2750 SERIES SPECTRUM ANALYZERS

Tektronix 2750 Series Spectrum Analyzers offer a broad selection of features and benefits to meet wide-ranging needs for laboratory-level frequency domain spectrum analysis. All units provide full IEEE-488 (GPIB) programmability, which means you can change front-panel settings, read data from the CRT display, and send waveforms from internal digital source memory to other GPIB devices. Frequency range of the instruments is as follows:

10 kHz to 325 GHz: 2756P and 2755AP
10 kHz to 21 GHz: 2754P
100 Hz to 1.8 GHz: 2753P

2750 Series Spectrum Analyzers combine affordability with laboratory performance, wide frequency coverage range, and a comprehensive set of powerful features. They are designed for benchtop use or rackmounting, in the lab, on an engineering workbench, or on the manufacturing floor.

A wide array of price/performance alternatives are available. If you need 10 Hz resolution for an exacting close-in spectral purity measurement, the 2756P will fill your need. For more routine uses, such as a microwave transmitter occupied-bandwidth measurement, the 2754P may be the most cost-effective solution.

A WIDE ARRAY OF INTELLIGENT FEATURES

Downloadable programming (macro) capability lets you execute your frequently-used measurement routines from the Spectrum Analyzer's nonvolatile memory. In addition, these Spectrum Analyzers can store up to ten complete front-panel measurement parameter setups in nonvolatile memory to save you measurement time. You can also save up to nine waveform displays, a real benefit when data analysis must be delayed.

Tedious, time-consuming, and often incorrect carrier-to-noise ratio calculations are eliminated; the instrument handles it all with a single keystroke, with automatic noise normalization to 1 Hz and automatic conversion for reference units such as dBm, dBmV, dBV, dBμV, and dB/Hz.

An internal high-stability reference provides marker or center frequency accuracy approaching 10^{-9}/day in the 2756P. For added confidence in measurements, a built-in microwave signal counter in the 2756P with 144 dB dynamic range means you can determine the exact frequency of marked signals only 10 Hz apart – or count the exact delta-frequency between two marked signals – even with greatly differing amplitudes. You also have the flexibility of tying in with a system clock, using the external reference lock capacity.

A permanent record of CRT displays can be obtained at the push of a button, without a controller, using the direct plot capability and a GPIB plotter such as the Tektronix HC100.

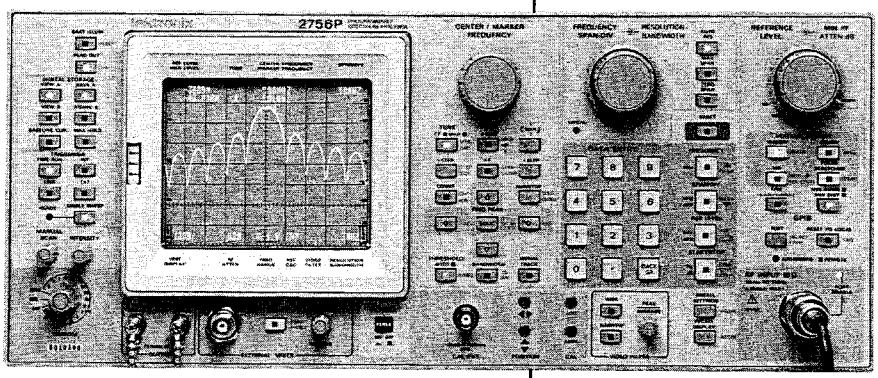
Menu-selected dynamic markers automatically update frequency and amplitude data with every sweep. Unprecedented signal processing power results when you use these markers in conjunction with the built-in intelligence. With *PULSE* Mode, you can mark the peak of a main lobe and peaks of side lobes at the push of a button. The *CW* Mode locates signals that exhibit CW characteristics and ignores all other signals. The *SPUR* Mode marks all signals that meet user-defined or automatic threshold criteria. User-definable threshold criteria are available for all signal processing modes.

These instruments also offer operator convenience for measuring the bandwidth of filters, amplifiers, and other networks. Just enter the desired bandwidth point and select *BANDWIDTH* Mode, and the markers automatically update to display the new value.

