
HP 8590 C/E/L/Q and EM Series Spectrum Analyzers and Accessories

Configuration Guide



- HP 8591C Cable TV Analyzer** (1 MHz to 1.8 GHz)
- HP 8591E RF Spectrum Analyzer** (9 kHz to 1.8 GHz)
- HP 8593E Microwave Spectrum Analyzer** (9 kHz to 22 GHz)
- HP 8594E RF Spectrum Analyzer** (9 kHz to 2.9 GHz)
- HP 8595E RF Spectrum Analyzer** (9 kHz to 6.5 GHz)
- HP 8596E Microwave Spectrum Analyzer** (9 kHz to 12.8 GHz)
- HP 8590L Spectrum Analyzer** (9 kHz to 1.8 GHz)
- HP 8592L Microwave Spectrum Analyzer** (9 kHz to 22 GHz)
- HP 8594L RF Spectrum Analyzer** (9 kHz to 2.9 GHz)
- HP 8594Q QAM Analyzer** (9 kHz to 2.9 GHz)
- HP 8591EM EMC Analyzer** (9 kHz to 1.8 GHz)
- HP 8593EM EMC Analyzer** (9 kHz to 22 GHz)
- HP 8594EM EMC Analyzer** (9 kHz to 2.9 GHz)
- HP 8595EM EMC Analyzer** (9 kHz to 6.5 GHz)
- HP 8596EM EMC Analyzer** (9 kHz to 12.8 GHz)

HP 8590 C/E/L/Q and EM Series Options

✓ = compatible

| Option | Description | Opt Card Slots Req'd (4 max) | HP 8591C | HP 8591E | HP 8593E | HP 8594E | HP 8595E | HP 8596E | HP 8590L | HP 8592L | HP 8594L | HP 8594Q | HP 8590EM Series |
|------------------------------|--|------------------------------|----------|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|-------------------|
| <input type="checkbox"/> 001 | 75 Ohm input impedance | 0 | Std | ✓ | | | | | ✓ | | | | |
| <input type="checkbox"/> 003 | Memory card reader | 0 | Std | Std | Std | Std | Std | Std | ✓ | ✓ | ✓ | Std | Std |
| <input type="checkbox"/> 004 | Precision frequency reference | 0 | Std | ✓ | ✓ | ✓ | ✓ | ✓ | | | | Std | ✓ |
| <input type="checkbox"/> 009 | Local oscillator and sweep + tune outputs (rear panel) | 1 ²⁸ | | | ✓ | ✓ | ✓ | ✓ | | | | | ✓ ¹⁴ |
| <input type="checkbox"/> 010 | Built-in tracking generator, 50 Ohm (100 kHz–1.8 GHz) | 0 | | ✓ | | | | | ✓ | | | | ✓ |
| <input type="checkbox"/> 010 | Built-in tracking generator, 50 Ohm (9 kHz–2.9 GHz) | 1 ²⁸ | | | ✓ | ✓ | ✓ | ✓ | | | | | ✓ |
| <input type="checkbox"/> 011 | Built-in tracking generator, 75 Ohm (100 kHz–1.8 GHz) | 0 | ✓ | ✓ | | | | | ✓ | | | | |
| <input type="checkbox"/> 012 | DECT source | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 015 | Protective soft tan carrying/operating case | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> 016 | Protective soft yellow operating/carrying case | 0 | Std | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> 026 | Frequency extension to 26.5 GHz (APC 3.5 mm connector) | 0 | | | ✓ | | | | | ✓ | | | ✓ ² |
| <input type="checkbox"/> 027 | Frequency extension to 26.5 GHz (type-N connector) | 0 | | | ✓ | | | | | ✓ | | | ✓ ² |
| <input type="checkbox"/> 030 | Adds HP 85921B Cable TV Data Management S/W for FCC ³¹ | 0 | ✓ | | | | | | | | | | |
| <input type="checkbox"/> 040 | Front panel protective cover w/CRT viewing hood | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| <input type="checkbox"/> 041 | HP-IB interface and parallel printer interface ^{4, 22} | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Std | Std |
| <input type="checkbox"/> 042 | Protective soft carrying case/backpack ²¹ | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> 043 | RS-232 interface and parallel printer interface ^{4, 22} | 0 | Std | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> 050 | Improved amplitude accuracy for NADC-TDMA/PCS bands | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 051 | Improved amplitude accuracy for PDC bands | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 052 | Improved amplitude accuracy for PHS band | 0 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 053 | Improved amplitude accuracy for CDMA/PCS bands | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 078 | Adds HP 85878A report generation software | | | | | | | | | | | | ✓ |
| <input type="checkbox"/> 0B0 | Delete manual set | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| <input type="checkbox"/> 101 | Fast time-domain sweeps and Analog + display | 1 | Std | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ✓ |
| <input type="checkbox"/> 102 | AM/FM demod. with speaker and TV sync. trigger ^{5, 24} | 1 | Std | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ✓ |
| <input type="checkbox"/> 103 | Quasi-peak detector and AM/FM demod with speaker ²⁴ | 1 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | Note ³ |
| <input type="checkbox"/> 105 | Time-gated spectrum analysis | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 107 | TV receiver video tester ³² | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 110 | CT2 demodulator ^{6, 24} | 1 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 111 | Group delay w/compatible tracking generator ³⁴ | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 112 | DECT demodulator ²⁴ | 1 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 119 | Noise figure ⁷ | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 130 | Narrow resolution bandwidths (30 Hz, 100 Hz, 300 Hz and 200 Hz EMI) | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | Std |
| <input type="checkbox"/> 140 | Narrow resolution bandwidths/precision frequency reference (Opt 004 and 130) | 1 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 151 | DSP, fast ADC, and digital demodulator ²⁹ | 2 | | ✓ ²⁵ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 160 | PDC, PHS, NADC, and CDMA firmware for Option 151 ³⁵ | 0 | | ✓ ²⁵ | ✓ | ✓ | ✓ | ✓ | | | | | |

