Module independent work mode						Master-slave working mode (module as slave, external MCU as master)					

In the independent working mode of the module, the prompt sound is actively broadcast by the module after performing actions; if it is in the actual master-slave mode application, the broadcast sound is controlled by the master MCU, and if you want to broadcast, just send the corresponding serial port command. In this way, the main MCU is more flexible; but in the DEMO program, for convenience, it supports both independent work and master-slave mode.

Note: The so-called master-slave working mode means that the voice module is only responsible for voice recognition and broadcasting. As for the specific function realization, it depends on the external main control MCU. After the voice module recognizes the command, it actively reports to the MCU through the serial port. The MCU wants to What to broadcast, tell the voice module which audio to broadcast through the serial port command. But the actual DEMO program is for the convenience of demonstration. After the voice module recognizes the command, it not only actively reports the corresponding audio, but also broadcasts the corresponding audio. The MCU can also send a serial port to tell the voice module which audio it wants to broadcast.

Note: In the actual application, when the module works independently, all the work is done by the module independently, and there is no need for additional MCU at this time, so the blue area on the right is not needed; but the demo software is also effective at the same time for your convenience. The blue area on the right is not needed; however, the demo software is designed to facilitate your understanding, so the blue area on the right is also in effect at the same time.

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Data Format: Module model: QLIFE-ASR06DM Communication method: Uart serial communication, TTL3.3V, pay attention to different levels, such as communicating with 5VMCU, a level matching circuit should be added in the middle. Communication port: module PIN5: RX (input), PIN6: TX (output) Baud rate: 38400-8-N-1; Command packet format: packet header + effective data length (command code + command parameter) + command code + command Parameter + check code (effective data length + command code + command parameter, take the lower 8 bits);

After the module recognizes the voice command, it outputs the serial port command (ASR->MCU)

If the main control MCU wants the module to broadcast the corresponding prompt tone, it sends the corresponding serial port command (MCU->ASR)

