Lock Document!

OPTION SHEET FOR NanoSat FlatSat Kit

Customer Product ID: _____ (optional, enter your reference here)

Order number: _____

Reset All

1. Configuration Table

1.1 FlatSat Tiers

FlatSat Kits (refer to Section 2 for additional details regarding the different Tiers of FlatSat Kit)			
FlatSat Tier	**Essential**	**Reference**	**Full**
Select			

For further details regarding the different tiers of FlatSat, including information on which subsystems are included and the functionality offered by each tier, refer to **Section 2**.

1.2 FlatSat Add-Ons

Each tier can be customised with Add-ons. Further details for each Add-on is provided further down in the Option Sheet, including a CAD overview and a short description of what is included.

Propulsion Unit	
	Select
ThrustMe NPT30-I2-1U EM-COMM (additional cost)	
No Propulsion	

Further information about the Propulsion Unit can be found in **Section 3.1.**

Star Tracker	
	Select
Sodern Auriga Star Tracker (additional cost)	
No Star Tracker	

Further information about the Strack Tracker can be found in **Section 3.2.**

Additional Battery Packs	
One NanoPower BP8 (included in all Kit Tiers)	**Select**
Numbers of additional NanoPower BP8 (additional cost)	None

Note 1: Each battery pack is limited to input/output currents up to 4A. To achieve the maximum power output performance of the platform Electric Power System of 12A, three battery packs are required (1 Default + 2 Optional).
Further information about the Battery Packs can be found in **Section 3.3.**

Payload Power Channels	
Subsystems	**Select**
Default • **See *NanoSat Default Payload PDU Option Sheet (doc. number 1067969)***	
Custom • **Tailor *NanoSat Default Payload PDU Option Sheet (doc. number 1067969)***	

Further information about the Payload Power Channels can be found in **Section 3.4.**

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

2. FlatSat Kits Description

The FlatSat Kits provide an electrical and functional representation of the NanoSat Platform to support software familiarization, interface development, and early verification activities.

The FlatSat Kit is available in three “Tiers”: Essential, Reference and Full. Each Kit include a dedicated harness and a fasteners kit. This tiered structure offers flexibility when procuring a NanoSat FlatSat Kit, allowing Customers to exclude subsystems that are not required for their specific development and testing activities.

All FlatSat Kit Tiers can be upgraded with the add-ons described in Sections 3.1 – 3.4. The add-ons allow to further customize the Flatsat Kit to better reflect the desired configuration for the NanoSat Platform Kit, including replicating the Options available when configuring the Flight Model.

An overview of the different kits is provided in the following sections, including a CAD view and a functional breakdown[1]:

- **Essential Kit**: Section 2.1
- **Reference Kit**: Section 2.2
- **Full Kit**: Section 2.3

[1] Note: for further details regarding the functional breakdown of the platform, the Reader shall refer to the System Design Document of GomSpace’s NanoSat Platform Kit (can be found on www.gomspace.com or requested to a GomSpace’s Sales representative).

© 2026 GomSpace A/S
All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

2.1 Essential Kit

The **Essential Kit** provides the FlatSat baseline, covering core platform functions for rapid software bring-up and early interface development on a representative bench setup. It includes the essential platform electronics and hardware shown in the CAD in Figure 2-1 and the functional breakdown in Figure 2-2, together with a dedicated harness and fasteners kit, it enables to start integrating and testing software and interfaces.

