

BAND

Study on design

BAR ASSY

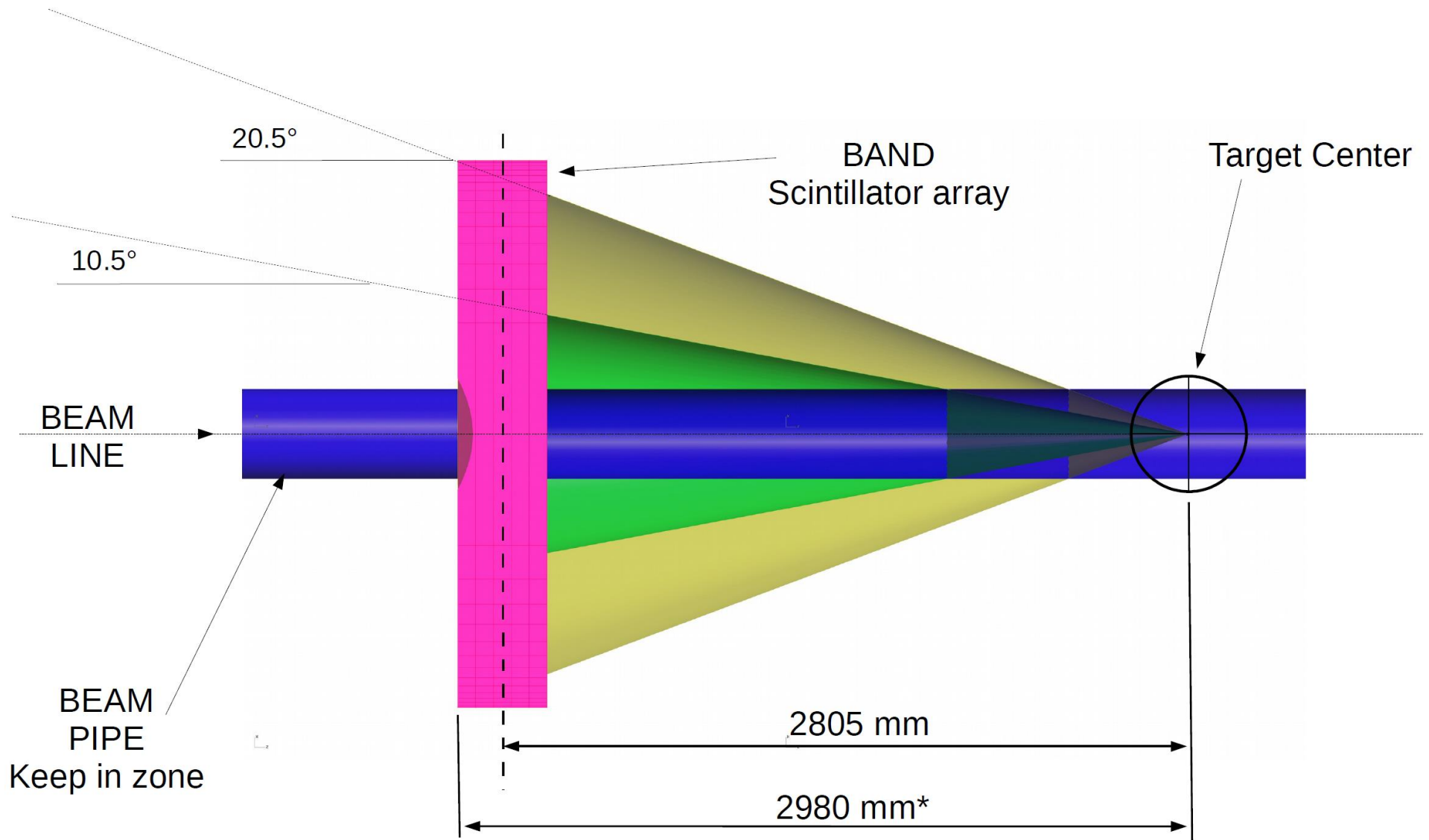
*Overall estimation on dimensions and mass for detector with five layers of
70x70 mm² scintillator of cross section*

