

SCANNER BASIC PROFILES Table (Engineering Units)

Basic Scan Profile Identifier	Azimuth		Elevation		
	Basic Scan Position value [10-6 rad]	Basic Scan Rate value [10-6 rad/sec]	Basic Scan Position value [10-6 rad]	Basic Scan Rate value [10-6 rad/sec]	
0	0000436332	000000	-0000261799	000000	0 no scan
1	0000785398	000000	-0000785398	000000	1 nadir
2	-0000785398	000000	-0000237101	000000	2 limb scan./point.
3	-0000471239	000131	-0000234032	000445	sun scan./point. with mirror; start 17,2km above horizon
4	0000785398	000000	0000986111	000000	4 sub solar cal.
5	0002574361	-000174	-0000234032	000384	moon scan./point. with mirror; start 17,2km above horizon
6	-0000468621	000131	0002748894	000000	6 sun point. with diff.
7	0000000000	000000	0000000000	000000	7 spare
8	-0000468621	000131	0000570714	000222	mirror degradation sun scan./point.
9	-0000785398	000000	-0000213849	000000	dark current (150km above horizon, downrange)
10	0000785398	000000	0000171042	000000	internal wavelenght cal. with mirror
11	0000785398	000000	0003319617	000000	int. wavelenght/rel.rad. cal. with diffusor
12	0000785398	000000	0000185005	000000	internal relative radiometric cal. with mirror
13	0002574361	-000174	0000570714	000192	mirror degradation moon scan./point.
14	-0000471239	000227	-0000234032	000000	sun direction (17,2km above horizon, fix elevation)

Note: All positions are effective scanner positions.
Conversion algorithms of H/W- constellation are not considered.
All angular positions/rates are given in ASM/ESM scanner notation.

Description of the intended use of profile

ASM position IDLE
ESM position IDLE

ASM pointing in opposite direction of velocity vector (+y), mirror not used;
ESM pointing in nadir direction (-z)

ASM pointing in direction of velocity vector (-y),
ESM pointing one elevation step below horizon (3km)
ASM following trajectory of sun from position of sunrise
ESM following sun from start at 17,2km above horizon (= fix angle of ESM related to F_{00})

ASM pointing in opposite direction of velocity vector (+y), mirror not used;
ESM pointing to mean sun elevation within sub-solar window
ASM following moon trajectory from entry into the limb baffle at 295 deg
ESM following moon from start at 17,2km above horizon (= fix angle of ESM related to F_{00})

ESM pointing diffusor under 22,5deg to telescope, timing required for normal incidence of sun on ESM

Spare Profile available for ESM basic position of 100km
ASM following sun trajectory,
ESM following sun via extra_mirror with half angular velocity from start at 110km above horizon

ASM pointing in direction of velocity vector (-y),
ESM pointing at 150km above horizon

ASM pointing in opposite direction of velocity vector (+y), mirror not used;
ESM pointing to SLS (9,8deg)

ASM pointing in opposite direction of velocity vector (+y), mirror not used;
ESM pointing diffusor to internal calibration sources (10,2 + 180deg)

ASM pointing in opposite direction of velocity vector (+y), mirror not used;
ESM pointing to WLS (10,6deg)

ASM following moon trajectory from entry into the limb baffle at 295 deg
ESM following moon via extra_mirror with half angular velocity from start at 110km above horizon

ASM following trajectory of sun from position of sunrise
ESM pointing at 17,2km above horizon