D2-260 Beat Note Detector

The Vescent D2-260 high-speed detector has a full 9+ GHz bandwidth for capturing beat notes between lasers of different frequencies. Simply overlap the master and follower lasers and launch them into the included multimode fiber for measuring the relative frequencies of the two lasers. The D2-260 is designed to be used with both the Vescent D2-250 Heterodyne Module and the D2-135 Offset Phase Lock Servo. In combination, a true phase lock between a pair of lasers, with a user-defined, high-precision frequency offset, can be established.

D2-260 Beat Note Detector

The D2-260 is also compatible with the SLICE-OPL Offset Phase Lock Servo. This digitizing high-speed pre-amplified detector converts an oscillating optical signal (a beat note) into an RF beat note. It works great for measuring beat note frequencies. It is not suitable for measuring optical power or other amplitude characteristics due to the digitized output.

The D2-260 is powered by a D2-005 (D2-CABLE-004, included), a SLICE-OPL with a power output connector (SLICE-CABLE-003), or can be used as a standalone detector with a D2-PS-001.

Features

- Optical-to-electrical beat note conversion
- Detect optical beat note
- Compatible with D2-250 Heterodyne Module, D2-135-SMA OPLS, and SLICE-OPL

D2-260 Specifications

Parameter	Value
Bandwidth	250 MHz to >9.0 GHz
Wavelength Response	670 ≤ λ ≤ 855 nm
Input Connection	LC multimode fiber
Input Power Range	50 µW to 800 µW
Maximum Optical Power [1]	0 µW
Output Connection	SMA
Output	-6 dBm, 1-4 GHz beat note -13 dBm, 4-8 GHz beat note
Power Requirements [2]	+5 VDC, GND
Dimensions	1.38 x 1.25 x 1.99 in 3.5 x 3.2 x 5.1 cm

[1] Maximum power on detector regardless of power in beat note.

[2] Power supply not included. See Vescent D2-005.

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