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## HP E5336A and E5340A

### TQFP adapter for 144-pin, 0.5-mm packages

For use with HP logic analyzers and oscilloscopes

The HP E5336A QFP adapter provides an easy and reliable way to connect a logic analyzer or oscilloscope to an IC in a 144-pin surface-mount thin quad flat pack (TQFP) package with pins spaced at 0.5-mm pitch. The HP E5336A is compatible with ICs in packages that comply with JEDEC specification MO-136 for 1.4-mm thick bodies.

To use the HP E5336A, a retainer must be attached to the top of the IC. A kit of five retainers and adhesive is available as option 201. A locator tool, option 202, is required to align the retainer properly to the IC package.

#### Optional Adapters

The HP E5340A flexible adapter is designed to be installed on one side (36 pins) of the E5336A adapter. The HP E5340A flexible adapter provides pins to make convenient connections to HP logic analyzer or oscilloscope probes. Up to four HP E5340A flexible adapters may be used with one HP E5336A probe adapter.

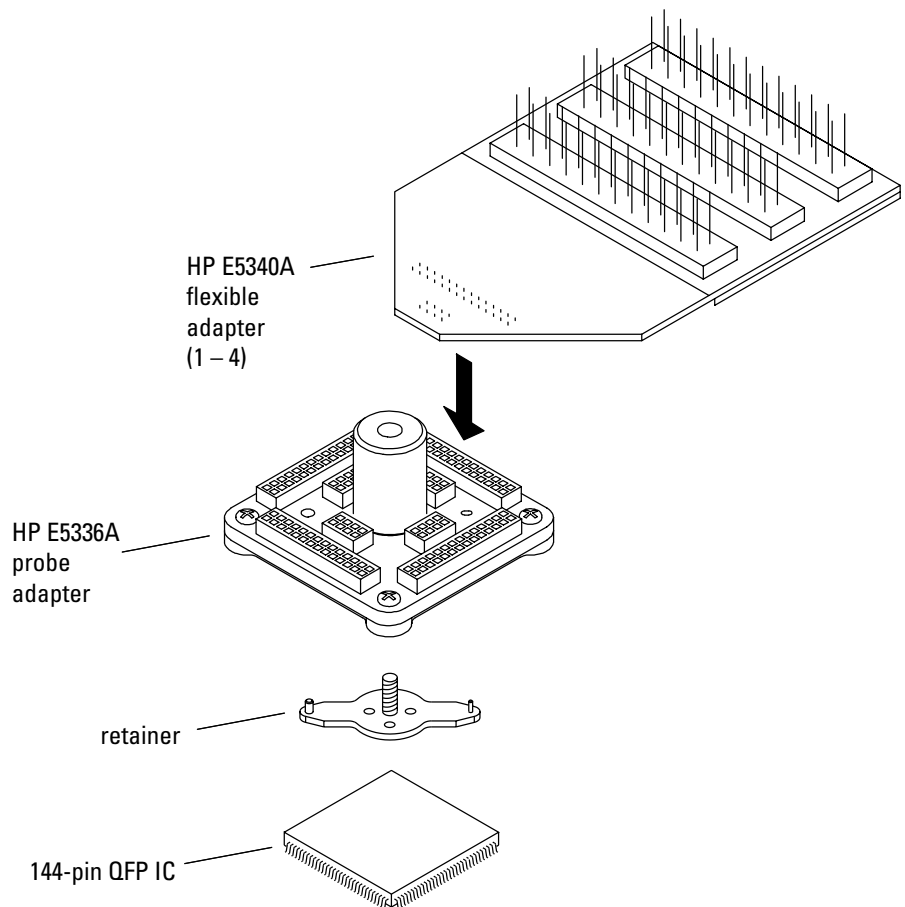


Figure 1.  
HP E5336A adapter

## Specifications

### HP E5336A 144-pin TQFP Adapter Specifications

#### Electrical Characteristics

Operating Voltage	< 40 V (dc + peak ac)
Operating Current	0.5 amps maximum
Insulation Resistance	> 100 M $\Omega$

### HP E5340A Flexible Adapter Specifications

#### Electrical Characteristics

Operating Voltage	< 40V (dc + peak ac)
Operating Current	0.5 amps maximum
Insulation Resistance	>100 M $\Omega$

