• Mimmi

Mimmi takes pictures every minute.

Every measurement series will give 5 x106 samples, each with 12 bits resolution.

Total Amount of bits: 3600000000 bits

• Musse

In the worst case, Musse's modes are changed once per day and each mode needs 128 bytes of data from ground.

The raw data from the instrument consists of 4 measurements sampled at a rate of 12 Hz, with 12 bits of resolution.

Total Amount of bits: 3486182 bits

• Kajsa

Kajsa is controlled through 3 signals, and depending on signal it will perform a measurement with a resolution of 16 bits with a maximum sampling rate of 1 Hz.

Total Amount of bits: 96838 bits

• Kalle, Piff and Puff

Kalle,Piff and Puff are three instrument that may work separately or in combination in common measurement series in a number of combinations.

At most they will work all three simultaneously and for a whole orbital period.

The data exchanged by Kalle, Piff och Puff are controlled by the ground station.

All three of them will perform measurement with a resolution of 16 bits and with a sampling rate of $12~\mathrm{Hz}$

Total Amount of bits: 871546 bits (all three working and sending data at the same time)

House keeping signals

The system shall also monitor the following signals:

- 50 temperature measurements each of 8 bits
- 10 voltage measurements on the power bus each of 8 bits
- 20 currents measurements each of 8 bits

- 8 pressure analysis each of 8 bits
- 43 single status bits at 0.02 Hz sampling rate
- 8 re-eads of digital 8 bit control registers that shall be read when they are changed

Total Amount of bits (Temperature): 2420960 bits

Total Amount of bits (Power): 484192 bits
Total Amount of bits (Current): 968384 bits
Total Amount of bits (Pressure): 387359 bits
Total Amount of bits (Others): 392533 bits

Total Amount of bits: 3781927 bits

For all of the sensors, when not stated, it has been assumed a period of 1 second between one measurament and the other.

Budget bits to be sent: 3608236494

Total bits available to be transferred in 10' using SpaceWire: 240000000000

bits budget per satellite's orbital period					
Mimmi	Musse	Kajsa	Kalle, Pich and Puff	House keeping	Total
3600000000	3486182	96838	871546	3781927	3608236494