Dedicated direct keypad data entry of major measurement parameters enables fast, accurate instrument setup. Screen messages prompt you for proper keypad inputs--all "valid" keys to push are illuminated to steer you to the proper selections. The unique marker keypad allows *Peak Find, Right & Left Next, Next Higher & Lower, Left & Right X dB,* and *Peak Find & Center* operations to be executed directly from the front panel. This makes signal searches much easier.

Optional switch-selectable 50-ohm and 75-ohm impedances add versatility. For applications such as baseband and CATV, 75-ohm/dBmV greatly simplifies spectrum analysis.

The performance leader is the 2756P, which offers frequency coverage from 10 kHz to 21 GHz with its internal mixer, and to 325 GHz with external mixers such as Tek's WM490 Series, or the new WM780 Series (each WM780 Series mixer is indivually calibrated). Signal sensitivity is an impressive -134 dBm. The 2756P is optimized for use in baseband through millimeter-wave measurements, where the ability to identify and process signal frequencies and amplitudes over wide dynamic ranges with high accuracy is critical.



The 2755AP covers the same frequency range as the 2756P, and provides nearly the same set of outstanding features and state-of-the-art specifications. It is designed as a cost-effective and productive solution to engineering needs.

The 2754P's frequency range of 10 kHz to 21 GHz is ideal for cost-sensitive applications that still require most of the powerful features of the product family, but can get by with slightly-reduced performance specifications.

The 2753P features the same functionality and high level of performance as the 2756P, but over a frequency range of 100 Hz to 1.8 GHz. It is optimized for standalone or automated operation in baseband through UHF measurements, where the ability to identify and process weak signals is critical.

Laboratory Performance with Affordable Prices

FEATURES/BENEFITS

- ***100 Hz to 325 GHz Frequency Coverage***
- ***Continuous-Resolution Frequency Tuning Combines "Synthesized" Settability and Accuracy with Analog Feel***
- ***Wide Viewable Dynamic Range; as much as 90 dB with 10 Hz to 3 MHz Resolution Bandwidth***
- ***Built-in Frequency Counters Provide Frequency Determination to within 0.0000001% (1x10^{-9}/day ref.)***
- ***Sensitivities to -134 dBm***
- ***Built-in Intelligence for Signal Processing/Marker Functions***
- ***Push Button Occupied-Bandwidth and Noise-Normalization Functions***
- ***Macro Capability with Nonvolatile Memory to Simplify and Speed Up Commonly-Used Routines***
- ***75-ohm Option Allows Switch-Selectable Impedances***
- ***Nonvolatile Memory for up to 9 Waveforms and 10 Front Panel Settings***
- ***GPIB Programmability with Tek Codes and Formats for Standardized Bus Operation***
- ***Optional MATE/CIIL Compatibility for Military Applications***
- ***Ergonomically-Designed Front Panel Controls***
- ***Direct Screen Data Plots without a Controller***
- ***Many Application-Specific Options***

2756P/2755AP/ 2754P/2735P SPECTRUM ANALYZERS

TYPICAL MEASUREMENTS
- *Baseband Measurements*
- *Carrier Level Monitoring*
- *Carrier ON/OFF Ratios*
- *Carrier/Noise Measurements*
- *EMI/RFI Compliance*
- *EW Gathering and Analysis*
- *Frequency Counting*
- *Harmonic Distortion*
- *IF Amplifier Adjustments*
- *Modulation Adjustments*
- *Pulse Analysis*
- *Spectral Monitoring*
- *Spur Searches*

TYPICAL APPLICATIONS
- *Manufacturing ATE*
- *Avionics*
- *Broadcasting*
- *CATV*
- *Cellular Radio*
- *Design and Engineering*
- *Nuclear Physics*
- *Radio Astronomy*
- *Satellite Communications*
- *Terrestrial Microwave*
- *Two-Way Radio*

REMOTE OPERATION AND COMPLETE SPECTRUM ANALYSIS PACKAGES

Full GPIB-programmability lets you automate your spectrum analysis system needs. Programming is simplified and measurement repeatability ensured. Under program control you can operate the instrument, change front panel settings, read data from the crt display, and send waveforms from internal memory to other GPIB devices. Tek's Standard Codes and Formats keeps commands clear, consistent, and universally understood.

