

## **Preamplifiers**



SiPM has become increasingly popular in high-energy physics, nuclear medicine and other fields involving lowlevel light detection. The detector requires a low-noise preamplifier to maximise the signal coupling between the sensor and readout electronics. NDL developed a low-noise preamplifier that is sensitive to single-photon signals.

### **Features and Applications**

- Single Power Supply
- High Speed and Ultra-low Noise
- Cost Effectiveness

- Impedance Matching
- Compatible with Most Commercial SiPMs
- Compact Structure and Convenient to Use

#### **Specifications**

Parameter	AMP - 40 - 1	AMP - 20 - 2
Supply Voltage (V <sub>s</sub> )	+5 V (2.7 ~ 5.5 V)	+5 V (2.7 ~ 5.5 V)
Supply Current	30 mA	30 mA
Gain	40 dB (5000 V/A)	20 dB (500 V/A)
Bandwidth (3dB)	330 MHz	680 MHz
Output Max Peak-Peak Voltage	1 V	1 V
Input/ Output Impedance	50 Ω	50 Ω
Number of Channels	1 ch	2 ch
Input/ Output Connector	SMA	SMA
Power Supply Jack	Feedthru Capacitor	SMA
<b>Operating Temperature Range</b>	-40 ~ 125 °C	-40 ~ 125 °C

Above parameters are measured at  $V_s = +5$  V, Load Impedance = 50  $\Omega$ , T= 20 °C.



Novel Device Laboratory, Xue Yuan Nan Lu No.12, Hai Dian District, Beijing, China, 100875. Tel: +86-10-62207419, Email: info@ndl-sipm.net, <u>http://www.ndl-sipm.net</u>



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Specifications subject to change without notice

### Characteristics



Test Conditions: NDL EQR10 11-3030C-T at OV=5 V,  $V_s = 5 V$ , Load Impedance = 50  $\Omega$ , T=20 °C.



### **Dimensional outlines (unit: mm)**

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