

## 51BM0.25/SIP-EJ444-E3-X2

**Description:** Thin model **Alpha/Beta** SiPM Scintillation detector with built in temperature compensated bias generator and preamplifier. compatible with Brightspec Topaz-SiPm

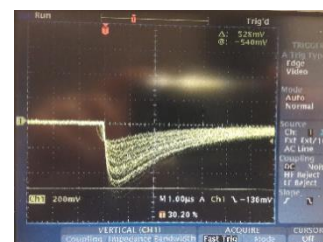
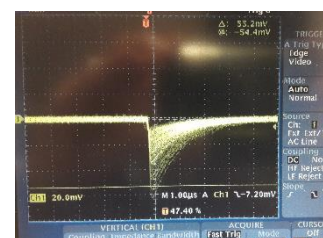
- Scintillation material** : ZnS(Ag)+plastic scintillator  
 $\varnothing 51 \times 0.25\text{mm}$  (EJ-444)
- Drawing number** : V-1611
- Crystal read out** : SiPm, Array J-60035-4P
- Housing** : black light tight polyester
- Entrance window** : light-tight double aluminized mylar  $0.9 \text{ mg/cm}^2$
- Protection** : 72 % transmission stainless steel grid
- Power supply** : + 5 – 16 V (3 mA)
- Electrical connections** : LEMO connector FFA0S302CLAC44  
 Pin 1 = +5 – 16 V (brown)  
 Pin 2 = Signal (white)
- Cable** : 50 cm 4 core shielded LIYD11Y



Connector compatible to Brightspec Topaz-SiPm

### Performance

- Pulse rise time (0-100%)** : 150 ns (betas)  
 1 $\mu\text{s}$  (alphas)
- Pulse fall time (1/e)** : 1.2  $\mu\text{s}$  (betas)  
 3 $\mu\text{s}$  (alphas)



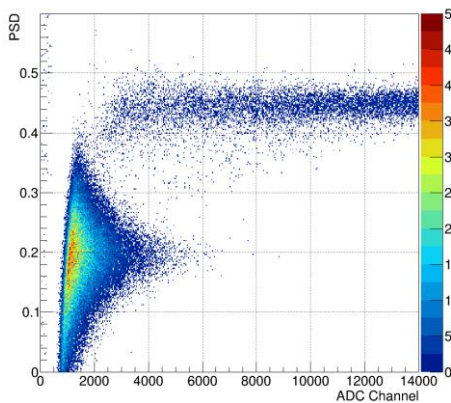
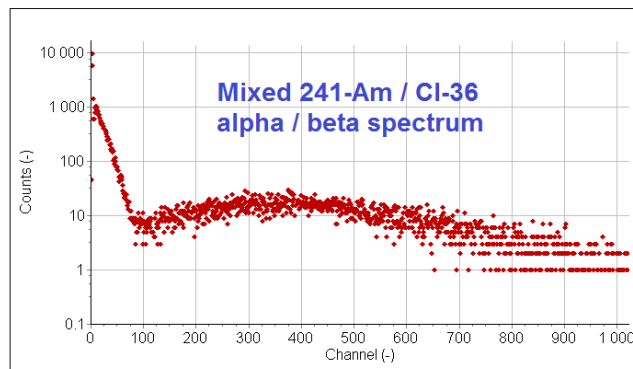
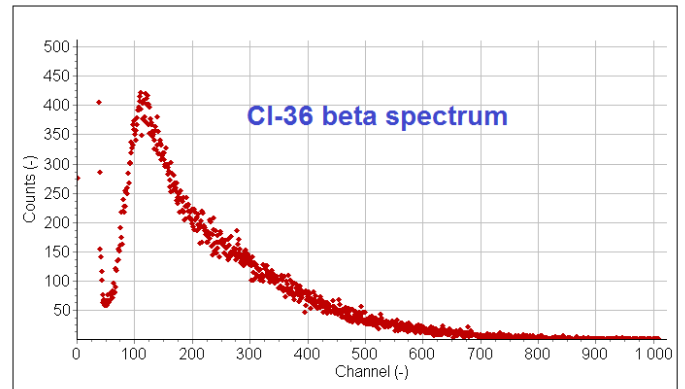
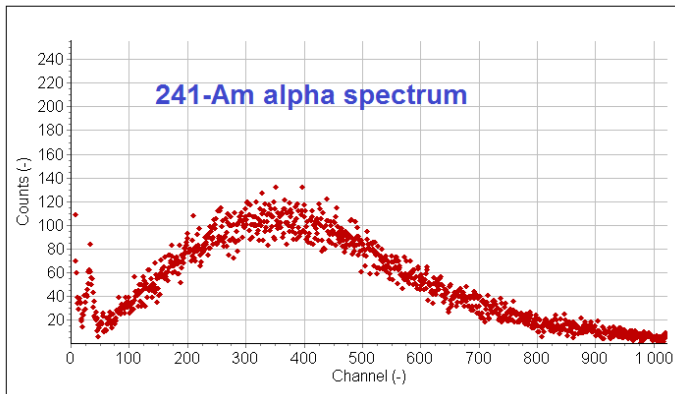
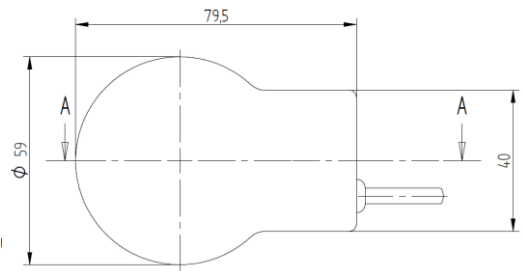
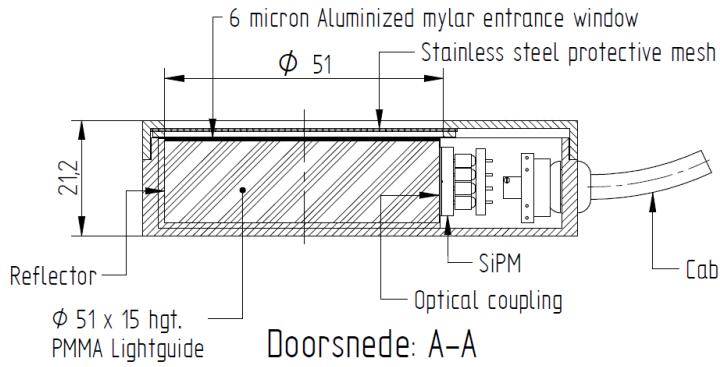
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 Revision nr : 1  
 Doc. Name : 51BM0.25\_SIP-  
 E3-EJ-444-E3-X2

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**Gain** : Approx. 75 mV/MeV(betas)  
 Approx. 500mV /5.48 MeV (alphas)

**Noise level** : < 50 keV (betas) @ 22 degrees C



2D PSD scatterplots of detector under mixed alpha/beta irradiation

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