



# Electro Optical Components, Inc.

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## IRPA-NxN Pulsable Infrared Array

### Preliminary Specifications for the Array:

Source – INTX 22-1000 (data sheet attached)

Optical Bandwidth - 1 – 20 $\mu$ m

Narrower Bandwidths available

N x N sources

Mounted on a ceramic substrate with TE cooling

Control circuit for the TE cooling

Source size - 3.6mm x 3.8mm

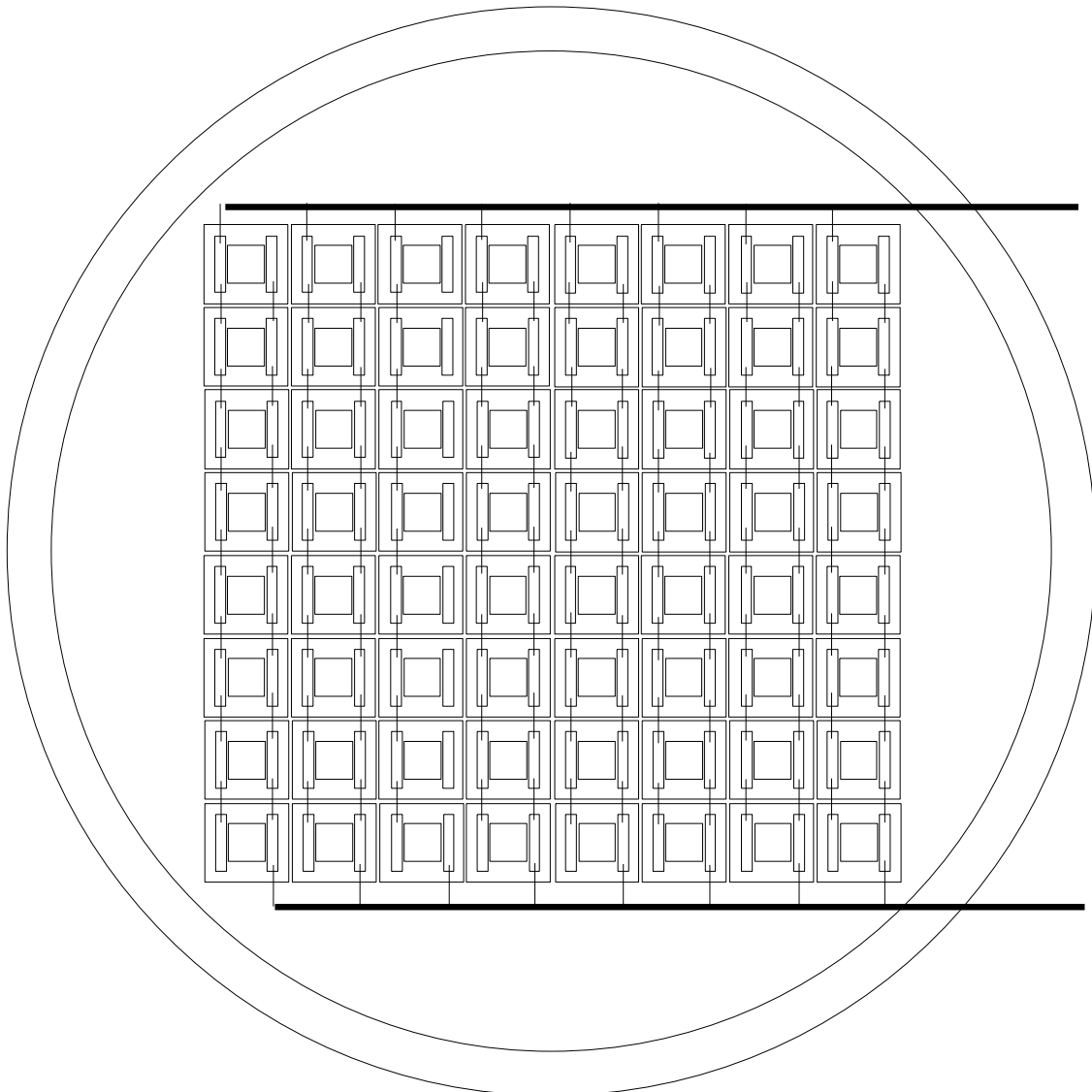
Array size – Dependent on number of sources

Full power - 1W/per source

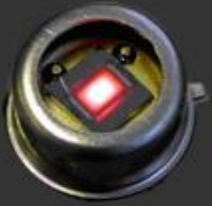
The operation of this array will be pulsed.