HP 8590 C/E/L/Q and EM Series Options (cont'd)

✓ = compatible

| Option | Description | Opt Card Slots Req'd (4 max) | HP 8591C | HP 8591E | HP 8593E | HP 8594E | HP 8595E | HP 8596E | HP 8590L | HP 8592L | HP 8594L | HP 8594Q | HP 8590EM Series |
|------------------------------|--|------------------------------|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|
| <input type="checkbox"/> 163 | GSM900/DCS1800 firmware for Option 151 ³⁵ | 0 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 180 | TV picture on screen (NTSC, PAL, and SECAM) ³² | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> 190 | DVB-C RF and modulation quality measurements | 3 | | | | | | | | | | ✓ | |
| <input type="checkbox"/> 195 | R-S and true BER and PID statistics data measurements | 1 | | | | | | | | | | ✓ | |
| <input type="checkbox"/> 301 | TV sync. trigger capability, fast time domain sweeps, AM/FM demodulator, and Analog + display (Option 101 and 102) ²⁴ | 2 | Std | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ✓ |
| <input type="checkbox"/> 701 | Delete TV sync. trigger capability, fast time domain sweeps, AM/FM demodulator and Analog + display (Options 101 and 102) | -2 | ✓ | | | | | | | | | | |
| <input type="checkbox"/> 703 | Delete quasi-peak detector and AM/FM demodulator | -1 | | | | | | | | | | | ✓ |
| <input type="checkbox"/> 704 | Delete precision frequency reference | 0 | ✓ | | | | | | | | | | |
| <input type="checkbox"/> 711 | 50/75 Ohm matching pad with 100V DC block | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| <input type="checkbox"/> 908 | Rack mount kit without handles | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> 909 | Rack mount kit with handles | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> 910 | Additional user's guide, calibration guide, and quick reference guide | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> 915 | Component level information and service guide | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> AB_ | Quick reference guide in local languages ⁸ | | ✓ ¹⁸ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> E04 | DRTS compatibility | 2 | | | | | | | | | | | Note 1 |
| <input type="checkbox"/> H80 | PAL/SECAM TV monitor ²³ | 0 | | | | | | | ✓ | ✓ | | | |
| <input type="checkbox"/> H81 | NTSC TV monitor | 0 | | | | | | | ✓ | ✓ | | | |
| <input type="checkbox"/> 8ZE | Refurbished spectrum analyzer (as available) | | | | | | | | | | | | Contact an HP representative for availability |
| <input type="checkbox"/> 0Q8 | Factory service training | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| <input type="checkbox"/> UK6 | Commercial calibration certificate with test data | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| <input type="checkbox"/> W30 | Two additional years return-to-HP service ⁹ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> W32 | Two additional years return-to-HP calibration ⁹ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> W34 | 3 year standards compliant calibration service | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| <input type="checkbox"/> W50 | Four additional years return-to-HP service ⁹ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> W52 | Four additional years return-to-HP calibration ⁹ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> W54 | 5 year standards compliant calibration service | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| <input type="checkbox"/> B70 | BenchLink spectrum analyzer | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| <input type="checkbox"/> BD0 | Code division multiple access | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> BD1 | Global system for mobile communication | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> BD2 | North american digital cellular system | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> BD3 | Pacific digital cellular system | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> BD4 | Personal handyphone system | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |

