

Rear-Panel Features

Table 2-2 and Table 2-3. show the appropriate rear panel slots to be used for the optional cards available with the Agilent ESA Spectrum Analyzers. Refer to Table 2-2. if you have an Agilent ESA-L Series Spectrum Analyzer. Refer to Table 2-3. if you have an Agilent ESA-E Series Spectrum Analyzer.

- (P) = Preferred Card Slot
- (A) = Acceptable Card Slot
- (-) = Unacceptable Card Slot

Table 2-2 Agilent ESA-L Series (E4403B, E4408B, E4411B)

Slot #	1	2	5	6
GPIB and Parallel (Option A4H)	P	A	-	-
Serial and Parallel Interface (Option 1AX)	P	A	-	-
IF, Video, and Sweep Ports (Option A4J)	-	-	P	-
Frequency Extension ^a		-	-	P

a. The Frequency Extension Assembly comes standard with the Agilent E4408B.

Table 2-3 Agilent ESA-E Series (E4401B, E4402B, E4404B, E4405B, E4407B)

Slot #	1 ^a	2	3	4	5	6
GPIB and Parallel Interface (Option A4H) ^b	P	A	A	A	-	-
RS-232 and Parallel Interface (Option 1AX) ^b	P	A	A	A	-	-
Fast Time Domain Sweeps (Option AYY) ^c	-	A	P	A	-	-
IF, Video, and Sweep Ports (Option A4J) ^c	A	A	A	A	P	A
FM Demodulation (Option BAA) ^d	-	A	P	A	A	A
Noise Figure (Option 219)	A	A	P	A	-	-
Frequency Extension ^e	-	A	A	A	A	P
Digital Signal Processing and Fast ADC (Option B7D)	-	-	-	P	-	-
RF Communications Hardware (Option B7E)	-	-	-	-	P	-
ACPR Dynamic Range Extension (Option 120)	-	P	A	A	A	A
Bluetooth™ ^f FM Demodulation (Option 106) ^{d-g}	-	A	P	A	A	A

- a. Some cards may not be installed due to mechanical interference.
- b. Only one optional remote interface (Option A4H or Option 1AX) can be installed at a time.
- c. Only one IF and Sweep Port option (Option A4J or Option AYY) can be installed at a time.
- d. Only one demod option (Option BAA or Option 106) can be installed at a time.

- e. The Frequency Extension Assembly comes standard with the Agilent E4404B, E4405B and E4407B.
- f. Bluetooth™ is a trademark owned by its proprietor and used by Agilent Technologies under license.
- g. Option 106 is required to make measurements in Bluetooth™ Measurement Personality (Option 228)

- 6 GPIB and parallel interface (Option A4H) is an optional interface. GPIB supports remote analyzer operation. A parallel port is included for printing only.
- 7 RS-232 and parallel interface (Option 1AX) is an optional interface. RS-232 supports remote analyzer operation. A parallel port is included for printing only.

NOTE Printing is only supported from the parallel port.

- 8 **IF, Video, and Sweep Ports** (Option A4J or Option AXX): (Refer to the specifications guide for more information.)
 - SWP OUT** provides a voltage ramp corresponding to the sweep of the analyzer (0 V to 10 V).
 - HI SWP IN (TTL)** can be grounded to stop and reset the sweep. Once the sweep has been stopped, removing the ground will trigger the start of a new sweep.
 - HI SWP OUT (TTL)** is high when the analyzer is sweeping.
 - AUX VIDEO OUT** provides detected video output (before the analog-to-digital conversion) proportional to vertical deflection of the trace. Output is from 0 V to 1 V. Amplitude-correction factors are not applied to this signal.

NOTE The video output signal may be blanked during retrace when automatic alignment is on. This effect can be reduced with longer sweep times, or eliminated by turning Auto Align off. For more information, refer to the Alignments key description in the ESA User's and Programmers Reference, Volume 1.

AUX IF OUT is a 50 Ω , 21.4 MHz IF output that is the down-converted signal of the RF input of the analyzer. Amplitude-correction factors are not applied to this signal. This output is taken after the resolution bandwidth filters and step gains and before the log amplifier.

NOTE Only one IF and Sweep Port option (Option A4J or Option AXX) can be installed at a time.

- 9 **FM Demod** (Option BAA) demodulates, displays, and measures deviation on FM signals. You can listen to audio signals on a built-in speaker or with an earphone. Refer to “Det/Demod” and “FM Demodulation (Option BAA)” in the Options chapter for more information.

Bluetooth™ FM Demodulation (Option 106) demodulates, displays and measures deviation on Bluetooth™ signals. Refer to “Det/Demod” and “Bluetooth™ FM