 SCIAMACHY	<h1>Operation Change Request</h1>		OCR No: 044 Issue: final
Title: Channel 8 anti-saturation			
<p><u>Description of Request:</u> Win back a number of saturated pixels in channel 8 by reducing the Pixel Exposure Time (PET) by a factor of 4 or 8. The mentioned pixels are affected by extreme dark current and hence quickly saturate. Reduction of the PET will reduce the total accumulated dark current to within ADC range. It is estimated that about 40 and 55 pixels can be salvaged for factors 4 and 8, respectively. Evaluation of existing short dark states shows that there will be 30% and 40% additional noise for the remaining good pixels for factors 4 and 8, respectively. For optimal dark correction, each nadir state should have a matching eclipse dark state and limb state with respect to Pixel Exposure Time. To stay in-line with low data rate requirements, co-adding should be used. To test nadir measurements at maximum signal intensity, orbits over the Sahara desert are essential. It is preferred to have as much land coverage as possible. At least 3 consecutive orbits with factor 4 and 3 consecutive orbits with factor 8 are required. See the tables on the next pages for details.</p>			
Originator: Pieter van der Meer	Date of Issue: May 21 st 2010	Signature: PM	
<p><u>Assessment of SSAG (necessary for requests by scientists):</u> The investigation of the implementation is recommended as good pixels in channel 8 are rare. It is recommended to investigate implementation together with OCR_43 "Revision of calibration states 8, 26, 46, 63 and 67" by R. van Hees.</p>			
SSAG: H. Bovensmann	Date: 17.5.2010	Signature: e-mail, 17.5.2010	
Classification of OCR:			
<p><u>OCR Analysis (incl. Implementation Option):</u> The OCR will be executed in 2 sessions since the identical co-adding tables and the PET-table must be modified for the reduction of channel 8 PET's for 2 over-flight occasions of North Africa. Factor-4 parameters will be loaded for 3 subsequent orbits and for the following occasion factor-8 parameters. Factor 4 setting requires upload of new PET's for 15 states and 15 co-adding tables, Factor 8 setting requires upload of new PET's for 13 states and 13 co-adding tables. Reference for these modifications is the new Final Flight Configuration based on OCR_43. The corresponding PET and co-adding settings are given in the annex. <u>Time frame:</u> OCR_44 will be planned for the first days in August to avoid mixing with OCR_46. OCR_43 will be part of the basic flight configuration by then.</p>			
SOST: (ESA, Industry if necessary)	Date: 15.06.2010	Signature: E.Krieg	
<u>Approval of Proposed Implementation:</u>			
Originator Approval: Pieter van der Meer	Date: 16.06.2010	Signature: PM	
SSAG Approval: H. Bovensmann	Date: 21.6.2010	Signature: e-mail, 21.6.2010	
<p><u>Decision / Approval:</u> Shall be implemented as recommended.</p>			
DLR Approval: A. Friker (if necessary NIVR, SPEC)	Date: 21.06.2010	Signature: via e-mail 21.06.2010	

Implementation by SOST:

Execution of 3 subsequent orbits with PETs reduced by factor 4 and related co-adding are planned 6th August from orbit 44091 onwards. This will be followed by the execution of 3 subsequent orbits with PETs reduced by factor 8 and related co-adding on 9th August from orbit 44134 onwards. The ground tracks of these orbits are given in annex 6.

The validity start time for the parameter CTI tables will be set accordingly.

Note: The MCMDs for uploading the CTI tables must be separated by 10 sec. Because the number of CTI table uploads is so large, the planned gap between the end of the eclipse timeline in orbits 44090 and 44133 is too short to. Therefore these eclipse timelines are not executed. The same applies to orbits 44093 and 44136 when the CTI tables are commanded back to the nominal final flight configuration.

SOST M.Gottwald; E.Krieg	Date: 22.06.2010	Signature: e-mail 22.06.2010
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ANNEX 1: Intended PET and co-adding changes based on the proposal of the originator.Exposure time reduced by factor 4:

Channel 8 (main cluster)

State ID	Old PET value	New PET value	Duration	Co-adding table	Old co-adding value	New co-adding value
1	1	1/4	65	21	1	4
2	1	1/4	65	22	1	4
3	1	1/4	65	23	1	4
4	1	1/4	65	24	1	4
5	1	1/4	65	25	1	4
6	1/2	1/8	65	26	1	4
7	1/2	1/8	65	27	1	4
8	1/8	1/4	80	52	4	2
26	See OCR43	See OCR43	See OCR43	51	See OCR43	See OCR43
28	1.5	1/4	52.31	1	1	6
29	1.5	1/4	52.31	2	1	6
30	3/8	1/8	52.31	3	1	3
31	3/8	1/8	52.31	4	1	3
32	3/8	1/8	52.31	5	1	3
33	1.5	1/4	52.31	6	1	6
46	1/16	1/8	10	45	8	4
63	See OCR43	See OCR43	See OCR43	49	See OCR43	See OCR43
67	See OCR43	See OCR43	See OCR43	50	See OCR43	See OCR43

Exposure time reduced by factor 8:

Channel 8 (main cluster)

State ID	Old PET value	New PET value	Duration	Co-adding table	Old co-adding value	New co-adding value
1	1	1/8	65	21	1	8
2	1	1/8	65	22	1	8
3	1	1/8	65	23	1	8
4	1	1/8	65	24	1	8
5	1	1/8	65	25	1	8
6	1/2	1/16	65	26	1	8
7	1/2	1/16	65	27	1	8
8	See OCR43	See OCR43	See OCR43	52	See OCR43	See OCR43
26	See OCR43	See OCR43	See OCR43	51	See OCR43	See OCR43
28	1.5	1/8	52.31	1	1	12
29	1.5	1/8	52.31	2	1	12
30	3/8	1/16	52.31	3	1	6
31	3/8	1/16	52.31	4	1	6
32	3/8	1/16	52.31	5	1	6
33	1.5	1/8	52.31	6	1	12
46	See OCR43	See OCR43	See OCR43	45	See OCR43	See OCR43
63	See OCR43	See OCR43	See OCR43	49	See OCR43	See OCR43
67	See OCR43	See OCR43	See OCR43	50	See OCR43	See OCR43

Channel 7 (main part – increased integration times to facilitate higher channel 8 bit rates)

State ID	Old PET value	New PET value	Duration	Co-adding table	Old co-adding value	New co-adding value
6	1/2	1/2	65	26	1	1
7	1/2	1/2	65	27	1	1
8	See OCR43	See OCR43	See OCR43	52	See OCR43	See OCR43
26	See OCR43	See OCR43	See OCR43	51	See OCR43	See OCR43
30	3/8	3/8	52.31	3	1	1
31	3/8	3/8	52.31	4	1	1
32	3/8	3/8	52.31	5	1	1
46	See OCR43	See OCR43	See OCR43	45	See OCR43	See OCR43
63	See OCR43	See OCR43	See OCR43	49	See OCR43	See OCR43
67	See OCR43	See OCR43	See OCR43	50	See OCR43	See OCR43

ANNEX 2: Cluster allocation and required PET and co-adding together with the resulting signal integration time for the 7 nadir states and the 6 limb states (PET reduction by factor 4). As summary the total data rate for the states is given in the last row of each page.

StateOpt3_ocr44_factor4.xls

Summary

Summary of results						N1	
State						N1	
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	383,56	385,94	3	1	1	1
13	overlap region	391,88	404,10	3	1	1	1
14		404,34	423,73	3	1	1	1
15	VIS DOAS, PMD 2	423,97	526,96	3	1	1	1
16		527,20	544,56	3	1	1	1
17	AE	544,80	565,08	3	1	1	1
18		565,31	597,28	3	1	1	1
19	overlap region	597,52	605,48	3	1	1	1
20	Blinded Pixel	627,41	628,40	3	1	1	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,69	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	1	0,125	0,125
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	1	0,125	0,125
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1548,30	1670,70	6	1	0,125	0,125
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	1	0,125	0,125
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	4	0,25	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	4	0,25	1
56	Blinded Pixel	2384,60	2385,61	8	4	0,25	1
57							
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64							
Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)						326618	

StateOpt3_ocr44_factor4.xls

Summary

Summary of results						N2
State						
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)
						Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1
2	straylight	213,29	239,88	1a	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5
7	Blinded Pixel	412,18	411,74	2b	2	0,5
8	overlap region 2b	403,96	391,87	2b	2	0,5
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5
12	Blinded Pixel	383,56	385,84	3	1	1
13	overlap region	391,88	404,10	3	1	1
14		404,34	423,73	3	1	1
15	VIS DOAS, PMD 2	423,97	526,96	3	1	1
16		527,20	544,56	3	1	1
17	AE	544,80	565,08	3	1	1
18		565,31	597,28	3	1	1
19	overlap region	597,52	605,48	3	1	1
20	Blinded Pixel	627,41	628,40	3	1	1
21	Blinded Pixel	595,36	596,26	4	8	0,125
22	overlap region	597,60	605,43	4	8	0,125
23		605,65	612,53	4	8	0,125
24	PMD 3, AE	612,75	725,99	4	1	0,125
25		726,19	753,77	4	8	0,125
26	O2(A)	753,98	775,92	4	1	0,125
27	overlap region	776,13	789,85	4	8	0,125
28	Blinded Pixel	811,47	812,33	4	8	0,125
29	Blinded Pixel	773,21	774,43	5	4	0,25
30	overlap region	776,24	789,74	5	4	0,25
31		790,04	798,06	5	4	0,25
32	PMD 4/7, AE	798,35	946,62	5	1	0,25
33		946,90	990,40	5	4	0,25
34	overlap region, (AE)	990,68	1056,25	5	1	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25
36	Blinded Pixel	971,46	978,74	6	8	0,125
37	overlap region	990,84	1056,23	6	2	0,125
38		1057,02	1233,24	6	8	0,125
39	AE	1234,01	1253,14	6	1	0,125
40		1253,90	1388,96	6	8	0,125
41	Water Vapour	1389,72	1410,36	6	1	0,125
42		1411,12	1548,51	6	8	0,125
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	1	0,125
44		1671,51	1695,84	6	8	0,125
45	add. Water/Ice cloud	1696,65	1707,26	6	1	0,125
46		1708,08	1750,09	6	8	0,125
47	Blinded Pixel	1765,07	1772,59	6	8	0,125
48	Blinded Pixel	1934,38	1935,44	7	1	1
49		1939,99	1967,79	7	1	1
50	CO2	1967,90	1984,05	7	1	1
51		1984,15	2029,89	7	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1
54	Blinded Pixel	2259,26	2260,47	8	4	0,25
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	4	0,25
56	Blinded Pixel	2384,60	2385,61	8	4	0,25
57						
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64						
Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)						326618

