AlbaPod ICD v0.1

PocketQube Deployer
Interface Control Document
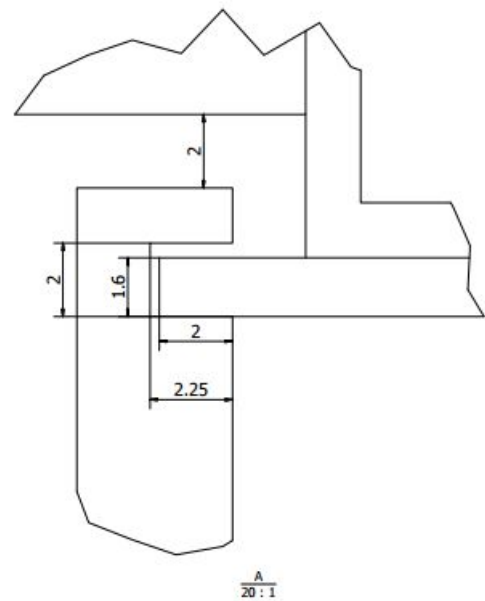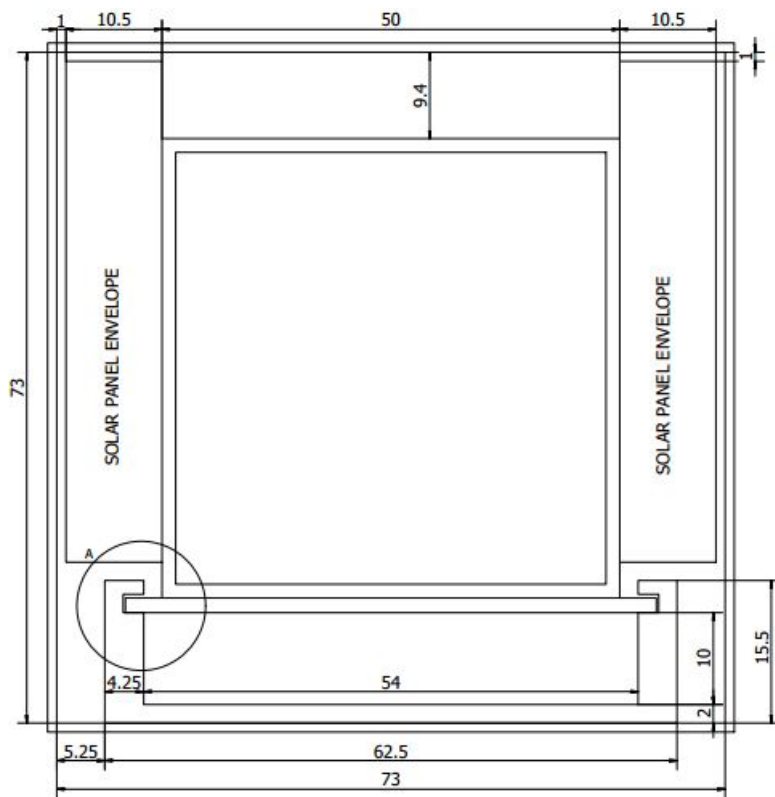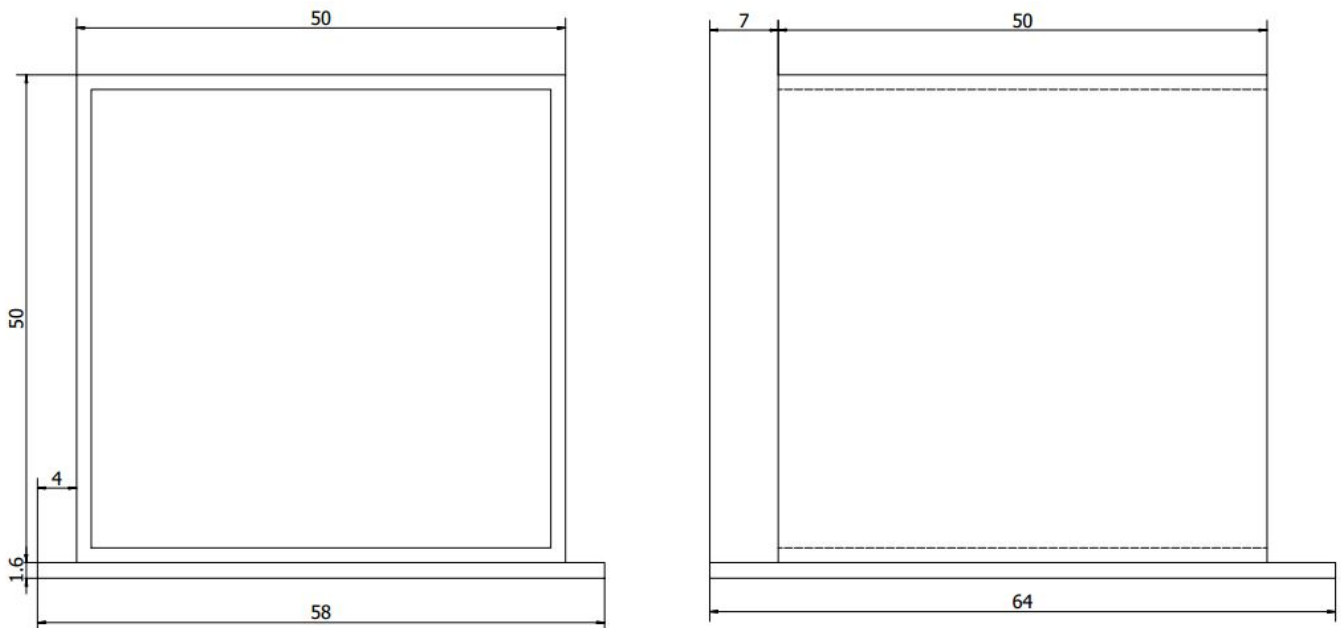
Alba Orbital Limited