Pulse rate can be up to 100Hz with 50% duty cycle

The pulse rate, duty cycle are adjustable and TE cooling is controlled automatically by the integrated controller PCB.



# INTX 22-1000 Wideband Infrared Emitter



## Benefits

Pulsable up to  
100Hz

High Operating  
Temperature

Wideband Emission  
1-20  $\mu$

High Efficiency

Long Life  
>10 years at 605 C

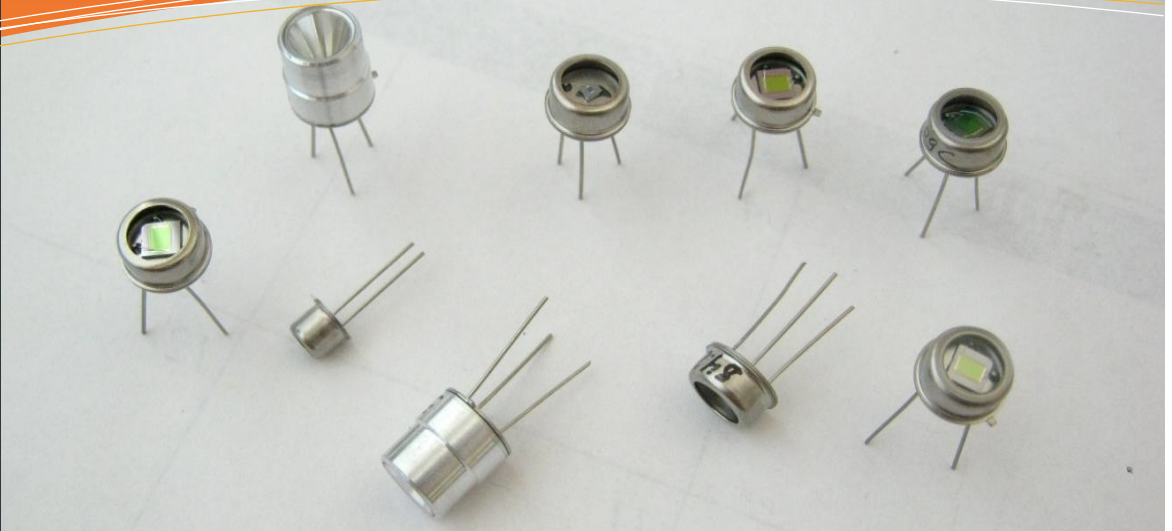
Very Stable  
Resistance

High Emissivity

Reflector and  
Window Options

Intex's unique quasi-black body pulsed infrared (IR) emitters are capable of operating at higher frequencies and higher temperatures than typical competitors. This delivers higher Signal to Noise Ratio in your application.

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## Blackbody Infrared Radiation Emitters

- Gas Analyzers
- Photo Acoustic Analyzers
- Mid IR Beacons
- Reference and Calibration Sources

### Electrical Parameters

	Min.	Typical	Max.
Resistance, ohms at Operating Temperature	35	45	55
Resistance, ohms at Room Temperature		43	
Drive Voltage, volts at Operating Temperature		5.9 6.7 Max	
Drive Current, mA at Operating Temperature		130 149 Max	
Drive Power, mW at Operating Temperature		767 1,000 Max	
Modulation Frequency	1-100 Hz Typical		
Modulation Depth	99% at 10 Hz 50% at 70 Hz		

### Modeling Parameters

Thermal Time Constant	20.0 mS
Operating Temperature	605 C 750 C Max
Heated Membrane Area	4.80 mm <sup>2</sup> 2.2 X 2.2 mm
Emissivity, 2 - 14 microns	.80
Spectral Range	1 - 20 microns

### Physical Parameters

Average Lifetime, at 10 Hz, 50% duty cycle	100,000 hrs at 605 C 5,000 hrs at 750 C
Package	TO-5, TO-39, 3 pin

