

# Table of Commands

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	0x07	uc	// set network address	uc
CMD_SiTel	0x40	uc hh hh	// set telemetry status	hh hh
CMD_get_PRM	0x41		// send parameters stored in FLASH (backup)	
CMD_set_PRM	0x42		// send 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 Ln-number of line 0-49 St-program status 0-yes elsewise-no  Temp Time hh Ln 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_Set_T	0x47	hh hh hh	// time setting	
CMD_Set_D	0x48	hh hh hh	// date setting	
CMD_Krt_OK	0x49	№ uc uc f	// criterion of signal of settling	
CMD_St_HW	0x4a		// status of devices in system	hh hh hh
CMD_Infs_Wk	0x4b	uc uc uc	// set status to interface 0-232 0-BIN 0...4 9600-19200-38400-57600-115200	
<b>Commands of Work with ADC</b>				
CMD_CibrADC	0x10	№ uc	// hardware calibration of ADC	hh hh
CMD_CibrK_ADC	0x11	№ f	// calibration of ADC (calculation of calibrating ADC coefficients)	
CMD_Wr_K_ADC	0x12	№ e	// writing calibrating ADC coefficients	
CMD_Kfiltr	0x13	№ uc	// writing ADC filter coefficient	
CMD_AskKADC	0x14	№ e	// sending ADC conversion coefficient and filter coefficient	hh e6 uc hh
CMD_AskOfst	0x15	№ e	// sending ADC register of offset	hh hh hh hh
CMD_StartADC	0x16	№ e	// starting measurement in ADC channel	hh hhhhhhhh e6 e6
CMD_Only_1	0x17	№ 1/0	// measurements of one ADC channel (fast measurement)	hh
CMD_Seuer	0x18	hh	// mask on ADC channels	hh
CMD_PGA	0x19	№ uc	// PGA of ADC thermistor channel	
CMD_Polinom	0x1a	№ uc	// writing thermistor polynomial order	
	0x1a	№ uc f	// writing thermistor polynomial coefficients	
CMD_ask_Pol	0x1b	№ uc	// sending thermistor polynomial coefficient	hh uc uc e6
<b>Commands of work with DAC</b>				
CMD_set_DAC	0x21	№ f	// setting DACs in Volts	hh ud
CMD_seth_DAC	0x22	№ ud	// setting DACs directly (no control of limitations)	hh ud
CMD_Wr_K_DAC	0x23	№ f f	// writing DAC calibrating coefficients	
CMD_AskKDAC	0x24	№ e	// sending conversion coefficient and DAC max values	hh e6 e6 f2
CMD_DAC_max	0x25	№ f	// writing max voltage	
CMD_U_Treg	0x26	№ f	// voltage of T-regulation	hh f2
<b>Commands of work with PID controller</b>				
CMD_Pol_TEC	0x30	№ uc	// setting of TEC polarity Off-0 Hot-1 Cool-2	
CMD_set_PID	0x31	№ f f f	// writing parameters of PID controller Kp Ki Kd	
CMD_ask_PID	0x32	№ e	// sending parameters of PID controller Kp Ki Kd	hh f6 f6 f6
CMD_setCurrT	0x33	№ uc	// current thermistor 0-10uA 1-83uA	hh uc
CMD_askT_PID	0x34	№ e	// sending setpoints of PID controller	hh f2 f2 uc uc
CMD_strt_PID	0x35	№ uc f	// starting controll	
CMD_tun_PID	0x36	№ hex	// output parameters of PID controller (bits) PID_tun_U 0 // (output either U or just polarity) PID_tunTlmtr 1 // (telemetry PID output) PID_tunTc_rl 2 // (T-regulation)	hh hh
CMD_Zmetr	0x37	№ 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_Z_U	0x3a	uc	// TEC supply control 0: all is OFF 1: Z-meter 2: supply unit	
CMD_Boot	0x3b	№ uc f ud	// start of regulation after restarting режим; (прогр, нагр, темп); задержка	hh hh f2 ud
CMD_set_LimT	0x3c	№ min max time	// writing limiting temperatures	
CMD_get_LimT	0x3d	№ e	// sending limiting temperatures	hh f2 f2 uc
CMD_ResZmtr	0x3e		// sending Z-metering results	hh f2 e2 f2
CMD_TecZmtr	0x3f	№ e	// sending Z-metering parameters	hh f2 e2 f2
CMD_PID_tun	0x51	№ e	// auto tuning PID	s