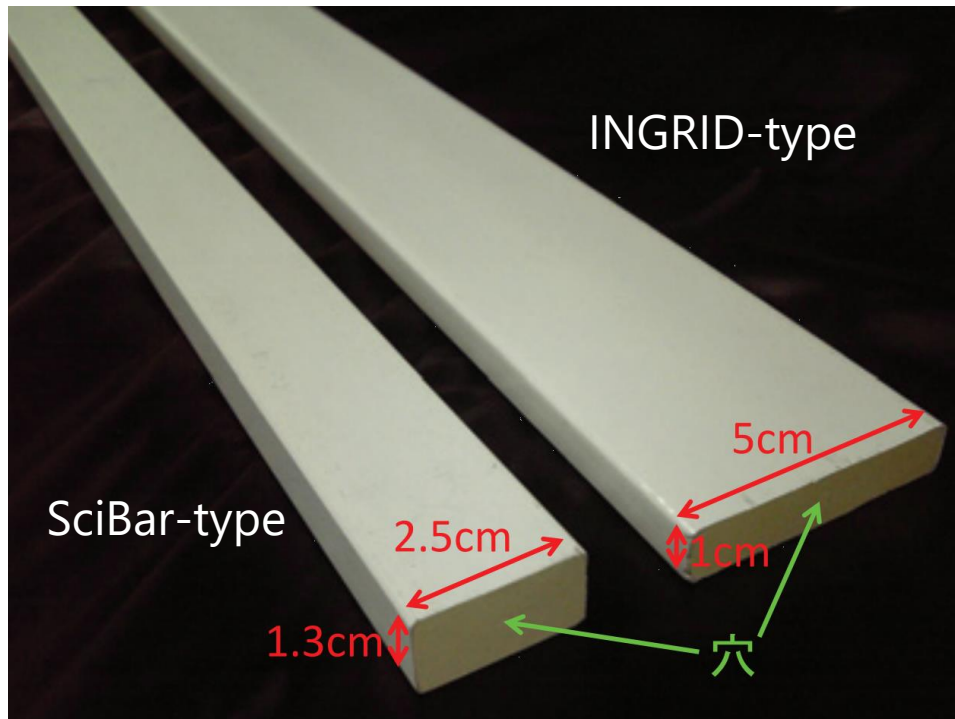


# Proton Module structure

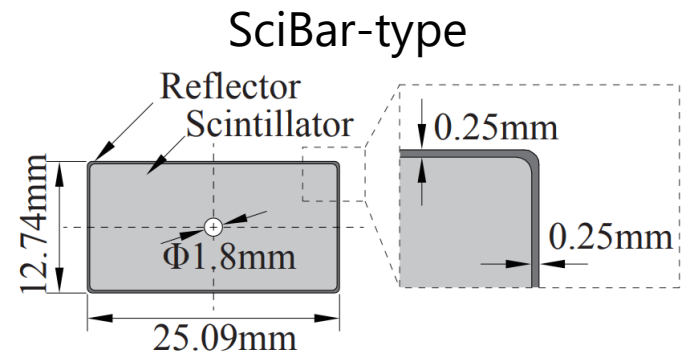
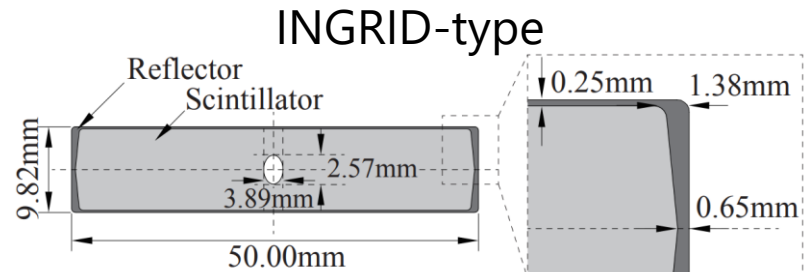
# Two types of scintillators

- There are SciBar-type and INGRID type.
- Length is 1.2m for both types.