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							N3
State							N3
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	393,56	385,84	3	8	0,125	1
13	overlap region	391,88	404,10	3	8	0,125	1
14		404,34	423,73	3	1	0,125	0,125
15	VIS DOAS, PMD 2	423,97	526,96	3	1	0,125	0,125
16		527,20	544,56	3	8	0,125	1
17	AE	544,80	565,08	3	1	0,125	0,125
18		565,31	597,28	3	8	0,125	1
19	overlap region	597,52	605,48	3	8	0,125	1
20	Blinded Pixel	627,41	628,40	3	8	0,125	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	4	0,25	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	4	0,25	1
56	Blinded Pixel	2384,60	2385,61	8	4	0,25	1
57							
58							
59							
60							
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62							
63							
64							
Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							390330

Summary of results

N4

State		N4					
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	383,56	385,84	3	8	0,125	1
13	overlap region	391,88	404,10	3	8	0,125	1
14		404,34	423,73	3	1	0,125	0,125
15	VIS DOAS, PMD 2	423,97	526,96	3	1	0,125	0,125
16		527,20	544,56	3	8	0,125	1
17	AE	544,80	565,08	3	1	0,125	0,125
18		565,31	597,28	3	8	0,125	1
19	overlap region	597,52	605,48	3	8	0,125	1
20	Blinded Pixel	627,41	628,40	3	8	0,125	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	4	0,25	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	4	0,25	1
56	Blinded Pixel	2384,60	2385,61	8	4	0,25	1
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)						390330	

Summary of results

N5

State		N5					
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	383,56	385,84	3	8	0,125	1
13	overlap region	391,88	404,10	3	8	0,125	1
14		404,34	423,73	3	1	0,125	0,125
15	VIS DOAS, PMD 2	423,97	526,96	3	1	0,125	0,125
16		527,20	544,56	3	8	0,125	1
17	AE	544,80	565,08	3	1	0,125	0,125
18		565,31	597,28	3	8	0,125	1
19	overlap region	597,52	605,48	3	8	0,125	1
20	Blinded Pixel	627,41	628,40	3	8	0,125	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	4	0,25	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	4	0,25	1
56	Blinded Pixel	2384,60	2385,61	8	4	0,25	1
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)						390330	

Summary of results

N6

State		N6				
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)
						Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1
2	straylight	213,29	239,88	1a	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,25
5	overlap region, PMD 1	303,65	313,92	1b	1	0,25
6	Blinded Pixel	333,92	334,37	1b	4	0,25
7	Blinded Pixel	412,18	411,74	2b	4	0,25
8	overlap region 2b	403,96	391,87	2b	4	0,25
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,25
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,25
11	Blinded Pixel	301,06	300,59	2a	4	0,25
12	Blinded Pixel	393,56	385,84	3	16	0,0625
13	overlap region	391,88	404,10	3	16	0,0625
14		404,34	423,73	3	16	0,0625
15	VIS DOAS, PMD 2	423,97	526,96	3	4	0,0625
16		527,20	544,56	3	16	0,0625
17	AE	544,80	565,08	3	4	0,0625
18		565,31	597,28	3	16	0,0625
19	overlap region	597,52	605,48	3	16	0,0625
20	Blinded Pixel	627,41	628,40	3	16	0,0625
21	Blinded Pixel	595,36	596,26	4	16	0,0625
22	overlap region	597,60	605,43	4	16	0,0625
23		605,65	612,53	4	16	0,0625
24	PMD 3, AE	612,75	725,99	4	4	0,0625
25		726,19	753,77	4	16	0,0625
26	O2(A)	753,98	775,92	4	4	0,0625
27	overlap region	776,13	789,85	4	16	0,0625
28	Blinded Pixel	811,47	812,33	4	16	0,0625
29	Blinded Pixel	773,21	774,43	5	4	0,25
30	overlap region	776,24	789,74	5	4	0,25
31		790,04	798,06	5	4	0,25
32	PMD 4/7, AE	798,35	946,62	5	1	0,25
33		946,90	990,40	5	4	0,25
34	overlap region, (AE)	990,68	1056,25	5	4	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25
36	Blinded Pixel	971,46	979,74	6	8	0,125
37	overlap region	990,84	1056,23	6	8	0,125
38		1057,02	1233,24	6	8	0,125
39	AE	1234,01	1253,14	6	8	0,125
40		1253,90	1388,96	6	8	0,125
41	Water Vapour	1389,72	1410,36	6	8	0,125
42		1411,12	1548,51	6	8	0,125
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	8	0,125
44		1671,51	1695,84	6	8	0,125
45	add. Water/Ice cloud	1696,65	1707,26	6	8	0,125
46		1708,08	1750,09	6	8	0,125
47	Blinded Pixel	1765,07	1772,59	6	8	0,125
48	Blinded Pixel	1934,38	1935,44	7	2	0,5
49		1939,99	1967,79	7	2	0,5
50	CO2	1967,90	1984,05	7	2	0,5
51		1984,15	2029,89	7	2	0,5
52	CO2, H2O	2029,99	2040,19	7	2	0,5
53	Blinded Pixel	2042,80	2043,67	7	2	0,5
54	Blinded Pixel	2259,26	2260,47	8	8	0,125
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	4	0,125
56	Blinded Pixel	2384,60	2395,61	8	8	0,125
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)						17
						373948

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							N7
State							N7
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coodding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	5	1	5
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	2	0,25	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,25	0,25
6	Blinded Pixel	333,92	334,37	1b	20	0,25	5
7	Blinded Pixel	412,18	411,74	2b	4	0,25	1
8	overlap region 2b	403,96	391,87	2b	4	0,25	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,25	0,25
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,25	0,25
11	Blinded Pixel	301,06	300,59	2a	4	0,25	1
12	Blinded Pixel	383,56	385,84	3	16	0,0625	1
13	overlap region	391,88	404,10	3	16	0,0625	1
14		404,34	423,73	3	16	0,0625	1
15	VIS DOAS, PMD 2	423,97	526,96	3	4	0,0625	0,25
16		527,20	544,56	3	16	0,0625	1
17	AE	544,80	565,08	3	4	0,0625	0,25
18		565,31	597,28	3	16	0,0625	1
19	overlap region	597,52	605,48	3	16	0,0625	1
20	Blinded Pixel	627,41	628,40	3	16	0,0625	1
21	Blinded Pixel	595,36	596,26	4	16	0,0625	1
22	overlap region	597,60	605,43	4	16	0,0625	1
23		605,65	612,53	4	16	0,0625	1
24	PMD 3, AE	612,75	725,99	4	4	0,0625	0,25
25		726,19	753,77	4	16	0,0625	1
26	O2(A)	753,98	775,92	4	4	0,0625	0,25
27	overlap region	776,13	789,85	4	16	0,0625	1
28	Blinded Pixel	811,47	812,33	4	16	0,0625	1
29	Blinded Pixel	773,21	774,43	5	8	0,125	1
30	overlap region	776,24	789,74	5	8	0,125	1
31		790,04	798,06	5	8	0,125	1
32	PMD 4/7, AE	798,35	946,62	5	4	0,125	0,5
33		946,90	990,40	5	8	0,125	1
34	overlap region, (AE)	990,68	1056,25	5	8	0,125	1
35	Blinded Pixel	1061,68	1062,83	5	8	0,125	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	8	0,125	1
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	2	0,5	1
49		1939,99	1967,79	7	2	0,5	1
50	CO2	1967,90	1984,05	7	1	0,5	0,5
51		1984,15	2029,89	7	2	0,5	1
52	CO2, H2O	2029,99	2040,19	7	1	0,5	0,5
53	Blinded Pixel	2042,80	2043,67	7	2	0,5	1
54	Blinded Pixel	2259,26	2260,47	8	8	0,125	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	4	0,125	0,5
56	Blinded Pixel	2384,60	2385,61	8	8	0,125	1
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)							380429

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							L1
State							L1
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	1	1,5	1,5
5	unused pixel	314,03	333,80	1b	1	1,5	1,5
6	Blinded Pixel	333,92	334,37	1b	1	1,5	1,5
7	Blinded Pixel	412,18	411,74	2b	2	0,75	1,5
8	unused pixel	411,63	404,07	2b	1	0,75	0,75
9	virtual channel 2b	403,96	320,14	2b	1	0,75	0,75
10	virtual channel 2a	320,02	309,43	2a	1	1,5	1,5
11	unused pixel	308,31	301,18	2a	1	1,5	1,5
12	Blinded Pixel	301,06	300,59	2a	1	1,5	1,5
13	Blinded Pixel	383,56	385,84	3	1	0,375	0,375
14	unused pixel	388,09	391,63	3	1	0,375	0,375
15	Channel 3 (main part)	391,88	605,48	3	1	0,375	0,375
16	unused pixel	605,72	627,17	3	1	0,375	0,375
17	Blinded Pixel	627,41	628,40	3	1	0,375	0,375
18	Blinded Pixel	595,36	596,26	4	1	0,375	0,375
19	unused pixel	596,48	597,38	4	1	0,375	0,375
20	Channel 4 (main part)	597,60	789,85	4	1	0,375	0,375
21	unused pixel	790,06	811,25	4	1	0,375	0,375
22	Blinded Pixel	811,47	812,33	4	1	0,375	0,375
23	Blinded Pixel	773,21	774,43	5	1	0,375	0,375
24	unused pixel	774,73	775,94	5	1	0,375	0,375
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	1	0,375	0,375
27	Blinded Pixel	1061,68	1062,83	5	1	0,375	0,375
28	Blinded Pixel	971,46	978,74	6	1	0,375	0,375
29	unused pixel	979,55	990,03	6	1	0,375	0,375
30	Channel 6/6+ (main part)	990,84	1750,09	6	1	0,375	0,375
31	unused pixel	1750,82	1764,24	6	1	0,375	0,375
32	Blinded Pixel	1765,07	1772,59	6	1	0,375	0,375
33	Blinded Pixel	1934,38	1935,44	7	1	1,5	1,5
34	unused pixel	1935,55	1939,88	7	1	1,5	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	1	1,5	1,5
36	unused pixel	2040,29	2042,70	7	1	1,5	1,5
37	Blinded Pixel	2042,80	2043,67	7	1	1,5	1,5
38	Blinded Pixel	2259,26	2260,47	8	6	0,25	1,5
39	Channel 8	2260,61	2384,49	8	6	0,25	1,5
40	Blinded Pixel	2384,60	2385,61	8	6	0,25	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							255348