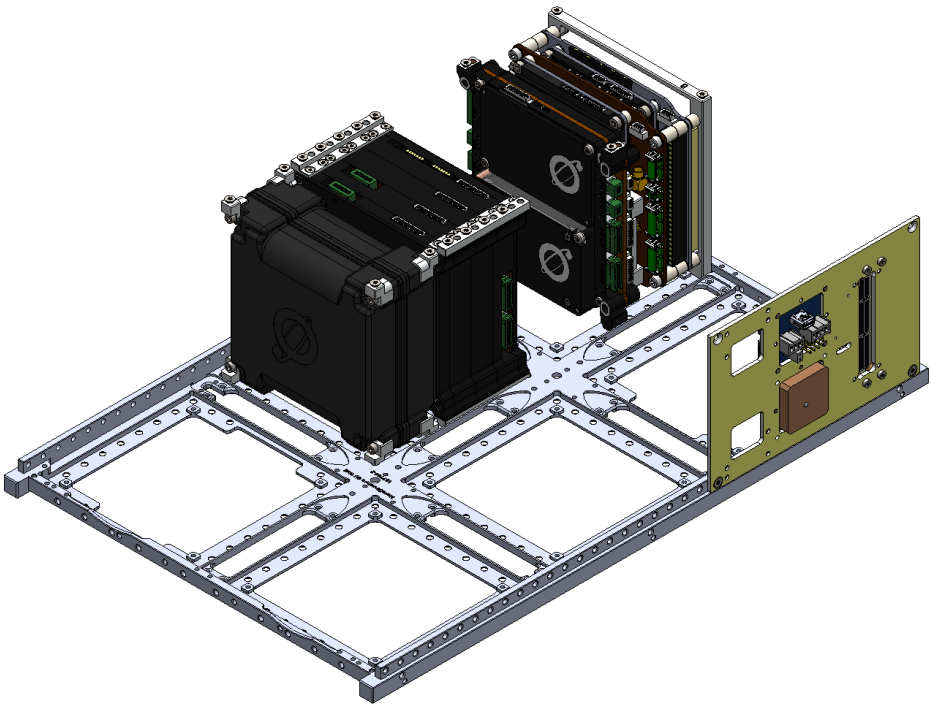


Figure 2-1: CAD Overview of the Essential Kit FlatSat

gomspace.com

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

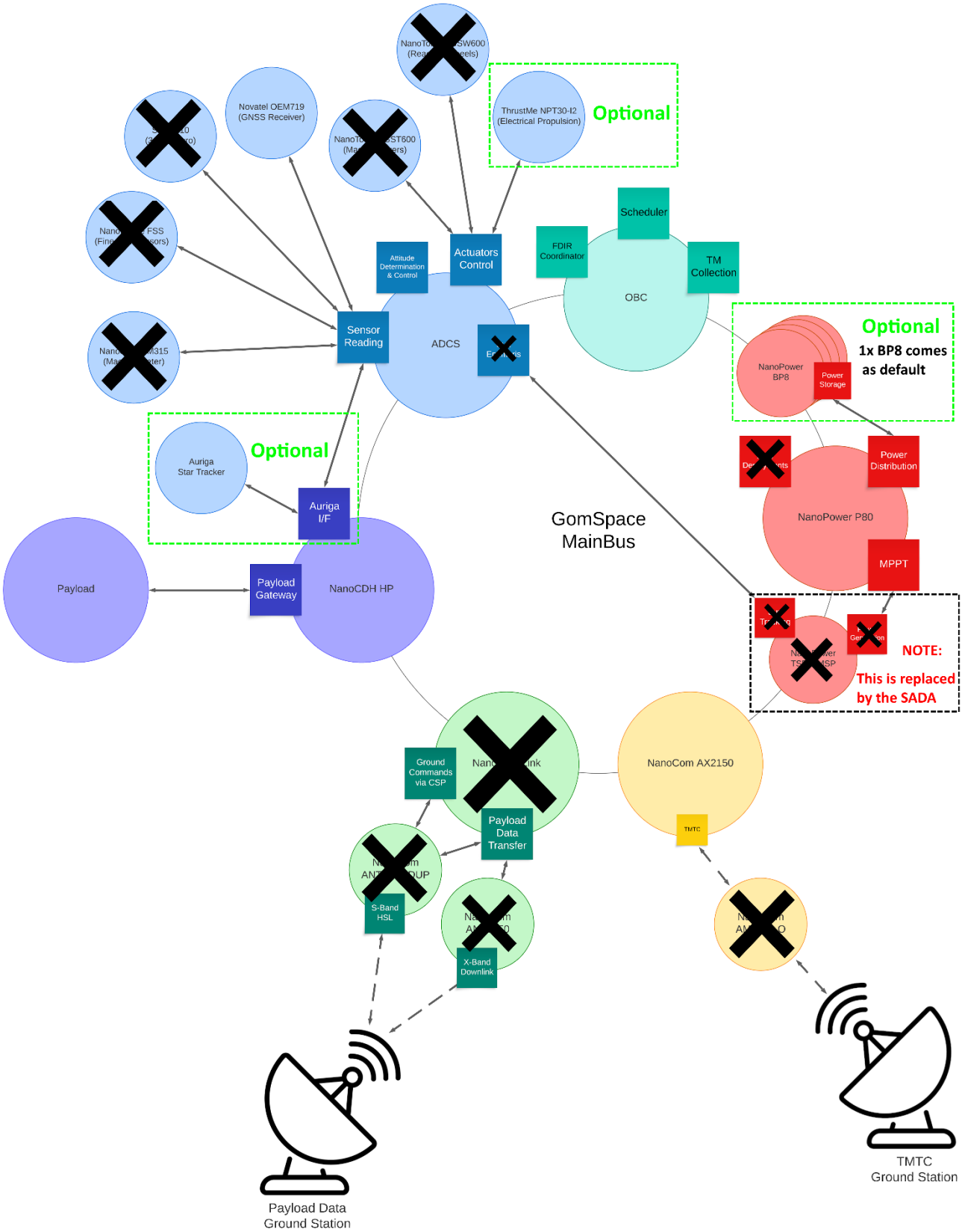


Figure 2-2: Functional Breakdown Diagram of the Essential Kit

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

2.2 Reference Kit

The **Reference Kit** builds on the Essential Kit by completing the satellite MainBus together with key communication (TMTC antenna + High Speed Link radio and antennas) and active mechanisms (tracking solar panels pointing actuators and hold-down and release mechanisms), providing a more representative bench-level setup for system integration and operational rehearsal. It includes the hardware shown in the CAD views (Figure 2-3 and Figure 2-4) and in the functional breakdown diagram (Figure 2-5), allowing to validate end-to-end interfaces and procedures early.

Note: the FlatSat does not include solar panel (no power generation capabilities). NanoPower TSP and MSP are solely represented by the relative mechanical actuators.

