**HealthyPhoton**

**TEC cooled HgCdTe (MCT)**

**Amplified Photodetector**

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| HPPD_M_B_wLOGO |

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| **Date** | **Note** |
| 2019/5 | V1.0 |
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 AMPLIFIED MCT PD TEST REPORT

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| **DETECTION MODULE** |
| Preamplifier Model | TE0810-B-DC-20K |
| Detector type | PV8-TE |
| Preamplifier Power Supply | +5V, 3mA |
| **TEST CONDITIONS AND RESULTS** |
| Parameter | Unit | Value |
| Trans-impedance @Rload=1MΩ | V/A | 20k |
| Low Cut-off Frequency | Hz | 0 |
| High Cut-off Frequency | KHZ | 150 |
| Output Noise Densivity @200kHz  | nV/ | 160.2 |
| Voltage Responsivity ±20%( 8um) | V/W | 5.2E+2 |
| Detectivity ±20%(8um)@200kHz | cm/W | 6.1E+8 |
| Dector temperature | K | 223 |

**DETECTOR HEAD TEST REPORT**

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| **DETECTOR DESCRIPTION** |
| Active Area | 1mm ×1mm | Cooler Current | 1.00A | Ambient Temperature | 293 K |
| Window | wZnSeAR | Cooler Current Max | 1.20A | Test Date | 10.6.2019 |
| **TEST CONDITIONS AND RESULTS** |
| **Detector****No** | **Reverse Bias Voltage** | **Detector Temperature** | **Thermistor Resistance** | **Detector Dynamic Resistance** | **Current Noise Density** | **Responsivity ±20%( 8um)** | **Detectivity** **±20%( 8um)** |
| **mV** | **K** | **KΩ** | **Ω** | **pA/Hz1/2** | **A/W** | **cmHz1/2/W** |
| **90621** | 0 | 223 | 91 | 669 | 8.051 | 0.026 | 6.1E+8 |



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| **SPECTRAL/ELECTRICAL CHARACTERISTICS** |
| **IMG_5970_副本** |

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| **To package and Lead** |
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**Order information**

**HPPD- XX XX XX - X - XX - XXX**

 **① ② ③ ④ ⑤ ⑥**

**Note:**

**①=TE detector with TEC cooler**

**①=RT detector without TEC cooler**

**②=03, 04, ...or 12 detector with cut-off wavelength at 3, 4, ...or 12um**

**③=02,05,10,20 detector active area is 0.2, 0.5, 1.0, 2.0 mm2**

**④=A A type preamplifier seperate TEC driver**

**④=B B type preamplifier with integrated TEC driver**

**⑤=DC DC coupled preamplifier**

**⑤=AC AC coupled preamplifier**

**⑥=01K, 02K, ...or 20K Preamplifier gain is 1k, 2k, ... or 20k**

**For example:**

**HPPD-TE0810-B-DC-20K means the customer would like to order an 1mm2 active area MCT detector with TEC cooler at cuf-off wavelength of 8um, with a B type DC coupled preamplifier, the preamplifier gain is 20K.**

**Cautions:**

**1: The above product specifications are subject to change without notice.**

**2: The suitable ESD protecting measures are recommend in storage,transporting and using.**