCE:"C1",ANLEVEL:
-3.75E-2,VOLTS,STATUS:TRG,TIHOLDOFF:4.9E-7,TRWIN MODE:NORMAL,ALEVEL:5.0E+1,COUPL
ING:DC,EVHOLDOFF:1,SLOPE:PLUS,SOURCE:"L1",NLEVEL:-8.0E-2,VOLTS,STATUS:NOTRG,TIHO
LDOFF:2.0E-8
Total bytes : 246

Command or query: TR?
Enter text or press Esc to abort

```

Figure 4. Direct entry of GPIB or RS-232 instrument commands is supported, along with screen listing of command responses.

11400 Memory Option 2D Now Standard

Beginning April 1, 1989, option 2D memory expansion for the 11401, 11402 and 11201 will be included at no cost to the customer. In addition to including this option, prices for the 11401 and 11402 have been adjusted to prepare for introduction of the 11403. New USDC prices for the 11401 and 11402 are:

11401	\$14,000
11402	\$14,500

Price for the 11201 remains at \$11,900.

If you have any questions, contact us at LID.

Tom Freeman, 627-2909, m/s 39-327
Bill Mumford, 627-4418, m/s 39-327
Sheri Johnson, 627-2122, m/s 39-750