



The ultimate version of SoftPlot - Test automation and documentation for RF Engineers, in one easy-to-use package

Network Analyzer

Spectrum Analyzer

Modulation Analyzer

Oscilloscope

Automation links to external Software

GPIB, RS-232 or LAN Connectivity

Export to...

Documentation and Presentations

Circuit and System Simulation

Spreadsheets and Maths software

Test automation scripts:-

- Simplify equipment configuration
- Replay test sequences
- Interactive graphing of measurements

SoftPlot *Ultra* Measurement Management software produces professional graphs and data files from test equipment at the click of a button. No programming effort is required. Simply hook up your **Network Analyzer**, **Spectrum Analyzer**, **Oscilloscope** or **Modulation Analyzer** to your PC using GPIB, RS-232 or LAN, and you have instant access to all the trace data you need.

Presentation Quality Graphics

SoftPlot *Ultra* gives you sharp, scaleable, vector - based graphics to paste into your document or presentation. This is because trace data from the instrument is processed into the required display format. Choose from a wide range of graph types, including log and linear cartesian, modulation, antenna, polar and Smith charts. Apply markers and limit lines to clarify the information in your measurement. Enter measurement notes below the graph to document your test set-up, or to record the changes made in a family of traces.

SoftPlot *Ultra* exports in common graphics formats (*.EMF, *.WMF, *.BMP, *.JPG, *.TIF, *.PNG), but most important is the ability to embed or link your measurements using OLE (Object Linking and Embedding). This retains access to the original measurement data as well as providing graphics for your document.

Automated Measurements with Scripting

A fully-featured scripting editor built into **SoftPlot *Ultra*** allows you to automate measurement sequences, including direct GPIB control of instruments and full control of operations within SoftPlot itself. Perform marker maths; or data logging from DVMS, power meters, etc; Power-up PSUs in a specific sequence; or create antenna patterns using these powerful capabilities. **SoftPlot +Plus+** also has a COM and a DDE server built into it, which permits control it from other programming environments.

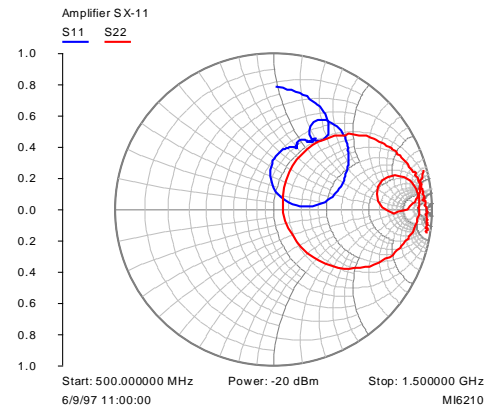
Full Support for Industry Standard CAD Software

Bidirectional file exchange is supported for a wide range of circuit and system simulators, including Microwave Office (™ Cadence-AWR) and ADS (™ Keysight). Convert manufacturers' data to match your simulator, or create files from your own measurements. S-Parameter data can be read and written in touchstone format. **SoftPlot *Ultra*** has 1024 trace stores, and each can have fully independent X-Axis coordinates. This permits 32x32 S-parameters to be handled with ease. Read / write capability is also provided for comma-delimited (CSV) and tab-delimited (TXT and PRN) text files, allowing exchange with spreadsheets, word processors and mathematical tools such as MathCad and MatLab.