HP 8590 C/E/L/Q and EM Series Retrofit Kits¹⁰

(For Option installation after analyzer purchase)

✓ = compatible

| Option | Description | Opt Card Slots Req'd (4 max) | HP 8591C | HP 8591E | HP 8593E | HP 8594E | HP 8595E | HP 8596E | HP 8590L | HP 8592L | HP 8594L | HP 8594Q | HP 8590EM Series |
|------------------------------------|---|------------------------------|----------|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|------------------|
| <input type="checkbox"/> R01 | Fast time-domain sweeps and analog + display | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R02 | AM/FM demodulator with speaker and TV sync trigger circuitry ⁵ | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R03 | Memory card reader | 0 | Std | Std | Std | Std | Std | Std | ✓ | ✓ | ✓ | Std | Std |
| <input type="checkbox"/> R04 | Precision frequency reference | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | Std | |
| <input type="checkbox"/> R05 | CT2 demodulator ^{6, 24} | 1 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R06 | DECT demodulator ²⁴ | 1 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R07/R17 | TV receiver/ video tester ¹ | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R10 | Built-in tracking generator, 50 Ohm (100 kHz to 1.8 GHz) | 0 | | ✓ | | | | | ✓ | | | | |
| <input type="checkbox"/> K10 | Built-in tracking generator, 50 Ohm (9 kHz to 2.9 GHz) ¹⁷ | 1 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R11 | Built-in tracking generator, 75 Ohm (100 kHz to 1.8 GHz) | 0 | ✓ | ✓ | | | | | ✓ | | | | |
| <input type="checkbox"/> R15 | Time-gated spectrum analysis | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R16 | Protective soft yellow operating/carrying case | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| <input type="checkbox"/> R19 | Noise figure ⁷ | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R21 | HP-IB interface ^{4, 22, 27} | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| <input type="checkbox"/> R23 | RS-232 interface ^{4, 22, 27} | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| <input type="checkbox"/> R24 | Parallel printer interface ^{22, 27} | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| <input type="checkbox"/> R25 | Protective soft tan operating/carrying case | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| <input type="checkbox"/> R30 | Narrow resolution bandwidths | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | Std | |
| <input type="checkbox"/> R41 | HP-IB interface and parallel printer interface ^{4, 22, 26} | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| <input type="checkbox"/> R43 | RS-232 interface and parallel printer interface ^{4, 22, 26} | 0 | Std | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| <input type="checkbox"/> R50 | Improved amplitude accuracy for NADC-TDMA/PCS bands | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R51 | Improved amplitude accuracy for PDC bands | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R52 | Improved amplitude accuracy for PHS band | 0 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R53 | Improved amplitude accuracy for CDMA/PCS cellular bands | 0 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R60 | PDC, PHS, NADC, and CDMA firmware for Option 151 ³⁵ | 0 | | ✓ ²⁵ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R63 | GSM900/DCS1800 firmware for Option 151 ³⁵ | 0 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R70 | PDC/PHS/NADC/CDMA FW+Opt 151 retro. kit ³⁵ | 2 | | ✓ ²⁵ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R73 | DSP, fast ADC, and digital demodulator with GSM900/DCS1800 firmware ³⁵ | 2 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R80 | TV picture on screen (NTSC, PAL, and SECAM) | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> R95 | R-S and true BER and PID statistics data measurements | 1 | | | | | | | | | ✓ | | |
| <input type="checkbox"/> HP 11768A | Group delay retrofit kit | 1 | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 11946A | Quasi-peak detector and AM/FM demod retrofit kit | 1 | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |

