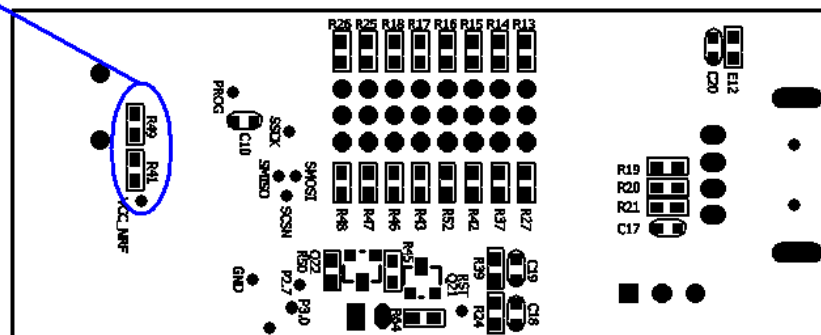


Specification for Product Selector V1.2

1. USB connector or 4pin 2.0 connector: connect to Media Player or other unit to communicate with each other, also can get the power from this connector(Just Host Device, and the protocol please see point 9)
2. Pairing Key and Pairing Indicator: Pairing Key is used to pair the host device and slave device, right now one host device can pair with up to 32 pcs slave devices with ID from 1 to 32. Pairing Indicator can indicate if the device is working on pairing mode and success for pairing
Pairing: 2.1. Set the host mode and slave mode on the device according to the below information(Point 6)
2.2. Press and hold the Pairing Key, and then power on, after 5 seconds, the Pairing Indicator will flash to indicate the device are working in pairing mode
2.3. Setting the slave device to pairing mode one by one and then setting the host device to pairing mode.
2.4. After pairing success, the Pairing Indicator will be on
2.5. After all the device pairing success, power off the devices or wait 20seconds for auto reset.
3. Reset Key: Reset the system
4. Mode and ID setting switch:
Host/Slave mode setting: There are two resistors for Host or Slave mode setting. Shown as the pictures below:

Mode Setting



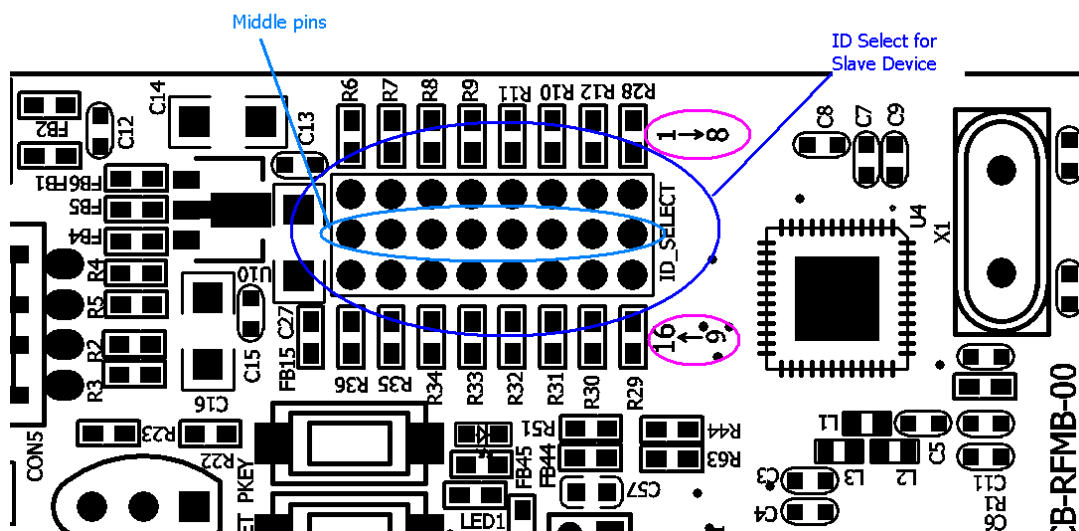
When R41 is connected, the device is working on Host Mode;

and when R49 is connected, the device is working in Slave mode.

When in host mode, there is a pin setting to set the bit rate to 9600bps or 19200bps. We used ID1 for this setting. When ID1 is short, the bit rate is set to 19200bps, and when ID1 is open, the bit rate is set to 9600bps.

When in host mode, there is 3 pin setting (ID4, 5, 6) to set the quantity of slave device. When ID4 is short, the host support to 8 pcs slave device; and when ID5 is short, the host device support to 16 pcs slave device; when ID4 & 5 are short, the host device support to 24 pcs slave device; and when ID6 is short, the host device support to 32 pcs slave device.

When device is working in Slave mode, the 8x3 jumper connector is used for ID setting. As the picture below showed:



In the new device, we have change the ID setting mode. The ID setting was divided to single digit and tens digit.

1-5 and 12-16, total 10 pins have changed to the single digit (1-1, 2-2, 3-3, 4-4, 5-5, 12-6, 13-7, 14-8, 15-9, 16-10, none-0); and 6-8, total 3pins have changed to tens digit (6-10, 7-20, 8-30).

When set the slave ID, we need to short the single digit and/or tens digit.