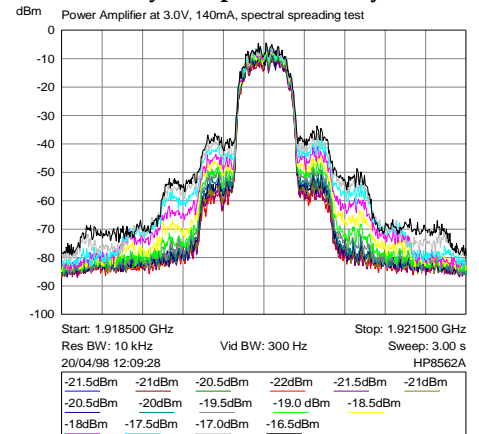
New in SoftPlot *Ultra* Version 10.0:

Time-domain transformation, to convert S-Parameter sweeps into a step or impulse response; Multi-channel display, with up to 16 charts in various grid formats; Trace preview graph on instrument transfer pages; Separate tab for Measurement Notes editor; Right-click on graph to position markers or change trace properties; Bar-graph display format; 64-bit and 32-bit versions available.

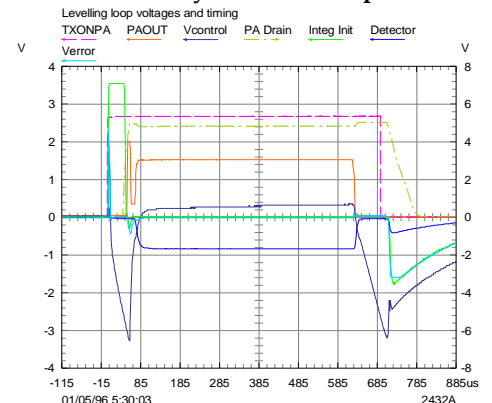
From your Network Analyzer...



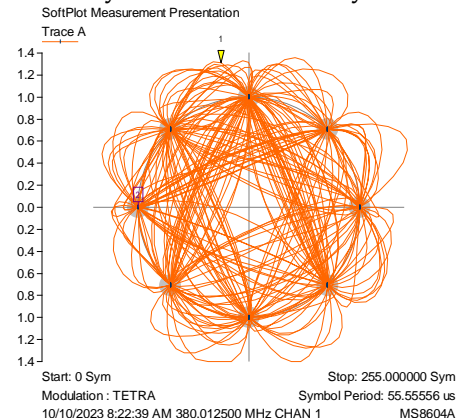
or your Spectrum Analyzer



From your Oscilloscope...



or your Modulation Analyzer



Capture your measurements with **SoftPlot** and release their information potential.

