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IRPA-NxN Pulsable Infrared Array

Preliminary Specifications for the Array:

Source – $2.2 \times 2.2 \text{mm}^2$ (data on page 2)

Number and array of sources determined by the requirement

Mounted on a ceramic substrate with TE cooling

Control circuit for the pulse rate, duty cycle and the TE cooling

Source size - 3.6mm x 3.8mm

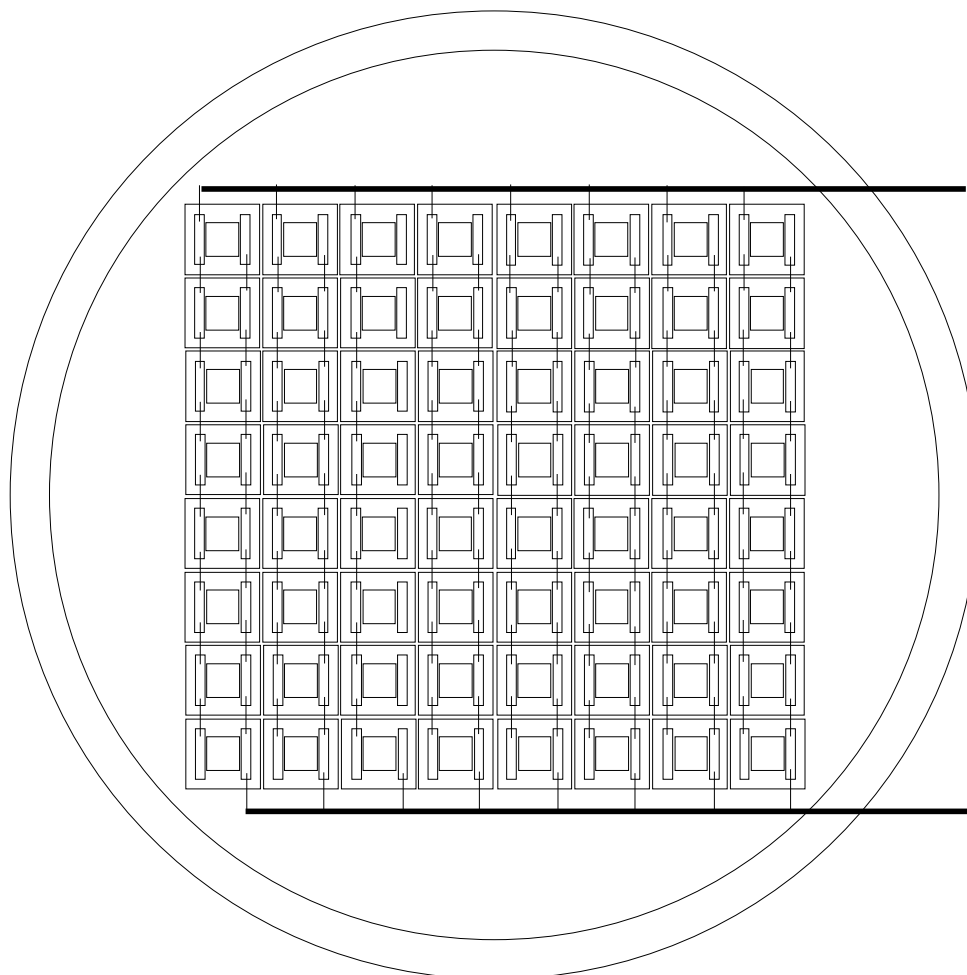
Array size – TBD

Full power – 0.8W/source

The operation of this array will be pulsed.

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

Input Power – 100 – 240 VAC



IR Source Specification

Spectral Output Range¹	Typ. 1 ... 20 μm
Active Area	2.2 x 2.2 mm^2
Hot Resistant	40 \pm 20 Ω
Temperature Coefficient	Typ. 650 ppm/K
Time Constant	Typ. 15 ms
Nominal Power Consumption	0.8 W
Operation Voltage²	Typ. 5.7 V
Operation Current²	Typ. 141 mA
Active Area Temperature^{3,5}	640 $^{\circ}\text{C}$
Mass	\sim 1 g
Lifetime⁴	> 5,000 h at 740 $^{\circ}\text{C}$ > 100,000 h at 640 $^{\circ}\text{C}$
Absolute Maximum Ratings	
Power	1.2 W
Housing Temperature	200 $^{\circ}\text{C}$
Active Area Temperature	850 $^{\circ}\text{C}$

¹ without window

² with 40 Ω

³ at nominal power (0.65W)

⁴ at 10 Hz, 50% duty cycle, preliminary results

⁵ at $T_{\text{amb}} = 25^{\circ}\text{C}$

