



indra



Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
	Data_Block					Init of binary Data Block in the product.	
	SSS_SWATH					Init of binary Data Set containing the SSS_SWATH Data Set records.	
01	N_Grid_Points	Counter	N/A	Unsigned integer (4 bytes)	1 element	Number of Grid_Points data set record structures.	INT
	List_of_Grid_Point_Datas					Init of list of Grid_Points data set record structures, repeated N_Grid_Points times.	
	Grid_Point_Data					Init of Grid_Point data set record structure.	
02	Grid_Point_ID	identifier	dl	Unsigned integer (4 bytes)	1 element	Unique identifier of Earth fixed grid point	MIR
03	Latitude	real value	deg	float (4 bytes)	1 element	Geodetic latitude of grid point (WGS84)	MIR
04	Longitude	real value	deg	float (4 bytes)	1 element	Geocentric longitude of grid point.	MIR
	Geophysical_Parameters_Data					Init of Geophysical_Parameters_Data structure. Default values are used if a grid point is not processed: ie use defaults if Fg_ctrl_sel_gp[Ngp] = = false or Fg_ctrl_valid[Ngp] = = false.	

**indra**

Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
05	<i>Equiv_ftprt_diam</i>	real value	K m	float (4 bytes)	1 element	Equivalent Footprint diameter. (default value -999 if no measurements for this grid point)	INT
06	<i>Mean_acq_time</i>	real value	dd	float (4 bytes)	1 element	Mean time of acquisition for all valid TB measurements of DGG point. Expressed in UTC decimal days (in MJD2000 reference). Default value -999 if grid point not processed.	INT
07	<i>SSS1</i>	real value	psu	float (4 bytes)	1 element	Sea surface salinity using roughness model 1 (default value -999 if not processed)	INT
08	<i>Sigma_SSS1</i>	real value	psu	float (4 bytes)	1 element	Theoretical uncertainty computed for SSS1 (default value -999 if not processed)	INT
09	<i>SSS2</i>	real value	psu	float (4 bytes)	1 element	Sea surface salinity using roughness model 2 (default value -999 if not processed)	INT
10	<i>Sigma_SSS2</i>	real value	psu	float (4 bytes)	1 element	Theoretical uncertainty computed for SSS2 (default value -999 if not processed)	INT
11	<i>SSS3</i>	real value	psu	float (4 bytes)	1 element	Sea surface salinity using roughness model 3 (default value -999 if not processed)	INT
12	<i>Sigma_SSS3</i>	real value	psu	float (4 bytes)	1 element	Theoretical uncertainty computed for SSS3 (default value -999 if not processed)	INT
13	<i>A_card</i>	Real value	dl	float (4 bytes)	1 element	Effective_Acard retrieved with minimalist model (default value -999 if not processed)	INT

**indra**

Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
14	<i>Sigma_Acard</i>	real value	dl	float (4 bytes)	1 element	Theoretical uncertainty computed for Acard. (default value -999 if not processed)	INT
15	<i>WS</i>	real value	m.s ⁻¹	float (4 bytes)	1 element	10m neutral wind module derived from ECMWF UN10 & VN10 (default value -999 if not processed)	INT
16	<i>Sigma_WS</i>	real value	m.s ⁻¹	float (4 bytes)	1 element	Theoretical uncertainty associated with WS (default -999 if grid point not processed)	INT
17	<i>SST</i>	real value	C	float (4 bytes)	1 element	Sea surface temperature from ECMWF (default -999 if grid point not processed)	INT
18	<i>Sigma_SST</i>	real value	C	float (4 bytes)	1 element	Theoretical uncertainty associated with SST (default -999 if grid point not processed)	INT
19	<i>Tb_42.5H</i>	real value	K	float (4 bytes)	1 element	Brightness Temperature at surface level derived with default forward model and retrieved geophysical parameters, H polarisation direction. (default value -999 if grid point not processed)	INT
20	<i>Sigma_Tb_42.5H</i>	real value	K	float (4 bytes)	1 element	Theoretical uncertainty computed for Tb42.5H (default value -999 if grid point not processed)	INT
21	<i>Tb_42.5V</i>	real value	K	float (4 bytes)	1 element	Brightness Temperature at surface level derived with default forward model and Retrieved geophysical parameters, V polarisation direction. (default value -999 if grid point not processed)	INT