Instruments Supported

Network Analyzers	<p>Advantest R3753H, R3764/65/66/67H, R3765/67G series, R3860A, R3770, R3768</p> <p>Anritsu Wiltron 360, 371xx/372xx/373xx, MS3401A/B, MS462XX, MS4630B, ShockLine MS46122A / MS46322A / MS4652XA, VectorStar MS4640A, Site Master SxxxA/B series, S820E</p> <p>54xxA/541xxA/56100A series scalar analyzers</p> <p>Ceyear 3661/3672 Series</p> <p>Copper Mountain Technologies 304/1, 804/1, 1300/1, S5048, S7530 (COM svr), R60, S5048, 808/1, Cx409, Cx420 (SxVNA, RVNA).</p> <p>Hewlett - Packard 3577A, 3589A, 8510, 8711-14B/C, 8751/52/53, 8720 series; 4195, 4395A, 4396A/B Net/Spect Analyzer</p> <p>4191, 4192A, 4194A, 4284A, 4291A/B, 4294A, E4991, E5100A/B</p> <p>8756, 8757 Scalar Analyzer, 8903A/B Audio Analyzer</p> <p>4145A/B, 4155/56 Semiconductor Param. Analyzers</p> <p>4280 Capacitance Meter; 4352B VCO / PLL Signal Analyzer</p> <p>Hioki IM3570</p> <p>Keysight/Agilent E5061/62/70/71A/B/C, E5080A ENA, E835XA/B/C, E836XA/B/C, N522XA, N523XA, N524XA PNA, PNA-X Series, FieldFox (N9912A..N9938A)</p> <p>Marconi Instruments / IFR / Aeroflex 6210, 6200, 6800 MW Test Sets</p> <p>Pico Technology PicoVNA (VNA 5 software)</p> <p>Rohde & Schwarz ZVA / ZVB / ZVT series, ZVH, ZVL, ZVR / ZVC / ZVM / ZVK, ZNB, ZNC, ZND</p> <p>Wayne Kerr 6500B Impedance Analyzer</p> <p>Wiltron 560A / 6600 Scalar Analyzer system</p>	Modulation Analyzers	<p>Advantest R3264/3267/3273 + Opt62 3GPP, R3671/81</p> <p>Anritsu MS269XA, MS2830A, MS8604A, MS8608A/MS8609A Transmitter Tester MT8820A Radio Comms Analyzer, MT8852A Bluetooth Analyzer</p> <p>Hewlett Packard 53310 modulation domain analyzer</p> <p>5372A Frequency / Time Interval Analyzer</p> <p>71500/70820A Microwave transition analyzer</p> <p>5361B Counter</p> <p>IFR 2310 Tetra modulation analyzer, 2319E RF Digitiser</p> <p>Keysight/Agilent / HP 89400, 8981B, E4406, ESA, EXA, MXA, PSA, PXA, UXA, 89600A/B VSA</p> <p>Pendulum CNT-80 / 81 / 85; CNT-90 / 91 / 91R / 91XL Counter</p> <p>Rohde & Schwarz AMIQ ARB (Memory Buffer), FSE series with Digital Demodulation option B7, FSIQ, FSIQ-B70, FSP-B70, FSG/FSP/FSQ/ FSU/FSV/FSW IQ Capture, FSIQ-K72 WCDMA Analysis, FS-K70, FS-K40 options</p> <p>FS-K96 OFDM analysis</p> <p>RTO-K11 (IQ decimation option)</p> <p>Tektronix WCA230A/280A, RSA5100B</p> <p>RSA6106A/RSA6114A</p> <p>Wandel & Goltermann PCM-4 PCM channel test set</p>