HP 8590 C/E/L/Q and EM Series Measurement Personalities¹³

✓ = compatible

| Option | Description | HP 8591C | HP 8591E | HP 8593E | HP 8594E | HP 8595E | HP 8596E | HP 8590L | HP 8592L | HP 8594L | HP 8594Q | HP 8590EM Series |
|-------------------------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------------|
| <input type="checkbox"/> HP 85700A | 32 Kbyte blank memory card (RAM) ¹¹ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> HP 85702A | 128 Kbyte blank memory card (RAM) ¹¹ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> HP 85704A | 256 Kbyte blank memory card (RAM) ¹¹ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> HP 85705A | 512 Kbyte blank memory card (RAM) ¹¹ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> HP 11770A | Link measurements personality ³⁰ | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85712D | EMC measurements personality ¹² | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85713A | Digital radio measurements personality ¹¹ | | | ✓ | ✓ | ✓ | ✓ | | ✓ | | | |
| <input type="checkbox"/> HP 85714A | Scalar measurements personality ¹¹ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| <input type="checkbox"/> HP 85715B | GSM900 measurements personality with modulation accuracy ¹⁹ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85717A | CT2-CAI measurements personality | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85718B | NADC/PCS -TDMA measurements personality ¹⁹ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85719A | Noise figure measurements personality | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85720BC | PDC measurements personality upgrade kit: B to C | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85720C | PDC measurements personality with modulation accuracy ¹⁹ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85721A | Cable TV measurements personality with video tests ^{11,18,15} | Std | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| <input type="checkbox"/> HP 85722B | DCS1800 measurements personality with modulation accuracy | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85723A | DECT measurements personality | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85724A | Broadcast measurements personality | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85725C | CDMA measurements personality | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85725CU | CDMA measurements personality upgrade kit: B to C | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85726AB | PHS measurements personality upgrade kit: A to B | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85726B | PHS measurements personality with modulation accuracy | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85727A | GSM Multi-band measurement personality | | | ✓ | ✓ | ✓ | ✓ | | | | | |
| <input type="checkbox"/> HP 85727AU | GSM Multi-band upgrade | | | ✓ | ✓ | ✓ | ✓ | | | | | |

PC Software

| | | | | | | | | | | | | |
|------------------------------------|--|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---|---|
| <input type="checkbox"/> HP 85921B | Cable TV data management S/W for FCC ³¹ | ✓ | ✓ ³³ | ✓ ³³ | ✓ ³³ | ✓ ³³ | ✓ ³³ | ✓ ³³ | ✓ ³³ | ✓ ³³ | | |
| <input type="checkbox"/> HP E4444A | Benchlink spectrum analyzer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