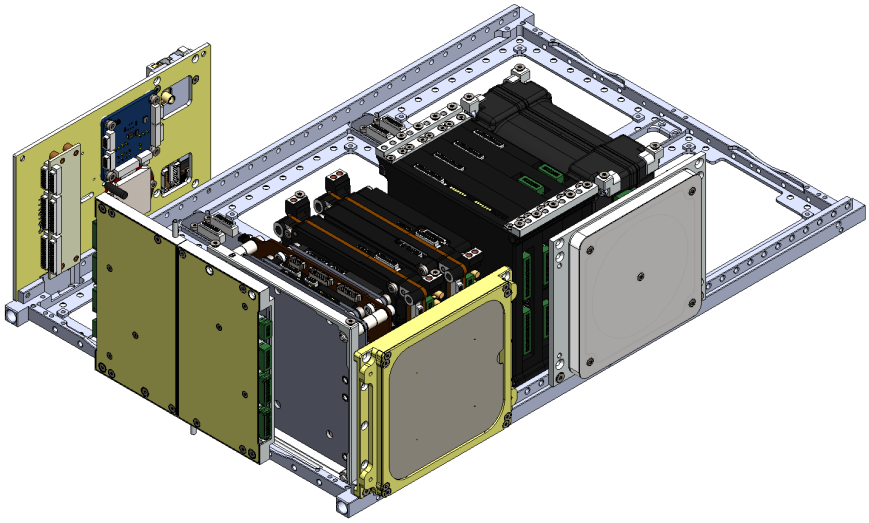


Figure 2-3: Back View of the Reference Kit FlatSat CAD

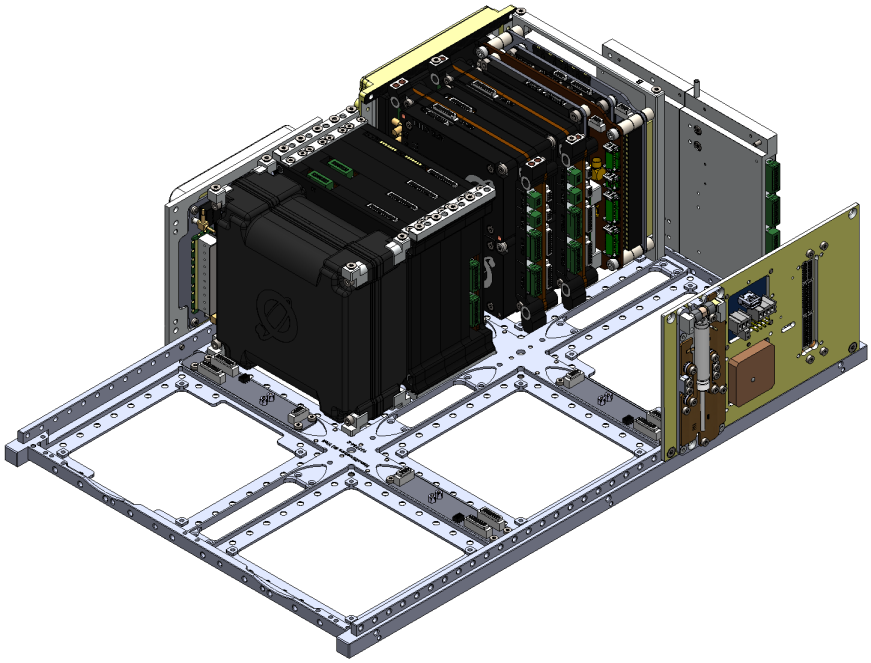


Figure 2-4: Front View of the Reference Kit FlatSat CAD

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

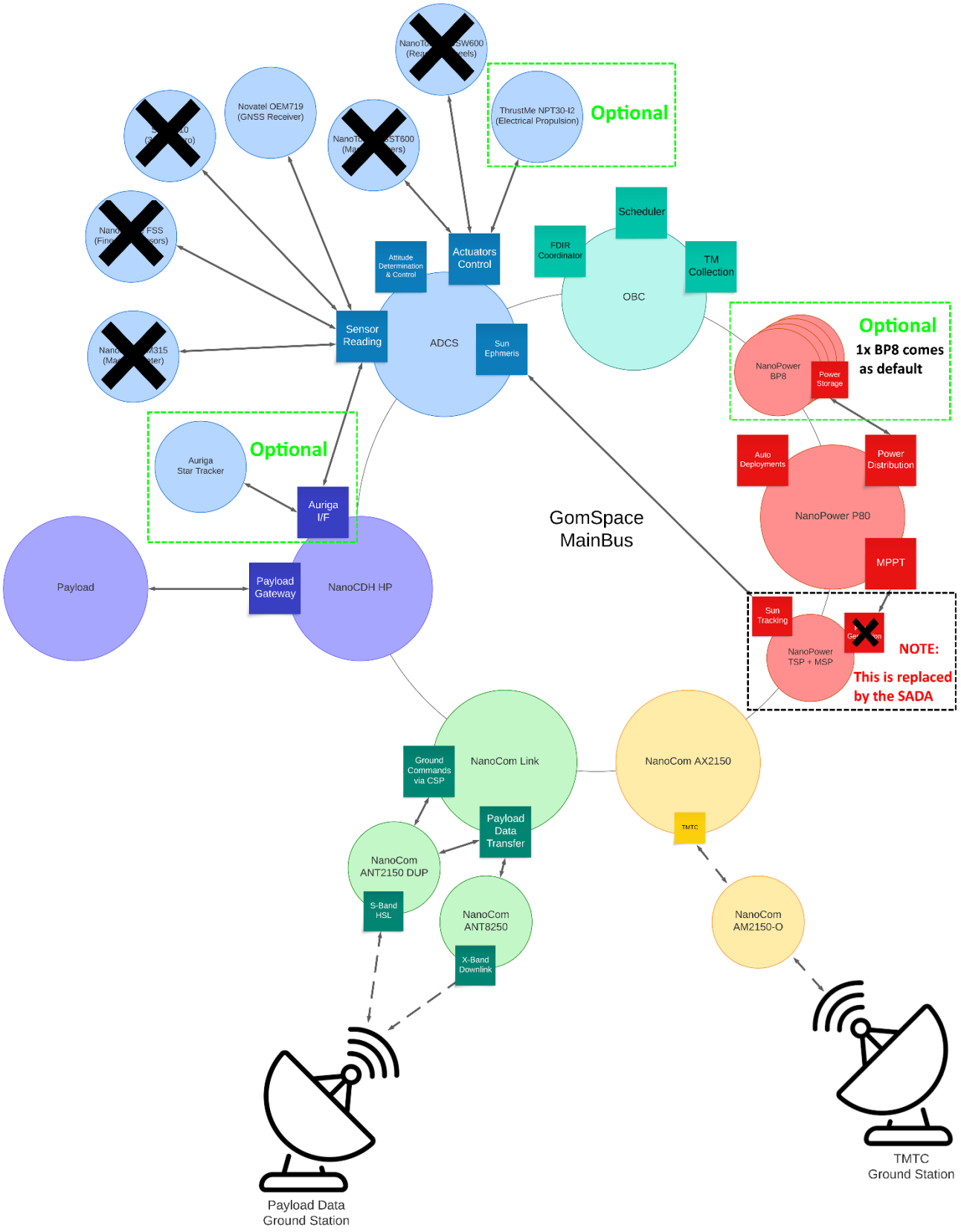


Figure 2-5: Functional Breakdown Diagram of the Reference Kit

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

2.3 Full Kit

The **Full Kit** is the complete FlatSat configuration and provides the closest ground-usable equivalent to a full standard platform replica, including all satellite subsystems except solar panels. The included hardware is shown in the CAD views (Figure 2-6 and Figure 2-7) and in the functional breakdown diagram (Figure 2-8), it enables to perform end-to-end integration and operational rehearsal on a highly representative bench setup.
Note: the FlatSat does not include solar panel (no power generation capabilities). NanoPower TSP and MSP are solely represented by the relative mechanical actuators.

