M5Stack Module-Audio I2C Protocol

V1 (FW Version)
2026/8/11

REG MAP (Addr: 0x33)		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	note
Microphone config	0x00 R/W	Config																Config: Configure LINE/MIC on/off 0: Close 1: Open default: 1
Headphone Mode	0x10 R/W	Mode																Mode: Headphone mode selection 0: American Standard (CTIA) 1: National Standard (OMTP) default: 0
Headphone Insert Status	0x20 R	Status																Status: DET Status 0: Not insert 1: Insert
RGB Brightness	0x30 R/W	Brightness																Brightness: RGB brightness value: 0~100 default: 10
RGB LED	0x40 R/W	LED1_R	LED1_G	LED1_B	LED2_R	LED2_G	LED2_B	LED3_R	LED3_G	LED3_B								LED R/G/B: RGB value value: 0~255 default: 0
Save configuration to flash	0xF0 W	Write value																Write 1 to save to internal Flash
Firmware Version	0xF0 R															Version		Version: Software version number
I2C Address	0xF0 R/W																Address	Address: Device address value: 0x08~0x77 default: 0x33

Register Description

1. Microphone config: Configure the LINE/MIC to be enabled or disabled.
2. Headphone Mode: Configures the headphone mode. The default is national standard mode, with customizable settings.
3. Headphone Insert Status: 0 indicates device inserted, 1 indicates device not inserted.
4. RGB Brightness: Configures the brightness of the RGB lights. The default brightness is 10, and it can be customized.
5. RGB LED: Configures the color of the RGB lights. The default state is off.
6. Save configuration to flash: Write 1 to this register to save the current configuration to the internal Flash.
   Configuration content includes:
   - Microphone config
   - Headphone Mode
   - RGB Brightness
7. I2C Address: Configures the I2C address. After successful setting, the data will be saved in internal Flash memory, will not be lost during power down, and will take effect immediately.

Notes

1. Writing to Flash requires first erasing the internal Flash, which takes some time, approximately 20ms.
2. To extend the lifespan of the Flash, avoid frequent write operations.
3. If the value to be written is the same as the current value stored in Flash, the write operation will be skipped to avoid unnecessary erase cycles, further extending the Flash's lifespan.