KEYSIGHT TECHNOLOGIES (AGILENT HP)

85025B

The Keysight (Agilent) 85025B is a coaxial detector designed specifically for use with the 8757D scalar network analyzer. Operating over a frequency range of 10 MHz to 26.5 GHz, it supports both modulated (AC) and unmodulated (DC) detection modes, delivering high dynamic range and excellent return loss characteristics for RF and microwave measurements.

SPECIFICATIONS

General

Interfaces	Integrated cable with 10-pin circular connector

Physical

Power Supply	Powered directly by host scalar network analyzer
Operating Temperature	0 to 55 °C °C
Weight	0.24 kg kg
Cable Length	1.22 m (48 in)
Shipping Weight	1.0 kg (2.2 lb)

RF & Microwave Performance

Frequency Range	10 MHz to 26.5 GHz
Nominal Impedance	50 Ω
Maximum Input Power (CW)	+20 dBm (100 mW)
Maximum DC Input Voltage	±10 VDC
Return Loss (10 MHz to 40 MHz)	10 dB
Return Loss (40 MHz to 4 GHz)	20 dB
Return Loss (4 GHz to 18 GHz)	17 dB
Return Loss (18 GHz to 26.5 GHz)	12 dB
Frequency Response Flatness (10 MHz to 40 MHz)	+0.25 dB / -0.75 dB
Frequency Response Flatness (40 MHz to 18 GHz)	±0.5 dB

Detection & Output Characteristics

Dynamic Range (AC Mode)	+16 to -55 dBm
Dynamic Range (DC Mode)	+16 to -50 dBm
Detection Modes	AC (modulated) and DC (unmodulated)
AC Modulation Frequency	27.778 kHz

Physical & Mechanical Interface

RF Input Connector Type	3.5 mm
RF Input Connector Gender	Male
Output Interface Connection	Integrated cable with 10-pin circular male connector

Instrumentation Compatibility & Smart Features

Compatible Scalar Network Analyzers	Agilent / Keysight 8757D (incompatible with 8756 and 8755)
Internal Calibration Storage	Integrated EEPROM stores individual factory calibration data

Environmental

Storage Temperature Range	-40 to +75 °C

Performance

Maximum Peak Input Power	+24 dBm (250 mW) for pulse width < 3 µs

RF Performance

Frequency Response Flatness (18 GHz to 26.5 GHz)	+/- 1.25 dB

TECHNOLOGY

Diode Detection

APPLICATIONS

RF and Microwave Scalar Network Analysis