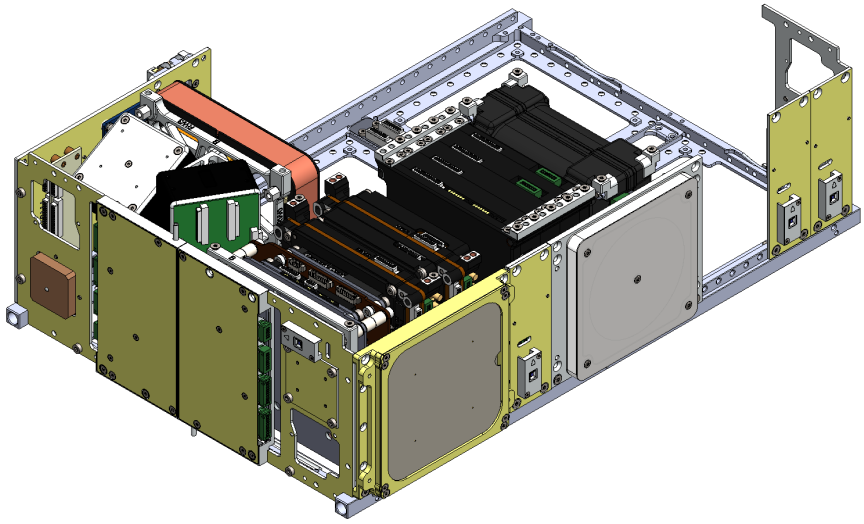


Figure 2-6: Back View of the Full Kit FlatSat CAD

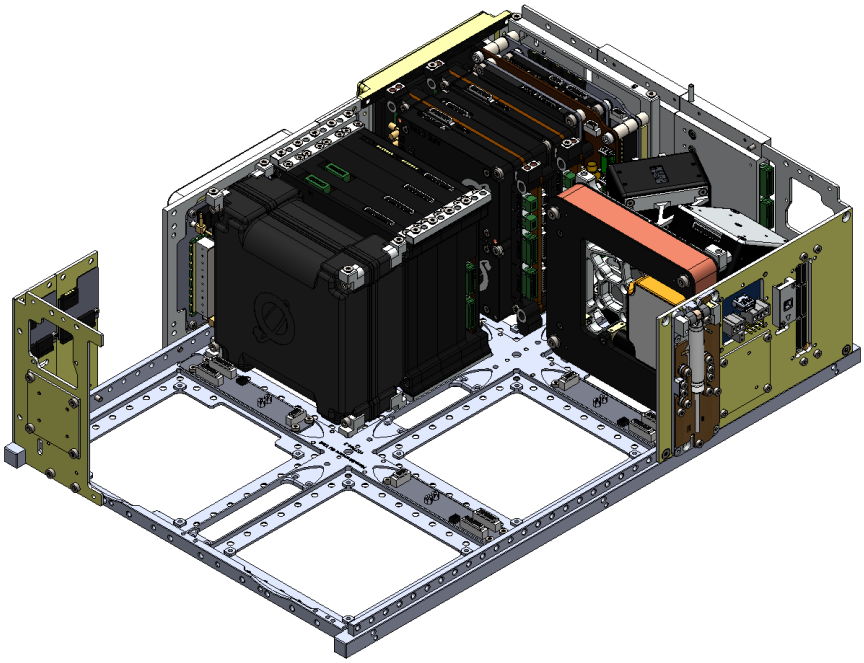


Figure 2-7: Front View of the Full Kit FlatSat CAD

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

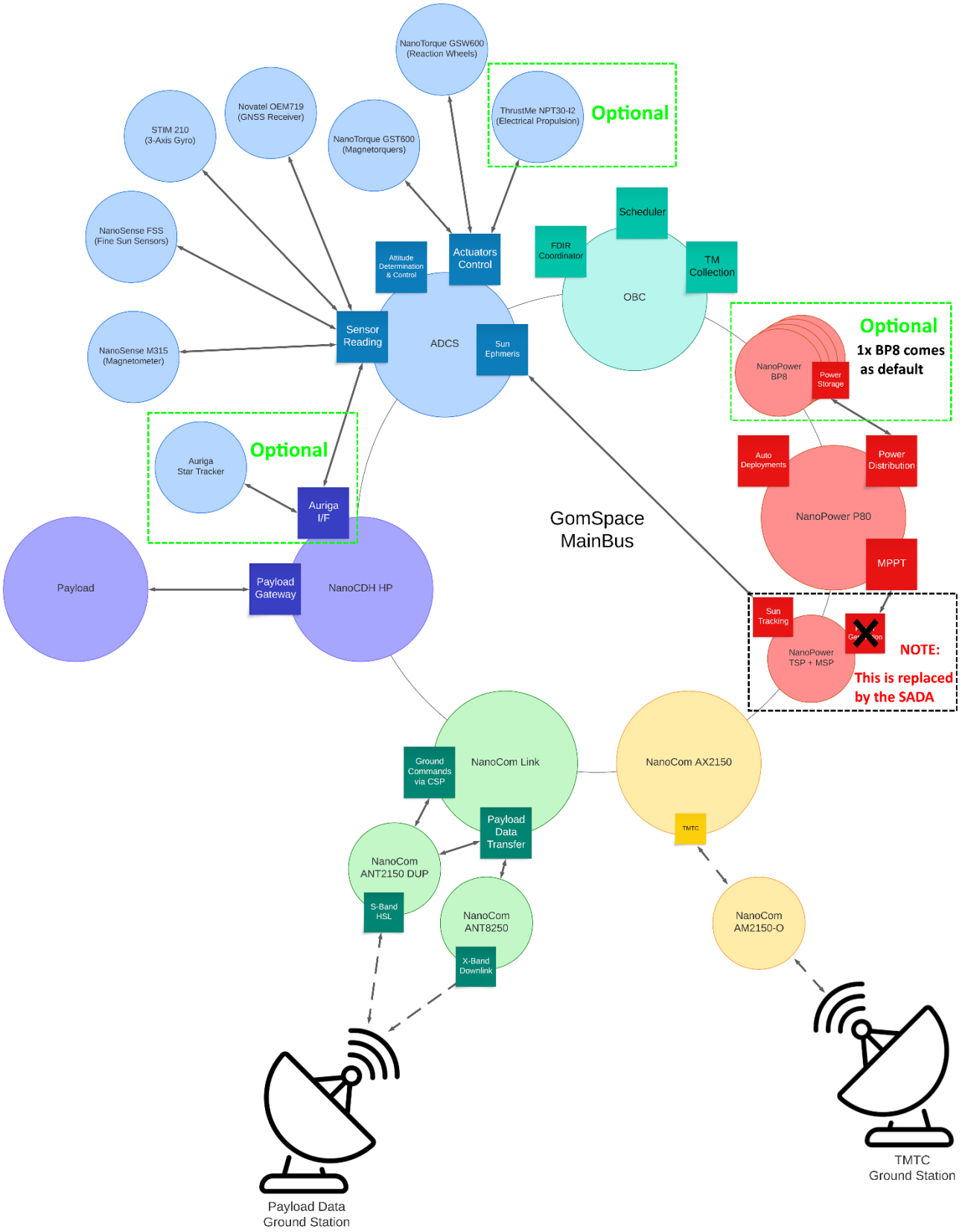


Figure 2-8: Functional Breakdown Diagram of the Full Kit

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

3. FlatSat Add-Ons Description

3.1 Propulsion System Configuration

The FlatSat Kits can be equipped with an optional Electric Propulsion EM-COMM system to support electrical, software, and interface integration without using flight hardware. This configuration enables verification of propulsion command sequences for ground tests or firings, including retrieval of system responses and error codes, as well as acquisition of propulsion telemetry for monitoring and analysis. If selected, the EM-COMM includes the required mounting bracket, harness, and software for full integration. The EM-COMM is represented in Figure 3-1 by a grey plate.