HP 8590 C/E/L/Q and EM Series Accessories

For Scalar Measurements

- ❑ **HP 85630A** Scalar 50 Ohm transmission/reflection test set
- ❑ **HP 86205A** 50 Ohm RF bridge (type-N(f), 300 kHz to 6 GHz, 1.5 dB +0.1 dB/GHz insertion loss)
- ❑ **HP 86207A** 75 Ohm RF bridge (type-N(f), 300 kHz to 3 GHz, 1.5 dB +0.1 dB/GHz insertion loss)

For EMC Measurements

- ❑ **HP 11945A** Close field probe set (9 kHz to 1 GHz) (with Option E51)¹⁶
- ❑ **HP 11947A** Transient limiter (BNC(f) to type-N(m), 9 kHz to 200 MHz, 10 dB insertion loss)

Printers and Accessories

Most Hewlett-Packard DeskJet and LaserJet (PCL 3 compatible) printers are compatible with HP 8590 series spectrum analyzers. Printer compatibility chart is on the HP internet web site at <http://www.hp.com/go/pcg/>

- ❑ **HP 10833A** HP-IB cable (1 meter)
- ❑ **HP 24542U** RS-232 cable 3 meter (9 pin F to 9 pin F) Option 043 only (for RS-232 9 pin PC connection to analyzer)
- ❑ **HP 24542G** RS-232 cable 3 meter (25 pin M to 9 pin F) Option 043 only (for RS-232 25 pin PC or printer connection to analyzer)
- ❑ **HP 24542M** RS-232 cable 3 meter (25 pin M to 9 pin F) Option 043 only (for RS-232 25 pin modem connection to analyzer)
- ❑ **HP C2932A** RS-232 cable 3 meter (9 pin M to 9 pin F) Option 043 only (for serial 9 pin LaserJet 4P/4Plus connection to analyzer)
- ❑ **HP 13242G** RS-232 cable (5 meter) (for Option 023 only)
- ❑ **HP C2950A** Parallel printer cable (2 meter)
- ❑ **HP ITEL-45CHVUB** HP-IB/Parallel converter (North America, Japan, Korea, and Taiwan)
- ❑ **HP ITEL-45CHVEB** HP-IB/Parallel converter (Continental Europe, U.K., Australia, and South Africa) (requires HP F1011A AC adapter)

Amplifiers and Preamplifiers

- ❑ **HP 8447D** Preamplifier (100 kHz to 1.3 GHz, >25 dB gain)
- ❑ **HP 8449B** Preamplifier (1 GHz to 26.5 GHz, 30 dB gain)
- ❑ **HP 10855A** Broadband preamplifier (2 MHz to 1300 MHz, 22 dB gain)
- ❑ **HP 85905A** 75 Ohm preamplifier (45 MHz to 1GHz, 20 dB gain)
- ❑ **HP 87405A** Amplifier (10 MHz to 3 GHz, 22 dB gain)
- ❑ **HP 87415A** Amplifier (2 GHz to 8 GHz, 25 dB gain)

