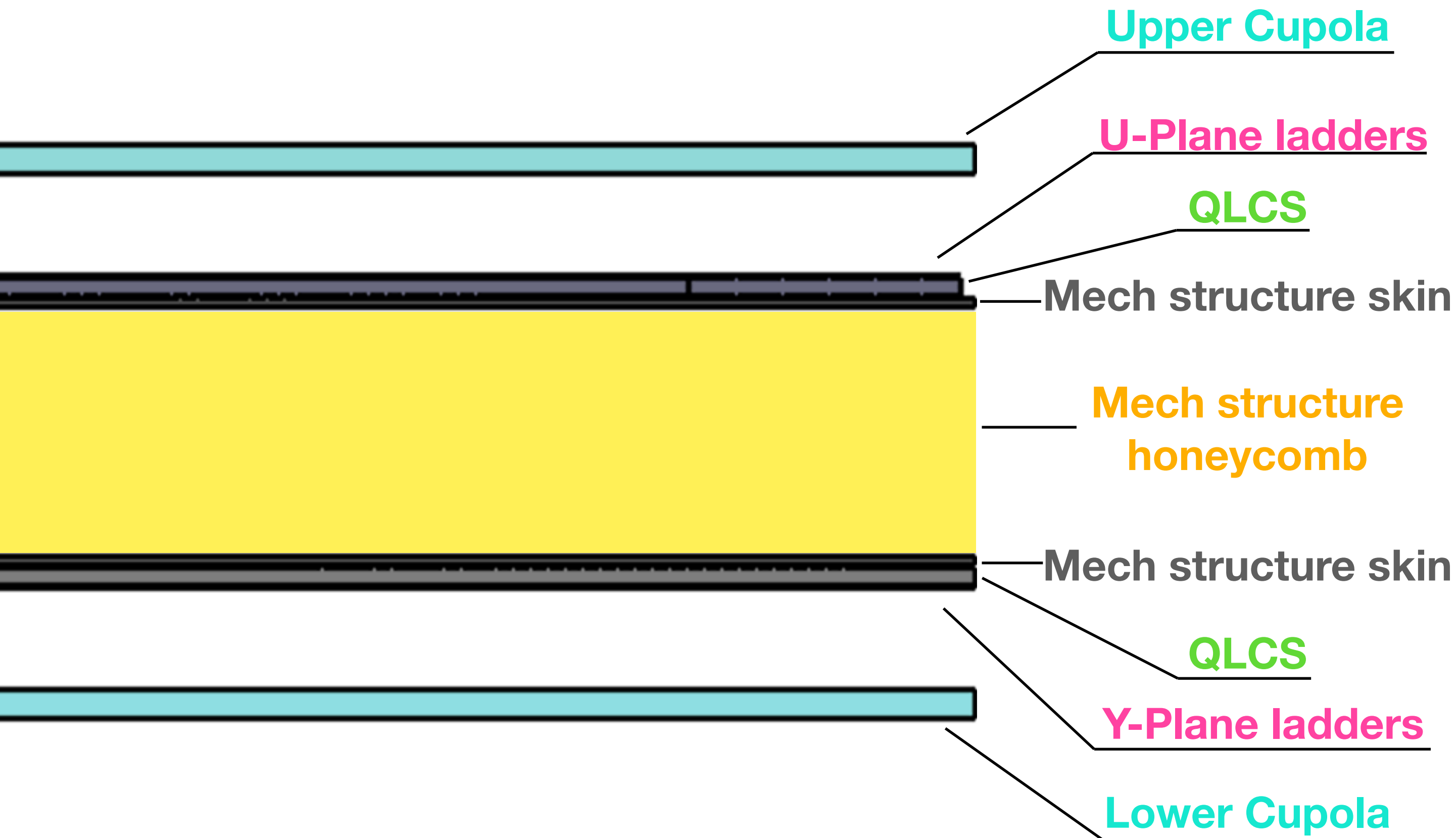


L0 quarter plane material specs

L.Mussolin - 03-Nov-2022

AMS-2.2 - Layer 0 quarter plane



Cupolas*:

- Top skin: K13D2U/EX1515, 0.2 mm
- Core: Hexcel CRIII-3/16-5056-.001-3.1, 8.0 mm
- Bottom skin: K13D2U/EX1515, 0.2 mm

QLCSs:

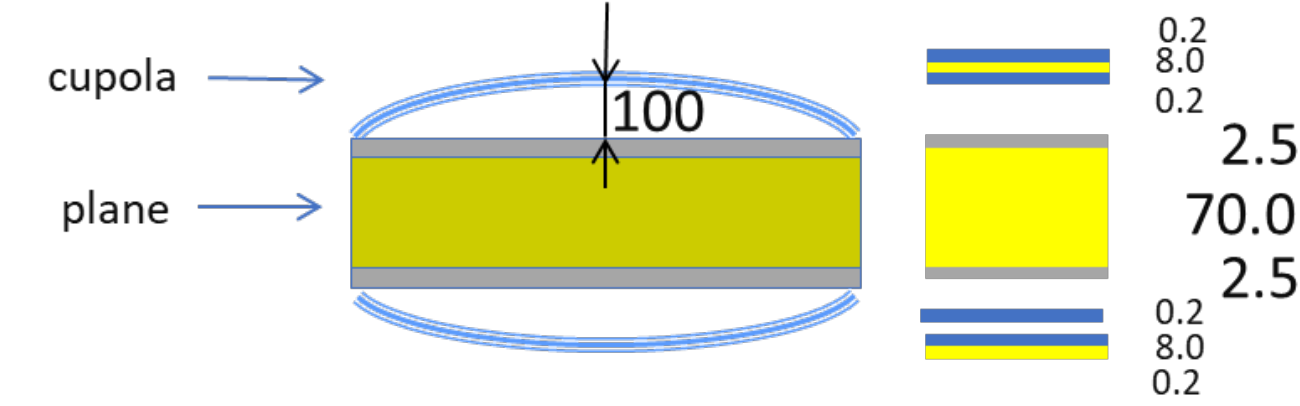
- Top skin: M55J/EX1515, 0.3 mm
- Core: CF Honeycomb, 5.0 mm
- Bottom skin: M55J/EX1515, 0.3 mm

Mech structure*:

- Top skin: M55J/EX1515, 2.5 mm
- Core: CF Honeycomb, 70.0 mm
- Bottom skin: M55J/EX1515, 2.5 mm