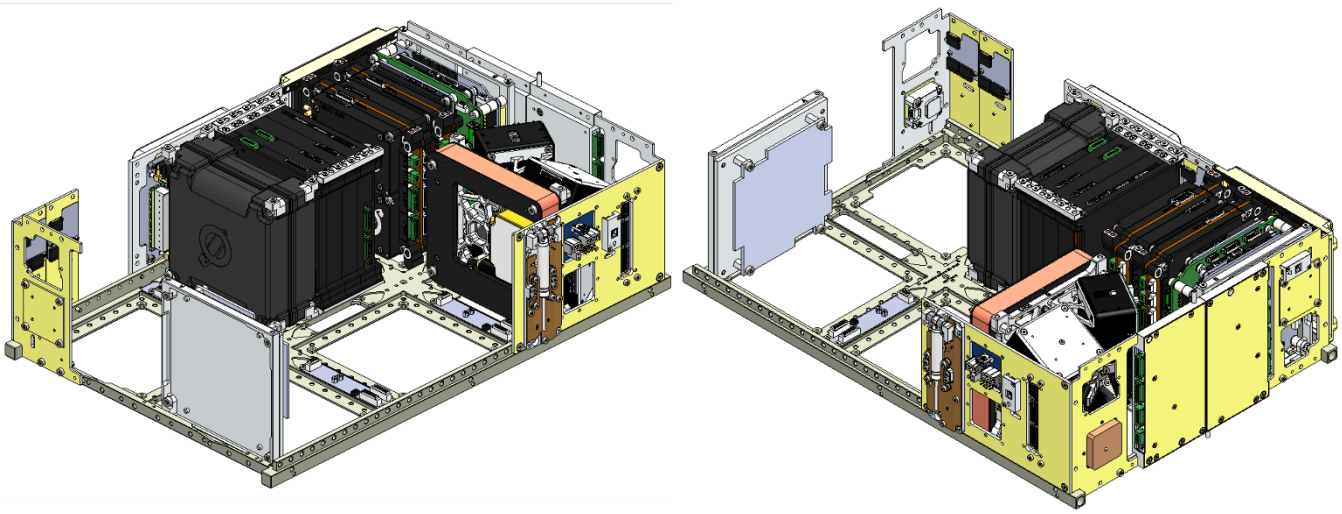


Figure 3-1: CAD view of the FlatSat configuration including the optional EM-COMM unit

3.2 Star Tracker Configuration

Each of the FlatSat Kits can be equipped with an optional Star Tracker to perform attitude determination and control performance tests. If the Star Tracker option is selected, the Platform Kits include the relevant mounting bracket, coverplates, harness and software to fully integrate the instrument.

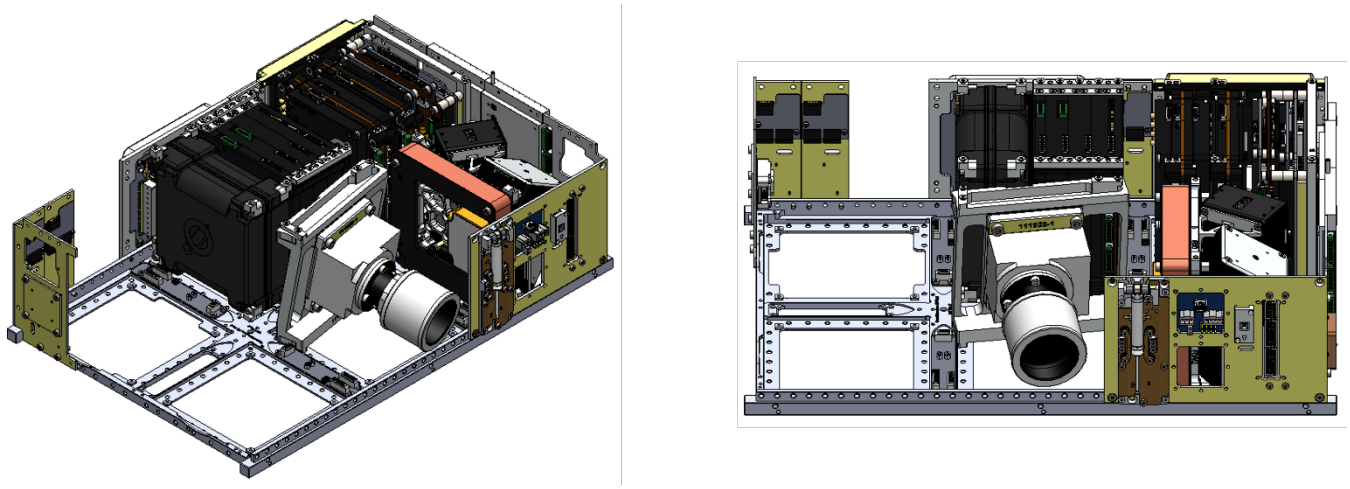


Figure 3-2: CAD view of the FlatSat configuration including the optional Star Tracker unit.

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

3.3 Additional Battery Packs Configuration

By default, the FlatSat Kits contains a single 8-cells battery pack, the NanoPower BP8. Up to 2 additional battery packs can be added as optional (including wiring).

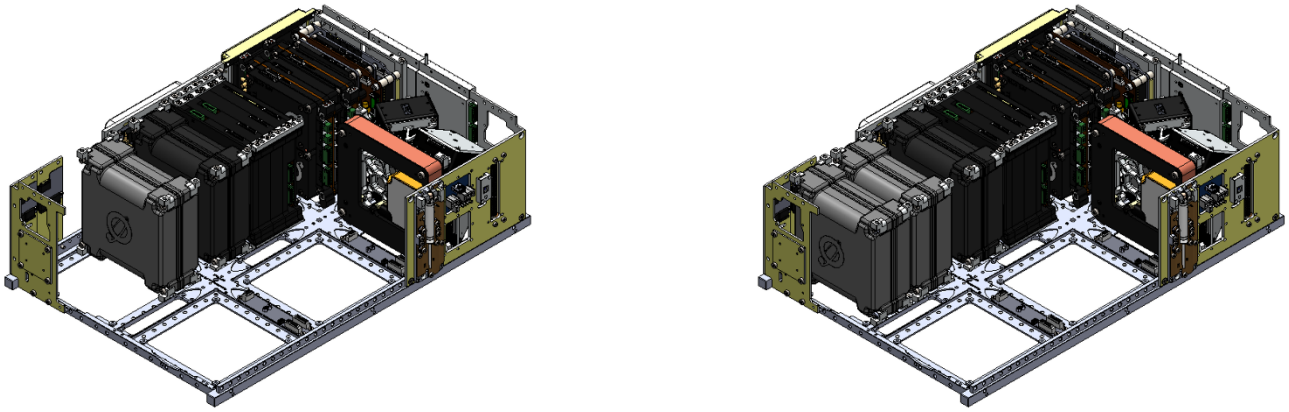


Figure 3-3: The left CAD view illustrates the Full-Kit FlatSat with one additional BP8, whereas the right view shows two additional BP8 units.

3.4 Payload Power Channels Configuration

Each Platform Kit is equipped with a NanoPower P80 satellite power supply. The NanoPower P80 is equipped with 2 Power Distribution Unit (PDU), each providing up to 24 independently controlled power channel outputs. One PDU is dedicated to power the platform subsystems, while one PDU is dedicated for payload subsystems.
While a default configuration is available, the Payload PDU can be fully configured via a dedicated Option Sheet to deliver the required power channels for the payload(s). The Platform PDU is not configurable.

© 2026 GomSpace A/S
All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.

Product name: NanoSat FlatSat

Document No.: 1082346

Revision: 1.1

Author: MAKA

Approved by: FCO

Approval date: 06 November 2026

Confidentiality Notice

This document is submitted for a specific purpose as agreed in writing and contains information, which is confidential and proprietary. The recipient agrees by accepting this document, that this material will not be used, transferred, reproduced, modified, copied or disclosed in whole or in part, in any manner or to any third party, except own staff to meet the purpose for which it was submitted without prior written consent.

GomSpace © 2026

© 2026 GomSpace A/S

All printed copies, and all electronic copies and versions except the one accessible on the GomSpace A/S server, are considered uncontrolled copies used for reference only.