Iñaki

USM

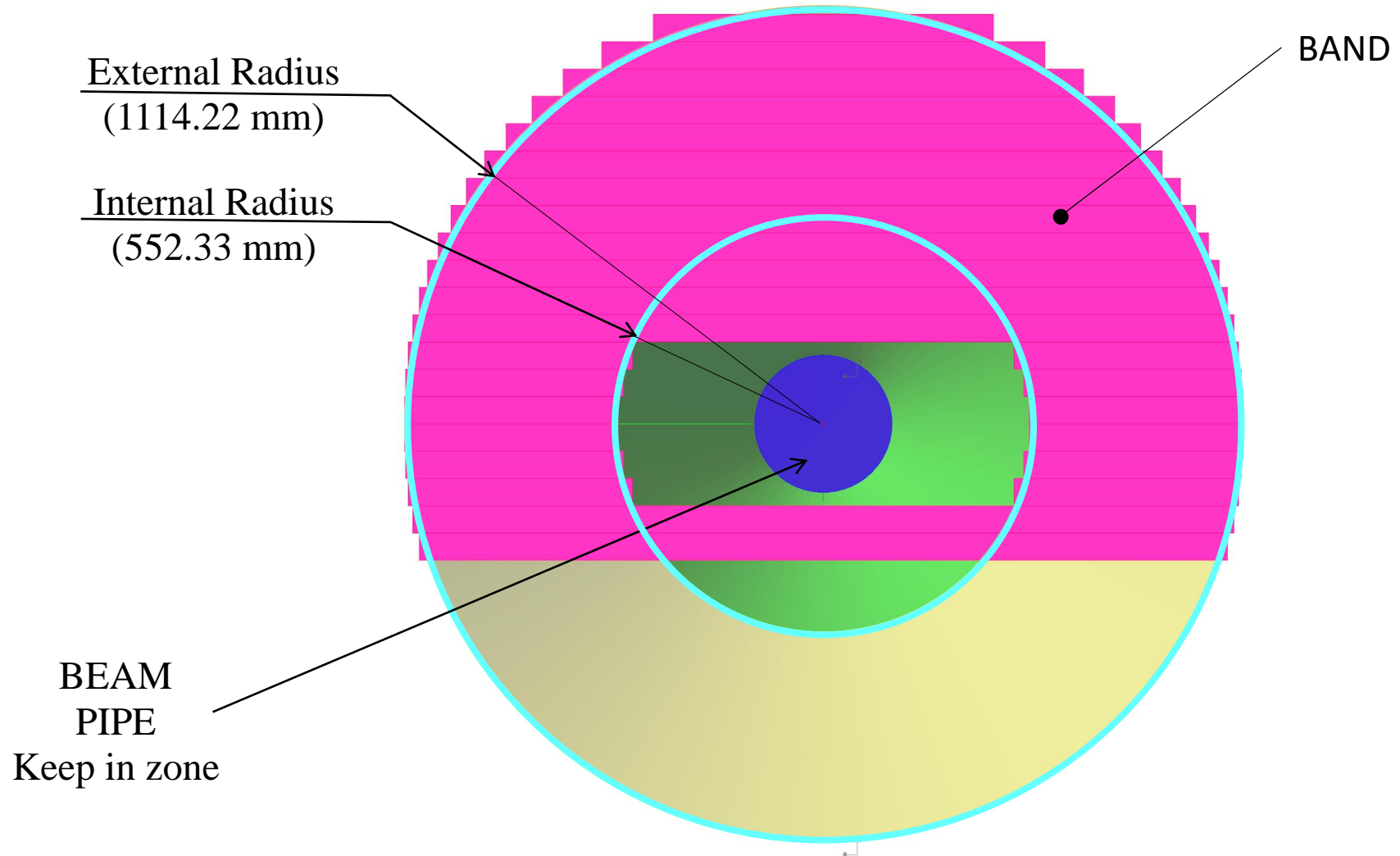
APRIL 17th, 2017

Distance Target Center/BAND

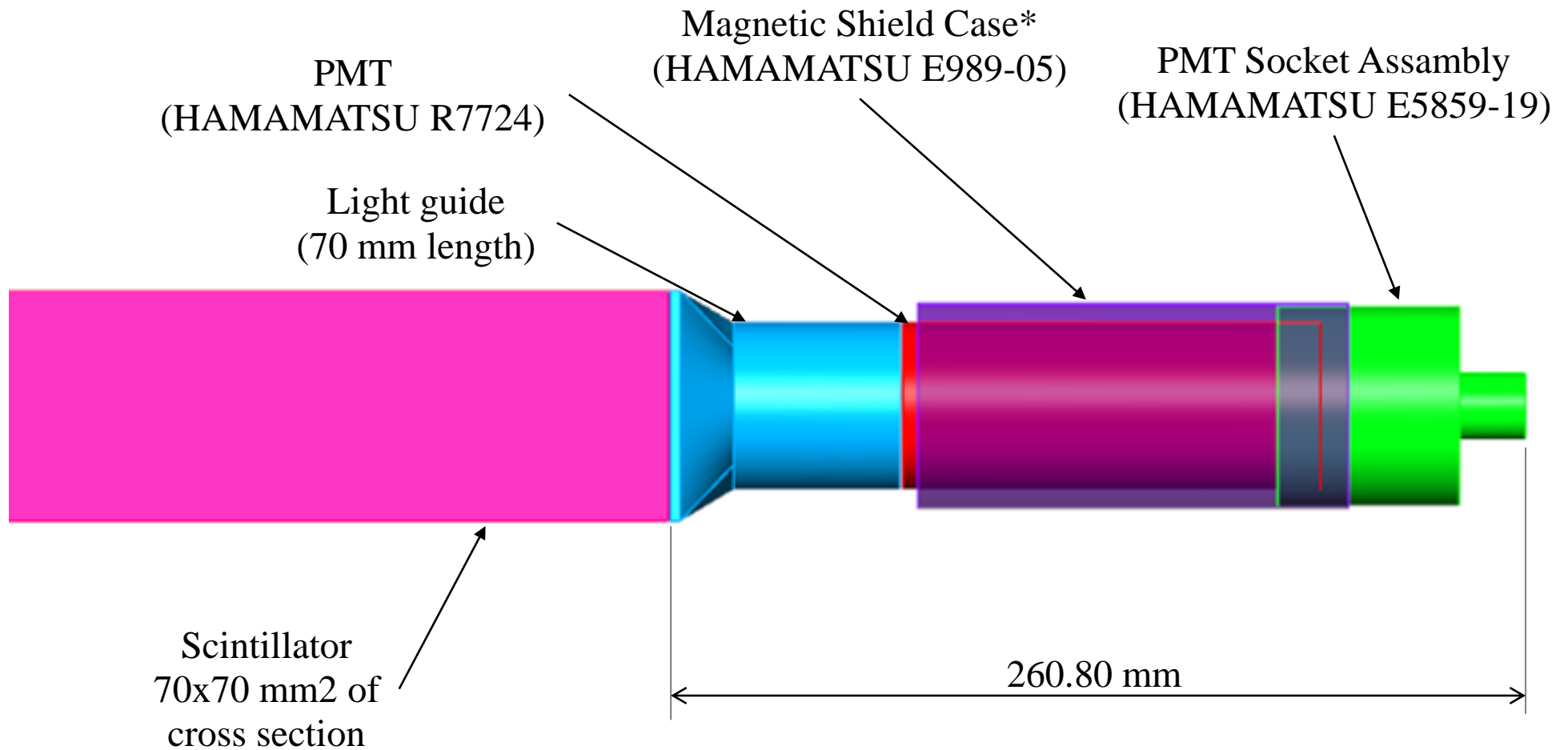


* Distance between target center and upstream side of BAND is function of detector thickness, e.i. cross section of scintillators and the number of layers (5).

