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Mar. 1967	Pulse discriminator/frequency meter	5210A

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Feb. 1968	Pulsed RF carrier frequency measurements to 18 GHz	5257A

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Jan. 1967	Q meter	190A, 260A
Apr. 1967	Quartz thermometer	2800 Series

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Sept. 1967	Random noise	3722A
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Sept. 1965	Recorder. oscilloscope plug-in	1784A
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June 1968	Systems-oriented digital power source	6130A

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Dec. 1966	Tape recorder. 1.5 MHz	3950A
June 1966	TDR, calibrated susceptance for	874A
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141A	Variable Persistence Oscilloscope	May 1968
155A	Programmable Oscilloscope	June 1966
180A	50 MHz Oscilloscope	Aug. 1966
181A	Variable Persistence Oscilloscope	May 1968
190A	Q Meter (application of)	Jan. 1967
191A	Television Waveform Oscilloscope	Feb. 1966
197A	Oscilloscope Camera	Aug. 1966
250A	RX Meter (application of)	Jan. 1967
260A	Q Meter (application of)	Jan. 1967
331A to 334A	Distortion Analyzers	Apr. 1966
354A	Coaxial Step Attenuators	June 1967
400E/EL	10 Hz–10 MHz AC Voltmeter	Jan. 1966
414A	Autovoltmeter	Sept. 1965
415E	SWR Meter	July 1966
419A	DC Null Voltmeter	Mar. 1966
427A	Multifunction Voltmeter	May 1966
448A	Slotted-line Sweep Adapter	Dec. 1966
461A/462A	Wideband Amplifiers (application of)	Sept. 1965
463A	Precision Amplifier	May 1967
465A	Amplifier	July 1966
536A, 537A	Coaxial Frequency Meters	Dec. 1966
675A	Sweeping Signal Generator	Jan. 1968
735A	DC Transfer Standard	Mar. 1966
741A	AC-DC Differential Voltmeter/ DC Standard	Oct. 1965
745A	AC Calibrator	June 1968
780 Series	Patient Monitoring Equipment	June 1967
817A	Swept Slotted Line System	Dec. 1966
852A	Variable-persistence Display Unit for Spectrum Analyzer	Jan. 1968
874A	Calibrated Susceptance	June 1966
1104A/1106A	18-GHz Trigger Countdown	Oct. 1966
1105A/1106A	20-ps Pulse Generator	Oct. 1966
1106A	Tunnel Diode Mount	Oct. 1966
1300A	X-Y-Z Display	Dec. 1967
1407A	DC-stabilized Sensitive Plug-in	June 1966
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1415A	Time Domain Reflectometer (application of)	Jan. 1966
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1430A	Remote Sampler for 1411A. $t_r < 28$ ps	Oct. 1966
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2000A	Time-shared Computer System	July 1968
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2350 Series	Hot Carrier Diodes	Dec. 1965
2470A	Data Amplifier	July 1967
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2832A	Temperature Sensor Assembly	Apr. 1967
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3300A	Function Generator	Nov. 1965
3301A	Auxiliary Plug-in for Function Generator	Nov. 1965
3302A	Trigger/Phase-lock Plug-in	Nov. 1965
3305A	Sweep Plug-in	May 1968
3406A	Sampling Voltmeter	July 1966
3410A	AC Microvoltmeter	May 1967
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3722A	Noise Generator	Sept. 1967
3950 Series	Tape Recorder	Dec. 1966
4260A	Universal Bridge	Sept. 1966
4260A	Universal Bridge (application of)	Jan. 1967
4800A	Vector Impedance Meter	Jan. 1967
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5061A	Cesium-beam Frequency Standard	Dec. 1967
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5255A	Frequency Converter Plug-in, 3–12.4 GHz	Sept. 1966
5256A	Frequency Converter Plug-in, 8–18 GHz	Feb. 1968
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5260A	Frequency Divider	Apr. 1967
5400A	Multichannel Analyzer	Mar. 1968
5480A	Signal Analyzer and Averager	Apr. 1968
5480A	Signal Analyzer and Averager (application of)	May 1968
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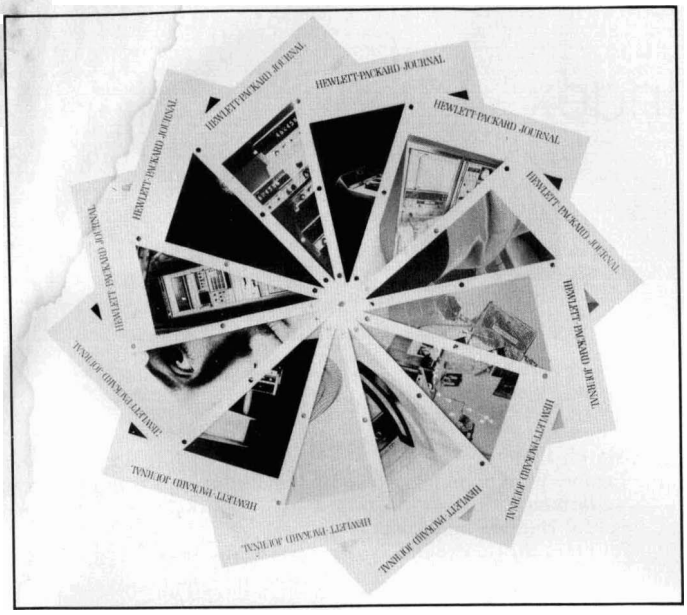