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							L2
State							L2
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	1	1,5	1,5
5	unused pixel	314,03	333,80	1b	1	1,5	1,5
6	Blinded Pixel	333,92	334,37	1b	1	1,5	1,5
7	Blinded Pixel	412,18	411,74	2b	2	0,75	1,5
8	unused pixel	411,63	404,07	2b	1	0,75	0,75
9	virtual channel 2b	403,96	320,14	2b	1	0,75	0,75
10	virtual channel 2a	320,02	309,43	2a	1	1,5	1,5
11	unused pixel	308,31	301,18	2a	1	1,5	1,5
12	Blinded Pixel	301,06	300,59	2a	1	1,5	1,5
13	Blinded Pixel	383,56	385,84	3	24	0,0625	1,5
14	unused pixel	388,09	391,63	3	24	0,0625	1,5
15	Channel 3 (main part)	391,88	605,48	3	6	0,0625	0,375
16	unused pixel	605,72	627,17	3	24	0,0625	1,5
17	Blinded Pixel	627,41	628,40	3	24	0,0625	1,5
18	Blinded Pixel	595,36	596,26	4	24	0,0625	1,5
19	unused pixel	596,48	597,38	4	24	0,0625	1,5
20	Channel 4 (main part)	597,60	789,85	4	6	0,0625	0,375
21	unused pixel	790,06	811,25	4	24	0,0625	1,5
22	Blinded Pixel	811,47	812,33	4	24	0,0625	1,5
23	Blinded Pixel	773,21	774,43	5	8	0,1875	1,5
24	unused pixel	774,73	775,94	5	8	0,1875	1,5
25	Channel 5 (main part)	776,24	1056,25	5	2	0,1875	0,375
26	unused pixel	1056,53	1061,40	5	8	0,1875	1,5
27	Blinded Pixel	1061,68	1062,83	5	8	0,1875	1,5
28	Blinded Pixel	971,46	978,74	6	24	0,0625	1,5
29	unused pixel	979,55	990,03	6	24	0,0625	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	6	0,0625	0,375
31	unused pixel	1750,92	1764,24	6	24	0,0625	1,5
32	Blinded Pixel	1765,07	1772,59	6	24	0,0625	1,5
33	Blinded Pixel	1934,38	1935,44	7	1	1,5	1,5
34	unused pixel	1935,55	1939,88	7	1	1,5	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	1	1,5	1,5
36	unused pixel	2040,29	2042,70	7	1	1,5	1,5
37	Blinded Pixel	2042,80	2043,67	7	1	1,5	1,5
38	Blinded Pixel	2259,26	2260,47	8	6	0,25	1,5
39	Channel 8	2260,61	2384,49	8	6	0,25	1,5
40	Blinded Pixel	2384,60	2385,61	8	6	0,25	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							324660

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							L3
State							L3
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	2	0,375	0,75
5	unused pixel	314,03	333,80	1b	4	0,375	1,5
6	Blinded Pixel	333,92	334,37	1b	4	0,375	1,5
7	Blinded Pixel	412,18	411,74	2b	4	0,375	1,5
8	unused pixel	411,63	404,07	2b	4	0,375	1,5
9	virtual channel 2b	403,96	320,14	2b	1	0,375	0,375
10	virtual channel 2a	320,02	309,43	2a	1	0,375	0,375
11	unused pixel	308,31	301,18	2a	4	0,375	1,5
12	Blinded Pixel	301,06	300,59	2a	4	0,375	1,5
13	Blinded Pixel	383,56	385,84	3	24	0,0625	1,5
14	unused pixel	388,09	391,63	3	24	0,0625	1,5
15	Channel 3 (main part)	391,88	605,48	3	6	0,0625	0,375
16	unused pixel	605,72	627,17	3	24	0,0625	1,5
17	Blinded Pixel	627,41	628,40	3	24	0,0625	1,5
18	Blinded Pixel	595,36	596,26	4	24	0,0625	1,5
19	unused pixel	596,48	597,38	4	24	0,0625	1,5
20	Channel 4 (main part)	597,60	789,85	4	6	0,0625	0,375
21	unused pixel	790,06	811,25	4	24	0,0625	1,5
22	Blinded Pixel	811,47	812,33	4	24	0,0625	1,5
23	Blinded Pixel	773,21	774,43	5	4	0,375	1,5
24	unused pixel	774,73	775,94	5	4	0,375	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	4	0,375	1,5
27	Blinded Pixel	1061,68	1062,83	5	4	0,375	1,5
28	Blinded Pixel	971,46	978,74	6	24	0,0625	1,5
29	unused pixel	979,55	990,03	6	24	0,0625	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	6	0,0625	0,375
31	unused pixel	1750,82	1764,24	6	24	0,0625	1,5
32	Blinded Pixel	1765,07	1772,59	6	24	0,0625	1,5
33	Blinded Pixel	1934,38	1935,44	7	4	0,375	1,5
34	unused pixel	1935,55	1939,88	7	4	0,375	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	4	0,375	1,5
36	unused pixel	2040,29	2042,70	7	4	0,375	1,5
37	Blinded Pixel	2042,80	2043,67	7	4	0,375	1,5
38	Blinded Pixel	2259,26	2260,47	8	12	0,125	1,5
39	Channel 8	2260,61	2384,49	8	3	0,125	0,375
40	Blinded Pixel	2384,60	2385,61	8	12	0,125	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							384906

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							L4
State							L4
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	2	0,375	0,75
5	unused pixel	314,03	333,80	1b	4	0,375	1,5
6	Blinded Pixel	333,92	334,37	1b	4	0,375	1,5
7	Blinded Pixel	412,18	411,74	2b	4	0,375	1,5
8	unused pixel	411,63	404,07	2b	4	0,375	1,5
9	virtual channel 2b	403,96	320,14	2b	1	0,375	0,375
10	virtual channel 2a	320,02	309,43	2a	1	0,375	0,375
11	unused pixel	308,31	301,18	2a	4	0,375	1,5
12	Blinded Pixel	301,06	300,59	2a	4	0,375	1,5
13	Blinded Pixel	383,56	385,84	3	8	0,1875	1,5
14	unused pixel	388,09	391,63	3	8	0,1875	1,5
15	Channel 3 (main part)	391,88	605,48	3	2	0,1875	0,375
16	unused pixel	605,72	627,17	3	8	0,1875	1,5
17	Blinded Pixel	627,41	628,40	3	8	0,1875	1,5
18	Blinded Pixel	595,36	596,26	4	8	0,1875	1,5
19	unused pixel	596,48	597,38	4	8	0,1875	1,5
20	Channel 4 (main part)	597,60	789,85	4	2	0,1875	0,375
21	unused pixel	790,06	811,25	4	8	0,1875	1,5
22	Blinded Pixel	811,47	812,33	4	8	0,1875	1,5
23	Blinded Pixel	773,21	774,43	5	4	0,375	1,5
24	unused pixel	774,73	775,94	5	4	0,375	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	4	0,375	1,5
27	Blinded Pixel	1061,68	1062,83	5	4	0,375	1,5
28	Blinded Pixel	971,46	978,74	6	8	0,1875	1,5
29	unused pixel	979,55	990,03	6	8	0,1875	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	2	0,1875	0,375
31	unused pixel	1750,82	1764,24	6	8	0,1875	1,5
32	Blinded Pixel	1765,07	1772,59	6	8	0,1875	1,5
33	Blinded Pixel	1934,38	1935,44	7	4	0,375	1,5
34	unused pixel	1935,55	1939,88	7	4	0,375	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	4	0,375	1,5
36	unused pixel	2040,29	2042,70	7	4	0,375	1,5
37	Blinded Pixel	2042,80	2043,67	7	4	0,375	1,5
38	Blinded Pixel	2259,26	2260,47	8	12	0,125	1,5
39	Channel 8	2260,61	2384,49	8	3	0,125	0,375
40	Blinded Pixel	2384,60	2385,61	8	12	0,125	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							384906

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							L5
State							L5
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	2	0,375	0,75
5	unused pixel	314,03	333,80	1b	4	0,375	1,5
6	Blinded Pixel	333,92	334,37	1b	4	0,375	1,5
7	Blinded Pixel	412,18	411,74	2b	4	0,375	1,5
8	unused pixel	411,63	404,07	2b	4	0,375	1,5
9	virtual channel 2b	403,96	320,14	2b	1	0,375	0,375
10	virtual channel 2a	320,02	309,43	2a	1	0,375	0,375
11	unused pixel	308,31	301,18	2a	4	0,375	1,5
12	Blinded Pixel	301,06	300,59	2a	4	0,375	1,5
13	Blinded Pixel	383,56	385,84	3	8	0,1875	1,5
14	unused pixel	388,09	391,63	3	8	0,1875	1,5
15	Channel 3 (main part)	391,88	605,48	3	2	0,1875	0,375
16	unused pixel	605,72	627,17	3	8	0,1875	1,5
17	Blinded Pixel	627,41	628,40	3	8	0,1875	1,5
18	Blinded Pixel	595,36	596,26	4	8	0,1875	1,5
19	unused pixel	596,48	597,38	4	8	0,1875	1,5
20	Channel 4 (main part)	597,60	789,85	4	2	0,1875	0,375
21	unused pixel	790,06	811,25	4	8	0,1875	1,5
22	Blinded Pixel	811,47	812,33	4	8	0,1875	1,5
23	Blinded Pixel	773,21	774,43	5	4	0,375	1,5
24	unused pixel	774,73	775,94	5	4	0,375	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	4	0,375	1,5
27	Blinded Pixel	1061,68	1062,83	5	4	0,375	1,5
28	Blinded Pixel	971,46	978,74	6	8	0,1875	1,5
29	unused pixel	979,55	990,03	6	8	0,1875	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	2	0,1875	0,375
31	unused pixel	1750,92	1764,24	6	8	0,1875	1,5
32	Blinded Pixel	1765,07	1772,59	6	8	0,1875	1,5
33	Blinded Pixel	1934,38	1935,44	7	4	0,375	1,5
34	unused pixel	1935,55	1939,88	7	4	0,375	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	4	0,375	1,5
36	unused pixel	2040,29	2042,70	7	4	0,375	1,5
37	Blinded Pixel	2042,80	2043,67	7	4	0,375	1,5
38	Blinded Pixel	2259,26	2260,47	8	12	0,125	1,5
39	Channel 8	2260,61	2384,49	8	3	0,125	0,375
40	Blinded Pixel	2384,60	2385,61	8	12	0,125	1,5
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)							384906