Internal & External diameters

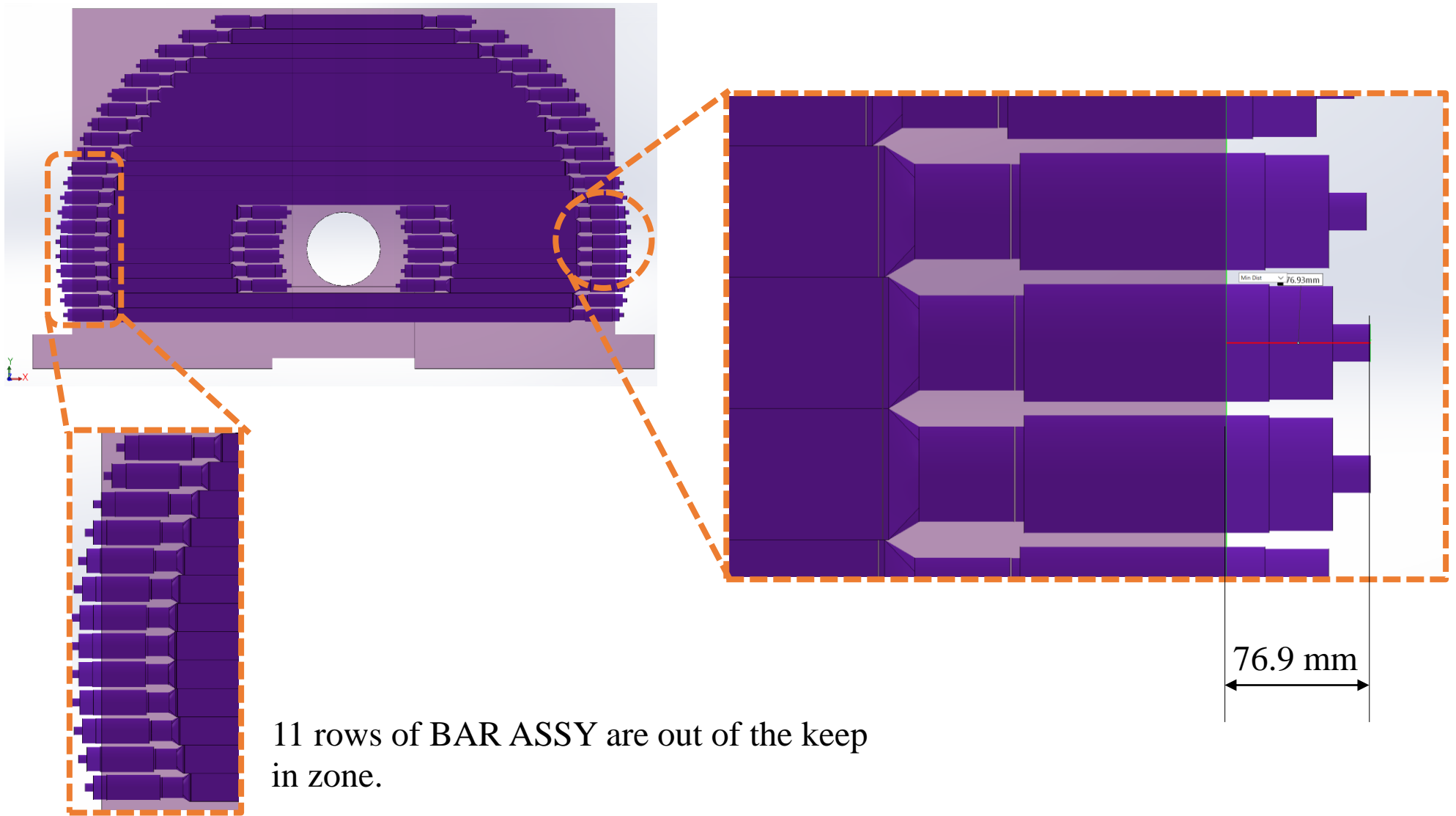


Parts consider for mass calculation and geometric restrictions



* Magnetic Shield Case length has to cover the light guide by more than 1 – 1.5 of the PMT diameter.