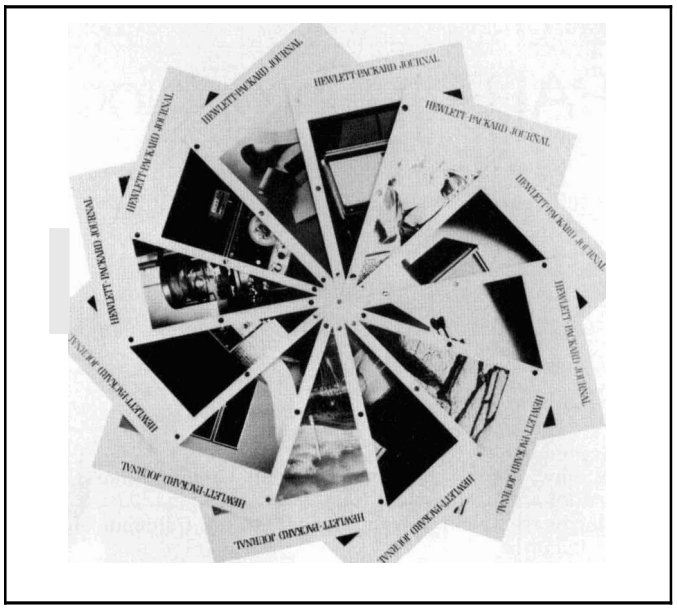

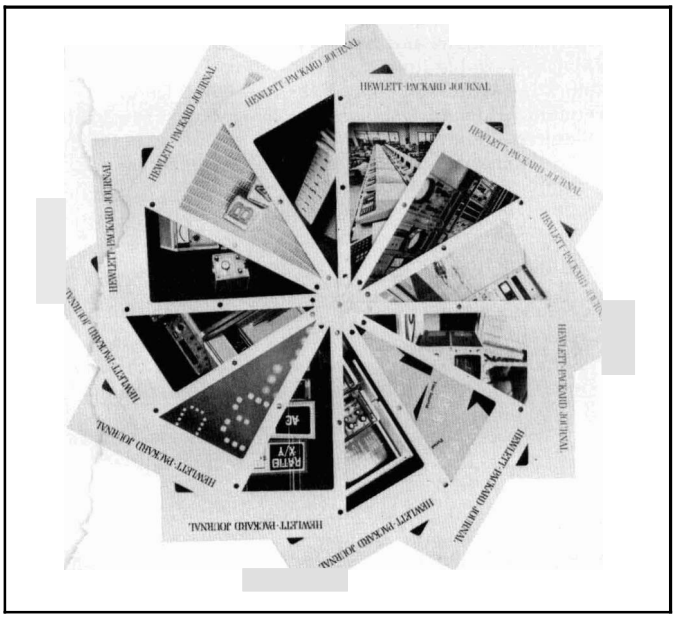

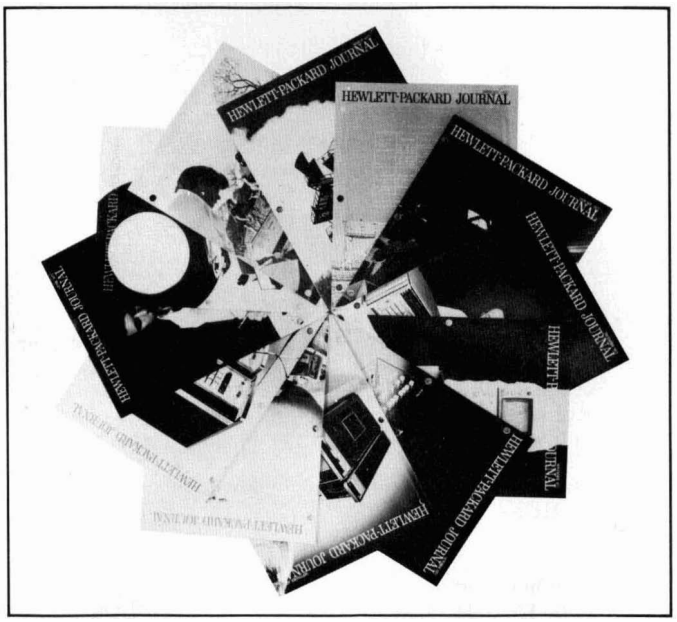

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Dec. 1970	Counter. computing. programmer	5376A
Apr. 1973	Counter. microwave	5340A
June 1973	Counter/multimeter module for 5300 system	5306A
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Apr. 1970	Counter/Timer/DVM	5326B
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Jan. 1969	Coupler. directional	778D, 779D
Jan. 1969	Coupler for recording digital data	2547A
Nov. 1969	Crosscorrelation	3721A
Apr. 1972	CRT's, large-screen	1310A, 1311A
Sept. 1969	Current sources. dc	CCB Series (6177/81/86B)
Aug. 1973	Current sources. digitally controlled	6140A, 6145A