Picture

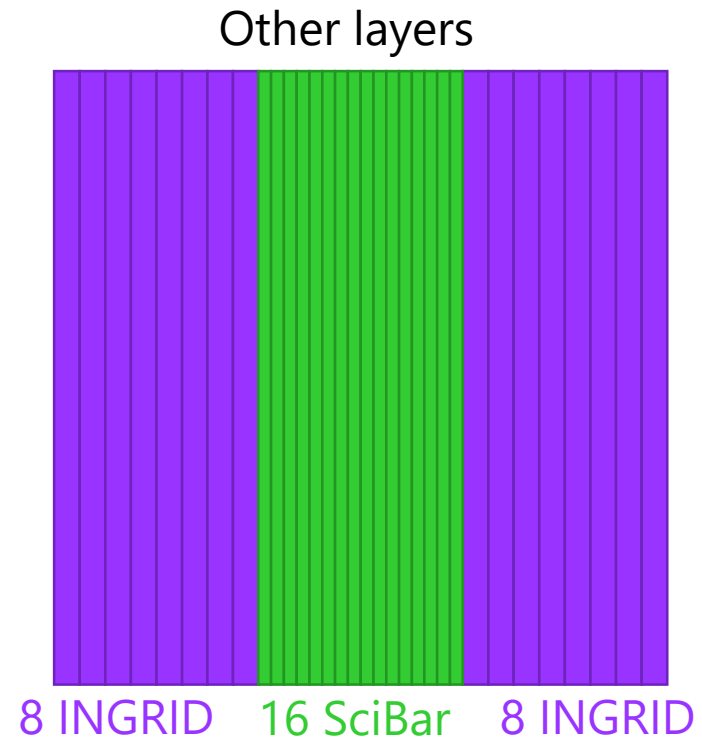
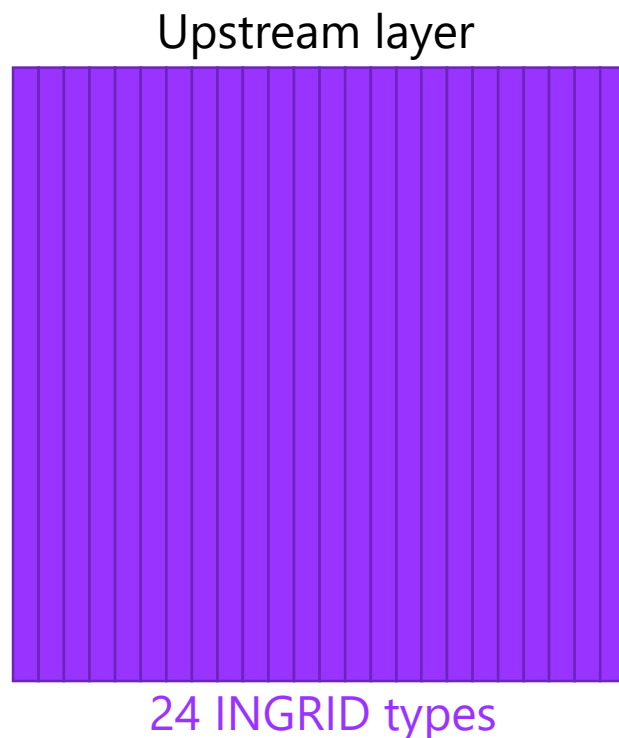