Density: 36 kg/m³
 Compressive modulus: 890 MPa
 Shear modulus: 380 MPa

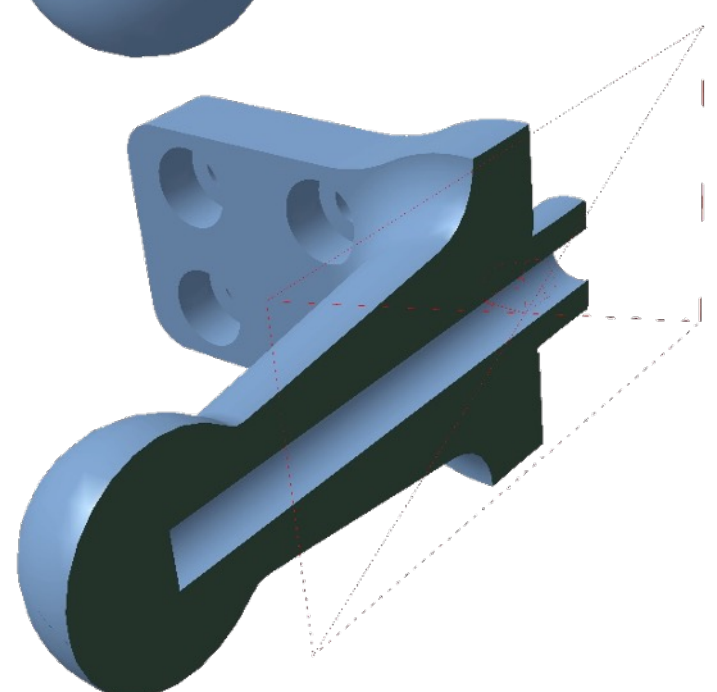
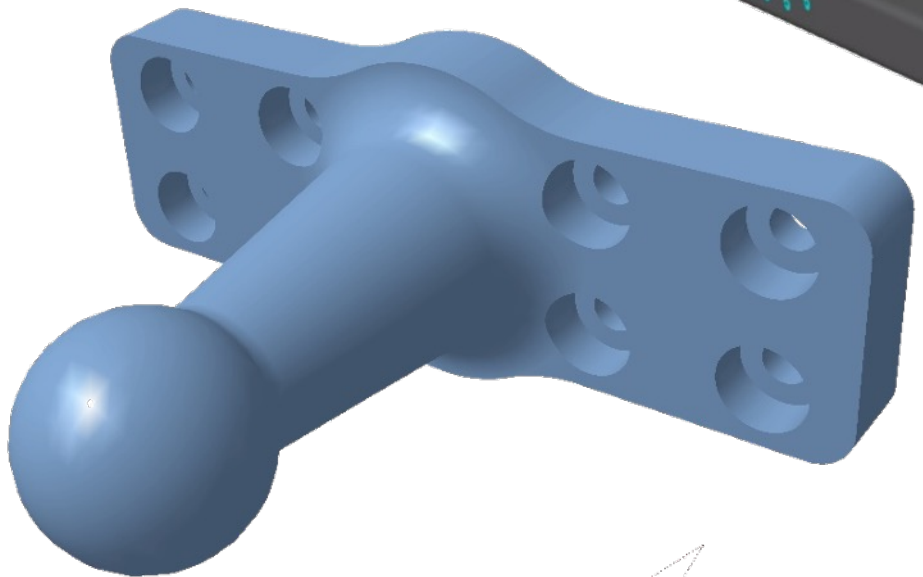
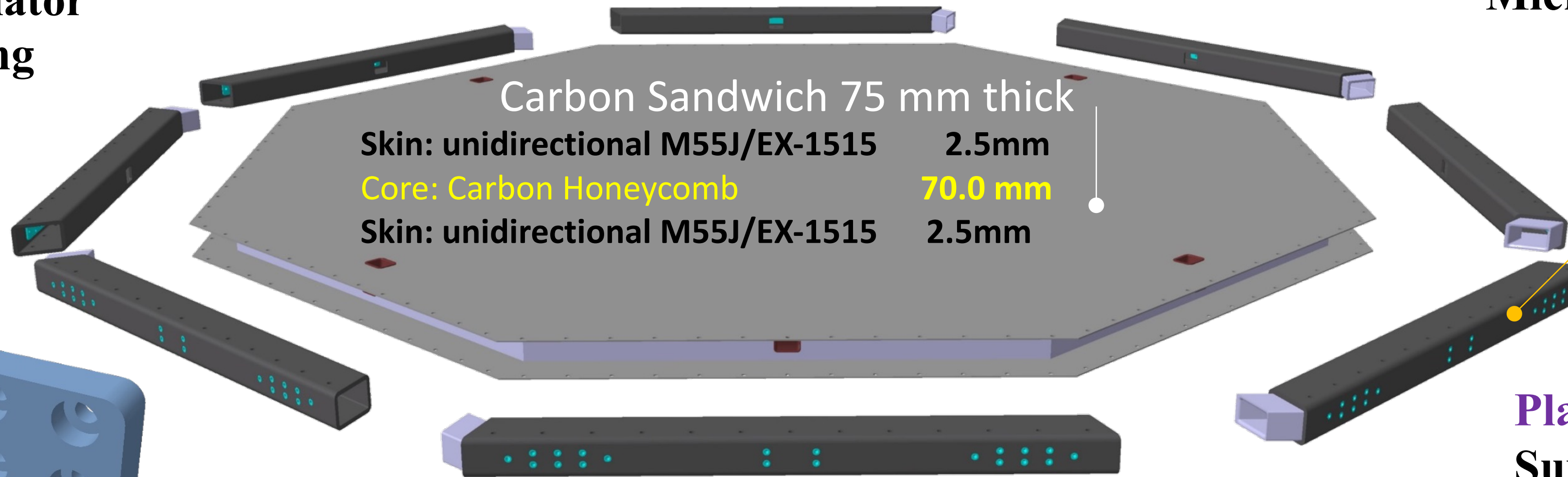
* From Corrado's presentations