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Aug. 1972	Data acquisition and control systems. sensor-based, modular	9600 A, E, F, G
Sept. 1970	Data coupler. programmable. bidirectional	2570A
Sept. 1969	Dc current sources	CCB Series (6177/81/86B)
Aug. 1973	Dc current sources. digital	6140A, 6145A
Mar. 1973	DCV/DCA/ΩMeter plug-on	34703A
Sept. 1968	Desktop calculator	9100A
Dec. 1972	Desktop calculator	9800 Series
Mar. 1973	Detector. flame-ionization	5700A
July 1971	Detector. optical	8334A
Nov. 1972	Detector. thin-film hybrid. microwave	8755L/ 11664A
Feb. 1969	Detectors. microwave hybrid hot-carrier	5082–2800
Jan. 1969	Digital coupler	2547A
Sept. 1970	Digital coupler. bidirectional. programmable	2570A
Oct. 1972	Digital interface. ASCII compatible	—
Mar. 1969	Digital logic module test system	2060A
June 1969	Digital logic probe	10525A
Sept. 1972	Digital logic probe	10525T
June 1972	Digital low-frequency spectrum analysis	5451A
Mar. 1969	Digital multifunction meter	3450A
Jan. 1971	Digital multifunction meter	3480A
Aug. 1972	Digital multimeter, 4½ digit	3470A
Aug. 1972	Digital multimeter. 5½ digit	3490A
Mar. 1973	Digital multimeter. 5% digit	34750A
June 1973	Digital multimeter/counter	5306A
Nov. 1972	Digital spectrum analysis by correlator/spectrum display	3721A/3720A
July 1971	Digital testing. functional. with 9500-series systems	28035A
June 1973	Digital-to-analog converter module for 5300 low-cost measuring system	5311A
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Mar. 1969	Digital voltmeters	3450A
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Feb. 1969	Diodes. light-emitting display	5082–7000
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Nov. 1969	Direction finding by correlation	3721A
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May 1972	Disc drives	7900A, 7901A

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204C	Oscillator	Dec. 1968
209A	Sine/Square Wave Oscillator ...	Dec. 1968
236A–H10	Telephone Test Oscillator	Dec. 1970
675A/676A	0.01–32 MHz Network Analyzer .	July 1969
680	Strip Chart Recorder	Oct. 1968
745A/746A	AC Calibrator/High Voltage Amplifier	Apr. 1970
778D	Dual Directional Coupler	Jan. 1969
779D	Directional Coupler	Jan. 1969
1106A, 1108A	20 ps and 60 ps Tunnel Diode Mounts	Sept. 1969
1120A	500-MHz Probe	Dec. 1969
1123A	220-MHz Probe	Nov. 1968
1310A, 1311A	Graphic Displays	Apr. 1972
1580A	Narrowband Time Domain Reflectometer	Mar. 1972
1700 Series	Portable Oscilloscopes	May 1971
1802A	100-MHz Dual Channel Vertical Amplifier	Nov. 1968
1810A	1-GHz Sampling Oscilloscope Plug-In	Nov. 1971
1815A/B	TDR/Sampler Plug-in	Sept. 1969
1817A, 1816A	28 ps and 90 ps Samplers	Sept. 1969
1830A	250-MHz Oscilloscope Amplifier	Jan. 1970
1840A	High-Speed Oscilloscope Time Base	Jan. 1970
1900	Pulse System	Apr. 1969 Apr. 1971
1900A, 1901A	Mainframe	Apr. 1969
1905A	Rate Generator	Apr. 1969
1908A, 1910A	Delay Generators	Apr. 1969
1915A, 1917A	Variable Transition Time Outputs	Apr. 1969
1920A	350 ps Transition Time Output .	Apr. 1969
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1930A	PRBS Generator	Apr. 1971
2000B/C	Time-shared system for computer-assisted instruction.	Feb. 1971
2060A	Digital Logic Module Test System	Mar. 1969
2100A	Computer	Oct. 1971 July 1972
2440A	Analog-Digital Interface	Aug. 1972
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2570A	Coupler/Controller	Sept. 1970
3000A	Computer System	Jan. 1973
3040A/ 41A/42A	Network Analyzer Systems	Oct. 1972
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3311A	Function Generator (0.1 Hz–1 MHz]	July 1973
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3330A/B	Automatic Synthesizer	July 1972
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3450A	Digital Multifunction Meter	Mar. 1969
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3490A	Digital Multimeter	Aug. 1972
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3590A	Wave Analyzer	Dec. 1968
3592A	Auxiliary Plug-in	Dec. 1968
3593A	Sweeping Local Oscillator	Dec. 1968
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3730A	MLA Down Converter	Sept. 1972
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4470A	Transistor Noise Analyzer	Oct. 1969
4920A	Cable Fault Analyzer	June 1969
5010A	IC Troubleshooting Kit	Jan. 1972
5011T	Digital Troubleshooting Kit	Sept. 1972
5015T	Digital Troubleshooting Kit	Sept. 1972
5065A	Rubidium Standard	Apr. 1971
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5082–2709/ 16/68/69	Beam-lead Schottky-Barrier Diodes	June 1973
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Hewlett-Packard S.A., CH-1217 Meyrin 2 Geneva, Switzerland
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Editorial Director • Howard L. Roberts
Managing Editor • Richard P. Dolan
Contributing Editors • Ross H. Snyder, Laurence D. Shergalis

