SPECIFICATIONS



4-Side Tileable, Large-Area SiPM

The ArrayC-60035-4P is a 2x2 array of 6mm, C-Series SMT parts mounted with minimal deadspace on a PCB. The array has been designed for high volume and has ball contacts on the back of the array PCB to allow for reflow soldering on to the customer's own readout boards. The contacts provide access to the 4 pixel anodes, and to a common cathode.



For users who wish to avoid soldering the ball contacts, an evaluation version of the array with DILsocket compatible pins is available for low-volume testing.

Specification	Value
Array configuration	2x2
Die type	MicroFC-60035-SMT
Number of I/O	5
Pixel pitch	7.2mm
Package type	BGA type
PCB size	14.2mm x 14.2mm
Reflow solder compatible	Yes

PIXELLATED OR SUMMED?: The ArrayC-60035-4P is a small, adaptable array that has access to individual pixel outputs to use as a quad array, or with summed outputs to form a single channel, large-area sensor. Such a configuration can be used as a solid-state alternative to the 1/2" PMT.

TILING: The array is four-side tileable so it can used alone, or as part of a larger matrix of arrays.

PERFORMANCE: For full details of the pixel performance, please consult the C-Series Datasheet.

Note that the *fast output* is not available from any of the pixels.



Array layout showing the SMT solder pads (red) and the ball grid array positions (blue)

EVALUATION VERSION

The evaluation version of the product (ArrayC-60035-4P-EVB) provides pins for easy connection via a standard 8-pin DIL socket.

It consists of the same PCB-mounted sensor array as the standard product (ArrayC-60035-4P-PCB), but is connected to an additional board that houses two 4-pin strips that are positioned to be compatible with a standard 8-pin DIL socket. The board with the pins is slightly smaller than the sensor array board, as shown in the figure below, to ensure that the modules are tileable. 8-pin DIL sockets are commonly available. An example is the 110-93-308-41-001000 from Mill-Max.

The evaluation board is not intended for high-volume applications but is ideal for performance evaluation of the array.



The EVB board with DIL-socket compatible pins.

ORDERING INFORMATION

Part number	Description
ArrayC-60035-4P-PCB	2x2 array of MicroFC- 60035-SMT pixels on PCB with ball contacts
ArrayC-60035-4P-EVB	2x2 array of MicroFC- 60035-SMT pixels on PCB with 8 pin connectors

ArrayC-60035-4P

PRODUCT BRIEF



SCHEMATICS (All dimensions in mm)

ArrayC-60035-4P-PCB



ArrayC-60035-4P-EVB



SEAS