Cross sectional dimension



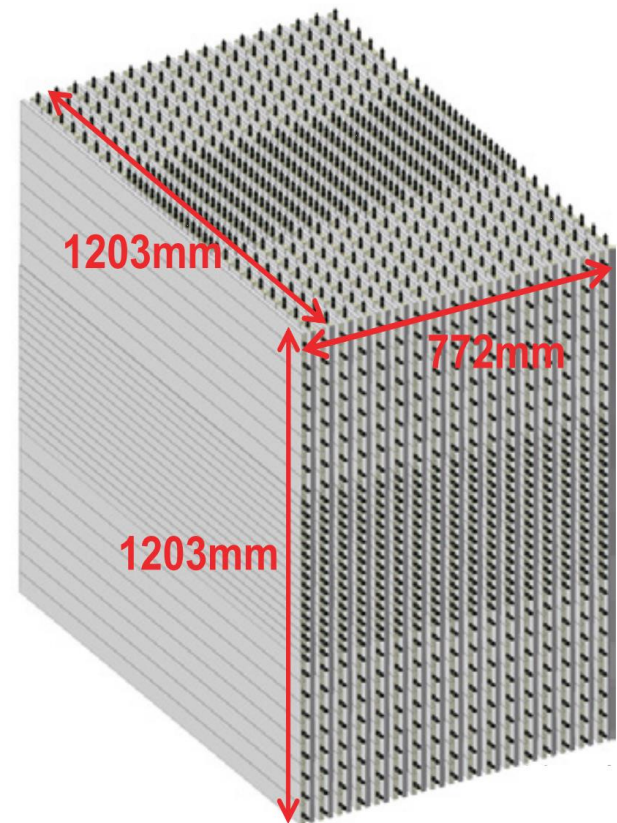
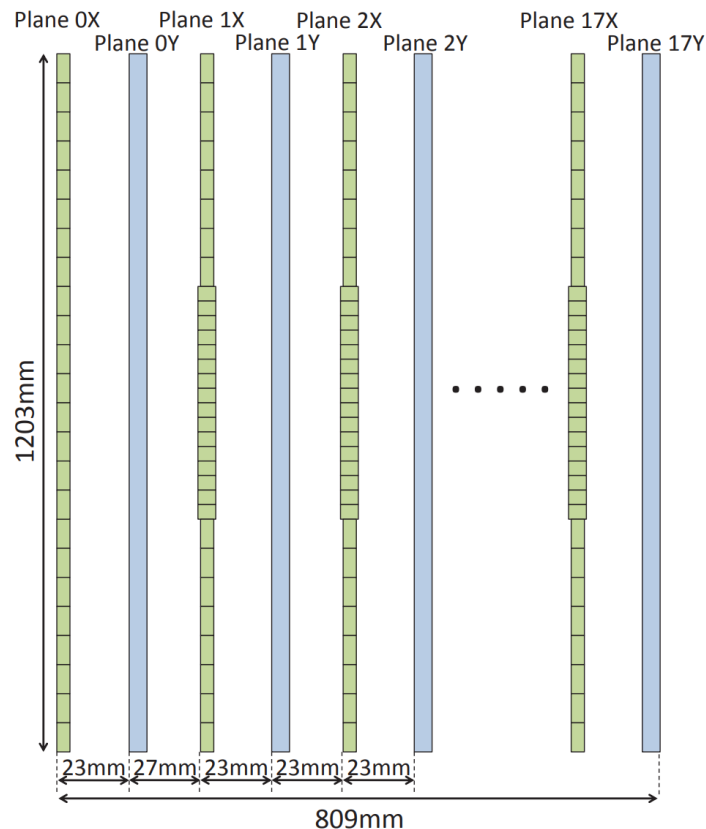
# Scintillator layer

- Each of upstream two layers (used as upstream veto) consists of 24 INGRID-type scintillators.
- Other layer consists of 16 INGRID-type and 16 SciBar-type scintillators.



# Layer placement

- Horizontal and vertical layers are placed alternately with fixed intervals.



# Total thickness

- SciBar-type scintillator is thicker than INGRID-type scintillator, 1.3cm and 1cm, respectively.
- As a result the total scintillator thickness is different in each region. → The number of neutrino interactions is also different.

Total scintillator thickness seen from upstream except for upstream two layers

34.0cm	39.1cm	34.0cm
39.1cm	44.2cm	39.1cm
34.0cm	39.1cm	34.0cm