StateOpt3_ocr44_factor4.xls

Summary

Summary of results							L6
State							L6
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coodding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,98	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	1	1,5	1,5
5	unused pixel	314,03	333,80	1b	1	1,5	1,5
6	Blinded Pixel	333,92	334,37	1b	1	1,5	1,5
7	Blinded Pixel	412,18	411,74	2b	1	1,5	1,5
8	unused pixel	411,63	404,07	2b	1	1,5	1,5
9	virtual channel 2b	403,96	320,14	2b	1	1,5	1,5
10	virtual channel 2a	320,02	309,43	2a	1	1,5	1,5
11	unused pixel	308,31	301,18	2a	1	1,5	1,5
12	Blinded Pixel	301,06	300,59	2a	1	1,5	1,5
13	Blinded Pixel	383,56	385,84	3	1	0,75	0,75
14	unused pixel	386,09	391,63	3	1	0,75	0,75
15	Channel 3 (main part)	391,88	605,48	3	1	0,75	0,75
16	unused pixel	605,72	627,17	3	1	0,75	0,75
17	Blinded Pixel	627,41	628,40	3	1	0,75	0,75
18	Blinded Pixel	595,36	596,26	4	1	0,75	0,75
19	unused pixel	596,48	597,38	4	1	0,75	0,75
20	Channel 4 (main part)	597,60	789,85	4	1	0,75	0,75
21	unused pixel	790,06	811,25	4	1	0,75	0,75
22	Blinded Pixel	811,47	812,33	4	1	0,75	0,75
23	Blinded Pixel	773,21	774,43	5	1	1,5	1,5
24	unused pixel	774,73	775,94	5	1	1,5	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	1,5	1,5
26	unused pixel	1056,53	1061,40	5	1	1,5	1,5
27	Blinded Pixel	1061,68	1062,83	5	1	1,5	1,5
28	Blinded Pixel	971,46	978,74	6	1	1,5	1,5
29	unused pixel	979,55	990,03	6	1	1,5	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	1	1,5	1,5
31	unused pixel	1750,92	1764,24	6	1	1,5	1,5
32	Blinded Pixel	1765,07	1772,59	6	1	1,5	1,5
33	Blinded Pixel	1934,38	1935,44	7	1	1,5	1,5
34	unused pixel	1935,55	1939,98	7	1	1,5	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	1	1,5	1,5
36	unused pixel	2040,29	2042,70	7	1	1,5	1,5
37	Blinded Pixel	2042,80	2043,67	7	1	1,5	1,5
38	Blinded Pixel	2259,26	2260,47	8	6	0,25	1,5
39	Channel 8	2260,61	2384,49	8	6	0,25	1,5
40	Blinded Pixel	2384,60	2385,61	8	6	0,25	1,5
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)							132554

ANNEX 3: Modified entries in PET and co-adding tables required for OCR_044 implementation.

PET table: PET reduction by factor 4:

	State ID	Data Rate	Channel 1a	Channel 1b	Channel 2b	Channel 2a	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8				
Nadir 01	1	Low	1,	,5	,5	,5	1,	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 02	2	Low	1,	,5	,5	,5	1,	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 03	3	Low	1,	,5	,5	,5	,125	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 04	4	Low	1,	,5	,5	,5	,125	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 05	5	Low	1,	,5	,5	,5	,125	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 06	6	Low	1,	,25	,25	,25	,0625	,0625	,25	,125	,5	,125	changed due to OCR_44			
Nadir 07	7	Low	1,	,25	,25	,25	,0625	,0625	,125	,125	,5	,125	changed due to OCR_44			
Dark_Current_Cal_5	8	Low	,25	,25	,25	,25	1,	1,	,25	,5	,125	,25	changed due to OCR_007&OCR_43&OCR_44			
Dark_Current_Cal_4	26	Low	1,	1,	1,5	1,5	,75	,75	1,5	1,5	,5	,5	changed due to OCR_43			
Limb 01	28	Low	1,5	1,5	,75	1,5	,375	,375	,375	,375	1,5	,25	changed due to OCR_44			
Limb 02	29	Low	1,5	1,5	,75	1,5	,0625	,0625	,1875	,0625	1,5	,25	changed due to OCR_44			
Limb 03	30	Low	1,5	,375	,375	,375	,0625	,0625	,375	,0625	,375	,125	changed due to OCR_44			
Limb 04	31	Low	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,125	changed due to OCR_44			
Limb 05	32	Low	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,125	changed due to OCR_44			
Limb 06	33	Low	1,5	1,5	1,5	1,5	,75	,75	1,5	1,5	1,5	,25	changed due to OCR_44			
Dark_Current_Cal_1	46	Low	,0625	,0625	,0625	,0625	,0625	,0625	,125	,0625	,0625	,125	changed due to OCR_43&OCR_44			
Dark_Current_Cal_2	63	Low	,375	,375	,75	,75	,375	,375	,375	,375	,375	,375	changed due to OCR_43			
Dark_Current_Cal_3	67	Low	,5	,5	,5	,5	,125	,125	,5	,125	1,	1,	changed due to OCR_007&OCR_43			
	State ID	Data Rate	Channel 1a	Channel 1b	Channel 2b	Channel 2a	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8				
Nadir 01	1	High	1,	,5	,5	,5	1,	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 02	2	High	1,	,5	,5	,5	1,	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 03	3	High	1,	,5	,5	,5	,125	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 04	4	High	1,	,5	,5	,5	,125	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 05	5	High	1,	,5	,5	,5	,125	,125	,25	,125	1,	,25	changed due to OCR_44			
Nadir 06	6	High	1,	,25	,25	,25	,0625	,0625	,25	,125	,5	,125	changed due to OCR_44			
Nadir 07	7	High	1,	,25	,25	,25	,0625	,0625	,125	,125	,5	,125	changed due to OCR_44			
Dark_Current_Cal_5	8	High	,25	,25	,25	,25	1,	1,	,25	,5	,125	,25	changed due to OCR_007&OCR_43&OCR_44			
Dark_Current_Cal_4	26	High	1,	1,	1,5	1,5	,75	,75	1,5	1,5	,5	,5	changed due to OCR_43			
Limb 01	28	High	1,5	1,5	,75	1,5	,375	,375	,375	,375	1,5	,25	changed due to OCR_44			
Limb 02	29	High	1,5	1,5	,75	1,5	,0625	,0625	,1875	,0625	1,5	,25	changed due to OCR_44			
Limb 03	30	High	1,5	,375	,375	,375	,0625	,0625	,375	,0625	,375	,125	changed due to OCR_44			
Limb 04	31	High	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,125	changed due to OCR_44			
Limb 05	32	High	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,125	changed due to OCR_44			
Limb 06	33	High	1,5	1,5	1,5	1,5	,75	,75	1,5	1,5	1,5	,25	changed due to OCR_44			
Dark_Current_Cal_1	46	High	,0625	,0625	,0625	,0625	,0625	,0625	,125	,0625	,0625	,125	changed due to OCR_43&OCR_44			
Dark_Current_Cal_2	63	High	,375	,375	,75	,75	,375	,375	,375	,375	,375	,375	changed due to OCR_43			
Dark_Current_Cal_3	67	High	,5	,5	,5	,5	,125	,125	,5	,125	1,	1,	changed due to OCR_007&OCR_43			

Output 2 CTI								
CO_ADDING	50							
Cluster Index	1	2	3	4	5	6	7	8
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	9	10	11	12	13	14	15	16
Co_Adding Factor	1	1	1	1	4	4	4	4
Cluster Index	17	18	19	20	21	22	23	24
Co_Adding Factor	4	4	4	4	4	4	1	1
Cluster Index	25	26	27	28	29	30	31	32
Co_Adding Factor	1	1	1	2	2	2	2	2
Cluster Index	33	34	35	36	37	38	39	40
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	41	42	43	44	45	46	47	48
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	49	50	51	52	53	54	55	56
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	57	58	59	60	61	62	63	64
Co_Adding Factor	0	0	0	0	0	0	0	0
CO_ADDING	51							
Cluster Index	1	2	3	4	5	6	7	8
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	9	10	11	12	13	14	15	16
Co_Adding Factor	1	1	1	1	2	2	2	2
Cluster Index	17	18	19	20	21	22	23	24
Co_Adding Factor	2	2	2	2	2	2	2	1
Cluster Index	25	26	27	28	29	30	31	32
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	33	34	35	36	37	38	39	40
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	41	42	43	44	45	46	47	48
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	49	50	51	52	53	54	55	56
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	57	58	59	60	61	62	63	64
Co_Adding Factor	0	0	0	0	0	0	0	0
CO_ADDING	52							
Cluster Index	1	2	3	4	5	6	7	8
Co_Adding Factor	2	2	2	2	2	2	2	2
Cluster Index	9	10	11	12	13	14	15	16
Co_Adding Factor	2	2	2	2	1	1	1	1
Cluster Index	17	18	19	20	21	22	23	24
Co_Adding Factor	1	1	1	1	1	1	2	2
Cluster Index	25	26	27	28	29	30	31	32
Co_Adding Factor	2	2	2	1	1	1	1	1
Cluster Index	33	34	35	36	37	38	39	40
Co_Adding Factor	4	4	4	4	4	2	2	2
Cluster Index	41	42	43	44	45	46	47	48
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	49	50	51	52	53	54	55	56
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	57	58	59	60	61	62	63	64
Co_Adding Factor	0	0	0	0	0	0	0	0

ANNEX 4: Cluster allocation and required PET and co-adding together with the resulting signal integration time for the 7 nadir states and the 6 limb states (PET reduction by factor 8). As summary the total data rate for the states is given in the last row of each page.

