

Infrared emitter arrays for > 100 Hz

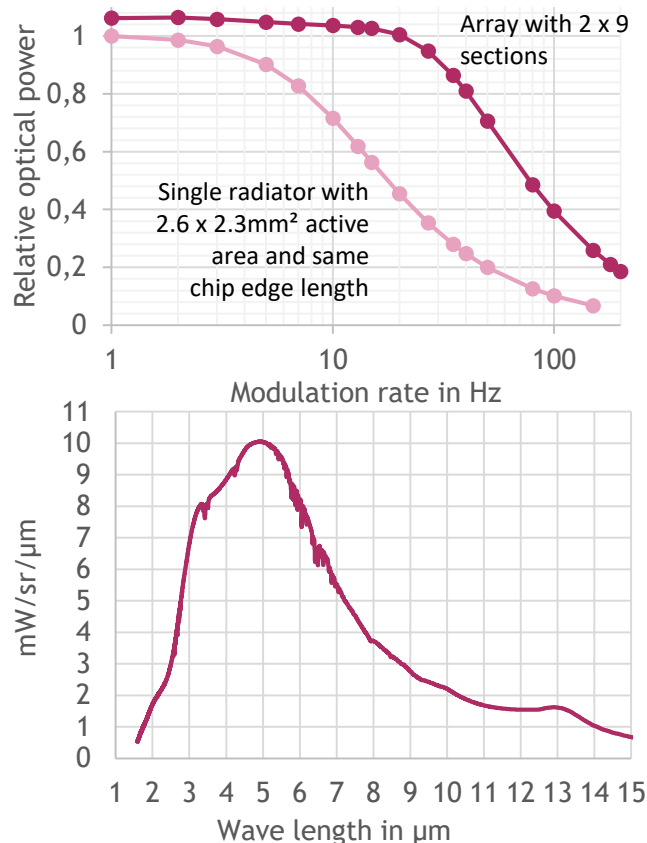
APPLICATION

Infrared MEMS emitters are miniaturized high-tech alternatives to classic incandescent lamps and are used as light sources in NDIR sensors. They are long-term stable, dynamic and emit in the spectral range from 2 to 15 μm . As part of the FIRE funding project, the dynamics and usable optical power have now been further increased.

PARAMETERS OF FIRST COMPONENTS

The emitter arrays were developed, manufactured and characterized in-house :

PARAMETER	VALUE
Chip size	3 x 3 mm ²
Active areas	9x (640 x 740 μm^2)
Temperature	Typically 600 to 700 °C Max: 900 °C
Spectral emission	2 ... 15 μm
Hot resistance	10 Ω
Power consumption	up to 2500 mW



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