#### Model Parameters

Pin-to-Ground Capacitance	3 pF typical first row 4 pF typical second row 6 pF typical third row
Pin-to-Pin Capacitance (adjacent pins)	2 pF typical

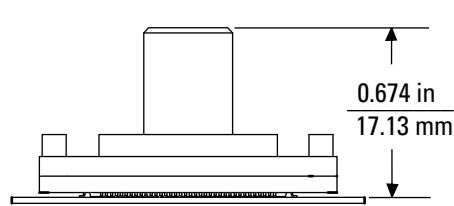
Self-Inductance	15 nH typical first row 25 nH typical second row 35 nH typical third row
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Operating Bandwidth	350 MHz typical
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#### Environmental Characteristics

Operating Temperature	0 °C to 50 °C
Relative Humidity	75% maximum

### Clearance of TQFP Adapter



0.055 in  
1.40 mm  
Maximum height of components in this area

R 0.138 in  
3.50 mm

### Dimensions of TQFP Chip

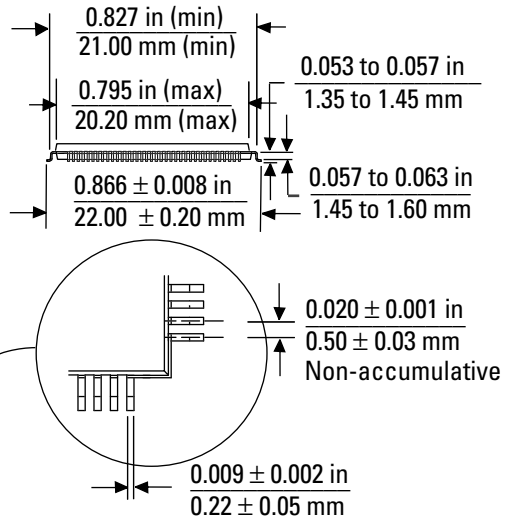
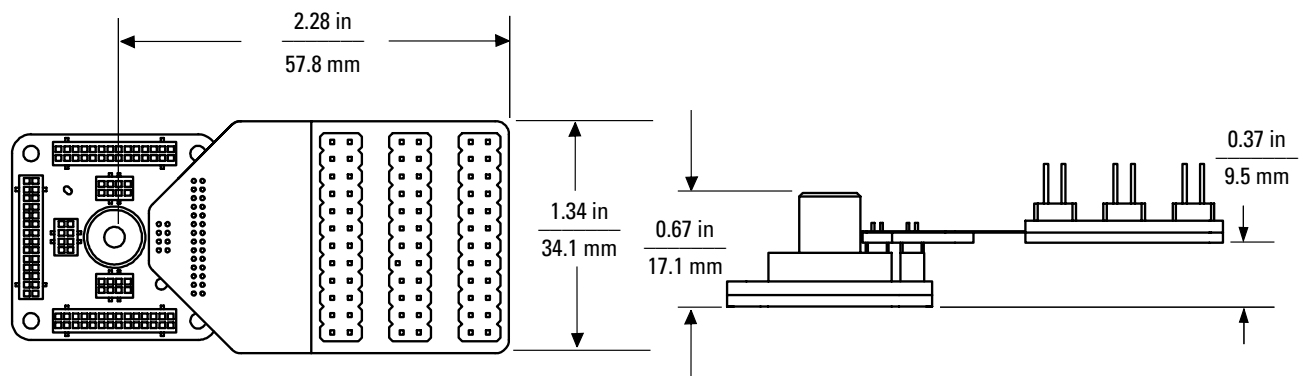


Figure 2.  
Clearance Requirements

## Ordering Information

<b>HP E5336A</b>	144-pin, 0.5-mm TQFP adapter
<b>Option 201</b>	Retainer kit, includes 5 retainers, two knurled nuts, and one tube of adhesive. One required for initial installation. One kit is sufficient to prepare five ICs for attachment.
<b>Option 202</b>	Locator tool. One locator tool is required for initial installation. One locator tool is sufficient for unlimited installations.
<b>HP E5340A</b>	Flexible adapter for HP E5336A. Four required to make connection to all pins.



**Figure 3.**  
Overall dimensions of  
HP E5336A and HP E5340A

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