

OVERVIEW

INSTRUMENTS CONTROLLED: Model 236/237/238 Source Measure Units (SMU), Model 213 Quad Voltage Source, Model 707 Matrix Switch. Model 2361 Trigger Controller is required for 2 or more SMUs.

TESTS: Control instruments to source and measure current or voltage.
Curve Family: SWEEP, SYNCHSWEEP, STEP, and up to 3 BIAS channels, Linear, log, linear pulsed and log pulsed sweeps.
DC Source-Measure: Up to 6 BIAS Channels.

GPIB CONTROL: Provides basic control of any GPIB instrument. Useful for controlling sources, switch matrices, hot chucks, and probers.

707 MATRIX SUPPORT: Upload and download setups (up to 100 memories).

DATA DISPLAY: Graphic or list display.

XY or YYY Graph Axes: Manual or auto scale, linear or log, labeled, X-axis and Y-axis invert.

Overlay two sets of reference data on original.

GRAPHIC ANALYSIS: Dual data curve markers with data value readout.

Line Display: Between markers. Readout slope, 1/slope, X- and Y-intercept. Zoom between markers. Filter data curve.

Gain/Ratio Calculation: DC or differential. Data array or point. Graphic display or readout referenced to marker position. Used for Beta, g_m or resistance.

PRINT/PLOT: Hardcopy output of any screen to printer, or output graphic display to plotter.

FILES: Data File: Contains Data, test, GPIB and display parameters.

Test Setup File: Contains Test, GPIB and display parameters.

Instrument Configuration File: Contains Instrument names, GPIB addresses, Trigger Controller channels.

Test Sequence Files: Contains the user's pre-programmed test sequence (ASCII file).

707 File: Contains 707 matrix setups.

Data Export/Import: Contains Data, array names and units. Lotus (.WK1) and ASCII (.ASC).

AUTOMATIC TEST SEQUENCES: Program any sequence of tests, prints, plots, 707 downloads, data save/export, prompts and display, for attended or unattended operation. Printing or plotting can be done off-line (after acquisition).

MEASUREMENT CAPACITY LIMITS: A curve in the Curve Family Test may contain up to 1000 points. Up to six source arrays and up to six measurement arrays can be created by each test. Each array is limited to 4000 points. The maximum number of arrays and tests is limited only by the available disk storage space.

HELP: On-line, context sensitive, with index.

SYSTEM REQUIREMENTS

MINIMUM HOST COMPUTER: IBM compatible 80386, 640kb Conventional RAM (530k or 542720 bytes free) plus 1Mb of LIM expanded memory, hard drive (2MB free), 720kb 3 $\frac{1}{2}$ inch or 1.2Mb 5 $\frac{1}{4}$ inch floppy drive, Intel 80387 math coprocessor, EGA color monitor and graphics card, parallel port.

OPERATING SYSTEM: MS-DOS or PC-DOS 3.2 (minimum).

GRAPHICS ADAPTER: EGA or VGA color, VGA monochrome.

COMPATIBLE PRINTERS: IBM Graphics Printers, Epson or compatible, HP LaserJet, IBM Proprinter, and Okidata Microline 182.

COMPATIBLE PLOTTERS: HP7440, HP7470, HP7475.

COMPATIBLE MOUSE: Microsoft or Logitech.

IEEE-488 (GPIB) INTERFACE CARDS SUPPORTED

Advantech PCL 748

B&C PC488A

BBS GPIB-1000

Capital Equipment PC<>48, 4x488, PS<>488

Contec GPIB (PC)

Hewlett Packard HPIB

IBM GPIB board

ICS 488-PC1

IOtech GP488, GP488/2

Keithley PC-488-CEC, 4-488-CEC-0M, 4-488-CEC-1M, PS-488-CEC

MetraByte IE-488

National Instruments GPIB-PC, GPIB-PCII, GPIB-PCIIA, GPIB-PCIII,

MC-GPIB, AT-GPIB

Qua Tech MXI-100, MXI-1000

Scientific Solutions IEEE 488 LM, MC-IEEE 488

Ziatech ZT 1444, ZT/2

SUPPLIED TEST LIBRARY

The Test Library provides default settings for the Test, 707 Matrix, GPIB Control, Data Display and Graphic Analysis screens.

FET TESTS: Curve Family, Threshold Voltage, Transconductance, Breakdown, and Leakage.

BIPOLAR TESTS: Curve Family, Gummel Plot, Current Gain, Breakdown, and Leakage (linear and pulsed sweeps).

DIODE TESTS: I-V Curve, Reverse Breakdown, Zener Voltage.

COMPONENT TESTS: Capacitor Leakage, Resistor Voltage Coefficient.

EXAMPLE GPIB CONTROL: 213 Quad Voltage Source, 707 Switching Matrix and hot chuck.

TEST SEQUENCES: Bipolar tests, multiple diodes.

MATERIALS PROVIDED

Instruction Manual

Diskettes: 720kb 3 $\frac{1}{2}$ inch and 1.2Mb 5 $\frac{1}{4}$ inch containing installation, program, test library, and sample data.

Specifications subject to change without notice.