Such as if we set the slave ID as ID9, then we need short the current pin 15. If we set the salve ID as ID10, then we need short the pin 16 (or short pin 6). If we set the salve ID as ID20, then we need short the pin 7 (or short pin 6 and pin 16); If we set the slave

- ID as ID32, then we need short the pin 8 and pin 2.
5. Push Button switch for output: this switch is just used on the slave device, for a switch signal which can trigger other device as our Media players, Audio box and etc.
 6. LED Indicator for Slave device: When the module is setting for slave, this LEDs indicator will be off in standby, if Slave device N receive a command from the Host device, LED Indicator N will be on for 1second and PB switch for output will trigger as a push button function.
 7. The host device can communicate with other device through UART protocol:

UART Protocol V3.2 (Add descriptions for the command)

Interface

UART 9600bps 8N1

Format

Header (0xF5)	Command Length (1byte)	Command (1byte)	Data (x bytes)	Checksum (1byte)
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Header: Packet identifier

Command Length: Number of bytes follow by Header

Command: Packet Command

Data: Packet Data Checksum:

Checksum=Header+Command Length+Command+Data

Command Trigger Command

Active Slave Command (0x01)

Usage: Send this command to trigger related slave active output, and Dongle will return battery level

Command: 0x01

Data: Slave ID (0-15)

Return: Related Slave Battery Level (0-2). 0=battery low, 1=battery good, 2=battery full

Example: send: 0xf5,0x04,0x01,0x00,0xFA

return: 0xf5,0x04,0x01,0x02,0xFC

Get Active Slave Command (0x02)

Usage: Get active wireless slave

Command: 0x02

Return: 32bits to indicate 32slave status

Example: send: 0xf5,0x04,0x02,0x00,0xFB

return: 0xf5,0x07,0x02,0xFF,0xFF,0xFF,0xFF,0xFA

D7 D6 D5 D4 D3 D2 D1 D0

0xf5,0x07,0x02 S7 S6 S5 S4 S3 S2 S1 S0, S15 S14 S13 S12 S11 S10 S9 S8,

S23 S22 S21 S20 S19 S18 S17 S16, S31 S30 S29 S28 S27 S26 S25 S24,

Data Byte0								Data Byte1							
D7	D6	D5	D4	D3	D2	D1	D0	D7	D6	D5	D4	D3	D2	D1	D0
S8	S7	S6	S5	S4	S3	S2	S1	S16	S15	S14	S13	S12	S11	S10	S9
Data Byte2								Data Byte3							
D7	D6	D5	D4	D3	D2	D1	D0	D7	D6	D5	D4	D3	D2	D1	D0
S24	S23	S22	S21	S20	S19	S18	S17	S32	S31	S30	S29	S28	S27	S26	S25

Get the connection status for the slave device: S1 for Slave Device 1, S2 for Slave Device 2,, S32 for Slave Device 32, 0 means didn't find the device, 1 for find the device.

Wakeup Command (0x03)

Usage: Send this command to wakeup related slave

Command: 0x03

Data: Slave ID (32bits to indicate 32 slave)+Wakeup Time(0-255sec)

Return: 32bits to indicate 32 slave status

Example: send: 0xf5,0x08,0x03,0x00,0x01,0x00,0x00,0x05,0x04

return: 0xf5,0x07,0x03,0xFF,0xFF, 0xFF,0xFF,0xFB

The first 4bytes means the ID for the Slave Device, The fifth byte means the wake time for the device. If you want the device wake in the next several seconds, you can use this command to keep the required device keep waking in the next setting times. In this setting time, the device will respond the active faster than from sleep mode, however, the working current will also be bigger than sleep device.

8. **Get Slave Battery Level Command (0x0A)**

9. Usage: Send this command to get slave all battery level

10. Command: 0x0A

11. Data: 0x00

12. Return: 64bits to indicate 32 slave status

13. Example: send: 0xf5,0x04,0x0A,0x00,0x00

14. return: 0xf5,0x0b,0x0A,0xFF,0xFF, 0xFF,0xFF, 0xFF,0xFF, 0xFF,0xFF,0xFB

15. Get the battery level for every slave device.

Data Byte0								Data Byte1							
D7	D6	D5	D4	D3	D2	D1	D0	D7	D6	D5	D4	D3	D2	D1	D0
S4		S3		S2		S1		S8		S7		S6		S5	
Data Byte2								Data Byte3							
D7	D6	D5	D4	D3	D2	D1	D0	D7	D6	D5	D4	D3	D2	D1	D0
S12		S11		S10		S9		S16		S15		S14		S13	
Data Byte4								Data Byte5							
D7	D6	D5	D4	D3	D2	D1	D0	D7	D6	D5	D4	D3	D2	D1	D0
S20		S19		S18		S17		S24		S23		S22		S21	
Data Byte6								Data Byte7							
D7	D6	D5	D4	D3	D2	D1	D0	D7	D6	D5	D4	D3	D2	D1	D0
S28		S27		S26		S25		S32		S31		S30		S29	

16. If got 00, then you need confirmed the slave device connection status with date from “**Get Active Slave Command (0x02)**”, 01 means middle level, 10 means high level.

Format:

Header: Packet identifier

Command Length: Number of bytes follow by Header

Command: Packet Command

Data: Packet Data

Checksum: Checksum = Header + Command Length + Command +Data

Command

Trigger Command

Usage: Send this command to trigger related slave active output, and Dongle will return battery level

Command: 0x01

Data: Slave ID (0-31)

Return: Related Slave Battery Level (0-2). 0 = battery low, 1 = battery good, 2 = battery full

Example: send: 0xf5, 0x04, 0x01, 0x00, 0xFA

Return: 0xf5, 0x04, 0x01, 0x02, 0xFC

USB port can not do data communication with PC

FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.