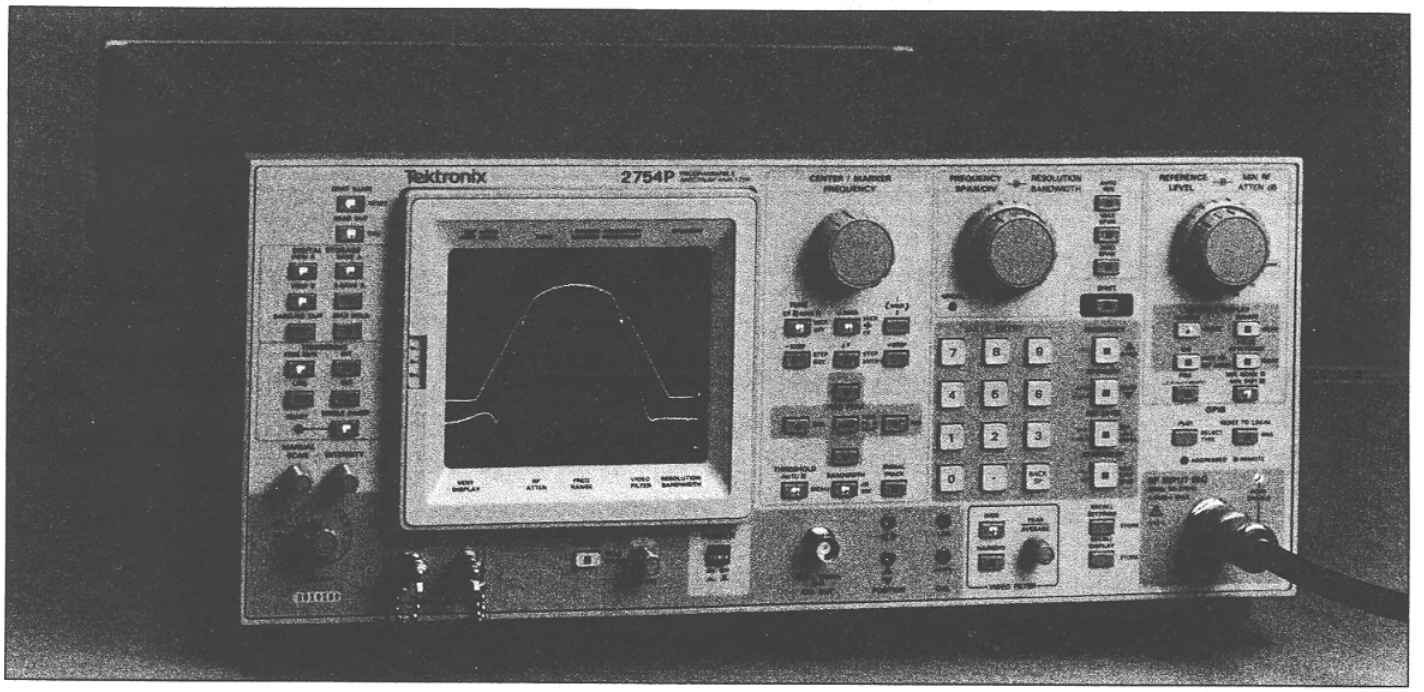
LOW COST, AUTOMATED, MICROWAVE 2754/2754P SPECTRUM ANALYZERS



TYPICAL APPLICATIONS

- Satellite Communications
- Broadcasting
- Cellular Radio
- EMI/RFI
- Terrestrial Microwave
- EW
- ATE
- Carrier/Noise
- Spur Searches
- Spectral Monitoring
- Carrier On/Off Ratios
- Harmonic Distortion
- Carrier Level Monitoring
- Pulse Analysis

BENEFITS

- Large, Easy-to-Use Controls
- Direct Plot Capability (all versions)
- Microwave Preselection

FEATURES

- Rackmountable for Engineering and Manufacturing System Use
- 50 kHz to 21 GHz Frequency Range
- Marker and Center Frequency Accuracy of 10^{-5}
- Built-in Signal Processing Intelligence
  - Search, Sort and Mark CW, Pulse or Spurious Signals
  - Exclusive Occupied Bandwidth Mode
  - Signal Tracking
  - Noise Normalization to 1 Hz
- Nonvolatile Memory for Storage of Up to Nine Waveforms and Nine Front Panel Displays
- Direct Keypad Entry of Control Parameters
- 1 kHz Resolution Bandwidth

CHARACTERISTICS*

The following characteristics apply after a 30 minute warmup period unless otherwise noted.

FREQUENCY RELATED

Frequency Range—50 kHz to 21 GHz in coaxial input.

Center and Marker Frequency Accuracy*[1]—±[20% D + (F×10^{-5}) +(2N+25)] Hz. Bands 1 & 5 with Span/Div ≤200 kHz, and Bands 2-4 with Span/Div ≤100 kHz (Phase locked); ±[20% D + (F×10^{-5}) + 15N kHz] (unlocked).

Where: D = Span/Div or Res BW, whichever is greater.

F = Center or Marker Frequency.

N = Harmonic Mixing Number.

*[1] *Over the operating temperature extremes of 0 to +50°C, 1.5×10^{-5}.*

Residual FM—≤(10+2N) Hz peak to peak in 20 ms, Bands 1 and 5 with Span/div ≤200 kHz, and Bands 2-4 with Span/div ≤100 kHz (Phase locked); ≤(7 kHz) N peak-to-peak in 20 ms (unlocked).

Resolution Filters—1 kHz to 1 MHz (6 dB bandwidth ±20%) in decade steps. Shape factor ≤7.5:1 (60 dB/6 dB).

