Edge2L MCU Register Specification

Device I2C Address: 0x18, System I2C Bus: 2

ADDR	REG NAME	BYTE	R/W	STORE	DEF VALUE	NOTE
0x06	SN	7	R/W	ROM	-	Serial number read/write (password verification required for write, not required for read)
0x12	VERSION	2	R	ROM	-	Firmware version read
0x20	BOOT_MODE	1	R/W	ROM	1	Set to 0: Boot from SPI Flash, Set to 1: Boot from eMMC
0x21	BOOT_DCIN	1	R/W	ROM	1	Set to 0: Disable power-on boot, Set to 1: Enable power-on boot
0x22	BOOT_RTC	1	R/W	ROM	1	Set to 0: Disable RTC wake boot, Set to 1: Enable RTC wake boot
0x23	LED_ON	1	R/W	ROM	0	Set 0x00: Always off, Set 0x01: Always on (based on RGB value), Set 0x02: R breathing, Set 0x03: G breathing, Set 0x04: B breathing, Set 0x05: RG breathing, Set 0x06: RB breathing, Set 0x07: GB breathing, Set 0x08: RGB breathing, Set 0x09: R heartbeat, Set 0x0A: G heartbeat, Set 0x0B: B heartbeat, Set 0x0C: RG heartbeat, Set 0x0D: RB heartbeat, Set 0x0E: GB heartbeat, Set 0x0F: RGB heartbeat.
0x24	LED_OFF	1	R/W	ROM	1	Set 0x00: Always off, Set 0x01: Always on (based on RGB value), Set 0x02: R breathing, Set 0x03: G breathing, Set 0x04: B breathing, Set 0x05: RG breathing, Set 0x06: RB breathing, Set 0x07: GB breathing, Set 0x08: RGB breathing, Set 0x09: R heartbeat, Set 0x0A: G heartbeat, Set 0x0B: B heartbeat, Set 0x0C: RG heartbeat, Set 0x0D: RB heartbeat, Set 0x0E: GB heartbeat, Set 0x0F: RGB heartbeat.
0x25	RGB_ON_R	1	R/W	ROM	0xFF	Set red LED brightness (when LED_ON is set to always on)
0x26	RGB_ON_G	1	R/W	ROM	0xFF	Set green LED brightness (when LED_ON is set to always on)
0x27	RGB_ON_B	1	R/W	ROM	0xFF	Set blue LED brightness (when LED_ON is set to always on)
0x28	RGB_OFF_R	1	R/W	ROM	0xFF	Set red LED brightness (when LED_OFF is set to always on)
0x29	RGB_OFF_G	1	R/W	ROM	0x00	Set green LED brightness (when LED_OFF is set to always on)
0x2A	RGB_OFF_B	1	R/W	ROM	0x00	Set blue LED brightness (when LED_OFF is set to always on)
0x2C	REST_CONF	1	W	RAM	-	Set to 0: Reset EEPROM configuration
0x2E	SLEEP_EN	1	R/W	ROM	0	Set to 0: Disable MCU sleep, Set to 1: Enable MCU sleep
0x2F	BOOT_IR	1	R/W	ROM	0	Set to 0: Disable IR boot, Set to 1: Enable IR boot. (Not supported in sleep mode)
0x30	IR1_CUST1	1	R/W	ROM	0	Custom IR code 1 address code high byte
0x31	IR1_CUST2	1	R/W	ROM	0	Custom IR code 1 address code low byte
0x32	IR1_ORDER1	1	R/W	ROM	0	Custom IR code 1 data code high byte
0x33	IR1_ORDER2	1	R/W	ROM	0	Custom IR code 1 data code low byte
0x34	IR2_CUST1	1	R/W	ROM	0	Custom IR code 2 address code high byte
0x35	IR2_CUST2	1	R/W	ROM	0	Custom IR code 2 address code low byte
0x36	IR2_ORDER1	1	R/W	ROM	0	Custom IR code 2 data code high byte
0x37	IR2_ORDER2	1	R/W	ROM	0	Custom IR code 2 data code low byte
0x81	PWD_WRITE	1	W	RAM	-	Set to 0: Complete password input, Set to 1: Start password input
0x82	PWD_DATA	1	W	RAM	-	Write 1 Byte of password
0x89	LED_ON_RAM	1	W	RAM	-	Set 0x00: Always off, Set 0x01: Always on (based on RGB value), Set 0x02: R breathing, Set 0x03: G breathing, Set 0x04: B breathing, Set 0x05: RG breathing, Set 0x06: RB breathing, Set 0x07: GB breathing, Set 0x08: RGB breathing, Set 0x09: R heartbeat, Set 0x0A: G heartbeat, Set 0x0B: B heartbeat, Set 0x0C: RG heartbeat, Set 0x0D: RB heartbeat, Set 0x0E: GB heartbeat, Set 0x0F: RGB heartbeat. (Not saved after power cycle)
0x8A	FAN_CTRL	1	W	RAM	-	Control fan speed. Value range: 0x00~0x64. (Spec: Normal operation requires 0x1E~0x64)
0x8B	WDT_EN	1	W	RAM	-	Set to 0: Disable watchdog detection, Set to 1: Enable watchdog detection (System sets 500ms, MCU checks every 1000ms)
0x8C	FLASH_BUSY	1	R	RAM	-	MCU emulated EEPROM write busy signal. System must check if MCU's emulated EEPROM is idle during continuous writes. 0: Idle, 1: Busy.
0x91	SYS_RST	1	W	RAM	-	Set to 0: Reset and boot from SPI Flash, Set to 2: Reset and boot from eMMC, Set to 1: Reset only. Single operation, not saved.