Spectrum Analyzers	<p>Advantest R3131/32/62, R3261/3361, R3265/71, R3267/73, R3463/65, R3671/81, U3641, U3751, U3771, U3772, U4941, R4131 series, TR4135</p> <p>Agilent/Keysight/ HP CSA, E44XXA/B ESA-E, ESA-L, PSA, E7400, EXA, MXA, MXE, PXA, UXA, L1500A; 8960 Wireless Comms Test Set (GSM), 89600, E5052A/B, N9340, N9912A-N9938A FieldFox</p> <p>Ando AQ6317 Optical Spectrum Analyzer</p> <p>Anritsu MS2602, MS2650/60, MS2661/2/3, MS2665C, MS2667C, MS2668C series, MS2702, MS2802, MS2830, MS612A, MS2711A/B/D, MS2720T, MS2721A/B, MT8220, MT8801B, MS9030A (MV02) Optical Spectrum Analyzer</p> <p>Hewlett - Packard 3582, 3585, 3588/89A, 8560/1/2/3/4/5, 8566A/B, 8568A/B, 8569B, 8590 series, 70000 series, N9340 Series, 3561A, 3562A, 35660, 35665, 35670A; 4195, 4395A, 4396A/B</p> <p>8542E / 8546A, HP8594EM EMI Receiver; 8920/22 Comms Test Set</p> <p>IFR/Aeroflex AN940, 2394, 2395, 2397, 2398, 2399/A/B/C, 3250, 3280</p> <p>LG Precision SA-9270 / SA-7270</p> <p>Marconi Instruments 2380 and 2390 series</p> <p>2945 series (spectrum only), 2965 series (graphical displays only)</p> <p>Rohde & Schwarz ESCI, ESMI, ESPI, ESCS, ESIB, ESRP, ESL, ESU, ETL, FPL1000, FPS, FSA/B/M, FSE, FSG, FSH (opt K1), FSIQ, FSL, FSP, FSQ, FSU, FSUP, FSV, FSW, FSWP; FS-K40 phase noise option</p> <p>ZVL/ZNL/ZNLE</p> <p>CMS50 series (spectrum analyzer display only) CMD55/65, CMU200 (3GPP FDD/GSM/EDGE/Btooth), CMU300 (GSM/EDGE)</p> <p>Scientific Atlanta SD385</p> <p>Tektronix 2711/2712, 2714/2715, 492P/AP/BP, 494P, RSA3303A/08A, RSA5100B, RSA6106A/RSA6114A</p> <p>Willtek/Aeroflex 9100 Series</p>	Signal Generators	<p>Anritsu MS269XA opt 020</p> <p>IFR 3410 ARB Memory (Opt 005)</p> <p>Keithley 2910 Vector Signal Generator</p> <p>Keysight / Agilent / HP ESG-B (4433-4437B) Option UND ARB Memory</p> <p>ESG-C (4438C), PSG ARB Memory, EXG N517XB</p> <p>MXG N5182A with Option 651/652/654,</p> <p>MXG N518XB, M8190A Arb</p> <p>N8241/2A Arb</p> <p>Rohde & Schwarz AMIQ / SMIQ / SMJ / SMBV / SMU / SMW ARB Memory</p> <p>Tektronix AWG2021 Arb (Opt 02 dual channel), AWG400/500/600/710, AFG3000, AWG5000/ 7000/B series, TSG4100</p> <p>Thurlby Thandar TGA12100 Arb</p>
Oscilloscopes	<p>Fluke/Philips PM3350/55/65/75; PM338XA/PM339XA</p> <p>Hameg HMO352x, HMO2524, HMO72x .. HMO202x</p> <p>Keysight/Agilent/ HP DSO3000,</p> <p>DSO5000/MSO6000/DSO7000/MSO7000, MSO8000</p> <p>DSO9000A, MSO9000A, 54111/12D, 54120 Series, 54200, 54501/02/ 03A, 54520/40C, 54600/1/2/3, 54610/15/16, 54621/22/24A/D, 54641/2/4A/D, 54645A/D, 54750, 548XXA, 80000, 83480, 90000, InfiniiVision 2000 X-Series, 3000, 4000 X-Series DSO/MSO, S Series DSO/MSO, V Series DSO/MSO</p> <p>LeCroy LC300/LC500/9300, WaveRunner/Master/Pro, SDA, DDA</p> <p>Rigol DS6000 series</p> <p>Rohde & Schwarz RTB , RTO, RTE, RTM2000/RTM3000</p> <p>Tektronix 11000 / DSA60x / CSA Digitiser, TDS 200 - 800, TBS 2000, TDS 1000/ 2000/3000/4000/5000/8000, TDS3000B, DPO/MSO2000B, DPO/MSO 3000, DPO 4000, MSO/DPO 5000, DPO7000, DPO70000, DSA70000, 2220/30/32, 2432/40, 7D20, 7854</p> <p>SCD1000 / SCD5000 Transient Recorder</p> <p>Yokogawa DL1520/DL1540, DL1740 / DL7100 / DL7200, DL750 / DL750P / DL850 / DL850V Series</p>		