**indra**

Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
22	Sigma_Tb_42.5V	real value	K	float (4 bytes)	1 element	Theoretical uncertainty computed for Tb42.5V (default value -999 if grid point not processed)	INT
23	Tb_42.5X	Real value	K	float (4 bytes)	1 element	Brightness Temperature at antenna level derived with default forward model and retrieved geophysical parameters, X polarisation direction. (default value -999 if grid point not processed)	INT
24	Sigma_Tb_42.5X	Real value	K	float (4 bytes)	1 element	Theoretical uncertainty computed for Tb42.5X (default value -999 if grid point not processed)	INT
25	Tb_42.5Y	Real value	K	float (4 bytes)	1 element	Brightness Temperature at antenna level derived with default forward model and retrieved geophysical parameters, Y polarisation direction. (default value -999 if grid point not processed)	INT
26	Sigma_Tb_42.5Y	Real value	K	float (4 bytes)	1 element	Theoretical uncertainty computed for Tb42.5Y (default value -999 if grid point not processed)	INT
	Geophysical_Parameters_Data					End of Geophysical_Parameters_Data structure	
27	Control_Flags_1	Flags		unsigned integer (4 bytes)	1 element	Control Flags for SSS retrieval with forward model 1. See Table 4-19 for details. Least significant bit is field #01. Most significant bit is field #32	INT
28	Control_Flags_2	Flags		unsigned integer (4 bytes)	1 element	Control Flags for SSS retrieval with forward model 2. See Table 4-19 for details. Least significant bit is field #01. Most significant bit is field #32	INT
29	Control_Flags_3	Flags		unsigned integer	1 element	Control Flags for SSS retrieval with forward model 3. See Table 4-19 for details. Least significant bit is field	INT



indra



Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
				(4 bytes)		#01. Most significant bit is field #32	
30	<i>Control_Flags_4</i>	Flags		unsigned integer (4 bytes)	1 element	Control Flags for SSS retrieval with forward model 4. See Table 4-19 for details. Least significant bit is field #01. Most significant bit is field #32	INT
	<i>Product_Confidence_Descriptor</i>					Init of <i>Product_Confidence_Descriptor</i> structure	
31	<i>Dg_chi2_1</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalized retrieval fit quality index from forward model 1, scaled by multiplying by 100 (default value 0 if grid point not processed)	INT
32	<i>Dg_chi2_2</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalized retrieval fit quality index from forward model 2, scaled by multiplying by 100 (default value 0 if grid point not processed)	INT
33	<i>Dg_chi2_3</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalized retrieval fit quality index from forward model 3, scaled by multiplying by 100 (default value 0 if grid point not processed)	INT
34	<i>Dg_chi2_Acard</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalized retrieval fit quality index from cardioid model, scaled by multiplying by 100 (default value 0 if grid point not processed)	INT
35	<i>Dg_chi2_P_1</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalised chi2 high value acceptability probability with forward model 1, scaled by multiplying by 1000 (default value 0 if grid point not processed)	INT

**indra**

Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
36	<i>Dg_chi2_P_2</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalised chi2 high value acceptability probability with forward model 2, scaled by multiplying by 1000 (default value 0 if grid point not processed).	INT
37	<i>Dg_chi2_P_3</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalised chi2 high value acceptability probability with forward model 3, scaled by multiplying by 1000 (default value 0 if grid point not processed)	INT
38	<i>Dg_chi2_P_Acard</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Normalised chi2 high value acceptability probability with cardioid, scaled by multiplying by 1000. (default value 0 if grid point not processed)	INT
39	<i>Dg_quality_SSS_1</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Quality index for SSS1: lower = better (default 999 if grid point not processed)	INT
40	<i>Dg_quality_SSS_2</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Quality index for SSS2: lower = better (default 999 if grid point not processed)	INT
41	<i>Dg_quality_SSS_3</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Quality index for SSS3: lower = better (default 999 if grid point not processed)	INT
42	<i>Dg_quality_Acard</i>	Integer value	dl	unsigned integer (2 bytes)	1 element	Quality Index for Acard: lower = better (default 999 if grid point not processed)	INT
43	<i>Dg_num_iter_1</i>	Integer value	dl	Unsigned Byte	1 element	Number of iterations for the retrieval of SSS with forward model 1.	INT



