CERNEX, Inc.

Finline Detectors (Waveguide and Coaxial)

FEATURES:

- ❖ Coverage from 0.5-110GHz
- ❖ Full Waveguide Band
- ❖ High Video Sensitivity
- ❖ No Bias Voltage Required
- ❖ Planar Finline Construction
- ❖ Lightweight Compact Design

CFD Series

DESCRIPTION:

Cernex's CFD series detectors convert incident RF energy into a DC voltage signal. The function of these detectors is similar to power sensors, with two exceptions. The CFD series detectors perform measurements more quickly and have a greater dynamic range than that obtainable from comparable power sensors. Ideally suited for rapid power measurements, these finline detectors are designed for a variety of instrumentation setups such as scalar analyzer applications. For low signal level measurement, the detectors provide significantly more sensitivity than that available from power sensors.

SPECIFICATIONS:

Model No.	Frequency Range (GHz)	Frequency response (dB/octave)	VSWR (Max)	Sensitivity (mV/mW)	Dimension (Φ x l, mm)	Connector Type
CFDU11208T	0.1 - 12.4	≤ ± 1	1.7	800	14 x 55	SMA-F
CFDU11808T	0.1- 18	≤ ± 1	1.7	800	14 x 55	SMA-F
CFDU50410T	0.5 – 4	≤ ± 1	1.7	1000	22 x 85	SMA-F
CFDU50810T	0.5 – 8	≤ ± 1	1.7	1000	22 x 85	SMA-F
CFDU51208T	0.5 – 12.4	≤ ± 1	2.0	800	22 x 85	SMA-F

OTHER FREQUENCIES AND SENSITIVITIES ARE ALSO AVAILABLE. PLEASE CONTACT CERNEX FOR MORE INFORMATION
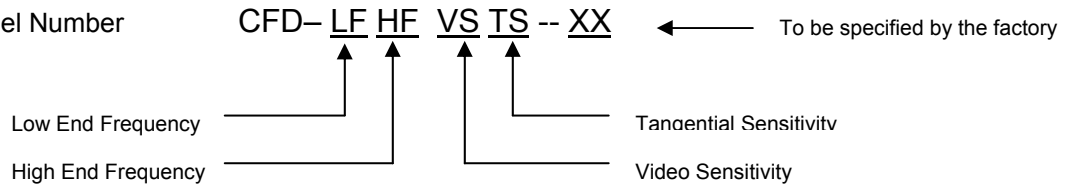
Waveguide Band	K	Ka	Q	U	V	E	W
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Frequency Range (GHz)	18 to 26.5	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Video Sensitivity (mV/mW) Typ.	800	800	700	600	450	400	200
Tangential Sensitivity (dBm)	-55	-55	-50	-50	-50	-45	-45
Flatness (dB)	±1.5	±1.5	±1.5	±1.5	±2.0	±2.0	±2.0

CERNEX, Inc.

Finline Detectors (Waveguide and Coaxial)

<u>HOW TO ORDER:</u>

Specify Model Number   CFD– <u>LF</u> <u>HF</u>   <u>VS</u> <u>TS</u> -- <u>XX</u>   ←   To be specified by the factory

Low End Frequency ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯   Tangential Sensitivity

High End Frequency ⎯⎯⎯⎯⎯⎯⎯⎯   Video Sensitivity

Example: To order WR-15 finline detector with a frequency band of 50-57 GHz, a video sensitivity of 450 mV, and a tangential sensitivity of –50, specify CFD-50574550-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE