

BIRDS-3 Power Budget

1st March 2018

BIRDS-3 Subsystem Level Power Budget

Subsystems/ Missions	Power Requirement (mW)	Duty Cycle (h)	Energy consumption per orbit (mWh)
OBC/EPS	300	100% (1.5)	450
COM-RX	100	70% (1.05)	105
COM-TX-CW	100	30% (0.45)	45.7
COM-TX_MISSION	1000	15 min (0.25)	250
ADCS	370	15 min (0.25)	92.5
CAM	100(80)	15 min (0.25)	25
S&F	100 (70)	15 min (0.25)	25
SoftCIB	40	100% (1.5)	60
GPS	52.8	100% (1.5)	79.2

Modes of Operation

Subsystems/ Missions	Safe Mode (mWh)	Low Power Mode (mWh)	Normal Mode (mWh)
OBC/EPS	300	450	450
COM-TX-CW	45.7	45.7	45.7
COM-TX-MISSION	0	0	250
COM-RX	105	105	105
ADCS	OFF	OFF	92.5
CAM	OFF	OFF	25
S&F	OFF	OFF	25
SoftCIB	0	0	60
GPS	0	0	79.2
Total	450.7	600.7	1132.4