Introduction

The goal of this document is to allow PocketQube Developers to build their PocketQubes to be compliant with the latest version of the open PocketQube Standard as agreed by Alba Orbital, TU Delft and GAUSS.

Pod Cross-Section
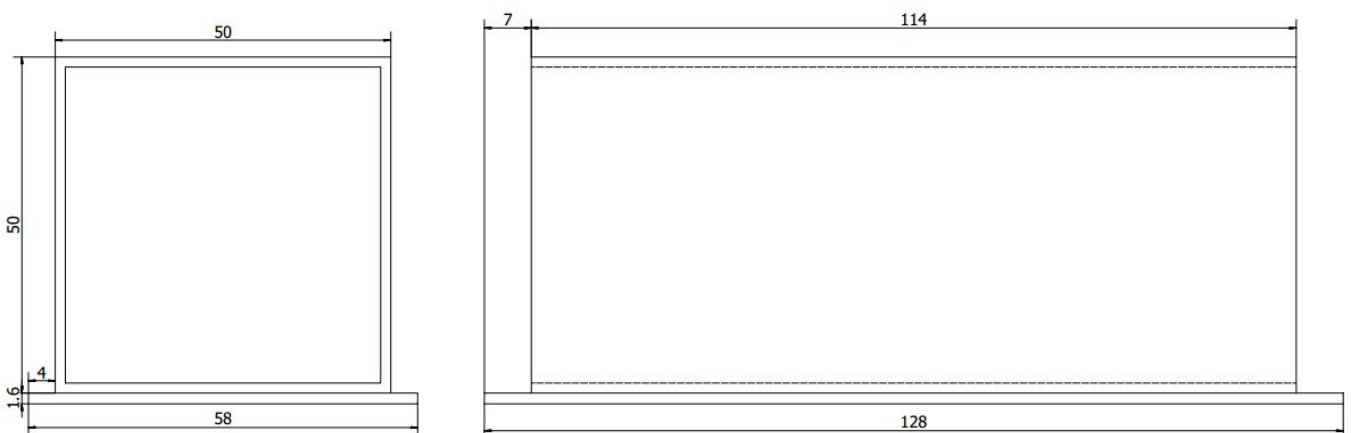

X Axis = Baseplate width   58mm

Y Axis = Baseplate length,   64mm, 128mm, 192mm
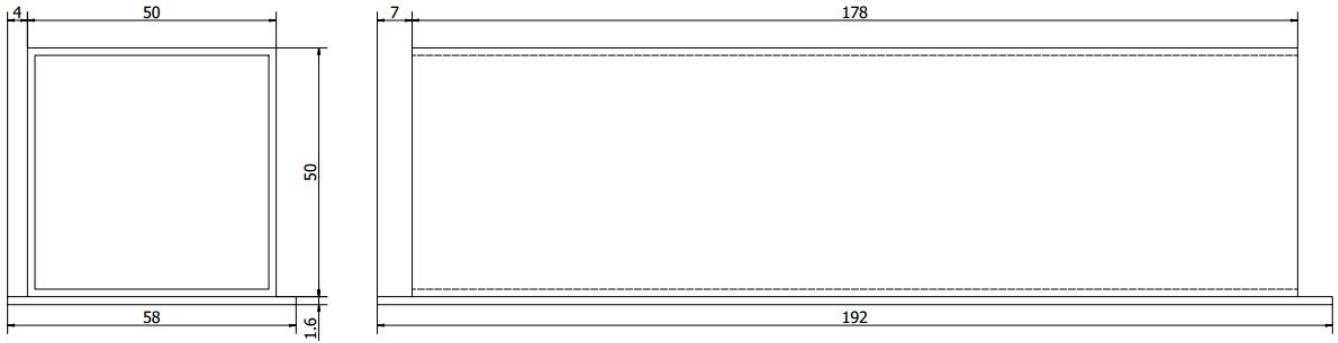
Z Axis = Cuboid Height,   50mm,

1p PocketQube

2p PocketQube

3p PocketQube

4	50		7	178

50

58

1.6

192

Mass

PocketQubes flying on AlbaPod must have a mass of less than or equal to 250 grams per 1p (500 gram for 2p, 750 grams for 3p).

Kill Switches

All satellites flying on AlbaPod must be dead in the pod. All PocketQubes must use redundant kill switches i.e. both must be open for satellite to function.

Deployables

Deployable mechanisms are welcome on AlbaPod, but cannot touch the wall due to the increased risk jamming the pusher plate. All deployables must be constraint while in the AlbaPod.

Materials

Materials for Baseplate FR4, Aluminium (Alochrome or Anodized) or Windform. Please contact us if you are using any other material for your Baseplate.

Propulsion

If you are looking to fly propulsion systems, please contact use to discuss.

Pressure Vessels

If you are looking to fly propulsion systems, please contact use to discuss.

Qualification Testing

All PocketQubes must complete a vibration test for sinusoidal and random vibration before being integrated into AlbaPod. This can be found within the launch vehicle suppliers Payload User Guide (PUG). All PocketQubes must complete a thermal vacuum bakeout, to boil off sublimates and derisk outgassing issues for pod integration.

Licensing

All satellites must have frequencies coordinated by IARU, ITU and any national spectrum management agency. Satellites must be registered to their countries space objects registry (if in place).

Deorbiting

All PocketQube must deorbit within 25 years. Please use ESA DRAMA software (free to [download](#)) to calculate

Integration

Integration into AlbaPod will occur at Alba Orbital premises unless otherwise agreed. We expect this to occur approximately 60 days before launch. Our current address is:

209 Oxford House,
71 Oxford Street,
Glasgow, G5 9EP

Access to the Pod after Integration

There will be no way to remove a PocketQube from the AlbaPod after integration. Please ensure you do not require access.

For more information, please email contact@albaorbital.com