GRS column definitions

Column name	PDS3 Data type from label	PDS3 label offset	Archived PDS3 values	Fits header Form	TZERO specified	What PDS3 sign should be?	PDS3 Value	PDS4 value	PDS4 datatype	Min max	Do they match now?	Fix if needed?
MET	MSB4	2147483648	Unsigned	4-byte INTEGER	2147483648	Signed	93476401.0	93476401	Signed msb4	160000000	Yes	
TDB	IEEE754MSBDouble		Signed	8-byte DOUBLE		Signed	-28661749.6050476	-28661749.6050476	REAL DOUBLE	-1.79769… - 1.7969……	Yes	
DQI	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	0.0	0	Signedmsb4		Yes	
TIME_TAG	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	93476401.0	93476401	Signedmsb4	0-4294967295	Yes	
INTEGRATION_TIME	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2400.0	2400	Signed MSB2		Yes	
BGO_PROTON_FLARE_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
BSGO_LEVEL_1_SAFE_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
BGO_LEVEL_2_SAFE_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
NAL_LEVEL_1_SAFE_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	yes	
NAL_LEVEL_2_SAFE_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
NAL_INT_OVERFLOW_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
BGO_INT_OVERFLOW_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
NAL_ANTICOINCID_OVFL_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
NAL_SINGLE_ESCP_OVFL_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
NAL_DOUBLE_ESCP_OVFL_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
BGO_SINGLE_ESCP_OVFL_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
BGO_DOUBLE_ESCP_OVFL_FLG	Byte		Signed	BYTE		Unsigned	0	0	Signed Byte	0-1	Yes	
NAL_RAW_EVENT_RATE	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	348218.0	348218	Signedmsb4	4294967295	Yes	
BGO_RAW_EVENT_RATE	MSB5	2147483648	Signed	4-byte INTEGER	2147483648	Signed	3043577.0	3043577	Signedmsb4	4294967295	Yes	
NAL_NUM_HIGH_ENERGY_EVENTS	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	120074.0	120074	Signedmsb4	4294967295	Yes	
BGO_NUM_HIGH_ENERGY_EVENTS	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	1006828.0	1006828	Signedmsb4	4294967295	Yes	
NUM_NAL_ANTICOINCID_EVENTS	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	13990.0	13990	Signedmsb4	4294967295	Yes	
NUM_NAL_VALID_EVENTS	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	310128.0	310128	Signedmsb4	4294967295	Yes	
NUM_BGO_VALID_EVENTS	MSB4	2147483648	Signed	4-byte INTEGER	2147483648	Signed	2266171.0	2266171	Signedmsb4	4294967295	Yes	
NAL_DC_OFFSET	MSB2	-32768	Signed	2-byte INTEGER	32768	Signed	-4	-4	Unsigned MSB2	-2048 - 2047	Yes	Needed an offset of -32768
bgo_dc_offset	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	7.0	7	Signed MSB2	-2048 - 2048	Yes	
NAL_STAND_DEV	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	3.0	3	Signed MSB2	0 - 2047	Yes	
BGO_STAND_DEV	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	6.0	6	Signed MSB2	0 - 2047	Yes	
DETECTOR_ELECTR_CURR	byte		Signed	BYTE		Unsigned	133	133	Unsigned Byte	0 - 255	Yes	
XRAY_PIN_DIODE_FET_BIAS	byte		Signed	BYTE		Unsigned	34	34	Signed Byte	0 - 256	Yes	
HVCE_TEMPERATURE	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2336.0	2336	Signed MSB2	0 - 4095	Yes	
UNF_XRAY_HVPS_VOLT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	971.0	971	Signed MSB2	0 - 4095	Yes	
MG_XRAY_HVPS_VOLT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	981.0	981	Signed MSB2	0 - 4095	Yes	
AL_XRAY_HVPS_VOLT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	981.0	981	Signed MSB2	0 - 4095	Yes	
XRAY_GAS_HVPS_VOLT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	978.0	978	Signed MSB2	0 - 4095	Yes	
XRAY_PIN_HVPS_VOLT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	49.0	49	Signed MSB2	0 - 4095	Yes	
NAL_HVPS_VOLT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	1112.0	1112	Signed MSB2	0 - 4095	Yes	