Art Director, Photographer • Arvid A. Danielson
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Yokogawa-Hewlett-Packard Ltd., Shibuya-Ku, Tokyo 151 Japan

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Christensen, Svend	Nov. 1975
Christopher, Chris J.	Apr. 19741
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Cornish, Eldon	Sept. 1974
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Courtin, Erich	Jan. 1977
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DiFrancesco, Mauro	Apr. 1975
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DiPietro, David M.	Apr. 1975
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Doub, James A.	June 1975
Dudley, B. William	Dec. 1973
Dudley, Robert L.	Nov. 1973
Duerr, Jeffrey R.	Feb. 1974
Dupre, John J.	Mar. 1975
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Estes, Marvin F.	Apr. 1977
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Fichter, George	Nov. 1975
Finch, Carolyn M.	Apr. 1977
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Fischer, Walter A.	Dec. 1974
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Forbes, Bert E.	Apr. 1977
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Fowles, Richard G.	Aug. 1974
Fox, Kenneth A.	Dec. 1975
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Globas, Gert	Sept. 1974
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An Easy-to-Use Data Capture Terminal for Industrial Operations, Jacques A. Ripert, Daniel C. Berthier, and Michel E. Bernard

August 1978
Universal Counter Resolves Picoseconds in Time Interval Measurements, David C. Chu, Mark S. Allen, and Allen S. Foster
The Triggered Phase-Locked Oscillator, Dovid C. Chu
Time Synthesizer Generates Precise Pulse Widths and Time Delays for Critical Timing Applications, Keith M. Ferguson and Leonard R. Dickstein
Remotely-Controlled RF Switch for Multipoint Tests in Communication Systems, Kevin J. Bradford
Laboratory Notebook—A High-Level-Language Microprocessor Prototyping and Debugging System Using a Desktop Computer

September 1978
A High-Resolution, Low-Frequency Spectrum Analyzer, Nixon A, Pendergrass and John S. Furnbach
Window Functions for Spectrum Analysis, Roger G. Cox
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Desktop Plotter/Printer Does Both Vector Graphic Plotting and Fast Text Printing, Majid Azmoon, Jaime H. Bohorquez, and Rick A. Warp
Plotter/Printer Interface Languages: HP-GL and ASCII, Michael P. Trego

October 1978
Higher-Performance HP 1000 Computer Systems, Rodney K. Juncker
RTE-IV: The Megaword-Array Operating System, Eugene J. Wong and C. Michael Manley
F-Series Extends Computing Power of HP 1000 Computer Family, Julia A. Cafes
Microcoded Scientific Instruction Set Enhances Speed and Accuracy of F-Series Computers, Charles R. Geber
New Memory Systems for HP 1000 Computers, Alan H. Christensen and David C. Salomaki
Multipoint Terminals for HP 1000 Systems, Denton B. Anderson, Mitchell B. Bain, and Gary W. Johnson

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Printer and Printing Terminal Gain Versatility and Mechanical Simplicity with Microprocessor Control, Tadd M. Woodcock
Managing Dot-Matrix Printing with a Microprocessor, John J. Ignoffo, Jr., Michael J. Sproviero, Phillip R. Luque, and Kenneth A. Wade
Versatile 400-lpm Line Printer with a Friction-Free Mechanism that Assures Long Life, F. Duncan Terry
Optimizing the Performance of an Electromechanical Print Mechanism, Everett M. Baily, William A. McIlvanie, Wallace T. Thrash, and Douglas B. Winterrowd

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Glass Platen Technology, Lawrence E. Brown
1-mHz-to-50-MHz Signal Source Combines Synthesizer Accuracy, Multimode Operation, and Easy Programming, Tilman Schad, Dieter Kible, and Peter Brunner
A Compact Logging Multimeter that Can Manipulate Data, John E. Scruggs, Marsh L. Faber, and David L. Wolpert

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Expanding Logic Analyzer Capabilities by Means of the HP-IB, Robert G. *Wickliff*, Jr. and Richard A. *Nygaard*, Jr.
A Serial Data Analyzer for Locating Faults in Decentralized Digital Systems, Robert E. Erdmann, Jr.