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Summary

Summary of results							N1
State							N1
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	383,56	385,94	3	1	1	1
13	overlap region	391,88	404,10	3	1	1	1
14		404,34	423,73	3	1	1	1
15	VIS DOAS, PMD 2	423,97	526,96	3	1	1	1
16		527,20	544,56	3	1	1	1
17	AE	544,80	565,08	3	1	1	1
18		565,31	597,28	3	1	1	1
19	overlap region	597,52	605,48	3	1	1	1
20	Blinded Pixel	627,41	628,40	3	1	1	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,69	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	1	0,125	0,125
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	1	0,125	0,125
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1548,30	1670,70	6	1	0,125	0,125
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	1	0,125	0,125
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	8	0,125	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	8	0,125	1
56	Blinded Pixel	2384,60	2385,61	8	8	0,125	1
57							
58							
59							
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61							
62							
63							
64							
Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							326618

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Summary

Summary of results						N2
State						
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)
						Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1
2	straylight	213,29	239,88	1a	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5
7	Blinded Pixel	412,18	411,74	2b	2	0,5
8	overlap region 2b	403,96	391,87	2b	2	0,5
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5
12	Blinded Pixel	383,56	385,84	3	1	1
13	overlap region	391,88	404,10	3	1	1
14		404,34	423,73	3	1	1
15	VIS DOAS, PMD 2	423,97	526,96	3	1	1
16		527,20	544,56	3	1	1
17	AE	544,80	565,08	3	1	1
18		565,31	597,28	3	1	1
19	overlap region	597,52	605,48	3	1	1
20	Blinded Pixel	627,41	628,40	3	1	1
21	Blinded Pixel	595,36	596,26	4	8	0,125
22	overlap region	597,60	605,43	4	8	0,125
23		605,65	612,53	4	8	0,125
24	PMD 3, AE	612,75	725,99	4	1	0,125
25		726,19	753,77	4	8	0,125
26	O2(A)	753,98	775,92	4	1	0,125
27	overlap region	776,13	789,85	4	8	0,125
28	Blinded Pixel	811,47	812,33	4	8	0,125
29	Blinded Pixel	773,21	774,43	5	4	0,25
30	overlap region	776,24	789,74	5	4	0,25
31		790,04	798,06	5	4	0,25
32	PMD 4/7, AE	798,35	946,62	5	1	0,25
33		946,90	990,40	5	4	0,25
34	overlap region, (AE)	990,68	1056,25	5	1	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25
36	Blinded Pixel	971,46	978,74	6	8	0,125
37	overlap region	990,84	1056,23	6	2	0,125
38		1057,02	1233,24	6	8	0,125
39	AE	1234,01	1253,14	6	1	0,125
40		1253,90	1388,96	6	8	0,125
41	Water Vapour	1389,72	1410,36	6	1	0,125
42		1411,12	1548,51	6	8	0,125
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	1	0,125
44		1671,51	1695,84	6	8	0,125
45	add. Water/Ice cloud	1696,65	1707,26	6	1	0,125
46		1708,08	1750,09	6	8	0,125
47	Blinded Pixel	1765,07	1772,59	6	8	0,125
48	Blinded Pixel	1934,38	1935,44	7	1	1
49		1939,99	1967,79	7	1	1
50	CO2	1967,90	1984,05	7	1	1
51		1984,15	2029,89	7	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1
54	Blinded Pixel	2259,26	2260,47	8	8	0,125
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	8	0,125
56	Blinded Pixel	2384,60	2385,61	8	8	0,125
57						
58						
59						
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63						
64						
Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)						326618

Stefan Noël

Seite 2

09.06.2010

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Summary

Summary of results							N3
State							N3
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	383,56	385,84	3	8	0,125	1
13	overlap region	391,88	404,10	3	8	0,125	1
14		404,34	423,73	3	1	0,125	0,125
15	VIS DOAS, PMD 2	423,97	526,96	3	1	0,125	0,125
16		527,20	544,56	3	8	0,125	1
17	AE	544,80	565,08	3	1	0,125	0,125
18		565,31	597,28	3	8	0,125	1
19	overlap region	597,52	605,48	3	8	0,125	1
20	Blinded Pixel	627,41	628,40	3	8	0,125	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	8	0,125	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	8	0,125	1
56	Blinded Pixel	2384,60	2385,61	8	8	0,125	1
57							
58							
59							
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61							
62							
63							
64							
Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)							390330

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Summary

Summary of results							N4
State							N4
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	383,56	385,84	3	8	0,125	1
13	overlap region	391,88	404,10	3	8	0,125	1
14		404,34	423,73	3	1	0,125	0,125
15	VIS DOAS, PMD 2	423,97	526,96	3	1	0,125	0,125
16		527,20	544,56	3	8	0,125	1
17	AE	544,80	565,08	3	1	0,125	0,125
18		565,31	597,28	3	8	0,125	1
19	overlap region	597,52	605,48	3	8	0,125	1
20	Blinded Pixel	627,41	628,40	3	8	0,125	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	8	0,125	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	8	0,125	1
56	Blinded Pixel	2384,60	2385,61	8	8	0,125	1
57							
58							
59							
60							
61							
62							
63							
64							
Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)							390330

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Summary

Summary of results							N5
State							
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,5	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,5	0,5
6	Blinded Pixel	333,92	334,37	1b	2	0,5	1
7	Blinded Pixel	412,18	411,74	2b	2	0,5	1
8	overlap region 2b	403,96	391,87	2b	2	0,5	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,5	0,5
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,5	0,5
11	Blinded Pixel	301,06	300,59	2a	2	0,5	1
12	Blinded Pixel	393,56	385,84	3	8	0,125	1
13	overlap region	391,88	404,10	3	8	0,125	1
14		404,34	423,73	3	1	0,125	0,125
15	VIS DOAS, PMD 2	423,97	526,96	3	1	0,125	0,125
16		527,20	544,56	3	8	0,125	1
17	AE	544,80	565,08	3	1	0,125	0,125
18		565,31	597,28	3	8	0,125	1
19	overlap region	597,52	605,48	3	8	0,125	1
20	Blinded Pixel	627,41	628,40	3	8	0,125	1
21	Blinded Pixel	595,36	596,26	4	8	0,125	1
22	overlap region	597,60	605,43	4	8	0,125	1
23		605,65	612,53	4	8	0,125	1
24	PMD 3, AE	612,75	725,99	4	1	0,125	0,125
25		726,19	753,77	4	8	0,125	1
26	O2(A)	753,98	775,92	4	1	0,125	0,125
27	overlap region	776,13	789,85	4	8	0,125	1
28	Blinded Pixel	811,47	812,33	4	8	0,125	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	1	0,25	0,25
35	Blinded Pixel	1061,68	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	2	0,125	0,25
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	1	1	1
49		1939,99	1967,79	7	1	1	1
50	CO2	1967,90	1984,05	7	1	1	1
51		1984,15	2029,89	7	1	1	1
52	CO2, H2O	2029,99	2040,19	7	1	1	1
53	Blinded Pixel	2042,80	2043,67	7	1	1	1
54	Blinded Pixel	2259,26	2260,47	8	8	0,125	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	8	0,125	1
56	Blinded Pixel	2384,60	2385,61	8	8	0,125	1
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)							390330

StateOpt3_ocr44_factor8.xls

Summary

Summary of results

N6

State		N6					
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1	1
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	1	0,25	0,25
5	overlap region, PMD 1	303,65	313,92	1b	1	0,25	0,25
6	Blinded Pixel	333,92	334,37	1b	4	0,25	1
7	Blinded Pixel	412,18	411,74	2b	4	0,25	1
8	overlap region 2b	403,96	391,87	2b	4	0,25	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,25	0,25
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,25	0,25
11	Blinded Pixel	301,06	300,59	2a	4	0,25	1
12	Blinded Pixel	383,56	385,84	3	16	0,0625	1
13	overlap region	391,88	404,10	3	16	0,0625	1
14		404,34	423,73	3	16	0,0625	1
15	VIS DOAS, PMD 2	423,97	526,96	3	4	0,0625	0,25
16		527,20	544,56	3	16	0,0625	1
17	AE	544,80	565,08	3	4	0,0625	0,25
18		565,31	597,28	3	16	0,0625	1
19	overlap region	597,52	605,48	3	16	0,0625	1
20	Blinded Pixel	627,41	628,40	3	16	0,0625	1
21	Blinded Pixel	595,36	596,26	4	16	0,0625	1
22	overlap region	597,60	605,43	4	16	0,0625	1
23		605,65	612,53	4	16	0,0625	1
24	PMD 3, AE	612,75	725,99	4	4	0,0625	0,25
25		726,19	753,77	4	16	0,0625	1
26	O2(A)	753,98	775,92	4	4	0,0625	0,25
27	overlap region	776,13	789,85	4	16	0,0625	1
28	Blinded Pixel	811,47	812,33	4	16	0,0625	1
29	Blinded Pixel	773,21	774,43	5	4	0,25	1
30	overlap region	776,24	789,74	5	4	0,25	1
31		790,04	798,06	5	4	0,25	1
32	PMD 4/7, AE	798,35	946,62	5	1	0,25	0,25
33		946,90	990,40	5	4	0,25	1
34	overlap region, (AE)	990,68	1056,25	5	4	0,25	1
35	Blinded Pixel	1061,68	1062,83	5	4	0,25	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	8	0,125	1
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	8	0,125	1
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	8	0,125	1
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	8	0,125	1
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	8	0,125	1
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	2	0,5	1
49		1939,99	1967,79	7	2	0,5	1
50	CO2	1967,90	1984,05	7	2	0,5	1
51		1984,15	2029,89	7	2	0,5	1
52	CO2, H2O	2029,99	2040,19	7	2	0,5	1
53	Blinded Pixel	2042,80	2043,67	7	2	0,5	1
54	Blinded Pixel	2259,26	2260,47	8	16	0,0625	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	8	0,0625	0,5
56	Blinded Pixel	2384,60	2385,61	8	16	0,0625	1
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)						373178	