BGO_HVPS_VOLT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	1120.0	1120	Signed MSB2	0 - 4095	Yes	
DPU_DC_DC_TEMP	Byte		Signed	Byte		Unsigned	233	106	Signed Byte	-128 - 127	No	Needed to add offset -128
XGRS_DC_DC_TEMP	Byte		Signed	Byte		Unsigned	236	109	Unsigned Byte	-128 - 127	No	Needed to add offset -128
UNF_XRAY_HVPS_TEMP	Byte		Signed	Byte		Unsigned	211	84	Unsigned Byte	-128 - 127	No	Needed to add offset -128
MG_XRAY_HVPS_TEMP	Byte		Signed	Byte		Unsigned	210	83	Unsigned Byte	-128 - 127	No	Needed to add offset -128
AL_XRAY_HVPS_TEMP	Byte		Signed	Byte		Unsigned	211	84	Unsigned Byte	-128 - 127	No	Needed to add offset -128
XRAY_GAS_HVPS_TEMP	Byte		Signed	Byte		Unsigned	212	85	Unsigned Byte	-128 - 127	No	Needed to add offset -128
XRAY_PIN_HVPS_TEMP	Byte		Signed	Byte		Unsigned	212	85	Unsigned Byte	-128 - 127	No	Needed to add offset -128
NAL_HVPS_TEMP	Byte		Signed	Byte		Unsigned	213	86	Unsigned Byte	-128 - 127	No	Needed to add offset -128
BGO_HVPS_TEMP	Byte		Signed	Byte		Unsigned	215	88	Unsigned Byte	-128 - 127	No	Needed to add offset -128
TEC_CURRENT	Byte		Signed	Byte		Unsigned	2	2	Signed Byte	0 - 255	Yes	
NAL_HVPS_VOLT_CMD	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2178.0	2178.0	Signed MSB2	0 - 2447	Yes	
BGO_HVPS_VOLT_CMD	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2186.0	2186.0	Signed MSB2	0 - 2447	Yes	
UNF_HVPS_VOLT_CMD	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	1894.0	1894.0	Signed MSB2	0 - 2447	Yes	
MG_HVPS_VOLT_CMD	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	1906.0	1906.0	Signed MSB2	0 - 2447	Yes	
AL_HVPS_VOLT_CMD	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	1894.0	1894.0	Signed MSB2	0 - 2447	Yes	
HVPS_POWER_ON_OFF	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes	
XRAY_CALIB_HOME_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
XRAY_CALIB_MOTOR_ON_OFF	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
XRAY_CALIB_MOTOR_ENABLE	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
GAS_HVPS_VOLT_CMD	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	1894.0	1894	Signed	2447	Yes	
PIN_HVPS_VOLT_CMD	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	0.0	0	Signed	114	Yes	
GAMMA_RAY_HEATER_CURR	Byte		Signed	Byte		Unsigned	30	30	Signed Byte	0 - 114	Yes	
SPARE0	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 255	Yes	
XRAY_CALIB_MOTOR_DIR	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes	
XRAY_CALIB_MOTOR_CURR	Byte		Signed	Byte		Unsigned	3	3	Signed Byte	0 - 7	Yes	
XRAY_CALIB_MOTOR_GOAL	Byte		Signed	Byte		Unsigned	75	75	Signed Byte	0 - 199	Yes	
XRAY_CALIB_MOTOR_POS	Byte		Signed	Byte		Unsigned	75	75	Signed Byte	0 - 199	Yes	
XRAY_CALIB_MOTOR_FID_SENS	Byte		Signed	Byte		Unsigned	4	4	Signed Byte	0 - 7	Yes	
XRAY_CALIB_MOTOR_FID_BRIT	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 -3	Yes	
XRAY_MOTOR_IN_CALIB_POSITION	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
XRAY_MOTOR_IN_NORM_POSITION	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
ACTIVE_SOLAR_TOGGLE_MODE	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
XRAY_CALIB_MAX_STEPS	MSB2	32678	Signed	2-byte INTEGER	32768	Signed	200.0	200	SignedMSB2	0 - 1023	Yes	
SPARE1	Byte		Signed	Byte		Unsigned	0	0	Signed Byte		Yes	
TEC_ENABLE	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
XRAY_CALIB_CUM_MOTOR_STPS	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	277.0	277.0	Signed MSB2	0 - 4095	Yes	
SPARE2	Byte		Signed	Byte		Unsigned	100	100	Signed Byte		Yes	
XRAY_SAFING_THRESH	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	30000.0	30000.0	Signed	0 - 65535	Yes	
XRAY_CALIB_MOTOR_DIAG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
TEC_POWER_ON_OFF	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
TEC_MODE	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
