

Mnemonics	Code	Parameters	Description	Inf Frame
<b>System commands</b>				
CMD_ECHO	0x02	s	// send echo	s
CMD_INFO	0x03		// send device identifier	hhhh
CMD_GetVer	0x04		// send device firmware version	s
CMD_GetInfo	0x05		// send device information	s
CMD_SetInfo	0x06	s	// write device information	
CMD_SetAdr	<b>0x07</b>	uc	// set network address	uc
CMD_SiTel	<b>0x40</b>	uc hh hh	// set telemetry status	hh hh
CMD_get_PRM	0x41		// send parameters stored in FLASH (backup)	
CMD_set_PRM	0x42		// receive parameters stored in FLASH (recovery from backup)	
CMD_I2C	0x44	uc hh hhhh hh	// operations with bus I2C 1 #I2C HHHH Num - Read dev #I2C with address HHHH number Num bytes 0 #I2C HHHH Num - Writ dev #I2C with address HHHH of one byte equal Num	hh hh hh hh hh hh hh hh
CMD_Prog_T	0x45	0- W Pg Ln 1- R Pg Ln 2- Wst Pg St 3- Rst Pg St  uc uc uc f ud hh uc	// Managing of programs of change in time At the end the program line: Pg-number of program 0-15 <b>Temp Time hh Ln</b> Ln-number of line 0-49 St-program status 0=yes elsewise-no  Mode Pg 0 Interdiction of regulation 2 T-regulation 3 Temperature maintenance (PID) 4 Constant voltage	uc uc uc f2 ud hh uc
CMD_get_Tel	0x46		// send telemetry line	
CMD_Krt_OK	0x49	Ne uc uc f	// criterion of signal of settling	
CMD_St_HW	0x4a		// status of devices in system	hh hh hh
CMD_Infs_Wk	<b>0x4b</b>	uc uc uc	// set status to interface <b>0-232 0-BIN 0...4</b> 9600-19200-38400-57600-115200	
CMD_Dig_Out	0x4d	uc	// enable of digital output	uc
CMD_Dig_In	0x4e	uc hh	// control of digital input	uc hh
<b>Commands of Work with ADC</b>				
CMD_ClbrADC	0x10	Ne uc	// hardware calibration of ADC	hh hh
CMD_ClbrK_ADC	0x11	Ne f	// calibration of ADC (calculation of calibrating ADC coefficients)	
CMD_Wr_K_ADC	0x12	Ne e	// writing calibrating ADC coefficients	
CMD_Kfiltr	0x13	Ne uc	// writing ADC filter coefficient	
CMD_AskKADC	0x14	Ne	// sending ADC conversion coefficient, filter coefficient and PGA	hh e6 uc hh
CMD_AskOfst	0x15	Ne	// sending ADC register of offset	hh hh hh hh
CMD_StartADC	0x16	Ne	// starting measurement in ADC channel	hh hhhhhhhh e6 e6
CMD_Only_1	0x17	Ne 1/0	// measurements of one ADC channel (fast measurement)	hh
CMD_Sever	0x18	hh	// mask on ADC channels	hh
CMD_PGA	0x19	Ne uc	// PGA of ADC thermistor channel	
CMD_Polinom	0x1a	Ne uc	// writing thermistor polynomial order	
	0x1a	Ne uc f	// writing thermistor polynomial coefficients	
CMD_ask_Pol	0x1b	Ne uc	// sending thermistor polynomial coefficient	hh uc uc e6
CMD_saveTerm	0x1c	uc	// Save the Current Settings of Thermistor Input	
CMD_loadTerm	0x1d	uc uc	// Restore Thermistor Input Settings	hh
CMD_get_TBL	0x1e		// Save Table of Thermistor Settings (backup)	
CMD_set_TBL	0x1f		// Restore Table of Thermistor Settings (Backup)	
<b>Commands of work with DAC</b>				
CMD_set_DAC	0x21	Ne f	// setting DACs in Volts	hh ud
CMD_seth_DAC	0x22	Ne ud	// setting DACs directly (no control of limitations)	hh ud
CMD_Wr_K_DAC	0x23	Ne f f	// writing DAC calibrating coefficients	
CMD_AskKDAC	0x24	Ne	// sending conversion coefficient and DAC max values	hh e6 e6 f2
CMD_DAC_max	0x25	Ne f	// writing max voltage	
CMD_U_Treg	0x26	Ne f	// voltage of T-regulation	hh f2
<b>Commands of work with PID controller</b>				
CMD_Pol_TEC	0x30	Ne uc	// setting of TEC polarity Off-0 Hot-1 Cool-2	
CMD_set_PID	0x31	Ne f f f	// writing parameters of PID controller Kp Ki Kd	
CMD_ask_PID	0x32	Ne	// sending parameters of PID controller Kp Ki Kd	hh f6 f6 f6
CMD_setCurrT	0x33	Ne uc	// current thermistor 0-10uA 1-93uA	hh uc
CMD_askT_PID	0x34	Ne [ f ]	// sending/set setpoints of PID controller	hh f2 f2 uc uc
CMD_strt_PID	<b>0x35</b>	Ne uc f	// starting control mode 0 Idle (Regulation stop) 1 Regulation according to program 2 T-regulation 3 Temperature maintenance – PID 4 Constant voltage	
CMD_tun_PID	0x36	Ne hex	// output parameters of PID controller (bits)	hh hh
CMD_Zmetr	0x37	Ne uc uc	// starting Z-meter (number of channel; time of measurement; 1-only R)	s
CMD_Zprmtr	0x38		// storage of Z-metering parameters (as reference)	
CMD_Z_I	0x39		// sending Z-meter current	e6
CMD_Z_I	0x39	f	// storage of Z-meter current (f-resistance on canal 0)	
CMD_Boot	0x3b	Ne uc f ud	// start of regulation after restarting mode; (PRG, U, T); time	hh hh f2 ud
CMD_set_LimT	0x3c	Ne min max time	// writing limiting temperatures	
CMD_get_LimT	0x3d	Ne	// sending limiting temperatures	hh f2 f2 uc
CMD_ResZmtr	0x3e		// sending Z-metering results	hh f2 e2 f2
CMD_TecZmtr	0x3f	Ne	// sending Z-metering parameters	hh f2 e2 f2
CMD_PID_tun	0x51	Ne	// auto tuning PID	s
CMD_REST	0x53		// reset controller	
CMD_EKR	0x54	[#screen]	// control of indication board	