You can increase programming flexibility and power with the optional MATE/CIIL language extension. It provides direct memory access (DMA) for high-speed data transmission, a requirement for MATE/CIIL compliance.

TekSPANS software lets you use the 2750 Series Spectrum Analyzers as system components, controlling them with popular instrument controllers such as the Tektronix PEP-Series, Compaq models, and other PC-compatibles. Coupling the computer to the Spectrum Analyzer via the IEEE 488 bus lets you take advantage of the PC's capability, as well as the power and versatility of the Spectrum Analyzer.

Available Tektronix automated spectrum analyzer packages provide ordering convenience. They are configured around a DOS-based PC, one of the 2750 Series of programmable Spectrum Analyzers, and Tek's General RF Applications Software Package (GRASP). The GRASP software offers many different applications and utility routines, which are selected through easy menu-driven operation. Also, EMI software is available for FCC, VDE, CISPR, and MIL-STD testing.

2750 Series Spectrum Analyzer characteristics are provided in the following tables.

2750 SERIES CHARACTERISTICS

	2756P	2755AP	2754P	2753P
FREQUENCY-RELATED				
Frequency Range with Internal Mixers	10 kHz to 21 GHz	10 kHz to 21 Ghz	10 kHz to 21 GHz	100 Hz to 1.8 GHz
Frequency Range with External Mixers	10 kHz to 325 GHz	10 kHz to 325 GHz	N/A	N/A
Frequency Readout Accuracy (center or marker), ± [2% span + (CF x Ref) + (2N + 25) Hz]	± 20 kHz @ 1 GHz with 100 kHz/div span	± 21 kHz @ 1 GHz with 100 kHz/div span	± 30 kHz @ 1 GHz with 100 kHz/div span	± 20 kHz @ 1 GHz with 100 kHz/div span
Frequency Counter Accuracy, ± [(CF x Ref) + (5 + N) Hz + 1 LSD]	± 100 Hz @ 1 GHz	± 1 kHz @ 1 GHz	N/A	± 100 Hz @ 1 GHz
Delta Count Accuracy, ± [(D-F x Ref) + (10 + 2N) + 1 LSD]	± 13 Hz for 1 MHz D-F	± 14 Hz for 1 MHz D-F	N/A	± 13 Hz for 1 MHz D-F
Frequency Reference Accuracy	≤ $1x10^{-7}$ per year (aging)	≤ $1x10^{-6}$ per year (aging)	≤ $1x10^{-5}$ per year (aging)	≤ $1x10^{-7}$ per year (aging)
Frequency Stability (residual FM)	≤ 5 Hz @ 1 GHz	≤ 12 Hz @ 1 GHz	≤ 12 Hz @ 1 GHz	≤ 5 Hz @ 1 GHz
Frequency Stability (drift)	< 50 Hz/minute	< 50 Hz/minute	< 50 Hz/minute	< 50 Hz/minute
Single Sideband Phase Noise (30 kHz offset and N=1)	–105 dBc/Hz @ 1 GHz	–105 dBc/Hz @ 1 GHz	–103 dBc/Hz @ 1 GHz	–105 dBc/Hz @ 1 GHz
Frequency Span Range (per div)	0 Hz, 10 Hz to 10 GHz	0 Hz, 100 Hz to 10 GHz	0 Hz, 200 Hz to 1 GHz	0 Hz, 10 Hz to 100 MHz
Frequency Span Accuracy	± 5%	± 5%	± 5%	± 5%
Delta Frequency Accuracy Marker Mode	1% of span	1% of span	1% of span	1% of span
Resolution Bandwidth Range (6 dB)	10 Hz to 3 MHz	100 Hz to 3 MHz	1 kHz to 3 MHz	10 Hz to 3 MHz
Resolution Bandwidth Selectivity (– 60 dB/– 6 dB)	≤ 7.5:1 except 15:1 @ 10 Hz	≤ 7.5:1	≤ 7.5:1	≤ 7.5:1 except 15:1 @ 10 Hz
Video Bandwidth Range	0.3 Hz to 30 kHz	0.3 Hz to 30 kHz	3 Hz to 30 kHz	0.3 Hz to 30 kHz
AMPLITUDE-RELATED				
Reference Level Range	–117 to +30 dBm	–117 to +30 dBm	–117 to +30 dBm	–117 to +30 dBm
Maximum Safe Input Power, CW	1 Watt (+30 dBm)	1 Watt (+30 dBm)	1 Watt (+30 dBm)	1 Watt (+30 dBm)
Maximum Safe Input Power, Pulse	75 W Pk (1 µS pulse 0.1% duty factor)	75 W Pk (1 µS pulse 0.1% duty factor)	75 W Pk (1 µS pulse 0.1% duty factor)	75 W Pk (1 µS pulse 0.1% duty factor)
CRT Display Range, Log	1 to 15 dB/div	1 to 15 dB/div	1 to 15 dB/div	1 to 15 dB/div
CRT Display Range, Linear	39.6 nV/div to 2.8 V/div	39.6 nV/div to 2.8 V/div	39.6 nV/div to 2.8 V/div	39.6 nV/div to 2.8 V/div