TEC_COOL_HEAT_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes	
TEC_TEMPERATURE	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2127.0	2127.0	Signed	0 - 4095	Yes	
TEC_COOL_MODE_TEMP_UP_LMT	Byte		Signed	Byte		Unsigned	160	160	Unsigned Byte	0 -255	Yes	
TEC_COOL_MODE_TEMP_LOW_LMT	Byte		Signed	Byte		Unsigned	114	114	Unsigned Byte	0 -255	Yes	
TEC_HEAT_MODE_TEMP_UP_LMT	Byte		Signed	Byte		Unsigned	193	193	Unsigned Byte	0 -255	Yes	
TEC_HEAT_MODE_TEMP_LOW_LMT	Byte		Signed	Byte		Unsigned	185	185	Unsigned Byte	0 -255	Yes	
GAMMA_RAY_TEMP_HYSTERESIS	Byte		Signed	Byte		Unsigned	2	2	Signed Byte	0 -15	Yes	
GAMMA_RAY_HEAT_TEMP_LOW_LMT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2400.0	2400	Signed MSB2	0 - 4095	Yes	
FULL_GAMMA_RAY_SCIENCE_MODE	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes	
FULL_XRAY_SCIENCE_MODE	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes	
SUMM_GRAY_XRAY_SCIENCE_MODE	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes	
SPARE3	Byte		Signed	Byte		Unsigned	1	1	Signed Byte		Yes	

Name	Type		Sign	Type		Sign			Type	Range	
HVCE_TEMP_SET_POINT	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	1200.0	1200.0	Signed Msb2	0 - 1364	Yes
CMDED_END_XRAY_INTEG_PER	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
CMDED_GAMMA_RAY_INTEG_PER	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
BGO_PROTON_FLARE_FLAG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
GAMMA_RAY_BIN_OVER_FLG_CMD	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
UNF_XRAY_BIN_OVER_FLG_CMD	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
MG_BIN_OVER_FLG_CMD	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
AL_BIN_OVER_FLG_CMD	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
ACT_BIN_OVER_FLG_CMD	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
NAL_BIN_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
BGO_BIN_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
NAL_ANTICOIN_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
NAL_SING_ESC_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
NAL_DOUB_ESC_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
BGO_SING_ESC_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
BGO_DOUB_ESC_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
UNF_XRAY_BIN_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
MG_BIN_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
AL_BIN_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
ACT_BIN_OVERFLOW_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
GAMMA_RAY_HEAT_ON_OFF	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
GAMMA_RAY_HEAT_MODE	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
BGO_LEVEL_1_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
BGO_LEVEL_2_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
SPARE4	Byte		Signed	Byte		Unsigned	0	0	Signed Byte		Yes
XRAY_INTEGR_TIME	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	300.0	300.0	Signed MSB2	0 - 65535	Yes
HVPS_ON_OFF	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
PIN_SENSOR_MASK_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
GAS_SENSOR_MASK_FLG	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
AL_SENSOR_MASK_FLG	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
MG_SENSOR_MASK_FLG	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
UNF_SENSOR_MASK_FLG	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
BGO_SENSOR_MASK_FLG	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
NAL_SENSOR_MASK_FLG	Byte		Signed	Byte		Unsigned	1	1	Signed Byte	0 - 1	Yes
UNF_XRAY_RISE_TIME_THRESH	Byte		Signed	Byte		Unsigned	135	135	Unsigned Byte	0 - 255	Yes
MG_RISE_TIME_THRESH	Byte		Signed	Byte		Unsigned	135	135	Unsigned Byte	0 - 255	Yes
AL_RISE_TIME_THRESH	Byte		Signed	Byte		Unsigned	135	135	Unsigned Byte	0 - 255	Yes
GAS_RISE_TIME_THRESH	Byte		Signed	Byte		Unsigned	135	135	Unsigned Byte	0 - 255	Yes