Frequency Span/Division—0 Hz; 200 Hz to 1 GHz (in a 1-2-5 sequence).

Noise Sidebands:

dBc/Hz	Offset From Center
≤−103	30 kHz
≤−113	300 kHz

AMPLITUDE RELATED

Display Dynamic Range—80 dB log mode; 8 divisions linear.

Reference Level Range—Log Mode:
−117 to +40 dBm, (+30 dBm*[1]);
−130 to +27 dBV, (+17 dBV*[1]);
−70 to +87 dBmV, (+77 dBmV*[1]);
−10 to +147 dBμV, (+137 dBμV*[1]).
Linear Mode: 39.6 nV/Div to 2.8 V/Div, (7.1 V*[1]).

*[1] *Maximum safe input level (1 Watt).*

Harmonic Distortion—≤ −60 dBc for a −40 dBm input 50 kHz to 21 GHz in MIN Distortion mode. Not discernible above the noise (typically −100 dBc) for preselected bands.

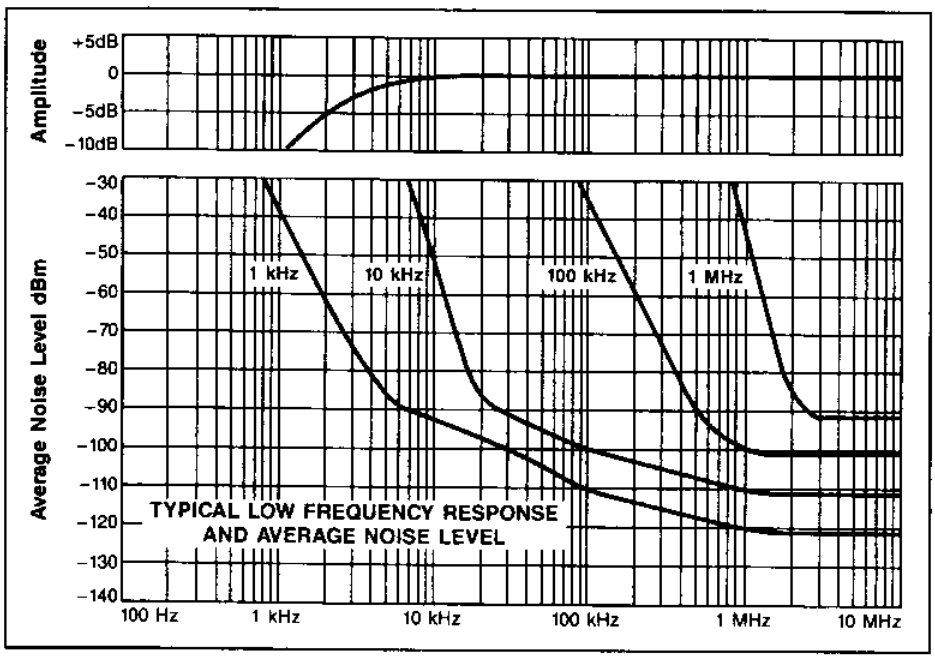
INPUT

1 dB Gain Compression—−13 dBm in MIN NOISE, −23 dBm in MIN DISTORTION, 0 dB RF attenuation (no gain compression can be observed on screen).

SENSITIVITY AND FREQUENCY RESPONSE

Band and Frequency Range	Harmonic Number	Sensitivity at (dBm) Minimum Resolution	Frequency Response (dB)*[1]	Frequency Response Ref to 100 MHz
1 (50 kHz-1.8 GHz)	1	−110	±2.0	±3.0 dB
2 (1.7-5.5 GHz)	1	−108	±3.0	±4.0 dB
3 (3.0-7.1 GHz)	1	−108	±3.0	±4.0 dB
4 (5.4-12 GHz)	3	−94	±4.0	±5.0 dB
(12-18 GHz)	3	−89	±4.0	±5.0 dB
5 (15-21 GHz)	3	−88	±5.5	±7.0 dB

*[1] *Measured with 10 dB RF Attenuation and peaking optimized (when applicable).*



50 Ω/75 Ω OPTION 07

50 Ω INPUT RELATED

300 kHz Resolution Filter—Replaces 100 kHz Filter.

Sensitivity—Average Noise level is −85 dBm in 300 kHz BW.

75 Ω INPUT RELATED

Center Frequency Range—1 MHz to 1 GHz.

RF Input—Type BNC Female Connector.

Input Coupling—100 V dc Maximum (dc + ac peak).

ORDERING INFORMATION

2754 Spectrum Analyzer. **$19,900**
Includes: 50 Ω coax cable, N to N connector, 6 ft; (012-0114-00); 50 Ω coax cable, BNC to BNC connector, 18 in. (012-0076-00); operator's manual (070-6096-00); N male to BNC female adapter (103-0045-00); 2 Fast-Blo, 4A fuses (159-0017-00); power cord (161-0104-00); amber CRT light filter (378-0115-01); blue CRT filter (378-0115-00).

2754P Programmable Spectrum Analyzer **$19,900**
Includes: Same as 2754 plus programming manual (070-6099-00).

WARRANTY-PLUS SERVICE PLANS

Option M1—Available.
(2754) **+$2,025**
(2754P) **+$1,995**
M2—Available.
(2754) **+$3,510**
(2754P) **+$3,380**
M3—Available.
(2754) **+$4,045**
(2754P) **+$3,995**

See page 562 for description.

*Common Series Characteristics are listed on page 105.
For complete option and accessory information refer to pages 100, 101, and 135.
For more detailed specification information contact your local Sales Engineer (see pages 568-571) for a product-specific data sheet.