

M5Stack Echo Pyramid STM32 I2C Protocol																		V2(PW Version)	
REG MAP (Addr: 0x1A)		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	2026/2/28	
note																			
Touch Button	0x00 R	Touch1 Button Status	Touch2 Button Status	Touch3 Button Status	Touch4 Button Status													Touch Button Status: Button State 0: Released 1: Pressed	
RGB Brightness	0x10 R/W	Channel1 RGB Brightness	Channel2 RGB Brightness															RGB brightness: Light Brightness value: 0-100 default: 50	
Channel1 RGB Value	0x20 R/W	RGB0_B	RGB0_G	RGB0_R		RGB1_B	RGB1_G	RGB1_R		RGB2_B	RGB2_G	RGB2_R		RGB3_B	RGB3_G	RGB3_R		RGB_R/G/B: RGB Value value: 0-255 default: 0	
	0x30 R/W	RGB4_B	RGB4_G	RGB4_R		RGB5_B	RGB5_G	RGB5_R		RGB6_B	RGB6_G	RGB6_R		RGB7_B	RGB7_G	RGB7_R			
	0x40 R/W	RGB8_B	RGB8_G	RGB8_R		RGB9_B	RGB9_G	RGB9_R		RGB10_B	RGB10_G	RGB10_R		RGB11_B	RGB11_G	RGB11_R			
	0x50 R/W	RGB12_B	RGB12_G	RGB12_R		RGB13_B	RGB13_G	RGB13_R											
Channel2 RGB Value	0x60 R/W	RGB0_B	RGB0_G	RGB0_R		RGB1_B	RGB1_G	RGB1_R		RGB2_B	RGB2_G	RGB2_R		RGB3_B	RGB3_G	RGB3_R		RGB_R/G/B: RGB Value value: 0-255 default: 0	
	0x70 R/W	RGB4_B	RGB4_G	RGB4_R		RGB5_B	RGB5_G	RGB5_R		RGB6_B	RGB6_G	RGB6_R		RGB7_B	RGB7_G	RGB7_R			
	0x80 R/W	RGB8_B	RGB8_G	RGB8_R		RGB9_B	RGB9_G	RGB9_R		RGB10_B	RGB10_G	RGB10_R		RGB11_B	RGB11_G	RGB11_R			
	0x90 R/W	RGB12_B	RGB12_G	RGB12_R		RGB13_B	RGB13_G	RGB13_R											
SPK Reset	0xA0 W	Write value																Write 1 to reset SPK	
USB 5V	0xB0 R	Voltage_L	Voltage_H															Voltage = (uint16_t)(Voltage_H<< 8) (Voltage_L) (mV)	
Save configuration to flash	0xF0 W	Write value																Write 1 to save the brightness of RGB1, or write 2 to save the brightness of RGB2.	
Firmware Version	0xF0 R																Version		Version: Software Version
I2C Address	0xF0 R/W																Address		Address: I2C Address value: 0x08-0x77 default: 0x1A
Register Description																			
1. Touch Button																			
This register records the real-time status of the touch button.																			
2. RGB Brightness																			
This register controls the brightness of the RGB lights.																			
3. RGB Value																			
This register stores the color value of the RGB lights, determining their display color.																			
4. SPK reset																			
Writing '1' to this register will reset the SPK.																			
5. Save Configuration to Flash																			
This register is used to control whether the brightness configuration of the RGB lights is written to internal Flash memory, so that the previous settings can be automatically restored after a power cycle.																			
6. Firmware Version																			
This register stores the firmware version number.																			
7. I2C Address																			
This register is used to set the I2C device address. The new address takes effect immediately upon setting and is stored in internal Flash, remaining valid after a power cycle.																			
Notes																			
– Flash memory must be erased before writing, which is a time-consuming process, taking approximately 20ms.																			
– To extend Flash memory lifespan, avoid frequent write operations.																			
– If the value to be written is the same as the current value stored in Flash, no actual write operation will be performed, reducing unnecessary Flash erasures and further prolonging its lifespan.																			