Stefan Noël

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09.06.2010

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Summary

Summary of results

N7

State		N7					
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coodding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	5	1	5
2	straylight	213,29	239,88	1a	1	1	1
3	virtual channel 1a	240,00	281,90	1a	1	1	1
4	virtual channel 1b	282,01	303,54	1b	2	0,25	0,5
5	overlap region, PMD 1	303,65	313,92	1b	1	0,25	0,25
6	Blinded Pixel	333,92	334,37	1b	20	0,25	5
7	Blinded Pixel	412,18	411,74	2b	4	0,25	1
8	overlap region 2b	403,96	391,87	2b	4	0,25	1
9	UV DOAS, PMD 1	391,76	320,14	2b	1	0,25	0,25
10	overlap region 2a, UV DOAS, PMD 1	320,02	309,43	2a	1	0,25	0,25
11	Blinded Pixel	301,06	300,59	2a	4	0,25	1
12	Blinded Pixel	383,56	385,84	3	16	0,0625	1
13	overlap region	391,88	404,10	3	16	0,0625	1
14		404,34	423,73	3	16	0,0625	1
15	VIS DOAS, PMD 2	423,97	526,96	3	4	0,0625	0,25
16		527,20	544,56	3	16	0,0625	1
17	AE	544,80	565,08	3	4	0,0625	0,25
18		565,31	597,28	3	16	0,0625	1
19	overlap region	597,52	605,48	3	16	0,0625	1
20	Blinded Pixel	627,41	628,40	3	16	0,0625	1
21	Blinded Pixel	595,36	596,26	4	16	0,0625	1
22	overlap region	597,60	605,43	4	16	0,0625	1
23		605,65	612,53	4	16	0,0625	1
24	PMD 3, AE	612,75	725,99	4	4	0,0625	0,25
25		726,19	753,77	4	16	0,0625	1
26	O2(A)	753,98	775,92	4	4	0,0625	0,25
27	overlap region	776,13	789,85	4	16	0,0625	1
28	Blinded Pixel	811,47	812,33	4	16	0,0625	1
29	Blinded Pixel	773,21	774,43	5	8	0,125	1
30	overlap region	776,24	789,74	5	8	0,125	1
31		790,04	798,06	5	8	0,125	1
32	PMD 4/7, AE	798,35	946,62	5	4	0,125	0,5
33		946,90	990,40	5	8	0,125	1
34	overlap region, (AE)	990,68	1056,25	5	8	0,125	1
35	Blinded Pixel	1061,68	1062,83	5	8	0,125	1
36	Blinded Pixel	971,46	978,74	6	8	0,125	1
37	overlap region	990,84	1056,23	6	8	0,125	1
38		1057,02	1233,24	6	8	0,125	1
39	AE	1234,01	1253,14	6	2	0,125	0,25
40		1253,90	1388,96	6	8	0,125	1
41	Water Vapour	1389,72	1410,36	6	2	0,125	0,25
42		1411,12	1548,51	6	8	0,125	1
43	Water/Ice cloud & PMD 5	1549,30	1670,70	6	2	0,125	0,25
44		1671,51	1695,84	6	8	0,125	1
45	add. Water/Ice cloud	1696,65	1707,26	6	2	0,125	0,25
46		1708,08	1750,09	6	8	0,125	1
47	Blinded Pixel	1765,07	1772,59	6	8	0,125	1
48	Blinded Pixel	1934,38	1935,44	7	2	0,5	1
49		1939,99	1967,79	7	2	0,5	1
50	CO2	1967,90	1984,05	7	1	0,5	0,5
51		1984,15	2029,89	7	2	0,5	1
52	CO2, H2O	2029,99	2040,19	7	1	0,5	0,5
53	Blinded Pixel	2042,80	2043,67	7	2	0,5	1
54	Blinded Pixel	2259,26	2260,47	8	16	0,0625	1
55	PMD 6, Ch. 8, unused pixel	2260,61	2384,49	8	8	0,0625	0,5
56	Blinded Pixel	2384,60	2385,61	8	16	0,0625	1
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)						380429	

StateOpt3_ocr44_factor8.xls

Summary

Summary of results							L1
State							L1
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	1	1,5	1,5
5	unused pixel	314,03	333,80	1b	1	1,5	1,5
6	Blinded Pixel	333,92	334,37	1b	1	1,5	1,5
7	Blinded Pixel	412,18	411,74	2b	2	0,75	1,5
8	unused pixel	411,63	404,07	2b	1	0,75	0,75
9	virtual channel 2b	403,96	320,14	2b	1	0,75	0,75
10	virtual channel 2a	320,02	309,43	2a	1	1,5	1,5
11	unused pixel	308,31	301,18	2a	1	1,5	1,5
12	Blinded Pixel	301,06	300,59	2a	1	1,5	1,5
13	Blinded Pixel	383,56	385,84	3	1	0,375	0,375
14	unused pixel	388,09	391,63	3	1	0,375	0,375
15	Channel 3 (main part)	391,88	605,48	3	1	0,375	0,375
16	unused pixel	605,72	627,17	3	1	0,375	0,375
17	Blinded Pixel	627,41	628,40	3	1	0,375	0,375
18	Blinded Pixel	595,36	596,26	4	1	0,375	0,375
19	unused pixel	596,48	597,38	4	1	0,375	0,375
20	Channel 4 (main part)	597,60	789,85	4	1	0,375	0,375
21	unused pixel	790,06	811,25	4	1	0,375	0,375
22	Blinded Pixel	811,47	812,33	4	1	0,375	0,375
23	Blinded Pixel	773,21	774,43	5	1	0,375	0,375
24	unused pixel	774,73	775,94	5	1	0,375	0,375
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	1	0,375	0,375
27	Blinded Pixel	1061,68	1062,83	5	1	0,375	0,375
28	Blinded Pixel	971,46	978,74	6	1	0,375	0,375
29	unused pixel	979,55	990,03	6	1	0,375	0,375
30	Channel 6/6+ (main part)	990,84	1750,09	6	1	0,375	0,375
31	unused pixel	1750,82	1764,24	6	1	0,375	0,375
32	Blinded Pixel	1765,07	1772,59	6	1	0,375	0,375
33	Blinded Pixel	1934,38	1935,44	7	1	1,5	1,5
34	unused pixel	1935,55	1939,88	7	1	1,5	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	1	1,5	1,5
36	unused pixel	2040,29	2042,70	7	1	1,5	1,5
37	Blinded Pixel	2042,80	2043,67	7	1	1,5	1,5
38	Blinded Pixel	2259,26	2260,47	8	12	0,125	1,5
39	Channel 8	2260,61	2384,49	8	12	0,125	1,5
40	Blinded Pixel	2384,60	2385,61	8	12	0,125	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							255348

StateOpt3_ocr44_factor8.xls

Summary

Summary of results							L2
State							L2
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	1	1,5	1,5
5	unused pixel	314,03	333,80	1b	1	1,5	1,5
6	Blinded Pixel	333,92	334,37	1b	1	1,5	1,5
7	Blinded Pixel	412,18	411,74	2b	2	0,75	1,5
8	unused pixel	411,63	404,07	2b	1	0,75	0,75
9	virtual channel 2b	403,96	320,14	2b	1	0,75	0,75
10	virtual channel 2a	320,02	309,43	2a	1	1,5	1,5
11	unused pixel	308,31	301,18	2a	1	1,5	1,5
12	Blinded Pixel	301,06	300,59	2a	1	1,5	1,5
13	Blinded Pixel	383,56	385,84	3	24	0,0625	1,5
14	unused pixel	388,09	391,63	3	24	0,0625	1,5
15	Channel 3 (main part)	391,88	605,48	3	6	0,0625	0,375
16	unused pixel	605,72	627,17	3	24	0,0625	1,5
17	Blinded Pixel	627,41	628,40	3	24	0,0625	1,5
18	Blinded Pixel	595,36	596,26	4	24	0,0625	1,5
19	unused pixel	596,48	597,38	4	24	0,0625	1,5
20	Channel 4 (main part)	597,60	789,85	4	6	0,0625	0,375
21	unused pixel	790,06	811,25	4	24	0,0625	1,5
22	Blinded Pixel	811,47	812,33	4	24	0,0625	1,5
23	Blinded Pixel	773,21	774,43	5	8	0,1875	1,5
24	unused pixel	774,73	775,94	5	8	0,1875	1,5
25	Channel 5 (main part)	776,24	1056,25	5	2	0,1875	0,375
26	unused pixel	1056,53	1061,40	5	8	0,1875	1,5
27	Blinded Pixel	1061,68	1062,83	5	8	0,1875	1,5
28	Blinded Pixel	971,46	978,74	6	24	0,0625	1,5
29	unused pixel	979,55	990,03	6	24	0,0625	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	6	0,0625	0,375
31	unused pixel	1750,82	1764,24	6	24	0,0625	1,5
32	Blinded Pixel	1765,07	1772,59	6	24	0,0625	1,5
33	Blinded Pixel	1934,38	1935,44	7	1	1,5	1,5
34	unused pixel	1935,55	1939,88	7	1	1,5	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	1	1,5	1,5
36	unused pixel	2040,29	2042,70	7	1	1,5	1,5
37	Blinded Pixel	2042,80	2043,67	7	1	1,5	1,5
38	Blinded Pixel	2259,26	2260,47	8	12	0,125	1,5
39	Channel 8	2260,61	2384,49	8	12	0,125	1,5
40	Blinded Pixel	2384,60	2385,61	8	12	0,125	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							324660

StateOpt3_ocr44_factor8.xls

Summary

Summary of results							L3
State							L3
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	2	0,375	0,75
5	unused pixel	314,03	333,80	1b	4	0,375	1,5
6	Blinded Pixel	333,92	334,37	1b	4	0,375	1,5
7	Blinded Pixel	412,18	411,74	2b	4	0,375	1,5
8	unused pixel	411,63	404,07	2b	4	0,375	1,5
9	virtual channel 2b	403,96	320,14	2b	1	0,375	0,375
10	virtual channel 2a	320,02	309,43	2a	1	0,375	0,375
11	unused pixel	308,31	301,18	2a	4	0,375	1,5
12	Blinded Pixel	301,06	300,59	2a	4	0,375	1,5
13	Blinded Pixel	383,56	385,84	3	24	0,0625	1,5
14	unused pixel	388,09	391,63	3	24	0,0625	1,5
15	Channel 3 (main part)	391,88	605,48	3	6	0,0625	0,375
16	unused pixel	605,72	627,17	3	24	0,0625	1,5
17	Blinded Pixel	627,41	628,40	3	24	0,0625	1,5
18	Blinded Pixel	595,36	596,26	4	24	0,0625	1,5
19	unused pixel	596,48	597,38	4	24	0,0625	1,5
20	Channel 4 (main part)	597,60	789,85	4	6	0,0625	0,375
21	unused pixel	790,06	811,25	4	24	0,0625	1,5
22	Blinded Pixel	811,47	812,33	4	24	0,0625	1,5
23	Blinded Pixel	773,21	774,43	5	4	0,375	1,5
24	unused pixel	774,73	775,94	5	4	0,375	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	4	0,375	1,5
27	Blinded Pixel	1061,68	1062,83	5	4	0,375	1,5
28	Blinded Pixel	971,46	978,74	6	24	0,0625	1,5
29	unused pixel	979,55	990,03	6	24	0,0625	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	6	0,0625	0,375
31	unused pixel	1750,82	1764,24	6	24	0,0625	1,5
32	Blinded Pixel	1765,07	1772,59	6	24	0,0625	1,5
33	Blinded Pixel	1934,38	1935,44	7	4	0,375	1,5
34	unused pixel	1935,55	1939,88	7	4	0,375	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	4	0,375	1,5
36	unused pixel	2040,29	2042,70	7	4	0,375	1,5
37	Blinded Pixel	2042,80	2043,67	7	4	0,375	1,5
38	Blinded Pixel	2259,26	2260,47	8	24	0,0625	1,5
39	Channel 8	2260,61	2384,49	8	6	0,0625	0,375
40	Blinded Pixel	2384,60	2385,61	8	24	0,0625	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							384906

