

RF Universal Transceiver Module Serial Protocol

- Version: 1.0
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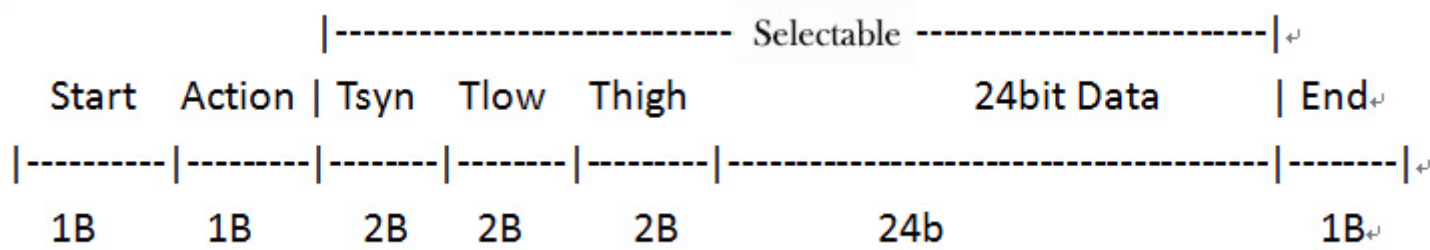
Introduction

The RF universal transceiver module serial protocol is applicable for RF Bridge products between the ESP8285 and EFM8BB10F8G. The latter realizes RF key value's receiving, sending and learning.

Serial parameters: 9200, 8 data bits, 1 stop bit, no parity.

Protocol

The instruction length is changeable. Each instruction has a corresponding return value, as follows.



- Start

`0xAA`: start bit

- Action

`0xA0`: return action
`0xA1`: learning action
`0xA2`: timeout exits
`0xA3`: learning success
`0xA4`: forward RF Remote key value
`0xA5`: transmit key value

- Tsyn

uint16 type, it means code synchronization time, unit: us, MSB order (high first send)

- Tlow

uint16 type, it means low level time, unit: us, MSB order (high first send)

- Thigh

uint16 type, it means high level time, unit: us, MSB order (high first send)

- 24bit Data

RF Remote's 24-bit key values, every 2bit represents a data: "00" "01" "10" "11"

- End

`0x55`: End bit

Learning Key

8266 send

`0xAA 0xA1 0x55`

MCU return

```
0XAA 0XA0 0X55
```

Learning Timeout

mcu send

```
0xAA 0XA2 0X55
```

8266 return

```
0xAA 0XA0 0x55
```

Learning Success

MCU send

```
0XAA 0XA3 Tsync Tlow Thigh 24bit data 0x55
```

8266 return

```
0XAA 0XA0 0X55
```

Receive Key Value

MCU send

```
0XAA 0XA4 Tsync Tlow Thigh 24bit data 0x55
```

8266 return

```
0XAA 0XA0 0X55
```

#Transmit Key Value

8266 send

```
0XAA 0XA5 Tsync Tlow Thigh 24bit data 0x55
```

MCU return

```
0XAA 0XA0 0X55
```

End!
