



# Non-Cooled OEM Modules

## Electro-Optical Characteristics

All specifications apply when APD is at 23°C with a gain of 200 and a load resistance of 50 ohms.

Part Number	APD Diameter	APD Spectral Enhancement	Sensitivity @ 1 MHz Typical* (10 <sup>5</sup> V/W)	NEP @ 1MHz Typical* (fW/√Hz)	Frequency High Cutoff	
	(mm)				Typ	Min
118-70-73-651	3	UV	3.4	14.3	14	12
118-70-74-651		Blue	6.7	7.7		
118-70-72-651		Red/IR	9.3	5.4		
197-70-73-651	5	UV	3.4	18.7	14	12
197-70-74-651		Blue	6.7	10.1		
197-70-72-651		Red/IR	9.3	7.0		
394-70-73-651	10	UV	3.4	22.4	11	10
394-70-74-651		Blue	6.7	12.0		
394-70-72-651		Red/IR	9.3	8.4		

Feedback Resistance	Output Offset		Output Impedance	Linear Output Swing	Output Stability Typical	Current Consumption			
	Typ	Max				+12V±1V Supply		-12V±1V Supply	
(kΩ)	(mV)	(mV)	(Ω)	(V)	(%/°C)	Typ	Max	Typ	Max
20±1%	±1	±5	50	+1	0.5	120	220	30	50

## Absolute Maximum Ratings<sup>◇</sup>

APD Active Diameter	Continuous Incident Light Intensity APD gain =200 λ=675nm (μW)	APD Gain @ 23°C λ=675nm	Ambient Operating Temp. (°C)	Storage Temp. (°C)	Supply Voltage (V)
(mm)					
3	0.75	250	0 to +40	-40 to +70	±13
5	1.0				
10	2.0				

Typical HV divider ratio and voltage gain is 404.

Temperature monitor output is 10mV/°K. (See National Semiconductor data sheet for LM335 temperature sensor.)

Recommended load on the amplifier output is from 50 ohms to 1 Mohm.

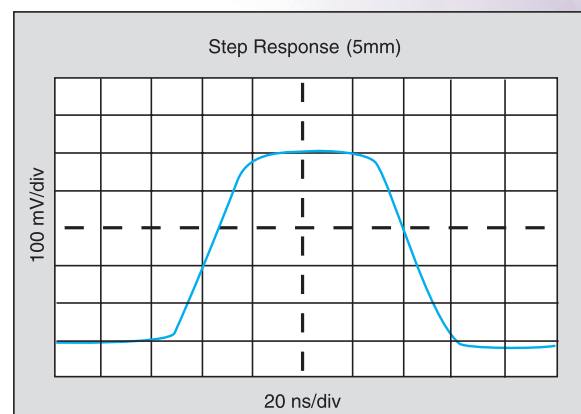
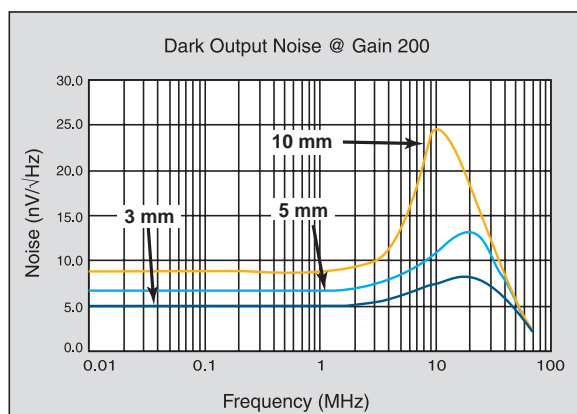
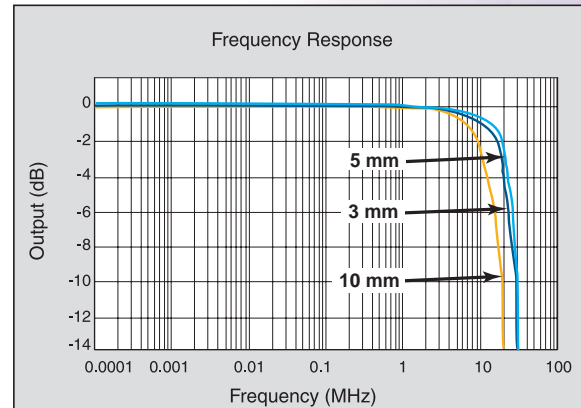
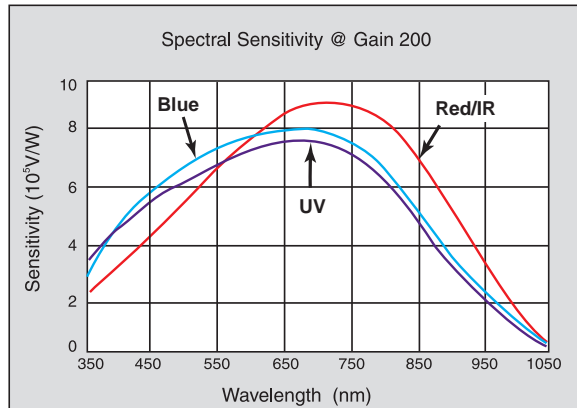
Modules can be modified or customized by Advanced Photonix to meet individual customer requirements.

<sup>◇</sup> Operating beyond these limits may cause permanent damage to the device.

\* Sensitivity and NEP for UV, Blue and Red/IR specified at wavelengths of 350nm, 500nm and 750nm, respectively.



# Typical Performance Graphs



## Mechanical Dimensions

### Non-Cooled OEM Modules

#### Electric Wiring Table

Wire Color	Item
Red	+12V
Green	GND
Black	-12V
Orange	HV Monitor
Blue	External Bias Adjust Input
Violet	Temperature Monitor