StateOpt3_ocr44_factor8.xls

Summary

Summary of results							L4
State							L4
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	2	0,375	0,75
5	unused pixel	314,03	333,80	1b	4	0,375	1,5
6	Blinded Pixel	333,92	334,37	1b	4	0,375	1,5
7	Blinded Pixel	412,18	411,74	2b	4	0,375	1,5
8	unused pixel	411,63	404,07	2b	4	0,375	1,5
9	virtual channel 2b	403,96	320,14	2b	1	0,375	0,375
10	virtual channel 2a	320,02	309,43	2a	1	0,375	0,375
11	unused pixel	308,31	301,18	2a	4	0,375	1,5
12	Blinded Pixel	301,06	300,59	2a	4	0,375	1,5
13	Blinded Pixel	383,56	385,84	3	8	0,1875	1,5
14	unused pixel	388,09	391,63	3	8	0,1875	1,5
15	Channel 3 (main part)	391,88	605,48	3	2	0,1875	0,375
16	unused pixel	605,72	627,17	3	8	0,1875	1,5
17	Blinded Pixel	627,41	628,40	3	8	0,1875	1,5
18	Blinded Pixel	595,36	596,26	4	8	0,1875	1,5
19	unused pixel	596,48	597,38	4	8	0,1875	1,5
20	Channel 4 (main part)	597,60	789,85	4	2	0,1875	0,375
21	unused pixel	790,06	811,25	4	8	0,1875	1,5
22	Blinded Pixel	811,47	812,33	4	8	0,1875	1,5
23	Blinded Pixel	773,21	774,43	5	4	0,375	1,5
24	unused pixel	774,73	775,94	5	4	0,375	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	4	0,375	1,5
27	Blinded Pixel	1061,68	1062,83	5	4	0,375	1,5
28	Blinded Pixel	971,46	978,74	6	8	0,1875	1,5
29	unused pixel	979,55	990,03	6	8	0,1875	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	2	0,1875	0,375
31	unused pixel	1750,82	1764,24	6	8	0,1875	1,5
32	Blinded Pixel	1765,07	1772,59	6	8	0,1875	1,5
33	Blinded Pixel	1934,38	1935,44	7	4	0,375	1,5
34	unused pixel	1935,55	1939,88	7	4	0,375	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	4	0,375	1,5
36	unused pixel	2040,29	2042,70	7	4	0,375	1,5
37	Blinded Pixel	2042,80	2043,67	7	4	0,375	1,5
38	Blinded Pixel	2259,26	2260,47	8	24	0,0625	1,5
39	Channel 8	2260,61	2384,49	8	6	0,0625	0,375
40	Blinded Pixel	2384,60	2385,61	8	24	0,0625	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							384906

StateOpt3_ocr44_factor8.xls

Summary

Summary of results							L5
State							L5
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	2	0,375	0,75
5	unused pixel	314,03	333,80	1b	4	0,375	1,5
6	Blinded Pixel	333,92	334,37	1b	4	0,375	1,5
7	Blinded Pixel	412,18	411,74	2b	4	0,375	1,5
8	unused pixel	411,63	404,07	2b	4	0,375	1,5
9	virtual channel 2b	403,96	320,14	2b	1	0,375	0,375
10	virtual channel 2a	320,02	309,43	2a	1	0,375	0,375
11	unused pixel	308,31	301,18	2a	4	0,375	1,5
12	Blinded Pixel	301,06	300,59	2a	4	0,375	1,5
13	Blinded Pixel	383,56	385,84	3	8	0,1875	1,5
14	unused pixel	388,09	391,63	3	8	0,1875	1,5
15	Channel 3 (main part)	391,88	605,48	3	2	0,1875	0,375
16	unused pixel	605,72	627,17	3	8	0,1875	1,5
17	Blinded Pixel	627,41	628,40	3	8	0,1875	1,5
18	Blinded Pixel	595,36	596,26	4	8	0,1875	1,5
19	unused pixel	596,48	597,38	4	8	0,1875	1,5
20	Channel 4 (main part)	597,60	789,85	4	2	0,1875	0,375
21	unused pixel	790,06	811,25	4	8	0,1875	1,5
22	Blinded Pixel	811,47	812,33	4	8	0,1875	1,5
23	Blinded Pixel	773,21	774,43	5	4	0,375	1,5
24	unused pixel	774,73	775,94	5	4	0,375	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	0,375	0,375
26	unused pixel	1056,53	1061,40	5	4	0,375	1,5
27	Blinded Pixel	1061,68	1062,83	5	4	0,375	1,5
28	Blinded Pixel	971,46	978,74	6	8	0,1875	1,5
29	unused pixel	979,55	990,03	6	8	0,1875	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	2	0,1875	0,375
31	unused pixel	1750,92	1764,24	6	8	0,1875	1,5
32	Blinded Pixel	1765,07	1772,59	6	8	0,1875	1,5
33	Blinded Pixel	1934,38	1935,44	7	4	0,375	1,5
34	unused pixel	1935,55	1939,88	7	4	0,375	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	4	0,375	1,5
36	unused pixel	2040,29	2042,70	7	4	0,375	1,5
37	Blinded Pixel	2042,80	2043,67	7	4	0,375	1,5
38	Blinded Pixel	2259,26	2260,47	8	24	0,0625	1,5
39	Channel 8	2260,61	2384,49	8	6	0,0625	0,375
40	Blinded Pixel	2384,60	2385,61	8	24	0,0625	1,5
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Total Data Rate (bit/s, including Headers, PMD/Auxiliary Data)							384906

StateOpt3_ocr44_factor8.xls

Summary

Summary of results							L6
State							L6
Cluster Ind.	Description	min/max wavelength, nm		Channel	Coadding	PET (s)	Int. Time(s)
1	Blinded Pixel	212,53	213,14	1a	1	1,5	1,5
2	straylight	213,29	239,88	1a	1	1,5	1,5
3	virtual channel 1a	240,00	281,90	1a	1	1,5	1,5
4	virtual channel 1b	282,01	313,92	1b	1	1,5	1,5
5	unused pixel	314,03	333,80	1b	1	1,5	1,5
6	Blinded Pixel	333,92	334,37	1b	1	1,5	1,5
7	Blinded Pixel	412,18	411,74	2b	1	1,5	1,5
8	unused pixel	411,63	404,07	2b	1	1,5	1,5
9	virtual channel 2b	403,96	320,14	2b	1	1,5	1,5
10	virtual channel 2a	320,02	309,43	2a	1	1,5	1,5
11	unused pixel	308,31	301,18	2a	1	1,5	1,5
12	Blinded Pixel	301,06	300,59	2a	1	1,5	1,5
13	Blinded Pixel	383,56	385,84	3	1	0,75	0,75
14	unused pixel	388,09	391,63	3	1	0,75	0,75
15	Channel 3 (main part)	391,88	605,48	3	1	0,75	0,75
16	unused pixel	605,72	627,17	3	1	0,75	0,75
17	Blinded Pixel	627,41	628,40	3	1	0,75	0,75
18	Blinded Pixel	595,36	596,26	4	1	0,75	0,75
19	unused pixel	596,48	597,38	4	1	0,75	0,75
20	Channel 4 (main part)	597,60	789,85	4	1	0,75	0,75
21	unused pixel	790,06	811,25	4	1	0,75	0,75
22	Blinded Pixel	811,47	812,33	4	1	0,75	0,75
23	Blinded Pixel	773,21	774,43	5	1	1,5	1,5
24	unused pixel	774,73	775,94	5	1	1,5	1,5
25	Channel 5 (main part)	776,24	1056,25	5	1	1,5	1,5
26	unused pixel	1056,53	1061,40	5	1	1,5	1,5
27	Blinded Pixel	1061,68	1062,83	5	1	1,5	1,5
28	Blinded Pixel	971,46	978,74	6	1	1,5	1,5
29	unused pixel	979,55	990,03	6	1	1,5	1,5
30	Channel 6/6+ (main part)	990,84	1750,09	6	1	1,5	1,5
31	unused pixel	1750,82	1764,24	6	1	1,5	1,5
32	Blinded Pixel	1765,07	1772,59	6	1	1,5	1,5
33	Blinded Pixel	1934,38	1935,44	7	1	1,5	1,5
34	unused pixel	1935,55	1939,88	7	1	1,5	1,5
35	Channel 7 (main part)	1939,99	2040,19	7	1	1,5	1,5
36	unused pixel	2040,29	2042,70	7	1	1,5	1,5
37	Blinded Pixel	2042,80	2043,67	7	1	1,5	1,5
38	Blinded Pixel	2259,26	2260,47	8	12	0,125	1,5
39	Channel 8	2260,61	2384,49	8	12	0,125	1,5
40	Blinded Pixel	2384,60	2385,61	8	12	0,125	1,5
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Total Data Rate (bit/s, including Headers, PMD /Auxiliary Data)							132554

ANNEX 5: Modified entries in PET and co-adding tables required for OCR_044 implementation.

PET table: PET reduction by factor 8:

