

Multi-Channel X-Ray Detector Series

Scintillator Compatible Photodiode Arrays

This series consists of 16-element arrays: the individual elements are grouped together and mounted on PCB.

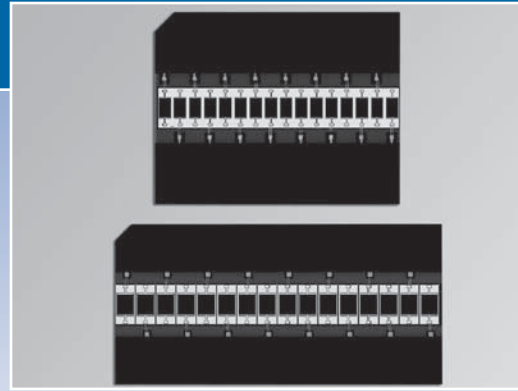
For X-ray or Gamma-ray application, these multi-channel detectors offer scintillator-mounting options: BGO, CdWO₄ or CsI(Tl).

BGO (Bismuth Germanate) acts as an ideal energy absorber: it is widely accepted in high-energy detection applications.

CdWO₄ (Cadmium Tungstate) exhibits sufficiently high light output, helping improve Spectrometry results.

CsI (Cesium Iodide) is another high energy absorber, providing adequate resistance against mechanical shock and thermal stress.

When coupled to scintillator, these Si arrays map any medium or high radiation energy over to visible spectrum via scattering effect. Also, their specially designed PCB allows end-to-end connectivity. Multiple arrays can be deployed in situation that calls for larger scale assembly.



APPLICATIONS

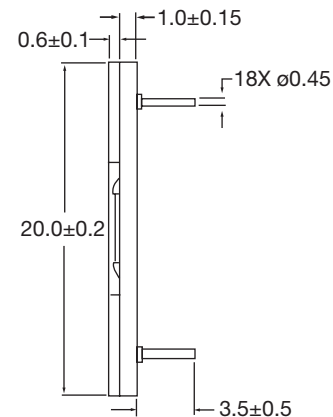
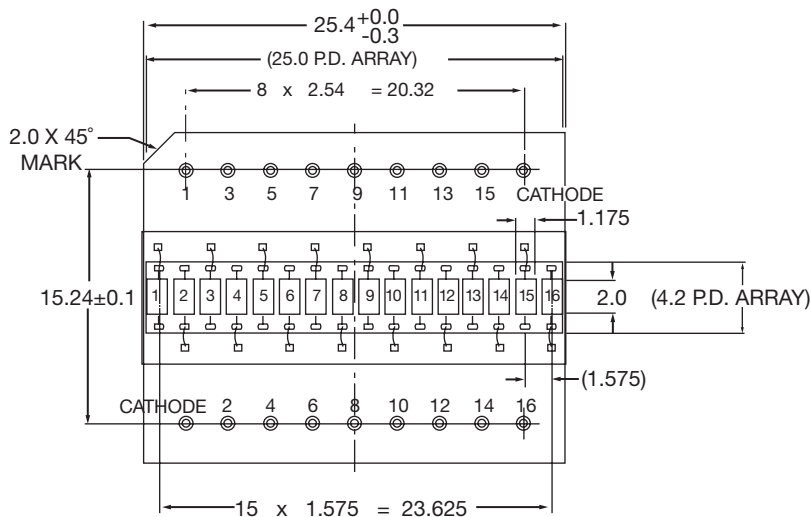
- Position Sensors
- Multi-channel Gamma counting
- X-ray Security Systems

FEATURES

- Scintillator Platform
- 5 Volt Bias
- Channel spacing variety

Mechanical Specifications (All units in mm)

A2C-16-1.57



Multi-Channel X-Ray Detector Series

Typical Electro-Optical Specifications at $T_A=23^\circ\text{C}$

Model Number	Number of Elements	Active Area Per Element		Pitch (mm)	Responsivity (A/W)		Dark Current (pA)	Terminal Capacitance (pF)	Rise Time (μs)	Reverse Bias (V)	NEP ($\text{W}/\sqrt{\text{Hz}}$)	Temp. Range ($^\circ\text{C}$)	
					540 nm	930 nm					-10mV 930nm	Operating	Storage
		Area (mm^2)	Dimensions (mm)	typ.	typ.	typ.	typ.	typ.	max.	typ.			
Photoconductive Arrays													
A2C-16-1.57	16	2.35	2.00 x 1.18	1.57	0.31	0.59	5	28	0.1	5	5.30 e-15	-10 \sim +60	-20 \sim +70
A2C-16-2.57	16	5.28	2.54 x 2.08	2.54			10	70	0.1		7.50 e-15		

A2C-16-2.57