2750 SERIES CHARACTERISTICS (cont.)

	2756P	2755AP	2754P	2753P
AMPLITUDE-RELATED (cont.)				
Input Attenuator Range	0 to 60 dB in 10 dB steps	0 to 60 dB in 10 dB steps	0 to 60 dB in 10 dB steps	0 to 60 dB in 10 dB steps
Viewable Dynamic Range	90 dB (12 dB/div)	90 dB (12 dB/div)	80 dB (10 dB/div)	90 dB (12 dB/div)
Residual Response (no signal and zero RF attenuation)	–100 dBm (input terminated)	–100 dBm (input terminated)	–95 dBm (input terminated)	–100 dBm (input terminated)
Second Harmonic Distortion, RF Frequency Range	–60 dBc (mixer level –40 dBm)	–60 dBc (mixer level –40 dBm)	–60 dBc (mixer level –40 dBm)	–60 dBc (mixer level –40 dBm)
Second Harmonic Distortion, Microwave Frequency Range	–100 dBc (mixer level –20 dBm)	–100 dBc (mixer level –20 dBm)	–100 dBc (mixer level –20 dBm)	N/A
Third Order Intermodulation Distortion	–70 dBc (mixer level –27 dBm)	–70 dBc (mixer level –27 dBm)	–70 dBc (mixer level –27 dBm)	–70 dBc (mixer level –27 dBm)
Calibrator Accuracy	±0.3 dB	±0.3 dB	±0.3 dB	±0.3 dB
Gain Compression (1 dB)	–13 dBm	–13 dBm	–13 dBm	–13 dBm
Frequency Response (10 dB RF attenuation referred to cal signal)				
Band 1 (10 kHz to 1.8 MHz)	±2.5 dB	±2.5 dB	±3.0 dB	±1.5 dB (100 Hz to 1.8 GHz)
Band 2 (1.7 GHz to 5.5 GHz)	±3.5 dB	±3.5 dB	±4.0 dB	N/A
Band 3 (3.0 GHz to 7.1 GHz)	±3.5 dB	±3.5 dB	±4.0 dB	N/A
Band 4 (5.4 GHz to 18 GHz)	±4.5 dB	±4.5 dB	±5.0 dB	N/A
Band 5 (15 GHz to 21 GHz)	±6.5 dB	±6.5 dB	±7.0 dB	N/A
In-band Flatness (with 10 dB RF attenuation)				
Band 1 (10 kHz to 1.8 MHz)	±1.5 dB	±1.5 dB	±2.0 dB	±1.0 dB (100 Hz to 1.8 GHz)
Band 2 (1.7 GHz to 5.5 GHz)	±2.5 dB	±2.5 dB	±3.0 dB	N/A
Band 3 (3.0 GHz to 7.1 GHz)	±2.5 dB	±2.5 dB	±3.0 dB	N/
Band 4 (5.4 GHz to 18 GHz)	±3.5 dB	±3.5 dB	±4.0 dB	N/A
Band 5 (15 GHz to 21 GHz)	±5.0 dB	±5.0 dB	±6.0 dB	N/A
Displayed Average Noise Level (input terminated, narrowest resolution bandwidth & video filter)				
Band 1 (100 Hz)	–100 dBm (typical)	–40 dBm (typical)	N/A	–100 dBm (typical)
Band 1 (1 kHz to 10 kHz)	–110 dBm (typical)	–90 dBm (typical)	–40 dBm (typical)	–110 dBm
Band 1 (10 kHz to 100 kHz)	–110 dBm	–100 dBm	–90 dBm	–110 dBm
Band 1 (100 kHz to 1 MHz)	–120 dBm	–115 dBm	–105 dBm	–120 dBm
Band 1 (1 MHz to 1.8 GHz)	–134 dBm	–120 dBm	–110 dBm	–131 dBm
Band 2 (1.7 GHz to 5.5 GHz)	–125 dBm	–120 dBm	–108 dBm	N/A
Band 3 (3.0 GHz to 7.1 GHz)	–125 dBm	–119 dBm	–108 dBm	N/A
Band 4 (5.4 Ghz to 12/12 to 18 GHz)	–111/–107 dBm	–105/–100 dBm	–94/–89 dBm	N/A
Band 5 (15 GHz to 21 GHz)	–105 dBm	–99 dBm	–88 dBm	N/A
IF Gain Uncertainty	±2 dB max over 107 dB range	±2 dB max over 107 dB range	±2 dB max over 97 dB range	±2 dB max over 107 dB range
Scale Fidelity, Log 80 dB Range/ 90 dB Range	±2 dB max/ ±4 dB max	±2 dB max/ ±4 dB max	±2 dB	±2 dB max/ ±4 dB max
Scale Fidelity, Linear	±5% of full scale	±5% of full scale	±5% of full scale	±5% of full scale
Input Attenuator Switching Accuracy (20 dB to 60 dB settings)				
1 to 1.8 GHz	±0.5 dB/10 dB; ±1.0 dB max	±0.5 dB/10 dB; ±1.0 dB max	±0.5 dB/10 dB; ±1.0 dB max	±0.5 dB/10 dB; ±1.0 dB max
1.8 to 18 GHz	±1.5 dB/10 dB; ±3.0 dB max	±1.5 dB/10 dB; ±3.0 dB max	±1.5 dB/10 dB; ±3.0 dB max	N/A
18 to 21 GHz	±3.0 dB/10 dB; ±6.0 dB max	±3.0 dB/10 dB; ±6.0 dB max	±3.0 dB/10 dB; ±6.0 dB max	N/A
Resolution Bandwidth Switching Uncertainty (ref BW=3 MHz)	±0.4 dB	±0.4 dB	±0.4 dB	±0.4 dB