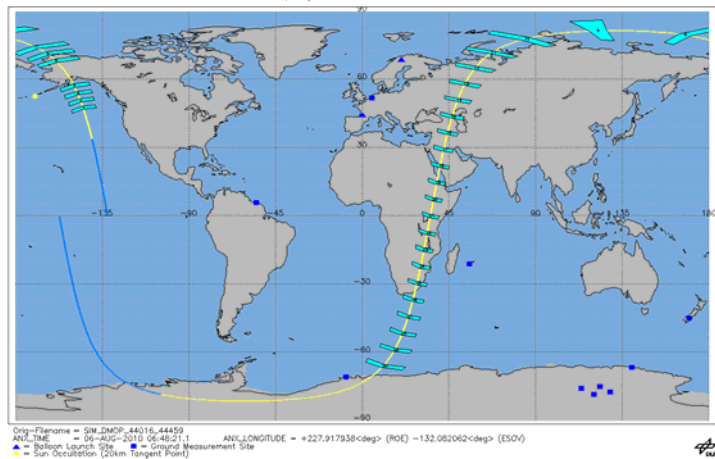
	State ID	Data Rate	Channel 1a	Channel 1b	Channel 2b	Channel 2a	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8			
Nadir 01	1	Low	1,	,5	,5	,5	1,	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 02	2	Low	1,	,5	,5	,5	1,	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 03	3	Low	1,	,5	,5	,5	,125	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 04	4	Low	1,	,5	,5	,5	,125	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 05	5	Low	1,	,5	,5	,5	,125	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 06	6	Low	1,	,25	,25	,25	,0625	,0625	,25	,125	,5	,0625	changed due to OCR_44		
Nadir 07	7	Low	1,	,25	,25	,25	,0625	,0625	,125	,125	,5	,0625	changed due to OCR_44		
Dark_Current_Cal_5	8	Low	,25	,25	,25	,25	1,	1,	,25	,5	,125	,125	changed due to OCR_007&OCR_43		
Dark_Current_Cal_4	26	Low	1,	1,	1,5	1,5	,75	,75	1,5	1,5	,5	,5	changed due to OCR_43		
Limb 01	28	Low	1,5	1,5	,75	1,5	,375	,375	,375	,375	1,5	,125	changed due to OCR_44		
Limb 02	29	Low	1,5	1,5	,75	1,5	,0625	,0625	,1875	,0625	1,5	,125	changed due to OCR_44		
Limb 03	30	Low	1,5	,375	,375	,375	,0625	,0625	,375	,0625	,375	,0625	changed due to OCR_44		
Limb 04	31	Low	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,0625	changed due to OCR_44		
Limb 05	32	Low	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,0625	changed due to OCR_44		
Limb 06	33	Low	1,5	1,5	1,5	1,5	,75	,75	1,5	1,5	1,5	,125	changed due to OCR_44		
Dark_Current_Cal_1	46	Low	,0625	,0625	,0625	,0625	,0625	,0625	,125	,0625	,0625	,0625	changed due to OCR_43		
Dark_Current_Cal_2	63	Low	,375	,375	,75	,75	,375	,375	,375	,375	,375	,375	changed due to OCR_43		
Dark_Current_Cal_3	67	Low	,5	,5	,5	,5	,125	,125	,5	,125	1,	1,	changed due to OCR_007&OCR_43		
	State ID	Data Rate	Channel 1a	Channel 1b	Channel 2b	Channel 2a	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8			
Nadir 01	1	High	1,	,5	,5	,5	1,	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 02	2	High	1,	,5	,5	,5	1,	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 03	3	High	1,	,5	,5	,5	,125	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 04	4	High	1,	,5	,5	,5	,125	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 05	5	High	1,	,5	,5	,5	,125	,125	,25	,125	1,	,125	changed due to OCR_44		
Nadir 06	6	High	1,	,25	,25	,25	,0625	,0625	,25	,125	,5	,0625	changed due to OCR_44		
Nadir 07	7	High	1,	,25	,25	,25	,0625	,0625	,125	,125	,5	,0625	changed due to OCR_44		
Dark_Current_Cal_5	8	High	,25	,25	,25	,25	1,	1,	,25	,5	,125	,125	changed due to OCR_007&OCR_43		
Dark_Current_Cal_4	26	High	1,	1,	1,5	1,5	,75	,75	1,5	1,5	,5	,5	changed due to OCR_43		
Limb 01	28	High	1,5	1,5	,75	1,5	,375	,375	,375	,375	1,5	,125	changed due to OCR_44		
Limb 02	29	High	1,5	1,5	,75	1,5	,0625	,0625	,1875	,0625	1,5	,125	changed due to OCR_44		
Limb 03	30	High	1,5	,375	,375	,375	,0625	,0625	,375	,0625	,375	,0625	changed due to OCR_44		
Limb 04	31	High	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,0625	changed due to OCR_44		
Limb 05	32	High	1,5	,375	,375	,375	,1875	,1875	,375	,1875	,375	,0625	changed due to OCR_44		
Limb 06	33	High	1,5	1,5	1,5	1,5	,75	,75	1,5	1,5	1,5	,125	changed due to OCR_44		
Dark_Current_Cal_1	46	High	,0625	,0625	,0625	,0625	,0625	,0625	,125	,0625	,0625	,0625	changed due to OCR_43		
Dark_Current_Cal_2	63	High	,375	,375	,75	,75	,375	,375	,375	,375	,375	,375	changed due to OCR_43		
Dark_Current_Cal_3	67	High	,5	,5	,5	,5	,125	,125	,5	,125	1,	1,	changed due to OCR_007&OCR_43		

Output 2 CTI								
CO_ADDING	50							
Cluster Index	1	2	3	4	5	6	7	8
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	9	10	11	12	13	14	15	16
Co_Adding Factor	1	1	1	1	4	4	4	4
Cluster Index	17	18	19	20	21	22	23	24
Co_Adding Factor	4	4	4	4	4	4	1	1
Cluster Index	25	26	27	28	29	30	31	32
Co_Adding Factor	1	1	1	2	2	2	2	2
Cluster Index	33	34	35	36	37	38	39	40
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	41	42	43	44	45	46	47	48
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	49	50	51	52	53	54	55	56
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	57	58	59	60	61	62	63	64
Co_Adding Factor	0	0	0	0	0	0	0	0
CO_ADDING	51							
Cluster Index	1	2	3	4	5	6	7	8
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	9	10	11	12	13	14	15	16
Co_Adding Factor	1	1	1	1	2	2	2	2
Cluster Index	17	18	19	20	21	22	23	24
Co_Adding Factor	2	2	2	2	2	2	2	1
Cluster Index	25	26	27	28	29	30	31	32
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	33	34	35	36	37	38	39	40
Co_Adding Factor	1	1	1	1	1	1	1	1
Cluster Index	41	42	43	44	45	46	47	48
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	49	50	51	52	53	54	55	56
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	57	58	59	60	61	62	63	64
Co_Adding Factor	0	0	0	0	0	0	0	0
CO_ADDING	52							
Cluster Index	1	2	3	4	5	6	7	8
Co_Adding Factor	2	2	2	2	2	2	2	2
Cluster Index	9	10	11	12	13	14	15	16
Co_Adding Factor	2	2	2	2	1	1	1	1
Cluster Index	17	18	19	20	21	22	23	24
Co_Adding Factor	1	1	1	1	1	1	2	2
Cluster Index	25	26	27	28	29	30	31	32
Co_Adding Factor	2	2	2	2	1	1	1	1
Cluster Index	33	34	35	36	37	38	39	40
Co_Adding Factor	4	4	4	4	4	4	4	4
Cluster Index	41	42	43	44	45	46	47	48
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	49	50	51	52	53	54	55	56
Co_Adding Factor	0	0	0	0	0	0	0	0
Cluster Index	57	58	59	60	61	62	63	64
Co_Adding Factor	0	0	0	0	0	0	0	0

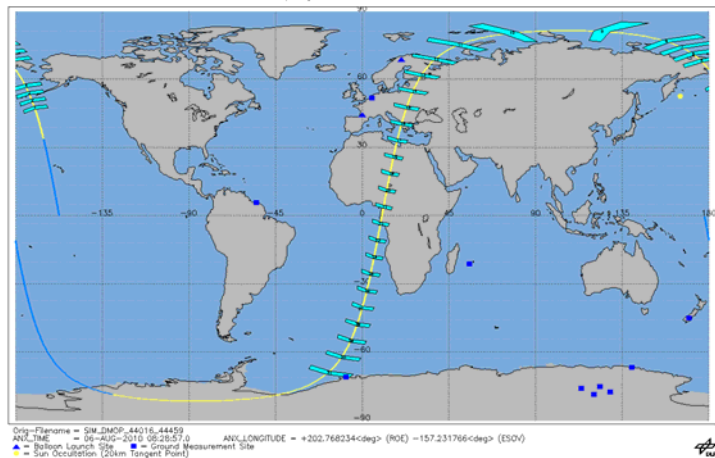
Annex 6: ENVISAT ground track in selected orbits

PET reduced by factor 4 on 6th August 2010

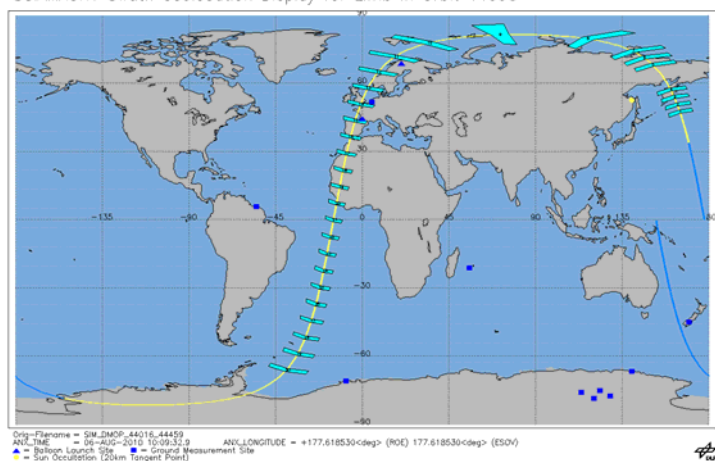
SCIAMACHY Swath Geolocation Display for Limb in Orbit 44091



SCIAMACHY Swath Geolocation Display for Limb in Orbit 44092

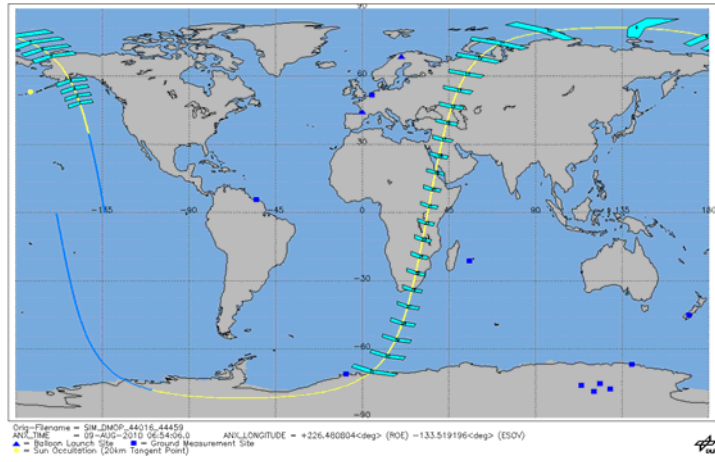


SCIAMACHY Swath Geolocation Display for Limb in Orbit 44093

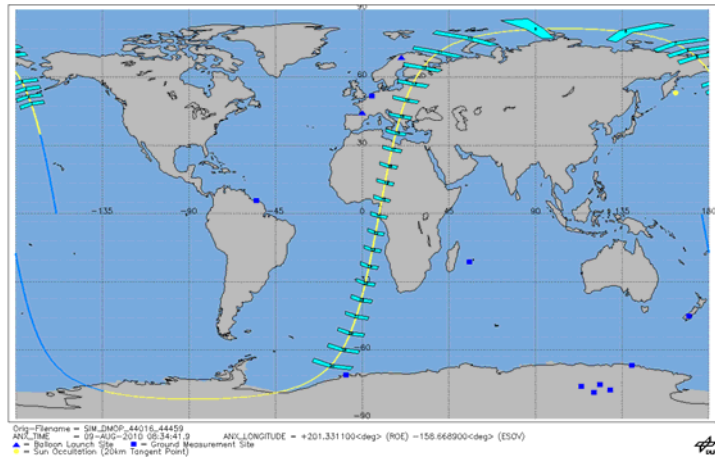


PET reduced by factor 8 on 9th August 2010

SCIAMACHY Swath Geolocation Display for Limb in Orbit 44134



SCIAMACHY Swath Geolocation Display for Limb in Orbit 44135



SCIAMACHY Swath Geolocation Display for Limb in Orbit 44136

