



Hat-JoyC

I2C Control Protocol



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1、 Communication Protocol Structure

1.1 Communication Protocol Parameters

Uses I2C communication interface.

The recommended communication speed is 100-400KHz.”

2、 Control Registers

2.1 RGB LED Color (20H)

- Function: JoyC RGB LED Color Control.
- Register Address: 20H

Address	R/W	Length	Parameters
20	R/W	1 byte	Red Value (0 ~ 255)
21	R/W	1 byte	Green Value (0 ~ 255)
22	R/W	1 byte	Blue Value (0 ~ 255)

2.2 Joys RAW Data(50H)

- Function: JoyC left and right joystick raw data.
- Register Address: 50H

Address	R/W	Length	Parameters
51	R	1 byte	RAW Data for Joys-left X
52	R	1 byte	RAW Data for Joys-left Y
53	R	1 byte	RAW Data for Joys-right X
54	R	1 byte	RAW Data for Joys-right Y

2.3 Stick X, Y Value(60H)

- Function: JoyC left and right joystick status reading
- Register Address: 60H

Address	R/W	Length	Parameters
60	R	1 byte	Left X value (0 ~ 200)
61	R	1 byte	Left Y value (0 ~ 200)
62	R	1 byte	Right Y value (0 ~ 200)
63	R	1 byte	Right Y value (0 ~ 200)

2.4 Button Status(64H)

- Function: JoyC left and right button status reading
- Register Address: 64H

Address	R/W	Length	Parameters
64	R	1 byte	bit [0]: Right Button Status bit [4]: Left Button Status

- Return Parameters:
Button Status:
1: Pressed
0: Released

2.5 Stick Angle Value(70H)

- Function: Rotation angle around the Y-axis at the center of the JoyC joystick.
- Register Address: 70H

Address	R/W	Length	Parameters
70	R	1 byte	Left Angle High Byte
71	R	1 byte	Left Angle Low Byte
72	R	1 byte	Right Angle High Byte
73	R	1 byte	Right Angle Low Byte

- Return Parameters:

Angle: 0~360°

2.6 Stick Distance Value(74H)

- Function: Distance of the JoyC joystick relative to the center.
- Register Address: 74H

Address	R/W	Length	Parameters
74	R	1 byte	Left Distance High Byte
75	R	1 byte	Left Distance Low Byte
76	R	1 byte	Right Distance High Byte
77	R	1 byte	Right Distance Low Byte

- Return Parameters:

Distance: 0~100