2750 SERIES CHARACTERISTICS (cont.)

	2756P	2755AP	2754P	2753P
TIME-RELATED				
Sweep Time Range, Digitized Display	10 msec/div to 10 sec/div	10 msec/div to 10 sec/div	10 msec/div to 10 sec/div	10 msec/div to 10 sec/div
Sweep Time Range, Real-Time Display	20 µsec/div to 10 sec/div	20 µsec/div to 10 sec/div	20 µsec/div to 10 sec/div	20 µsec/div to 10 sec/div
Sweep Time Accuracy	±5%	±5%	±5%	±5%
Marker Time Measurement Accuracy	±10%	±10%	±10%	±10%
Delta Marker Time Measurement Accuracy	±5%	±5%	±5%	±5%
Sweep Trigger	Free Run, Line, Video, Single, and External	Free Run, Line, Video, Single, and External	Free Run, Line, Video, Single, and External	Free Run, Line, Video, Single, and External
EXTERNAL INPUT				
RF Input Impedance	50 Ω nominal	50 Ω nominal	50 Ω nominal	50 Ω nominal
VSWR (10 dB input attenuation) < 2.5 GHz 2.5 GHz to 6.0 GHz 6.0 GHz to 18 GHz 18 GHz to 21 GHz	 1.3:1 max 1.7:1 max 2.3:1 max 3.5:1 max	 1.3:1 max 1.7:1 max 2.3:1 max 3.5:1 max	 1.3:1 max 1.7:1 max 2.3:1 max 3.5:1 max	 1.3:1 max N/A N/A N/A
Local Oscillator Emission Level (10 dB input attenuation)	≤ −80 dBm	≤ −80 dBm	≤ −80 dBm	≤ −80 dBm
External Mixer Input	Approx 2 GHz IF	Approx 2 GHz IF	N/A	N/A
External Reference Input	1, 2, 5, or 10 MHz	1, 2, 5, or 10 MHz	N/A	1, 2, 5, or 10 MHz
Horizontal Input/Trigger Input	0 to +10 V/1 to 50 V	0 to +10 V/1 to 50 V	0 to +10 V/1 to 50 V	0 to +10 V/1 to 50 V
Video Input/Marker Input	0 to +4 V/0 to -10 V	0 to +4 V/0 to -10 V	0 to +4 V/0 to -10 V	0 to +4 V/0 to -10 V
EXTERNAL OUTPUT				
Calibrator	100 MHz ± 10 Hz, −20 dBm ± 0.3 dB	100 MHz ± 100 Hz, −20 dBm ± 0.3 dB	100 MHz ± 1 kHz, −20 dBm ± 0.3 dB	100 MHz ± 10 Hz, −20 dBm ± 0.3 dB
1st Local Oscillator	2 to 6 GHz, +7.5 to +20 dBm	2 to 6 GHz, +7.5 to +20 dBm	2 to 6 GHz, +6 to +20 dBm	2 to 4 GHz, +6 to +20 dBm