November 1979
Precise, Convenient Analysis of Modulated Signals, Allen P. Edwards
IF Filters for the 8901A Modulation Analyzer, *Andrew* H. Naegeli
A New Type of FM Demodulator, Russell B. Riley
Modulation Analyzer Applications, Allen P. Edwards
Assuring Accuracy in Modulation Measurements, Leslie E. Brubaker
Interactive Modulation Analyzer Control, Paul J. Lingane
Special Signal Source Tests Modulation Analyzer, Leslie E. Brubaker

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High-Speed Fiber Optic Link Provides Reliable Real-Time HP-IB Extension, Robert B. *Grady*
A Ready-to-Use Fiber Optic Link for Data Communications, Delon C. Hanson
A Picoammeter with Built-in, Synchronized Voltage Sources, Hitoshi Noguchi
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Four Color Plotters Enhanced for Unattended Operation, Majid Azmoon, Randy A. Coverstone, and Richard M. Kemplin

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	A	
Feb. 1979	Accelerometer, hybrid	
Apr. 1979	Accounts receivable,	HP 250
May 1979	Address extension chip	
Sept. 1979	Air flow measurements in the pulmonary lab	47804S
July 1979	AMIGO/300 operating system	HP 300
Nov. 1979	Amplitude modulation measurements	8901A
May 1979	Assembly language, desktop computer	9835A
July 1979	Asynchronous data communications controller	31264A
Mar. 1979	Automatic circuit board testing	DTS/70,3060A
Dec. 1979	Automatic paper advance, X-Y plotter	9872S,7221S,7220S
	B	
June 1979	BASIC, business computer	HP 300
Apr. 1979	BASIC, business computer	HP 250
May 1979	BASIC, desktop computer	9835A
Jan. 1979	Battery-powered universal counter	5314A,5315A
Jan. 1979	Bipolar integrated circuit chip, MRC	
Mar. 1979	Board test language	9825A/3060A
Mar. 1979	Board testing, automatic	DTS/70,3060A
Dec. 1979	Bus extender, fiber optic	12050A
Aug. 1979	Bus extender, telephone compatible	37201A
Apr. 1979	Business computer, entry level	HP 250
June 1979	Business computer	HP 300
July 1979	Business computer	HP 300
Sept. 1979	Business computer	HP 3000 Series 33
	C	
Dec. 1979	Calculator, handheld	HP-34C
Apr. 1979	Capacitance DLTS	
Dec. 1979	Capacitancelvoltage measurements	4140A
Mar. 1979	Circuit-board testing, automatic	DTS/70,3060A
Oct. 1979	Communications, data analyzer	1640A
June 1979	Computer, business	HP 300
July 1979	Computer, business	HP 300
May 1979	Computer, desktop	9835A
July 1979	Computer power supply	63312F
Apr. 1979	Computer, small-business	HP 250
Sept. 1979	Computer system, low-cost general-purpose	HP 3000 Series 33
Apr. 1979	Conductance DLTS	
Feb. 1979	Control system, linear step motor	7225A
May 1979	Controller, desktop	9835A
Jan. 1979	Counter chip, multiple-register	
Jan. 1979	Counter, universal, 100-MHz, low-cost	5314A
Jan. 1979	Counter, universal, 100-MHz, reciprocal	5315A/B
Dec. 1979	Current measurements, picoampere	4140A
	D	
Apr. 1979	Data base management	HP 250
June 1979	Data base management	HP 300
Oct. 1979	Data communications analyzer	1640A
Apr. 1979	Deep-level transient spectroscopy (DLTS)	
May 1979	Desktop computer	9835A
Feb. 1979	Digital LCR meters, multifrequency	4274A/75A
Aug. 1979	Digital pattern generator	8170A
Feb. 1979	Digital X-Y plotter	7225A
Nov. 1979	Discriminator, charge count	8901A
Aug. 1979	Discriminator with controllable slope	8566A
July 1979	Disc drive, Winchester type	HP 300, 7910K
June 1979	Display, integrated	HP 300
July 1979	Display, integrated	HP 300
Sept. 1979	Displays, X-Y, selectively blanked	1741A/002
	E	
Sept. 1979	Electromagnetic interference suppression, computer	HP 3000 Series 33
May 1979	EMI design	9835A
Jan. 1979	Emitter function logic (EFL)	
Dec. 1979	Equation solver, handheld calculator	HP-34C
Dec. 1979	Extender, HP Interface Bus, fiber optic	12050A
Aug. 1979	Extender, HP Interface Bus, telephone	37201A
	F	
Mar. 1979	FASTRACE	DTS/70
Mar. 1979	Fault isolation in analog circuit boards	3060A
Mar. 1979	Fault isolation in digital circuit boards	DTS/70
Dec. 1979	Fiber optic HP-IB link	12050A
Nov. 1979	FM discriminator, charge count	8901A
Aug. 1979	FM discriminator, controllable slope	8566A
Nov. 1979	Frequency measurements	8901A
Jan. 1979	Frequency measurements to 100 MHz	5314A,5315A/B
Nov. 1979	Frequency modulation measurements	8901A
Jan. 1979	Function generatorlsynthesizer, 0 to 21 MHz	3325A
	G	
July 1979	General I/O channel	31262A
Aug. 1979	Generator, logic pattern	8170A

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Self-Test and Serviceability for Dependable Central Patient Monitoring, Jeffrey M. Goldberg
Firmware for a Patient Monitoring Station, Kim L. Hanna
An Interactive HP 3000/IBM Mainframe Link, Connie J. Ishida

