



# 8474A Planar-Doped Barrier Detector

## Data Sheet

**Frequency Response (dB):**  $\pm 0.25$  to 12.4 GHz  $\pm 0.35$  to 18 GHz  
**SWR Maximum (50 ohm nominal)**  $< 1.15$  to 12.4 GHz  $< 1.2$  to 18 GHz  
**Low-Level Sensitivity:**  $> 0.4$  mV/ $\mu$ W  
**Maximum Operating Input:** 200 mW  
**Typical Short-Term Input:** 0.75 W, maximum  $< 1$  minute  
**Noise:**  $< 50$   $\mu$ V

**Dimensions:** 22.20 mm (0.87 in), 61.97 mm (2.44 in), 18.68 mm (.074 in)  
**Input Connector:** APC-7  
**Output Connector:** BNC (f)  
**Net Weight:** 85.3g (3 oz)

**Octave Band Options** 002 004 008 012 018

**Frequency Range (GHz):** 0.01 to 2 2 to 4 4 to 8 8 to 12.4 12.4 to 18  
**Frequency Response (dB):**  $\pm 0.2$   $\pm 0.2$   $\pm 0.2$   $\pm 0.2$   $\pm 0.3$   
**SWR:**  $< 1.09$   $< 1.1$   $< 1.5$   $< 1.2$   $< 1.22$  Environmental Specifications  
**Operating Temperature<sup>1</sup>:** -65 to 100 °C  
**Temperature Cycling, Non-Operating** MIL-STD 883, Method 1010.1: (-65 to 100 °C)  
**Vibration:** MIL-STD 883, Method 2007: (0.6 in D.A. 20 to 80 Hz, 20g, 80 to 200 Hz)  
**Shock:** MIL-STD 883, Method 2002.1: (500g, 0.5 msec)  
**Acceleration:** MIL-STD 883, Method 2001: (500g)  
**Altitude:** MIL-STD 883, Method 1001: (50,000 ft., 15,240m)  
**Salt Atmosphere:** MIL-STD 883, Method 1009.1: (48 hr., 5% solution)  
**Moisture Resistance:** MIL-STD 883, Method 1004.1: (25 to 40 °C, 95% RH)  
**RFI:** MIL-STD 461B  
**ESD:** 10 hits at 25 kV to the body, not the center conductor.

<sup>1</sup>Agilent 8474A/B specified for 0 °C to 75 °C.