Other Accessories

- ❑ **HP D4950A** Keyboard
- ❑ **HP 346B** Noise source (BNC(f) to APC 3.5(m), 10 MHz to 18 GHz)
- ❑ **HP 11693A** Limiter (type-N(f) to type-N(m), 0.1 GHz to 12.4 GHz, <2.0 dB insertion loss)
- ❑ **HP 11694A** 75/50 Ohm matching transformer (BNC(f) to BNC(m), 3 MHz-500 MHz, <.75 dB insertion loss)
- ❑ **HP 0955-1020** 50 to 75 Ohm adapter. Same as Opt. 711
- ❑ **HP 11742A** High frequency blocking capacitor (3.5mm(f to m)), 10 MHz to 26.5 GHz, .35 dB IL <12.4 GHz, .7 dB IL <26.5 GHz)
- ❑ **HP 11852B** Order with Option C04, 75/50 Ohm min. loss pad (type-N(f) to type-N(m), DC to 2 GHz, 5.7 dB insertion loss)
- ❑ **HP 11867A** RF Limiter (type-N(f) to type-N(m), DC to 1.8 GHz, <.75 dB insertion loss)
- ❑ **HP 11930B** Power limiter (5 MHz to 6 GHz)
- ❑ **HP 41800A** Active probe (5 Hz to 500 MHz)
- ❑ **HP 85024A** High frequency probe (300 kHz to 3 GHz)
- ❑ **HP 85901A** Portable AC power source
- ❑ **HP 85902A** Burst carrier trigger
- ❑ **1420-0383** Memory card battery (CR 2016)
- ❑ **1494-0060** Rack slide for rack mount
- ❑ **08590-60369** RS-232/parallel connector assembly to convert Opt 041 (HP-IB) to Opt 043 (RS-232)
- ❑ **08590-60368** HP-IB/parallel connector assembly to convert Opt 043 (RS-232) to Opt 041 (HP-IB)

HP 8590 C/E/L/Q-Series Accessories (Cont'd)

- ❑ **9211-5604** Transit case
- ❑ **5062-4841** Rack mount without handles²⁰ (centers instrument in rack)
- ❑ **5062-4840** Rack mount with handles²⁰ (centers instrument in rack)
- ❑ **5062-8240** Rack mount with handles²⁰ (mounts instrument left of center)
- ❑ **5062-8241** Rack mount without handles²⁰ (mounts instrument left of center)
- ❑ **5180-9055** CRT viewing hood (sun shield)
- ❑ **5063-0654** Frequency accuracy retrofit kit for HP 8590B and HP 8590D

HP 8590 C/E/L/Q-Series Manuals

- ❑ 08590-90234 HP 8590 E/L Series user's guide
- ❑ 08590-90243 HP 8590 E/L Series quick reference guide
- ❑ 08590-90235 HP 8590 Series programmer's guide
- ❑ 5960-6588 HP 8590 E/L Series quick reference guide in French
- ❑ 5960-6590 HP 8590 E/L Series quick reference guide in German
- ❑ 5960-6592 HP 8590 E/L Series quick reference guide in Italian
- ❑ 5960-6594 HP 8590 E/L Series quick reference guide in Spanish
- ❑ 5960-6596 HP 8590 E/L Series quick reference guide in Japanese
- ❑ 08590-90260 HP 8590 E/L Series user's guide for Taiwan in Chinese
- ❑ 08590-90261 HP 8590 E/L Series user's guide for China in Chinese
- ❑ 5962-5001 HP 8590 E/L Series user's guide in French
- ❑ 5962-5002 HP 8590 E/L Series user's guide in German
- ❑ 08590-90286 HP 8590 E/L Series user's guide in Italian
- ❑ 5962-5004 HP 8590 E/L Series user's guide in Spanish
- ❑ 08590-90269 HP 8590L calibration guide
- ❑ 08594-90183 HP 859x C/E Series calibration guide
- ❑ 08592-90082 HP 8592L calibration guide
- ❑ 5963-2950 HP 8590 C/E/L/Q Series assembly level repair guide
- ❑ 5963-2951 HP 8590 C/E/L/Q Series component level repair guide
- ❑ 08591-90129 HP 8591C Cable TV analyzer user's guide, spectrum analyzer reference
- ❑ 08591-90176 HP 8591C Cable TV analyzer user's guide, cable TV measurements
- ❑ 08591-90130 HP 8591C getting started and quick reference guide