2nd Local Oscillator	−7 to −17 dBm	−7 to −17 dBm	−7 to −17 dBm	−7 to −17 dBm
Video Output (crt center reference)	0.5 V of signal per div of video	0.5 V of signal per div of video	0.5 V of signal per div of video	0.5 V of signal per div of video
Sweep Output (crt center reference)	0.5 V/div; ±2.5 V max	0.5 V/div; ±2.5 V max	0.5 V/div; ±2.5 V max	0.5 V/div; ±2.5 V max
Pen Lift	+5 V nominal; TTL-compatible	+5 V nominal; TTL-compatible	+5 V nominal; TTL-compatible	+5 V nominal; TTL-compatible
2nd IF Output (Opt. 42)	110 MHz, 0 dBm; 3 dB BW is 4.5 MHz	110 MHz, 0 dBm; 3 dB BW is 4.5 MHz	110 MHz, 0 dBm; 3 dB BW is 4.5 MHz	110 MHz, 0 dBm; 3 dB BW is 4.5 MHz
3rd IF Output	10 MHz, −5 dBm	10 MHz, −5 dBm	10 MHz, −5 dBm	10 MHz, −5 dBm
Probe Power	+5 V, −15 V, +15 V; 100 mA max each	+5 V, −15 V, +15 V; 100 mA max each	+5 V, −15 V, +15 V; 100 mA max each	+5 V, −15 V, +15 V; 100 mA max each
GENERAL SPECIFICATIONS				
Power Requirements Voltage Frequency Power	 90-132/180-250 Vac 48-440 Hz 210 W max @ 115 Vac, 60 Hz	 90-132/180-250 Vac 48-440 Hz 210 W max @ 115 Vac, 60 Hz	 90-132/180-250 Vac 48-440 Hz 210 W max @ 115 Vac, 60 Hz	 90-132/180-250 Vac 48-440 Hz 210 W max @ 115 Vac, 60 Hz
Weight (carrying), Nominal	27 kg (60 lbs)	27 kg (60 lbs)	27 kg (60 lbs)	27 kg (60 lbs)
Dimensions (mm/inches)	177.8 x 431.8 x609.6mm 7 x 17 x 24 in.	177.8 x 431.8 x609.6mm 7 x 17 x 24 in.	177.8 x 431.8 x609.6mm 7 x 17 x 24 in.	177.8 x 431.8 x609.6mm 7 x 17 x 24 in.
Digital Storage	1000 pts horiz, 250 pts vertical	1000 pts horiz, 250 pts vertical	1000 pts horiz, 250 pts vertical	1000 pts horiz, 250 pts vertical
Digitizing Rate	9 µS	9 µS	9 µS	9 µS
Macro Programming	8K	8K	N/A	8K
Nonvolatile Memory	9 waveforms, 10 control settings	9 waveforms, 10 control settings	9 waveforms, 10 control settings	9 waveforms, 10 control settings

