FSI Synoptic mode (S)

Description

This mode is using the FSI full disk telescope and provides synoptic full disk images (full sun up to 4x4 solar radii).

Depending on the distance from the sun, images are either rebinned 2x2 (close to Sun) or a quarter of the detector is read out (subfield, far from Sun). Both choices result in same data rate.

In practice, this EUI mode will run in parallel to FSI Beacon mode (B) to ensure availability of regular EUI/FSI LowLatency data.

Parameters

Cadence and compression rate (TBC)

Resource usage

Observing mode		Target	Instrument	Channel	Cadence	Rebinning	Compression rate	#Images /h	Data Rate	Data Rate	Max time per orbit
				(nm)	(s)	or subfield			(Gibits /h)	(bits /s)	
Synoptic mode (S)		Full sun upto 4x4R	FSI	17,4	900	2x2	46.88	4	**0.0056**	**1677.7**	**unlimited**
			FSI	30,4	900	2x2	46.88	4			
FSI Synoptic + FSI Beacon (S+B)									**0.0062**	**1835.0**	**unlimited**

Maximum time in this mode

unlimited

3 RSWs = 10% allocation

full orbit (168 days) = 56% allocation

EPS observation:

FSI_SYNOPTIC_B with parameters CHANNELS=2 CADENCE=900 COMPRESSION=187.5
=> FSI_DATARATE = 2044.72 [bits/sec] (to internal memory)
+ LL_DATARATE = 157.3 [bits/sec] (to SSMM LL store)