

BisonSat Beacon Data Format

v2 2015/10/10

Number of Bytes	Byte Offset	Description	Size	Other
3	0	Preamble	uint8_t	
6	3	Call Sign	uint8_t	
7	9	RTC Time	uint8_t	yy,mm,dd,hh,mm,ss,th
4	16	OSTicks	uint32_t	first byte is the low order byte
1	20	Last Command Executed to Last Command Executed	uint8_t	
1	21	Last Command Executed to Last Command Executed	uint8_t	
1	22	Command Queue Length	uint8_t	
8	23	Filename of Last JPEG Image Written	uint8_t[8]	
8	31	Filename of Last RAW Image Written	uint8_t[8]	
1	39	cdhResetEvents	uint8_t	
2	40	+Y Current	uint16_t	-2.654438173 x ADC Count + 2122.714212
2	42	+Y Temperature	uint16_t	-0.163 X ADC count +110.338C
2	44	Y pair Voltage	uint16_t	-0.02180794 x ADC Count + 25.20339005
2	46	-X Current	uint16_t	-2.622765877 x ADC Count + 2094.034732
2	48	-X Temperature	uint16_t	-0.163 X ADC count +110.338C
2	50	X pair Voltage	uint16_t	-0.021605725 x ADC Count + 25.09558713
2	52	+X Current	uint16_t	-2.697517539 x ADC Count + 2153.457906
2	54	+X Temperature	uint16_t	-0.163 X ADC count +110.338C
2	56	Z pair Voltage	uint16_t	-0.021569775 x ADC Count + 25.04472586
2	58	+Z Current	uint16_t	-2.393681523 x ADC Count + 1924.208701
2	60	+Z Temperature	uint16_t	-0.163 X ADC count +110.338C
2	62	-Y Current	uint16_t	-2.704162537 x ADC Count + 2151.8444
2	64	-Y Temperature	uint16_t	-0.163 X ADC count +110.338C
2	66	Battery Current	uint16_t	-5.439926976 x ADC Count + 4339.741671
2	68	BAT1 Temperature	uint16_t	-0.325847181 x ADC Count + 131.6688244
2	70	BAT1 Full Voltage	uint16_t	-0.013973418 x ADC Count + 10.53968
2	72	BAT1 Current Direction	uint16_t	High = Bat Charge
2	74	BAT1 Current	uint16_t	-3.556289641 x ADC Count + 3057.8955
2	76	BAT0 Temperature	uint16_t	-0.325847181 x ADC Count + 131.6688244
2	78	BAT0 Full Voltage	uint16_t	-0.013623206 x ADC Count + 10.49099522
2	80	5V Bus Current	uint16_t	-7.088176451 x ADC Count + 5655.60727
2	82	3.3V Bus Current	uint16_t	-5.636993603 x ADC Count + 4496.055437
2	84	BAT0 Current Direction	uint16_t	High = Bat Charge
2	86	BAT0 Current	uint16_t	-3.70517192 x ADC Count + 3154.522264
2	88	-Z Temperature	uint16_t	-0.163 X ADC count +110.338C
2	90	-Z Current	uint16_t	-2.514684983 x ADC Count + 1999.765277
6	92	hmb_accelxyz	uint16_t[3]	
2	98	hmb_temperature	uint16_t	

6	100	hmb_gyroxyz	uint16_t[3]	
6	106	hmb_magxyz	uint16_t[3]	
1	112	task_Reset Status	uint8_t	
1	113	task_AntennaDeploy Status	uint8_t	
1	114	task_TelemetryGather Status	uint8_t	
1	115	task_ImageCapture Status	uint8_t	
1	116	task_jpeg Status	uint8_t	
1	117	task_com_receive Status	uint8_t	
1	118	task_cmd_decoder Status	uint8_t	
1	119	task_bisonsat_cmd_decoder Status	uint8_t	
1	120	task_transmit_image Status	uint8_t	
1	121	cdhWDTEvents	uint8_t	
2	122	eps_status	uint16_t	see ClydeSpace EPS User Manual table 11-2