indra



Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
						(0 if not processed)	
44	<i>Dg_num_iter_2</i>	Integer value	dl	Unsigned Byte	1 element	Number of iterations for the retrieval of SSS with forward model 2. (0 if not processed)	INT
45	<i>Dg_num_iter_3</i>	Integer value	dl	Unsigned Byte	1 element	Number of iterations for the retrieval of SSS with forward model 3. (0 if not processed)	INT
46	<i>Dg_num_iter_4</i>	Integer value	dl	Unsigned Byte	1 element	Number of iterations for the retrieval of SSS with cardioid model. (0 if not processed)	INT
47	<i>Dg_num_meas_l1c</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements available in L1c product	INT
48	<i>Dg_num_meas_valid</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of valid measurement available for SSS retrieval	INT
49	<i>Dg_border_fov</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of valid measurements with BORDER_FOV flag raised.	INT
50	<i>Dg_RFI_L2</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements suspected of being contaminated by RFI	INT
51	<i>Dg_af_fov</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of valid measurements with AF_FOV flag raised.	INT



indra



Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
52	<i>Dg_sun_tails</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements with SUN_TAILS flag raised.	INT
53	<i>Dg_sun_glint_area</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements with SUN_GLINT_AREA flag raised.	INT
54	<i>Dg_sun_glint_fov</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements with SUN_GLINT_FOV flag raised.	INT
55	<i>Dg_sun_fov</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements with SUN_FOV flag raised.	INT
56	<i>Dg_sun_glint_L2</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements with L2 sunglint flag raised	INT
57	<i>Dg_Suspect_ice</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of suspected ice contaminated measurements	INT
58	<i>Dg_galactic_Noise_Err or</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements discarded due to errors in galactic noise.	INT
59	<i>Dg_Galactic_Noise_Po</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements with Fm_gal_noise_pol flag raised.	INT
60	<i>Dg_moonglint</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Number of measurements with L2 moonglint raised.	INT



indra



Ref.: SO-TN-IDR-GS-0006
Iss./Rev.: 6/0
Date: 18-May-2011

Field #	Field Name	Type	Unit	Element Precision	Variable Format	Comment	Origin
				bytes)			
	<i>Product_Confidence_Descriptor</i>					End of <i>Product_Confidence_Descriptor</i> structure	
61	<i>Science_Flags_1</i>	Flags		Unsigned integer (4 bytes)	1 element	Science flags for SSS retrieval with forward model 1. See Table 4-20 for details. Least significant bit is field #01. Most significant bit is field #32.	INT
62	<i>Science_Flags_2</i>	Flags		Unsigned integer (4 bytes)	1 element	Science flags for SSS retrieval with forward model 2. See Table 4-20 for details. Least significant bit is field #01. Most significant bit is field #32.	INT
63	<i>Science_Flags_3</i>	Flags		Unsigned integer (4 bytes)	1 element	Science flags for SSS retrieval with forward model 3. See Table 4-20 for details. Least significant bit is field #01. Most significant bit is field #32.	INT
64	<i>Science_Flags_4</i>	Flags		Unsigned integer (4 bytes)	1 element	Science flags for SSS retrieval with cardioid model. See Table 4-20 for details. Least significant bit is field #01. Most significant bit is field #32.	INT
	<i>Science_Descriptors</i>					Init of <i>Science_Descriptors</i> structure	
65	<i>Dg_sky</i>	Integer value	dl	unsigned integer(2 bytes)	1 element	Count measurements with specular direction toward a strong galactic source	INT
	<i>Science_Descriptors</i>					End of <i>Science_Descriptors</i> structure.	
	<i>Grid_Point_Data</i>					End of <i>Grid_Point_Data</i> data set record	
	<i>List_of_Grid_</i>					End of list of <i>grid_point</i> data set record structures.	