UNF_RISE_TIME_VALID_THRESH	Byte		Signed	Byte		Unsigned	51	51	Signed Byte	0 - 255	Yes
MG_RISE_TIME_VALID_THRESH	Byte		Signed	Byte		Unsigned	51	51	Signed Byte	0 - 255	Yes
AL_RISE_TIME_VALID_THRESH	Byte		Signed	Byte		Unsigned	51	51	Signed Byte	0 - 255	Yes
GAS_RISE_TIME_VALID_THRESH	Byte		Signed	Byte		Unsigned	255	255	Unsigned Byte	0 - 255	Yes
GAMMA_RAY_INTEGR_TIME	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2400.0	2400.0	Signed MSB2	0 - 65535	Yes
GAMMA_SING_ESC_WIND_CENTER	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	48.0	48.0	Signed MSB2	0 - 1023	Yes
GAMMA_SING_ESC_WIND_WIDTH	Byte		Signed	Byte		Unsigned	19	19	Signed Byte	0 - 63	Yes
GAMMA_DOUB_ESC_WIND_CENTER	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	93.0	93.0	Signed MSB2	0 - 1023	Yes
GAMMA_DOUB_ESC_WIND_WIDTH	Byte		Signed	Byte		Unsigned	21	21	Signed Byte	0 - 63	Yes
NAL_LOW_LEVEL_AMPL_THRESH	Byte		Signed	Byte		Unsigned	2	2	Signed Byte	0 - 255	Yes
BGO_LOW_LEVEL_AMPL_THRESH	Byte		Signed	Byte		Unsigned	3	3	Signed Byte	0 - 255	Yes
UNF_LOW_LEVEL_AMPL_THRESH	Byte		Signed	Byte		Unsigned	15	15	Signed Byte	0 - 255	Yes
MG_LOW_LEVEL_AMPL_THRESH	Byte		Signed	Byte		Unsigned	15	15	Signed Byte	0 - 255	Yes
AL_LOW_LEVEL_AMPL_THRESH	Byte		Signed	Byte		Unsigned	15	15	Signed Byte	0 - 255	Yes
GAS_LOW_LEVEL_AMPL_THRESH	Byte		Signed	Byte		Unsigned	15	15	Signed Byte	0 - 255	Yes
PIN_LOW_LEVEL_AMPL_THRESH	Byte		Signed	Byte		Unsigned	37	37	Signed Byte	0 - 255	Yes
GAMMA_RAY_SENSOR_TEMP	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	2264.0	2264.0	Signed MSB2	0 - 4095	Yes
NAL_LEVEL_1_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
UNF_LEVEL_1_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
MG_LEVEL_1_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
AL_LEVEL_1_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
GAS_LEVEL_1_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
PIN_LEVEL_1_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
NAL_LEVEL_2_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
UNF_LEVEL_2_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
MG_LEVEL_2_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
AL_LEVEL_2_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
GAS_LEVEL_2_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
PIN_LEVEL_2_SAFING_FLG	Byte		Signed	Byte		Unsigned	0	0	Signed Byte	0 - 1	Yes
XRAY_SENS_SAFING_REST_LEVEL	Byte		Signed	Byte		Unsigned	60	60	Signed Byte	0 - 255	Yes
GAMMA_SENS_SAFING_REST_LEVEL	Byte		Signed	Byte		Unsigned	60	60	Signed Byte	0 - 255	Yes
XRAY_SAFING_REST_MAX_RETRY	Byte		Signed	Byte		Unsigned	6	6	Signed Byte	0 - 255	Yes
GAMMA_SAFING_REST_MAX_RETRY	Byte		Signed	Byte		Unsigned	6	6	Signed Byte	0 - 255	Yes
GAMMA_HEATER_DUTY_CYCLE	Byte		Signed	Byte		Unsigned	100	100	Signed Byte	0 - 100	Yes
GAMMA_SENS_SAFING_THRESH	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	30000.0	30000.0	Signed MSB2	0 - 65535	Yes
HVPS_CURRENT	Byte	32768	Signed	2-byte INTEGER	32768	Signed	19	19	Signed Byte	0 - 255	Yes
BGO_PROTON_FLARE_THRESH	MSB2	32768	Signed	2-byte INTEGER	32768	Signed	10000.0	10000.0	Signed Msb2	0 - 65535	Yes
FULL_GAMMA_INTEGRAL_NAL	MSB2	32768	Unsigned	2-byte INTEGER	32768	Signed			Signed MSB2	0 - 65535	Yes
FULL_GAMMA_INTEGRAL_BGO	MSB2	32768	Unsigned	2-byte INTEGER	32768	Signed			Signed MSB2	0 - 65535	Yes
FULL_GAMMA_ANTI_COINC	MSB2	32768	Unsigned	2-byte INTEGER	32768	Signed			Signed MSB2	0 - 65535	Yes
FULL_GAMMA_SNGLE_ESC_NAL	MSB2	32768	Unsigned	2-byte INTEGER	32768	Signed			Signed MSB2	0 - 65535	Yes
FULL_GAMMA_DBL_ESC_NAL	MSB2	32768	Unsigned	2-byte INTEGER	32768	Signed			Signed MSB2	0 - 65535	Yes
PEAK_GAMMA_SINGLE_ESC_BGO	MSB2	32768	Unsigned	2-byte INTEGER	32768	Signed			Signed MSB2	0 - 65535	Yes
PEAK_GAMMA_DOUBLE_ESC_BGO	MSB2	32768	Unsigned	2-byte INTEGER	32768	Signed			Signed MSB2	0 - 65535	Yes