BAR ASSY out of keep in zone



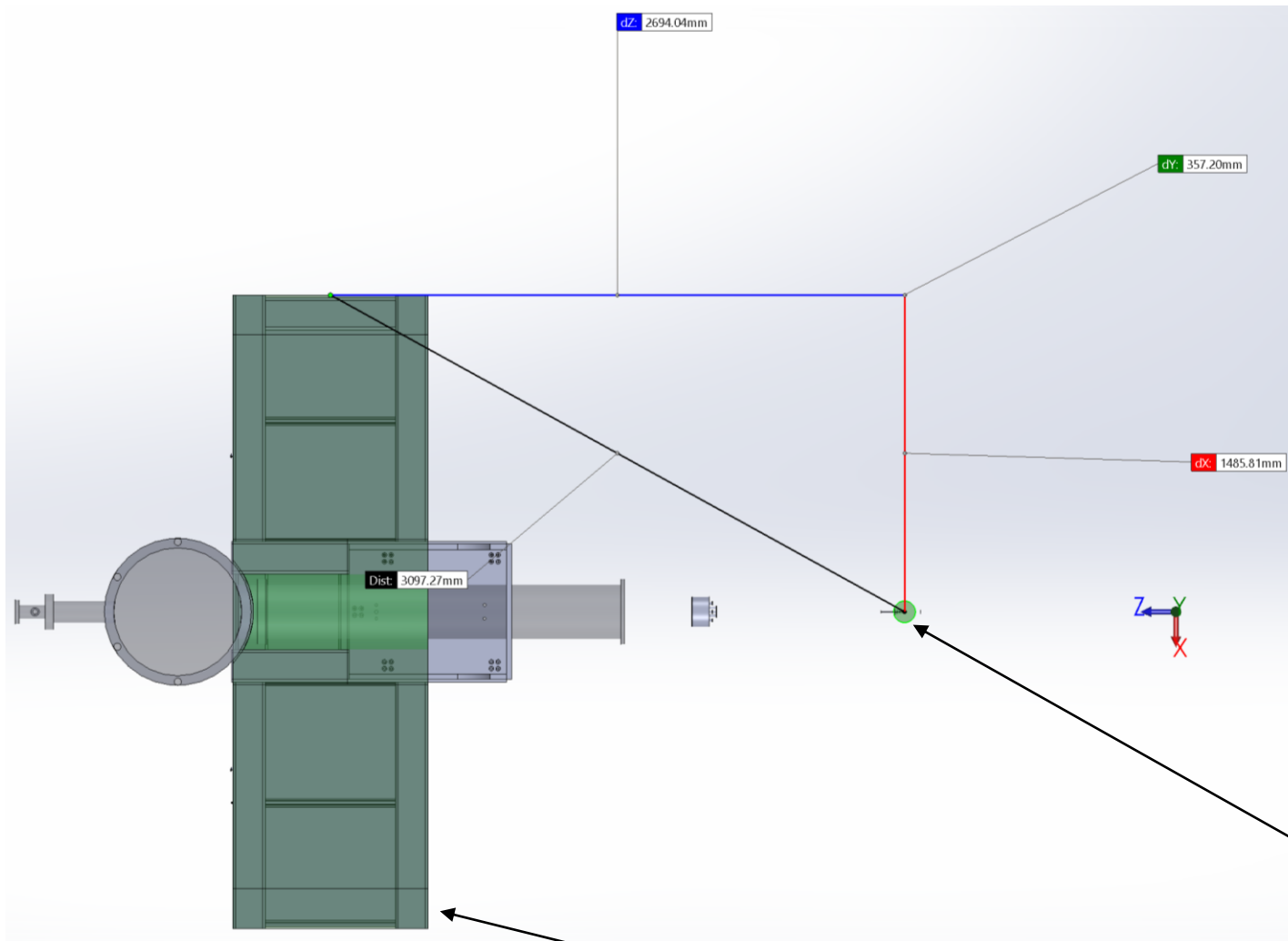
Estimation of BAND mass

- BAR ASSY: ~1050 kg
- STRUCTURE: ~950 kg
- Lead shield (1 inch thick): ~1000 kg

Estimated total mass: ~3000 kg

Background

Distance from Target Center to the center of BAND keep-in-zone



BAND keep in zone

Target center

Distance from the center of BAND keep-in-zone to the center of the scintillators arrange