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Color Enhances Computer Graphics System, John B. Frost and William L. Hale
The System 45C User's Firmware Interface, Robert A. Jewett and Robert W. Fredrickson
Light Pen Aids User Interaction with Display, Frederick J. Porter
A Precision Color Raster-Scan Display for Graphics Applications, Warren C. Pmtt
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4191A	RF Impedance Analyzer	Jan.	1980
5316A	Universal Counter	Sept.	1980
5335A	Universal Counter	Sept.	1980
5343A	Microwave Frequency Counter	Apr.	1980
5345A	Electronic Counter	Apr.	1980
5355A	Automatic Frequency Converter	Apr.	1980
5356A/B/C	Frequency Converter Heads	Apr.	1980
8450A	UV/Vis Spectrophotometer	Feb.	1980
8559A	Spectrum Analyzer 0.1-21 GHz	Mar.	1980
8903A	Audio Analyzer	Aug.	1980
9845C	Color Graphics Computer	Dec.	1980
9876A	Thermal Graphics Printer	Nov.	1980
10264A	General-Purpose Personality Module for 1611A	May	1980
11429A	Roelof's Prism Adaptor	Sept.	1980
14451A	Circuit Analyzer Board	Nov.	1980
16091A	Coaxial Fixture Set	Jan.	1980
16092A	Spring Clip Fixture	Jan.	1980
16093A/B	Binding Post Fixture	Jan.	1980
16094A	Probe Fixture	Jan.	1980
32229A	IML/3000	Nov.	1980
38001A	HP-IB Distance Meter Interface	June	1980
		Sept.	1980
64000	Logic Development System	Oct.	1980
64100A	Development Station	Oct.	1980
64300A	Logic Analyzer	Oct.	1980
64500A	PROM Programmer	Oct.	1980
78501A	Patient Information Center	Nov.	1980
78502A	Patient Information Center	Nov.	1980
78510A	Display	Nov.	1980
78511A	Equipment Cabinet	Nov.	1980
78571A	Single-Channel Recorder	Nov.	1980
78572A	Dual-Channel Recorder	Nov.	1980
82104A	Card Reader	Mar.	1980
82106A	Memory Modules	Mar.	1980
82143A	Thermal Printer	Mar.	1980
82903A	HP-85 16K RAM Module	July	1980
82936A	HP-85 ROM Module	July	1980
82937A	HP-85 HP-IB Interface	July	1980

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Hewlett-Packard Central Mailing Department. Van Heuven Goedhartlaan 121, 1181 KK Amstelveen, The Netherlands
Hewlett-Packard (Canada) Ltd., 6877 Goreway Drive, Mississauga, Ontario L4V 1M8 Canada
Yokogawa-Hewlett-Packard Ltd., Suginami-ku, Tokyo 168 Japan

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A Versatile Low-Frequency Impedance Analyzer with an Integral Tracking Gain-Phase Meter, Yoh Narimatsu, Kanuyaki Yagi, and Takeo Shimizu
A Fast, Programmable Pulse Generator Output Stage, Peter Aue

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An Incremental Optical Shaft Encoder Kit with Integrated Optoelectronics, Howard C. Epstein, Mark G. Leonard, and John J. Uebbing
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Y-Axis Pen Handling System, Robert D. Haselby, David J. Perach, and Samuel R. Haugh
X-Axis Micro-Grip Drive and Platen Design, Ronald J. Kaplan and Robert S. Townsend

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280-MHz Production SAWR, Marek E. Mierzwinski and Mark E. Terrien
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Apr.	1981	Ac resistive attenuator	3456A
July	1981	Actuator plug-in	3497A,44428A
Nov.	1981	Adaptive dash pattern length	7580A
Sept.	1981	Airway adaptor	14361A
Sept.	1981	Algorithms, end-tidallrespiration rate	47210A
May	1981	Algorithm, overlap removal	
July	1981	Analog multiplexer	3497A,44421A,44422A
Apr.	1981	Application customizer	32260A
Apr.	1981	Application monitor	32260A
Nov.	1981	Arc-generated characters	7580A
Nov.	1981	Arc generator	7580A
June	1981	Artwork verification, VLSI	
		B	
Jan.	1981	Bar-code programs	HP-41C,82153A
Jan.	1981	Bar-code reading wand	HEDS-3000,82153A
May	1981	Bootstrap calibration	
		C	
May	1981	Calibration, electron beam system	
Jan.	1981	Calculator, bar code input	HP-41C, 82153A
Jan.	1981	Capacitive stylus	9111A/T
Aug.	1981	Capacitors, film	65000A
Sept.	1981	Capnometer	47210A
Sept.	1981	Carbon dioxide analyzer	47210A
July	1981	Channel scanning	3497A
Nov.	1981	Character fonts	7580A,9872B
Sept.	1981	CO_2 sensor	14360A
Oct.	1981	Code wheel	HEDS-5000
Dec.	1981	Computer model, electron beam exposure and development	
Aug.	1981	Computer site wiring	
July	1981	Control signal interface	9915A
Aug.	1981	Converter, flyback	6012A/6024A
Aug.	1981	Converter, sine-wave	65000A
July	1981	Counter	3497A,44426A
Mar.	1981	CRT terminal	2626A
Mar.	1981	Crystal oscillator, SC cut	10811A/B
Dec.	1981	Crystals, bulk-wave	
July	1981	Current D-to-A converter	3497A,44430A
Apr.	1981	Customizer, application	32260A
		D	
July	1981	D-to-A converter, current	3497A,44430A
July	1981	D-to-A converter, voltage	3497A,44429A
July	1981	Data acquisition1 control	3054A/C/DL,3497A/3498A
Jan.	1981	DATACAP/1000 data capture software	92080A
Mar.	1981	Data communication ports, dual	2626A
July	1981	Data logging	3054DL
May	1981	Decompressor, pattern data	
May	1981	Deflector, octopole and quadrupole	
Dec.	1981	Delay lines, SAW	
June	1981	Design, VLSI	
Oct.	1981	Detector IC	HEDS-5000
July	1981	Digital input	3497A,44425A
July	1981	Digital output	3497A,44428A
Oct.	1981	Digitally controlled plotter	4700A
Jan.	1981	Digitizing, capacitive-coupling	9111A/T
Mar.	1981	Display station	2626A
Aug.	1981	DMOS process	HPWR-6501
Aug.	1981	Downprogrammer, power supply	6012A/6024A
Apr.	1981	DVM	3456A
July	1981	DVM module	3497A
		E	
Oct.	1981	ECG	4700A
Sept.	1981	ECL, 10k and 100k, pulse generator for	8161A
Oct.	1981	Electrocardiograph	4700A
Dec.	1981	Electron beam lithography, proximity effect	
May	1981	Electron beam lithography system	
Oct.	1981	Encoder, shaft, optoelectronic	HEDS-5000,4700A
		F	
Jan.	1981	Factory data collection software	92080A
Feb.	1981	Fast switching signal generator	8662A
Aug.	1981	FET, power	HPWR-6501
May	1981	Fiducial mark registration	
May	1981	Filter, adaptive matched	
Nov.	1981	Firmware development tools	7580A
Mar.	1981	Flexible circuit packaging	10811A/B