HP 8590 C/E/L/Q and EM Series Notes

1. For more information please contact your local HP sales representative.
2. HP 8593 EM only.
3. Quasi-peak detection and AM/FM demodulator is standard on HP 8590 EM-series and has additional capacity compared to option 103.
4. Programming manual included.
5. Options 101 and 102 required for TV sync trigger capability. See Option 301.
6. HP 85717A measurement personality required.
7. HP 85719A measurement personality required.
8. ABF Quick reference and user's guides in French
 ABD Quick reference and user's guides in German
 ABZ Quick reference and user's guides in Italian
 ABE Quick reference and user's guides in Spanish
 ABJ Quick reference guide in Japanese
 AB0 Quick reference guide for Taiwan in Chinese
 AB2 Quick reference guide for China in Chinese
9. An incremental cost will be added to the base price of Options W30/W32/W34/W50/W52/W54 for an 859xC/E/L/Q containing Options 010, 011, or 130.
10. Parts only kits. No installation included. May require new analyzer firmware.
11. Option 003 (card reader) on the HP 8590L, HP 8592L and HP 8594L is required.
12. For more information on EMC products and configurations see lit. #5964-6089E.
13. Refer to measurement personality product literature for required HP 8590 series option configuration.
14. Except HP 8591 EM.
15. Video tests not supported on HP 8590L, HP 8592L or HP 8594L.

HP 8590 C/E/L/Q and EM Series Notes (Cont'd)

16. Option E51 comes with preamplifier, carrying case, cables and connectors.
17. Tracking generator retrofit requires factory installation of Option K10.
18. Cable TV measurements are formatted for local country's cable TV standards.
19. Modulation accuracy measurements not supported on HP 8591E.
20. Rack height is 8.75 inches.
21. Not for analyzer operation while in carrying case.
22. Options 021, 023 and 024 or 041 and 043 cannot be combined.
23. Not compatible with Option 107.
24. Not compatible with other demodulator options (102, 103, 110, 112 or 301).
25. Compatibility with HP 8591E limited to CDMA applications only.
26. Compatible with serial prefixes 3523A or 3525U and higher.
27. Compatible with serial prefixes lower than 3523A or 3525U.
28. If Options 009 and 010 are combined on the HP 8593E/94E/95E/96E or 8590 EM series; only one option card slot is required.
29. Not compatible with Options 101 and 301.
30. Requires Option 111. Not compatible with 8591E.
31. NTSC Cable TV analyzers only.
32. Option 107 is not compatible with Option 180.
33. HP 85721 Cable TV measurement personality required.
34. HP 11770A Link measurements personality required. Do not order Option 010 with Option 111.
35. Option 160 and 163 are not compatible.

For more information about Hewlett-Packard test and measurement products, applications, services, and for a current sales office listing, visit our web site, <http://www.hp.com/go/tmdir>. You can also contact one of the following centers and ask for a test and measurement sales representative.

United States:

Hewlett-Packard Company
Test and Measurement Call Center
P.O. Box 4026
Englewood, CO 80155-4026
1 800 452 4844

Canada:

Hewlett-Packard Canada Ltd.
5150 Spectrum Way
Mississauga, Ontario L4W 5G1
(905) 206 4725

Europe:

Hewlett-Packard
European Marketing Centre
P.O. Box 999
1180 AZ Amstelveen
The Netherlands
(31 20) 547 9900

Japan:

Hewlett-Packard Japan Ltd.
Measurement Assistance Center
9-1, Takakura-Cho, Hachioji-Shi,
Tokyo 192, Japan
Tel: (81) 426-56-7832
Fax: (81) 426-56-7840

Latin America:

Hewlett-Packard
Latin American Region Headquarters
5200 Blue Lagoon Drive, 9th Floor
Miami, Florida 33126, U.S.A.
(305) 267 4245/4220

Australia/New Zealand:

Hewlett-Packard Australia Ltd.
31-41 Joseph Street
Blackburn, Victoria 3130, Australia
1 800 629 485

Asia Pacific:

Hewlett-Packard Asia Pacific Ltd.
17-21/F Shell Tower, Times Square,
1 Matheson Street, Causeway Bay,
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