

EW300 dual tuner demodulation module technical description

Module configuration parameters

The module configuration parameters are all realized by writing a 256x8 RAM inside the module. The parameters controlling the serial port are 19200, 8-bit data, checksum, and 1 stop bit.

RAM parameter description

The module configuration parameters are all implemented by writing to a 256x8 RAM inside the module. The configured parameters are valid after saving reset or powering on again. After the system is powered on or reset, the serial port will print {AAAAAA}

RAM parameter description

RAM[0]: System reset control, readable and writable, reading and writing have different meanings

Write:

00 => Reset the entire system, the serial port returns {AAAAAA}, indicating that the system has been reset.

01=> Save 256 RAM values, and the serial port returns {000101}, indicating successful execution.

02=>Restore the value of 256 RAM to the system default initial value, and the serial port returns {000202}, indicating execution.

success

03 => Search for the frequency point of the specified bandwidth. The serial port returns {000303}, indicating that the execution is successful.

04 => IP-related parameter configuration takes effect, and the serial port returns {000404}, indicating successful execution.

Others => Reserved

read::

Bit[7:4]: reserved

Bit[3] network port connection rate, only meaningful when Bit[2]='1'

'0':100M

'1':1000M

Bit[2] network port connection status

'0': The network port is not connected

'1': Network port connection

Bit[1]: Main EW300 frequency lock indication

'1'=frequency lock

'0'=frequency not locked

Bit[0]: Frequency lock indication from EW300

'1'=frequency lock

'0'=frequency not locked

RAM[1]~RAM[3]: Specified frequency point, in KHz, readable and writable, RAM[1] is the high bit, range (100M~860M)

RAM[4]: bandwidth of frequency point,

08 => 8M

07 => 7M

06 => 6M

05 => 5M

01 => 1.7M

RAM[5]~RAM[8]: local IP address, Readable.

Default

value:

192 (RAM[5]). 168 (RAM[6]). 1 (RAM[7]). 100 (RAM[8])

RAM[9]~RAM[14]: local MAC address, readable and writable.

Default value: 98-8D-46-0E-61-87

RAM[15]~RAM[16]:UDP source port number, readable and writable,

default 6000, RAM[15] is the high byte.

RAM[17]~RAM[18]:UDP destination port number, readable and writable, defaults to 6001, RAM[17] is the high byte.

RAM[19]~RAM[22]:UDP destination host IP address, address format:
RAM[19].RAM[20].RAM[21].RAM[22]. Readable and writable, default value 192.168.1.110

If it is a multicast address, the range is 239.0.0.0~239.255.255.255.

RAM[23]:Empty packets are deleted, default is 0x00,

00: Do not delete empty packages

Others: delete empty packages

RAM[24]~RAM[63]: reserved

RAM[64]~RAM[65]: MASTER SNR

RAM[66]~RAM[67]: SLAVE SNR

RAM[68]~RAM[69]: MASTER RFLEVEL /div8

RAM[70]~RAM[71]: SLAVE RFLEVEL /div8

RAM[72]~RAM[74]: MASTER FBER, MSB(RAM[72]) = 1

RAM[80]:The next OFDM PRAMETER RAM is valid mark, read only

0: No valid

1: valid

RAM[81]: read only

BIT[5] 0:Not mixed

1:Mixed

BIT[4] 0: SISO

1:MISO

BIT[2:0] 0:2K

1:8K

2:4K

3:1K

4:16K

5:32K

RAM[82]: read only

BIT[6:4] 0:1/32

1:1/16

2:1/8

3:1/4

4:1/128

5:19/128

6:19/256

BIT[2:0] 0:PP1

1:PP2

2: PP3

3:PP4

4:PP5

5:PP6

6:PP7

7:PP8

RAM[83]: read only

BIT[4] 0:Normal

1:Extended

BIT[2:0] PAPR MODE

RAM[84]~RAM[85]: Number of data symbols in a T2 frame, RAM[84] high byte, RAM[85] low byte, read only

Other RAM is reserved and its contents cannot be read or written.

1、 Module configuration commands

Configuration commands are implemented by sending commands to it through the serial port.

Command format: {+opcode+RAM address+<operand>+check code+} The symbols {} are all hexadecimal numbers represented by ASCII codes.

{ : indicates the start of the command

+ : Indicates that this only represents the connection, which is used for illustration and does not exist in the actual command.

< : Indicates that the parameter is not included in the read command.

} : indicates the end of the command

Opcode: 00 means write, FF means read, 1 byte

RAM address: 1 byte

Operand: The operand of the command is 1 byte. In the read operation, this byte has no

Check code: (opcode + storage address + <operand>) mod 256

Command return format:

The return format if the operation is successful: {+register address+register value+check code+}

The reset command did not return

Operation failure return format: {FFFFFF}