

## Product Overview

### C-SERIES SiPM ARRAY: Silicon Photomultiplier Arrays, C-Series (SiPM)

For complete documentation, see the data sheet.

#### 4-Side Scalable Arrays of C-Series SiPM Sensors:

ON Semiconductor's C-Series silicon photomultiplier (SiPM) sensors are used to create compact and scalable arrays. The MLP-packaged sensors are mounted onto PCB boards with minimal dead space and are available in a variety of formats, formed of sensors of either 1 mm, 3 mm or 6 mm. The back of each ArrayC has either multi-way connectors or a ball grid array (BGA), to give access to the fast\* and standard outputs, and a common I/O from the summed substrates of the pixels.

\* Note that the ARRAYC-60035-4P-BGA does not have fast outputs.

### Features

- 4-Side scalable arrays
- Variety of formats ranging from 2×2 to 12×12
- Minimal deadspace at the edges allowing tiling on all sides to allow the creation to still larger detection areas
- Each array has either a multi-way connector or BGA on the reverse for access to all signals
- The pixel signals can either be read out individually for imaging applications, or summed by the user to create a large area, single-channel sensor
- The pixel-level performance is exactly as per that of the individual C-Series sensors
- Optional evaluation boards for are available for easy access to signals

### Applications

- Medical Imaging
- Hazard & Threat
- 3D Ranging & Sensing
- Biophotonics & Sciences
- High Energy Physics

### Part Electrical Specifications

Product	Compliance	Status	Type	Active Area Dimensions	Microcell Size (μm)	Optimized Wavelength (nm)	PDE @ Max Overvoltage (%)	DCR @ Typical Overvoltage (KHz/mm <sup>2</sup> )	Package Type
ARRAYC-30020-16P-PCB	Pb-free Halide free	NEW	Array	3 mm x 3 mm per pixel	20	420	31	30	ARRAYC-300XX-16P-PCB
ARRAYC-30035-144P-PCB	Pb-free Halide free	NEW	Array	3 mm x 3 mm per pixel	35	420	41	30	ARRAYC-300XX-144P-PCB
ARRAYC-30035-16P-PCB	Pb-free Halide free	NEW	Array	3 mm x 3 mm per pixel	35	420	41	30	ARRAYC-300XX-16P-PCB
ARRAYC-60035-4P-BGA	Pb-free Halide free	NEW	Array	6 mm x 6 mm per pixel	35	420	41	30	ARRAYC-600XX-4P-BGA
ARRAYC-60035-64P-PCB	Pb-free Halide free	NEW	Array	6 mm x 6 mm per pixel	35	420	41	30	ARRAYC-600XX-64P-PCB

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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