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Sept.	1981	Gain-phase measurement	4192A
Sept.	1981	Gas measurements, static station	47210A
Feb.	1981	Generator, signal, 0.01-1280 MHz	8662A
June	1981	Graphics for VLSI design	
Jan.	1981	Graphics, interactive system	9111T,1350S
Jan.	1981	Graphics tablet	9111A/T
Dec.	1981	Grating reflectors	
Oct.	1981	Grit-wheel paper drive	4700A
Nov.	1981	Grit-wheel technology	7580A
Aug.	1981	Grounding of computer systems	
July	1981	Guarded measurements	3497A,44421A

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June	1981	Hierarchical design, VLSI	
Feb.	1981	High-purity signal generator	8662A
May	1981	High-speed electron beam system	
May	1981	High-speed processor (HAL)	

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Dec.	1981	IDT	
Sept.	1981	Impedance analyzer, low-frequency	4192A
Sept.	1981	Impedance test fixtures	16095A
Aug.	1981	Inductor, control	65000A
Aug.	1981	Inductor, resonating	65000A
July	1981	Industrial packaging	9915A
Sept.	1981	Infrared absorption	47210A
June	1981	Integrated circuit design, VLSI	
June	1981	Integrated circuit process control network (PCS)	
June	1981	Integrated circuit processing, rapid	
June	1981	Interactive graphics system (IGS)	
Dec.	1981	Interdigital transducer	
Sept.	1981	Interfering gas compensation	47210A
Apr.	1981	Inventory control system	32260A
Nov.	1981	I/O bus, drafting plotter	7580A

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L

Aug.	1981	Laboratory power supplies	6012A/6024A
May	1981	Lithography, electron beam	
June	1981	Logic simulation, VLSI	
Feb.	1981	Low-noise signal generator	8662A

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Aug.	1981	Magnetic components, 200 kHz	65000A
Apr.	1981	Materials management system	32260A
May	1981	Memory, pattern	
Nov.	1981	Micro-grip drive	7580A
Dec.	1981	Model, electron beam exposure and development	
July	1981	Modular computer	9915A
Apr.	1981	Monitor, application	32260A
Aug.	1981	MOSFET fabrication	HPWR-6501
Aug.	1981	MOSFET, power	HPWR-6501
Sept.	1981	Motor, filter wheel, miniature	47210A
Dec.	1981	Multilayer resist techniques	
Apr.	1981	Multi-Slope II	3456A

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Aug.	1981	OEM power supplies	65000A
Apr.	1981	Ohms measurement, wide dynamic range	3456A
July	1981	Operator interface card	9915A
Oct.	1981	Optoelectronic modules	HEDS-5000
Mar.	1981	Oscillator, crystal, SC cut	10811A/B