Others	<p>Boonton 4400 / 4500 Peak Power Meter</p> <p>Keysight/Agilent EPM-P Series Power Meter, 8990A/8991A, 8990B</p> <p>Keysight/Agilent N8972/3/4/5A NFA Series Noise Figure Meter</p> <p>66319B/D, 66321B/D Series PSU</p> <p>Hewlett Packard HP8970A/B Noise Figure Meter</p> <p>HP 8990/8991 Peak Power Analyzer</p> <p>HP 85719A Noise Figure Card in HP859XE</p> <p>HP 85671A Phase Noise Card in HP8560/90</p> <p>Rohde & Schwarz NRP xxS(N) sensor family</p>
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The range of supported instruments is regularly enhanced - ask about support for instruments you need if you cannot find them here.



Hardware Requirements

Minimum system	Microsoft Windows 11, 10, 8, 7, XP
GPIB card Note SoftPlot can also use RS-232 and LAN	National Instruments , type PC-IIA, AT-GPIB/TNT, PCI-GPIB, PCMCIA-GPIB, GPIB-USB-A/B/HS Agilent/HP 82335, 82340, 82341, 82350, 82357A/B Prologix GPIB-USB 4.2, GPIB-Ethernet 1.2 or higher

Capability Summary

Supports	Network Analyzers, Spectrum Analyzers, Modulation Analyzers, Oscilloscopes, Vector Signal Generators, Arbitrary waveform generators
Chart Types	Cartesian- linear and log, Polar, Smith, Admittance Smith, Eye Diagram, Vector Modulation (Cartesian, polar, rotated), Constellation, Nichols, Antenna Polar, Bar-graph
Graph Data Formats	Linear magn, Log magn, re/im, VSWR, Phase, Group Delay, Unwrapped Phase, Inductance, Capacitance, Series Quality Factor, Parallel Quality Factor
Data Storage	1024 complex trace stores, arbitrary number of points (limited by available system memory). Each store has a trace label, trace notes and data analysis table.
Markers	Up to 1024 markers and/or delta markers
Limit lines	Up to 100 arbitrary line segments for limits testing
Scaling	Up to 2 independent vertical scales
Numerical	Electrical delay, Smoothing, Magnitude/ Phase offset, Magnitude slope
Trace maths	+, -, /, x, Log, Magn, Phase, Square-root, Anti-Log, Group Delay, Derivative, Mismatch loss factor, Rollet's Stability Factor K, Stability Factor B, Edwards-Sinsky Stability Mu, Max Unilateral power gain, Max Available Gain, Max Stable Gain, Z0 Renormalisation, No. of Bit Differences, Max Value, Min Value, Standard 3 or 4 port to Mixed Mode S-Parameters, Standard 2-port to Differential 1-port S-Parameters, Timebase Delay, Smoothing, Wraparound Smoothing, Complex Reflection to VSWR, Complex Refl to impedance, dB Reflection to VSWR, mW to dBm, dBm to mW, T-Check quotient, Sorting, 2-port de-embedding, Envelope of RF Signal
Data Editing	Edit, cut, copy and paste traces in the Table view
Measurement Templates	Copy attributes from previous measurements such as limits, markers, annotation, graticule
Scripting	Direct GPIB instructions and SoftPlot menu clicks can be stored and sequenced. Looping and branching, variables and user prompts can be added with the integrated editor.
Integrated Interfaces:	OLE2 Linking and Embedding (for Word, PowerPoint, etc) :- double - click in the document to begin editing. COM (ActiveX Automation) and DDE Server (for automated operation with test system software)
File Formats: (all bidirectional except graphics)	SoftPlot (*.SPT), MIPlot (*.MPT), Agilent EEsof, AWR MW Office, Eagleware GENESYS (*.SIP.. S32P), Ansoft Super Compact (*.FLP), Spreadsheet (*.CSV), Tab Delimited (*.TXT), MathCad (*.PRN), Citifile (*.F??,D??), BMP, TIFF, JPEG, WMF, EMF, PNG, MatLab (*.MAT)

Ordering Information and Enquiries...

Further information and a free evaluation edition of *SoftPlot* is available for download from our Web site. Alternatively write, e-mail, call or fax us.

Ordering Options :	Purchase online at www.softplot.com . Or request a quotation if you prefer to use an official company purchase order. Site licences are also available and quantity discounts may apply.
Delivery :	Within 10 working days
Address To:	Aphena Ltd., 10, Teversham Road, Fulbourn, Cambridge, U.K. CB21 5EB
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WorldWide Web Site:	http://www.aphena.com http://www.softplot.com

Ref : SoftPlot "Ultra" Data Sheet 31/3/24

