Contents of 71 bytes telemetry data : 1Hz data - #4

Part	Frame Header				Telemetry Packet (Header)			
Word	0	1	2	3	4	5	6	
bit	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	
Value	0 0 0 0 0 0 0 0	0 1 0 1 * * * *	* * * * * * * *	* * * * 0 0 0 0	1 0 0 1 0 0 0 1	1 1 * * * * * *	* 1 0 0 0 0 0 1 1	
explanation	(Spare)	Data ID1 0x01 (HK(DH))	Frame Sequence Counter	(Spare)	Data ID2 0xD1 (OBC-DH)	Seq. FLG	Packet Sequence Counter	Telemetry Packet Length (67bytes : fixed value)

Part	Telemetry Packet (Data)																					
Word	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
bit	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0
Value	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * 0 0 0 0	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *
explanation	12001 RX A Receive Level (MSB)	12001 RX A Receive Level (LSB)	12002 RX B Receive Level (MSB)	12002 RX B Receive Level (LSB)	12011 TX Modem Select 12012 TX Antenna Select 12013 TX Status (Spare) (Spare) (Spare) (Spare)	20011 Battery 1 Voltage	20012 Battery 2 Voltage	20013 Battery 3 Voltage	20014 Battery 4 Voltage	20021 Battery 1 Charge/Discharge Current	20022 Battery 2 Charge/Discharge Current	20023 Battery 3 Charge/Discharge Current	20024 Battery 4 Charge/Discharge Current	20061 SAP A Voltage	20062 SAP B Voltage	20063 SAP C Voltage

Part	Telemetry Packet (Data)															
Word	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
bit	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0
Value	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *
explanation	20064 SAP D Voltage	20065 SAP E Voltage	20066 SAP F Voltage	20081 Bus Voltage	20348 SAP A Current	20349 SAP B Current	20350 SAP C Current	20351 SAP D Current	20352 SAP E Current	20353 SAP F Current	20306 +5V Voltage	20307 +12V Voltage	20308 -12V Voltage	20309 +5V Voltage (Always ON)	20310 +12V Voltage (Always ON)	20311 -12V Voltage (Always ON)

Part	Telemetry Packet (Data)															
Word	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
bit	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0
Value	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * 0 0 0 0	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	0 0 0 0 0 0 0 0
explanation	30013 Number of Command Stored (MSB)	30013 Number of Command Stored (LSB)	30101 SASH1 Check Complete 30102 SASH2 Check Complete 30103 SASH3 Check Complete 30104 SASH1 Sun Capture 30105 SASH2 Sun Capture 30106 SASH3 Sun Capture 30107 RW X Check Complete 30108 RW Y Check Complete	30109 RW Z Check Complete 30110 STS Check Complete 30111 GPS Check Complete 30112 GAS Check Complete 30113 OPSR Check Complete 30114 OPTX Check Complete 30115 OPRX Check Complete (Spare) (Spare)	30201 SASH1 Error 30202 SASH2 Error 30203 SASH3 Error 30204 RW X Temperature Error 30205 RW Y Temperature Error 30206 RW Z Temperature Error 30207 RW X Primary IF Error 30208 RW Y Primary IF Error	30209 RW Z Primary IF Error 30210 RW X Secondary IF Error 30211 RW Y Secondary IF Error 30212 RW Z Secondary IF Error 30213 TX A IF Error 30214 TX B IF Error 30215 STS Error 30216 GYRO X Temperature Error	30217 GYRO Y Temperature Error 30218 GYRO Z Temperature Error (Spare) (Spare) (Spare) (Spare) 30222 GAS Error (Spare)	30223 MTQ X Primary Error 30224 MTQ Y Primary Error 30225 MTQ Z Primary Error 30226 MTQ X Secondary Error 30227 MTQ Y Secondary Error 30228 MTQ Z Secondary Error 30229 OPSR Error 30230 OPTX Error 30231 S-TX Error 30232 S-RX Error	30250 FD Flag (MSB)	30250 FD Flag	30250 FD Flag	30250 FD Flag	30250 FD Flag	30250 FD Flag (LSB)	30917 Board0 SpW Status Error Counter 30918 Board0 SpW Status TimeOut 30919 Board0 SpW Status WARNING 30920 Board1 SpW Status Error Counter 30921 Board1 SpW Status TimeOut 30922 Board1 SpW Status WARNING	(Spare) (Spare) (Spare) (Spare) (Spare) (Spare) (Spare) (Spare)

Part	Telemetry Packet (Data)															
Word	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
bit	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0
Value	* * * * * * * 0	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * 0 0 0 * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *	* * * * * * * *
explanation	30912 Board0 SpW Error Clear Counter 30924 Board1 SpW Error Clear Counter 20227 RF SW #2 Power 20227 RF SW #1 Power 20226 RD Power (Spare)	20224 O-CAM Power 20223 GAS-12V Power 20222 GAS-12V Power 20221 RW Z-28V Power 20220 RW Z-5V Power 20219 RW Y-28V Power 20218 RW Y-5V Power 20217 RW X-28V Power	20216 RW X-5V Power 20215 STS Power 20214 GPSR Power 20213 GYRO Power 20212 SASH3 Power 20211 SASH2 Power 20210 SASH1 Power 20209 A-PDL-B Power	20208 A-TX-B Power 20207 A-TX-A Power 20206 A-PDL-A Power 20205 STS Power 20204 GAS Power 20203 OPTX Power 20202 S-TX Power 20201 OBC mission1,F module	20041 Battery Temperature	20044 Battery Temperature	20047 Battery Temperature	20050 Battery Temperature	30001 OBC Mode Select 30002 FTL Line Select (Spare) (Spare) (Spare)	30021 System Mode	30022 ACS Mode	30023 COM Mode	20601 System Heater #1 ON/OFF status	20602 System Heater #2 ON/OFF status	20603 System Heater #3 ON/OFF status	20604 System Heater #4 ON/OFF status	20605 Battery Heater #1 ON/OFF status	20606 Battery Heater #2 ON/OFF status	17013 GPSR Com ENA/DIS 10103 SASH1 Com ENA/DIS 10102 SASH2 Com ENA/DIS 10101 SASH3 Com ENA/DIS 11109 STS Com ENA/DIS 11110 RW X Com ENA/DIS 11210 RW Y Com ENA/DIS 11310 RW Z Com ENA/DIS	20902 PCU Com ENA/DIS 14301 GYRO Com ENA/DIS 16101 MTQ Com ENA/DIS 12903 TX A Com ENA/DIS 12904 TX B Com ENA/DIS 12902 RX A Com ENA/DIS 12901 RX B Com ENA/DIS 12201 STS Com ENA/DIS	12111 SEX Com ENA/DIS 60001 O-CAM Com ENA/DIS 60002 IR-CAM Com ENA/DIS 30948 RD Com ENA/DIS 3501 1 Beacon ENA/DIS 30912 Memory Patrol ENA/DIS 20501 CPU Select (Spare)	(Spare) (Spare) (Spare) (Spare) (Spare) (Spare) (Spare) (Spare)