2750 SERIES CHARACTERISTICS (cont.)

	2756P	2755AP	2754P	2753P
ENVIRONMENTAL (PER MIL-T-28800C, TYPE III, CLASS 5, STYLE E)				
Electromagnetic Compatibility (consult data sheet for compliance details)	MIL-STD-461B	MIL-STD-461B	MIL-STD-461B	MIL-STD-461B
Calibration Interval	1 Year	1 Year	1 Year	1 Year
IEEE STD. 488 (GPIB)				
Interface Functions	SH1, AH1, T5, L3, SR1, RL1, PP1, DC1, DT1, and C0	SH1, AH1, T5, L3, SR1, RL1, PP1, DC1, DT1, and C0	SH1, AH1, T5, L3, SR1, RL1, PP1, DC1, DT1, and C0	SH1, AH1, T5, L3, SR1, RL1, PP1, DC1, DT1, and C0
Direct Plotter Output	Supports Tek HC100, HP 7470A	Supports Tek HC100, HP 7470A	Supports Tek HC100, HP 7470A	Supports Tek HC100, HP 7470A
Waveform Transfer Speed	165 msec/1000 pts	165 msec/1000 pts	165 msec/1000 pts	165 msec/1000 pts

ORDERING INFORMATION

2750 Series Spectrum Analyzers are warranted to be free from defects in material and workmanship for 1 year from date of shipment.

2756P Programmable Spectrum Analyzer **$43,225**
Includes: Operator's Manual; Programmer's Manual; 6-ft, 50-ohm coaxial cable, N-N (012-0114-00); 18-inch, 50-ohm coaxial cable, BNC-BNC (012-0076-00); N male to BNC female adapter (103-0045-00); rear connector shield (337-3274-00); power cord and spare fuses; CRT filter set consisting of amber and gray light filters plus mesh filter, gray CRT light filter.

2755AP Programmable Spectrum Analyzer **$30,895**
Includes: same as 2756P.

2754P Programmable Spectrum Analyzer **$19,900**
Includes: same as2756P, except gray CRT light filter (no filterset).

2753P Programmable Spectrum Analyzer **$21,900**
Includes: same as 2756P.

OPTIONS

Opt. 07 – 75 Ω dBmV input and calibration in addition to the normal 50 Ω dBm input and calibration. (Not combinable with Options 21 and 22; no external mixer capability) **+$750**
Includes: 42-inch, 75 Ω BNC-BNC coax cable (012-0074-00) and BNC male to "F" female adapter (013-0126-00)

Opt. 21 (2756P, 2755AP) – High-performance 18 to 40 GHz WM490 Series Waveguide Mixer Set **+$2,785**
Includes: WM490 (18-26.5 GHz and WM490A (26.5-40 GHZ) Waveguide Mixers, Diplexer Assembly (015-0385-00), and interconnecting cable (012-0649-00).

Opt. 22 (2756P, 2755AP) – High-performance 18 to 60 GHz Waveguide Mixer Set **+$4,685**
Includes: same as Option 21 plus WM490U (40-60 GHz) Waveguide Mixer

Opt. 23 – GRASP software (S26RF00), GPIB cable. **$1,530**
The PC2A is a National Instruments GPIB interface card.

NOTE: *Options 24 through 29 and 32 through 34 are available only in the U.S. and Canada. For more information on any of these bundled software and computer packages, please contact your local Tek sales representative.*

Opt. 24 – COMPAQ Portable II (with 80286 processor, built-in monitor, 640 KB RAM, 20 MB hard drive, 360 KB diskette drive, serial/parallel interface, DOS 3.3), GRASP software, PC2A interface, and GPIB cable. **+$5,150**

Opt. 25 – COMPAQ Deskpro 286E, Model 1 (with 8026 processor, VGA color monitor, 1 MB RAM, 1.2 MB and 360 KB diskette drives, serial/parallel interface, DOS 3.3), GRASP software, PC2A interface, and GPIB cable. **+$4,825**

Opt. 26 – COMPAQ Deskpro 286E, Model 20 (with 80286 processor, VGA color monitor, 1 MB RAM, 20 MB hard drive, 1.2 MB and 360 KB diskette drives, serial/parallel interface, DOS 3.3) GRASP software, PC2A interface, and GPIB cable. **+$5,325**

