

### DAPD-Evaluation Module type 2 DEM2



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Amplification Technologies DEM2 series evaluation module is a high-speed module designed for testing and evaluation of thermoelectrically cooled multichannel Discrete Amplification Photo Detector (DAPD), when the DAPD is packaged in a TO-8.

The DEM2 series evaluation module consists of a low noise package with built-in bias filtering circuit and RF analog output. The module is designed for comprehensive evaluation of DAPD in TO-8 packages in all operating modes. It allows for the easy use of various DAPD Thermoelectrically cooled devices as well as user defined operating voltage and detector temperature for optimal signal detection, an ideal tool to develop and test the DAPD for specific applications.

The DEM2DAPD series evaluation module is useful for detection of light pulses from single photon to several thousand photons, as it allow easy observance of a single electron response pulse. For the detection of a light pulses with a single-photon up to approximately 10 photons, the module needs to be coupled directly to an external amplifier of the user's choice. We recommend Mini-Circuits ZX60-4016E S+, 20dB, 20- 4000MHz, or equivalent.

**Specifications**

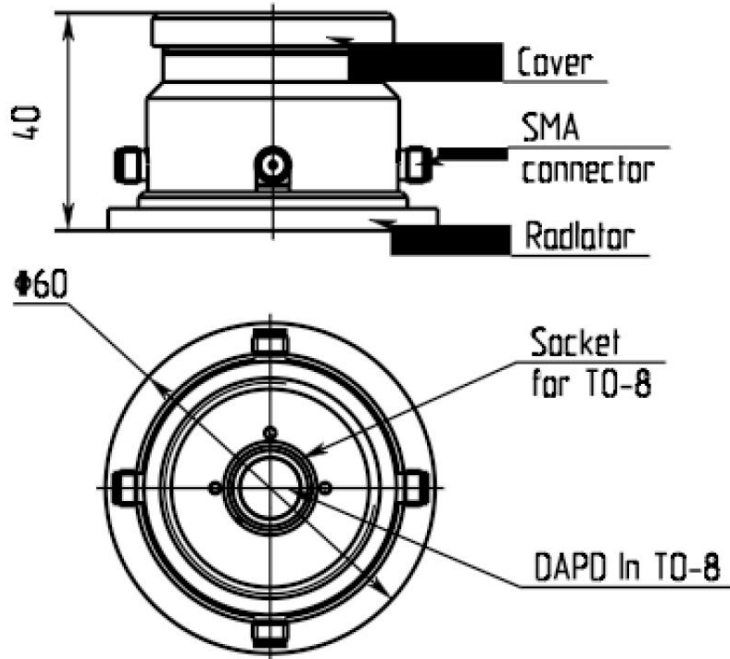
At an ambient temperature of 23°C

When the DEM2 is connected to Mini-Circuits ZX60-4016E S+ pre-amplifier

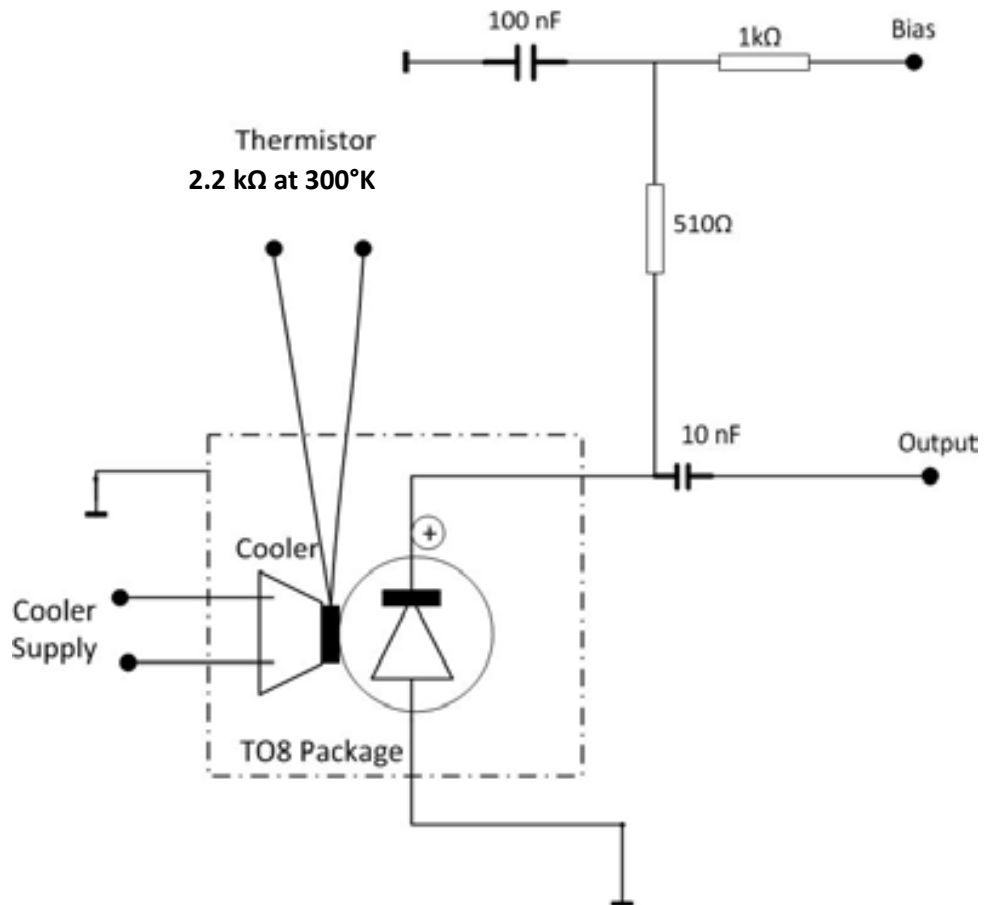
<b>Parameter / Conditions</b>	<b>DAPD-Evaluation Module Type 2 Value</b>	<b>Unit</b>
Single Event Response (SER) output peak voltage	15	mV
Maximum output voltage	2	V
Output Impedance after external pre-amplifier	50	Ω
SMA Connector 1 “Bias”	DAPD Bias	
SMA Connector 2 “TEC”	TEC Bias	
SMA Connector 3 “Thermistor”	Thermistor	
SMA Connector 4 “Signal Out”	RF response signal	
Thermistor Temperature Range	From -55°C to +85°C	°C
Diameter	60	mm
Height	40	mm

**Module Dimensions**

**DEM2**



### Basic Connection Diagram for DAPDNIR Series



### Precautions for Use

Use of grounding straps, anti-static mats and other standard electrostatic discharge protective equipment and methods are recommended when handling or testing these devices.

### Quality Vision

Amplification Technologies Inc is committed to providing products with the highest levels of quality and reliability using best available manufacturing processes. Our top priority is total customer satisfaction. Amplification Technologies Inc maintains a strict quality control program to ensure that all products meet or surpass published specifications.

### Ordering Information

When ordering, please specify the following information: DEM2. A Mini-Circuit preamplifier is included with the DEM2.

#### Contact Information:

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