# General Overview

A standard Satellite Bus (SSB) typically refers to a standardized design or set of specifications for the satellite bus. The idea behind a standard bus is to create a common platform of framework that can be used for multiple satellite missions. This approach can lead to cost saving and efficiency in satellite development and manufacturing, as it allows for the reuse of components and systems.

Satellite Bus in the context of satellite design, refers to the structural framework and subsystems that support the satellite’s functionality. The (SB) provides the necessary infrastructure for power, thermal control, communication, and other essential functions, while the payload is the specific equipment or instruments that accomplish the satellite’s mission objectives.

## Primary Missions Scenarios

1. AsteroidFinder – Search for asteroids with a space borne telescope on a compact satellite.
2. CHARM – remote monitoring of methane in the Earth’s atmosphere.
3. LiveSat – life science/interactive pedagogical/technological multi-user payload.

# Design Requirements

## Attitude Control Requirements

* Pointing Stability Rate
* Absolute Pointing Accuracy
* Absolute Pointing Stability
* Maximum Pointing Error

## Attitude Determination Requirements

A good Starting point is that the Attitude Determination requirements should be ten times better than the attitude control requirements