Opt. 27 – Compaq SLT/286, Model 20 (with 80C286 processor, VGA backlit display, 640 KB RAM, 20 MB hard drive, 1.44 MB 3.5" diskette drive, serial/parallel interface, enhanced NiCad battery pack, desktop expansion base, DOS 3.3), GRASP software, PC2A interface, and GPIB cable **+$7,550**

Opt. 28 – COMPAQ Deskpro 386S, Model 20 (with 80386SX processor, VGA color monitor, 1 MB RAM 20 MB hard drive, 1.2 MB and 360 KB diskette drives, serial/parallel interface, DOS 3.3), GRASP software, PC2A interface, and GPIB cable. **+$5,925**

Opt. 29 – Epson FX-850 printer with parallel interface cable. **+$550**

Opt. 30 – Rackmount 19" rack width **+$250**

Opt. 31 – Rackmount 19" rack width with rear panel input/output capability **+$450**

Opt. 32 –Tektronix PEP 301 system controller with additional 360K floppy disk drive. **+$8,190**

NOTE: *The PEP 301 is an MS-DOS instrument/ system controller based on the Intel 80386 with 80387 Coprocessor. It includes an EGA display, 40M hard disk, 1.2M floppy disk drive, and complete GPIB interface with cable.*

Opt. 33 – Tektronix PEP 301 system controller with additional 360K floppy disk drive plus GRASP software. **+$8,550**

Opt. 34 – Tektronix PEP 301 system controller with additional 360K floppy disk drive plus EMI software **+$9,150**

Opt. 39 – Non-lithium (Silver) batteries for battery-backed memory. **+$50**

Opt. 41 (all except 2753P) – Digital Microwave Radio Measurement Enhancement package. **+$450**

Opt. 42 – Replaces MARKER/VIDEO input port on the rear panel with a 110 MHz IF output port that provides a 3 dB signal bandwidth ≥ 4.5 MHz. **+$1,500**

Opt. 45 (except 2754P) – MATE/CIIL language interface. **+$4,975**

Opt. B1 – Service manual(s). **+$250**

Opt. B2 – Operator's Manual, Programmer's Manual, and Service Manual(s) set. **+$300**

INTERNATIONAL POWER PLUG OPTIONS

Opt. A1 - A5 – Available. See page 488.

OPTIONAL ACCESSORIES

1405 – TV Sideband Analyzer Adapter (525/60 markers) **$5,780**

TR503 – Tracking Generator, 100 Hz to 1800 MHz **$7,080**

Microwave Comb Generator – TM500-Series compatible. Order 067-0885-00 **$2,055**

Tek HC100 – Color Plotter **$895**

CRT Visor – Order 016-0653-00 **$35**

75 Ω to 50 Ω minimum loss adapter – Order 011-0112-00 **$65**

DC blocking capacitor – N connector Order 015-0509-00 **$310**

2-meter GPIB cable – Order 012-0630-01 **$105**

GPIB cable – Order 012-0991-00 **$160**

Programmer's Reference Guide – Order 070-5567-00 **$11.50**

Service Kit – Order 006-3286-01 **$810**

WARRANTY-PLUS SERVICE OPTIONS

For more information see page 490.

Opt. M1 – 2 years service and 2 calibrations
2756P +$2540
2755AP +$2,346
2754P +$2,366
2753P +$1,984

Opt. M2 – 4 years service
2756P +$3,769
2755AP +$3,510
2754P +$3,654
2753P +$3,016

Opt. M3 – 4 years service and 4 calibrations
2756P +$5,081
2755AP +$4,693
2754P +$4,733
2753P +$3,969

Opt. M4 – 2 years service and 5 calibrations
2756P +$3,425
2755AP +$3,143
2754P +$3,153
2753P +$2,624

Opt. M5 – 4 years service and 7 calibrations
2756P +$6,521
2755AP +$5,992
2754P +$6,015
2753P +$5,012

Opt. M7 – 2 calibrations
2756P +$656
2755AP +$592
2754P +$585
2753P +$476

Opt. M8 – 4 calibrations
2756P $xxx
2755AP +$1,312
2754P +$1,183
2753P +$1,170

Opt. M9 – 2 years service
2756P +$952
2755AP +$1,884
2754P +$1,755
2753P +$1,782
+$1,508