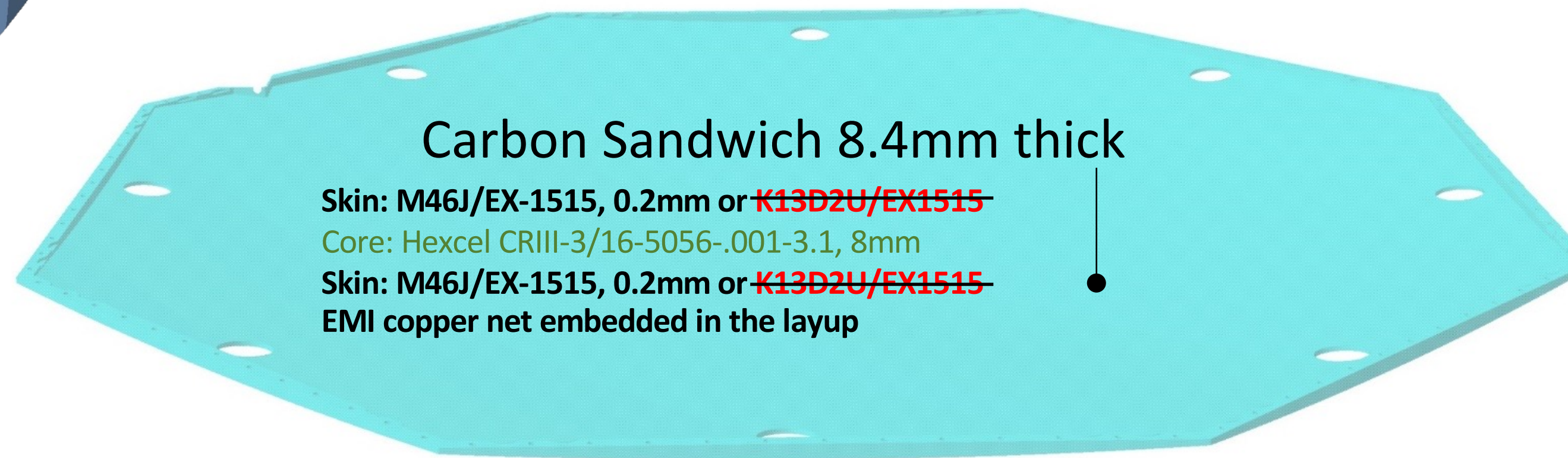
Cupola Top & Bottom
EMI Shielding
Thermal radiator
Light shielding



...in addition, Cupola Top
Minimum Material Budget
Micrometeorite shielding



Plane 0 Structural
Supports and positions ladders
Provides structural stiffness
Provides mechanical interfaces



Tight requirement on sensor alignment drives the design and material choice
of the mechanics

AMS-2.2 - Layer 0 quarter plane

Thermal foils

Carbon fiber K13D2U/EX1515 thickness 0.5 mm
(Can be removed from simulation)

Thermal foil to radiator fixation

Aluminum
(Can be removed from simulation)

Radiators
Aluminum