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Oct.	1981	Paper drive, plotter	4700A
Nov.	1981	Paper drive, plotter	7580A
Apr.	1981	Parts and bills of material	32260A
Nov.	1981	Pen capping and selection	7580A
Nov.	1981	Pen carousel	7580A
Nov.	1981	Pen carriage design	7580A
Nov.	1981	Pen control, velocity and position	7580A
Nov.	1981	Pen-lift control electronics	7580A
Nov.	1981	Pen-lift mechanism	7580A
Feb.	1981	Phase-locked loops, signal generator	8662A
Feb.	1981	Phase noise, low, signal generator	8662A
Nov.	1981	Platen design	7580A
Oct.	1981	Plotting, low-mass, low-inertia	4700A
Nov.	1981	Plotting, low-mass, low-inertia	7580A
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Aug.	1981	Power disturbances	
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Hewlett-Packard Central Mailing Department
Van Heuven Goedhartlaan 121
1181 KK Amstelveen, The Netherlands
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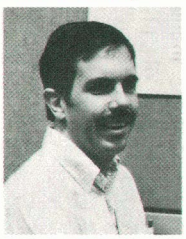
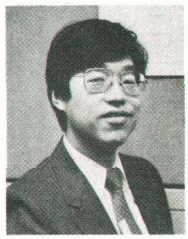
4 HP-UX Operating System

John R. Sontag



A native of Pittsburgh, Pennsylvania, John Sontag attended Carnegie-Mellon University, receiving his BSEE degree in 1979. After coming to HP's Data Systems Division the same year, he contributed to the development of RTE drivers for HP 1000 Computers and to the HP Micro/1000 Computer. He later worked on HP-UX and is now the HP-UX I/O project manager. John and his wife, who is also an HP engineer, live in Santa Clara, California and have one son. He's active in hi6 church, leading a youth group and a marriage preparation program. During his leisure time he enjoys sailing, skiing, volleyball, and taking his son to the park.

Gary **Shiu-Fan Ho**

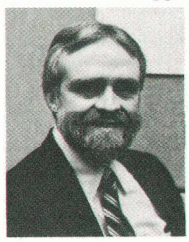


Born in Hong Kong, Gary Ho studied computer science and electrical engineering at the University of California at Berkeley. He earned his BS degree in 1975, his MS degree in 1977, and his PhD degree in 1979 and worked at Bell Laboratories before coming to HP in 1982. He has held several engineering and management positions and is currently section manager for HP-UX for HP Precision Architecture. He's named as inventor on two patents related to multiprocessor virtual memory management and distributed update verification. Gary and his wife live in San Jose, California and have one child.

Steven R. Kusmer

With HP since 1979, Steve Kusmer is the project manager for HP-UX operating systems for HP 9000 Series 800 Computers. Before working on HP-UX, he contributed to the development of hardware and operating systems for HP 1000 Computers. An alumnus of Cornell University, he holds a 1979 BSEE degree. He's a member of the ACM and coauthor of two papers, one a 1984 HP Journal article on RTE system software for HP 1000 Computers. Steve is married and lives in San Francisco. He holds a black belt in Korean karate and likes running and backpacking.

Frederick W. Clegg



With HP since 1975, Fred Clegg is one of the R&D section managers responsible for software development for HP 9000 Series 800 Computers. He has held management and engineering positions for several computer development efforts, including the HP 300 and HP 9000 Series 500 Computers. Born in Atlanta, Georgia, he holds a BS degree in engineering science from Oakland University (1965) and MS and PhD degrees in electrical engineering from Stanford University (1967 and 1970). He was an assistant professor in electrical engineering at Santa Clara University before coming to HP. He's the author or coauthor of 11 papers and other material related to fault-tolerant computing, user interfaces, and the implementation of the UNIX operating system on HP computers. Fred and his wife and daughter live in Cupertino, California. An avid pilot, he moonlights as a certified flight instructor. He's also a skier and amateur radio operator (W6IYO).

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Hewlett-Packard Company, 3200 Hillview Avenue, Palo Alto, California 94304 U.S.A.
Hewlett-Packard Central Mailing Dept., P.O. Box 529, Startbaan 16, 1180 AM Amstelveen, The Netherlands
Hewlett-Packard (Canada) Ltd., 6877 Goreway Drive, Mississauga, Ontario L4V 1M8 Canada
Yokogawa-Hewlett-Packard Ltd., Suginami-ku, Tokyo 168 Japan

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Hewlett-Packard Company, 3200 Hillview Avenue
Palo Alto, California 94304 U S A
Hewlett-Packard Central Mailing Department
P O Box 529
1180 AM Amstelveen The Netherlands
Yokogawa-Hewlett-Packard Ltd Suginami-Ku Tokyo 168 Japan
Hewlett-Packard (Canada) Ltd
6877 Goreway Drive, Mississauga Ontario L4V 1M8 Canada

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ming the compliance voltage of the tester's parametric measurement units (PMU). Since R_s and the forced current are known, the actual output level can easily be calculated with sufficient accuracy. It is:

$$V_{out} = V_{measure} - V_{drop} = V_{measure} - R_s I_f. \quad (16)$$

For best results, 0.1% resistors are recommended for R_s.

Summary

In the HP 82000 IC Evaluation System, the resistive divider method offers advantages in operating speed and measurement accuracy. The method has its restrictions and does not ensure testability of every DUT.

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Hewlett-Packard Marcom Operations Europe, P O Box 529, 1180 AM Amstelveen, The Netherlands
Hewlett-Packard (Canada) Ltd , 6877 Goreway Drive, Mississauga, Ontario L4V 1M8 Canada
Yokogawa-Hewlett-Packard Ltd , Suginami-ku, Tokyo 168 Japan

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