serial number	voice command	Module judgment	critical result			Module action	Module voice answer content	Baotou	Data length	Order	command data	checksum	Baotou	Data length	Order	command data	checksum
								byte0	byte1	byte2	byte3	byte4	byte0	byte1	byte2	byte3	byte4
1	Elizabeth	/	/			wake	[1] Hello, master	0xA5	0x02	0x60	0x01	0x63	0xA5	0x02	0x90	0x01	0x93
2	turn on the lights	Is the light on?	N			light up the desk lamp	[2] lights are on	0xA5	0x02	0x60	0x02	0x64	0xA5	0x02	0x90	0x02	0x94
			Y			/											
3	turn off the lights	Do you want to turn off the lights?	N			turn off the lamp	[3] Lights off	0xA5	0x02	0x60	0x03	0x65	0xA5	0x02	0x90	0x03	0x95
			Y			/											
4	turn on white light	Is the light on?	N			light up white light	[4] White light turned on	0xA5	0x02	0x60	0x04	0x66	0xA5	0x02	0x90	0x04	0x96
			Y			/											
5	turn on the yellow light	Is the light on?	N			light up yellow	[5] Yellow light turned on	0xA5	0x02	0x60	0x05	0x67	0xA5	0x02	0x90	0x05	0x97
			Y														
6	turn on natural light	Is the light on?	N			Light up yellow + white light	[6] Natural light turned on	0xA5	0x02	0x60	0x06	0x68	0xA5	0x02	0x90	0x06	0x98
			Y			/											
7	brighten up	Is the light on?	N			/	[7] Sorry, the light is not on yet						0xA5	0x02	0x90	0x07	0x99
			Y	Is it the brightest?	N	Increase the brightness by one	[8] Understood, brightened	0xA5	0x02	0x60	0x07	0x69	0xA5	0x02	0x90	0x08	0x9A
					Y	/	[9] Master, the light is already the brightest						0xA5	0x02	0x90	0x0D	0x9F
8	dimmed a bit	Is the light on?	N			/	Sorry, the lights aren't on yet.						0xA5	0x02	0x90	0x07	0x99
			Y	Is it the darkest?	N	Increase the brightness by	[11] Understood, Dimmed	0xA5	0x02	0x60	0x08	0x6A	0xA5	0x02	0x90	0x09	0x9B
					Y	/	[12] Master, the light is already the darkest						0xA5	0x02	0x90	0x0A	0x9C
9	dimmest light	Is the light on?	N			/	Sorry, the lights aren't on yet.						0xA5	0x02	0x90	0x07	0x99
			Y	Is it the darkest?	N	dimmed to the darkest	[14] As ordered, it's darkest now	0xA5	0x02	0x60	0x09	0x6B	0xA5	0x02	0x90	0x0B	0x9D
					Y	/	Master, the light is already the darkest						0xA5	0x02	0x90	0x0A	0x9C
10	brightest light	Is the light on?	N			/	Sorry, the lights aren't on yet.						0xA5	0x02	0x90	0x07	0x99
			Y	Is it the brightest?	N	brightest	[17] As ordered, turn it up to brightest now	0xA5	0x02	0x60	0x0A	0x6C	0xA5	0x02	0x90	0x0C	0x9E
					Y	/	Master, the light is already the brightest						0xA5	0x02	0x90	0x0D	0x9F
11	Delay off lights	Is the light on?	N			/	Sorry, the lights aren't on yet.						0xA5	0x02	0x90	0x07	0x99
			Y	greater than the maximum time?	Y	/	[20] OK, the lights will be turned off for you in 10 minutes	0xA5	0x02	0x60	0x0B	0x6D	0xA5	0x02	0x90	0x0E	0xA0
					N	/	[21] OK, the lights will be turned off for you in 20 minutes						0xA5	0x02	0x90	0x0F	0xA1
					N	/	[22] OK, the lights will be turned off for you in 45 minutes						0xA5	0x02	0x90	0x10	0xA2
12	increase volume	loudest?	N			Volume up by one	[23] OK, the volume has been turned up	0xA5	0x02	0x60	0x0C	0x6E	0xA5	0x02	0x90	0x12	0xA4
			Y			/	[24] Master, the volume is already at the maximum						0xA5	0x02	0x90	0x11	0xA3

No.	Command	Condition	N/Y		Action	Response										
13	reduce volume	minimum sound	N		Volume down one stop	[25] OK, the volume has been reduced	0xA5	0x02	0x60	0x0D	0x6F	0xA5	0x02	0x90	0x14	0xA6
			Y		/	[26] Master, the volume is already at the minimum						0xA5	0x02	0x90	0x13	0xA5
System functions					Power on complete	[27] Welcome to the acxeon technology "ASR06DM" module, you can use "Elizabeth" to wake me up	0xA5	0x02	0x00	0x00	0x02	0xA5	0x02	0x90	0x15	0xA7
					recognition timeout	[28] 3-2 -1 (chords and chords)	0xA5	0x02	0x6F	0xFF	0x70	-	-	-	-	-
14	learn wake word		Y			Please follow the prompts to learn the wake word in a quiet environment										
15	learn command words		Y			Please follow the prompts to learn command words in a quiet environment, please say the learning command to turn on the light										
16	study again	/	Y	/		Please follow the prompts to learn the wake word in a quiet environment										
			Y			Please follow the prompts to learn command words in a quiet environment, please say the learning command to turn on the light										
18	quit studying		Y			exit study mode										
19	i want to delete		Y			Do you need to delete the learned wake-up words or command words?										
20	remove wake word		Y			Wake word has been removed for you										
21	delete command word		Y			The command word has been removed for you										
Learning the logic of instructions						[1011] Please tell me the instruction to turn on the lights										
						[1005] Please tell me the instruction to turn off the lights										
						[1002] Please tell me the learning instruction to turn on the white light										
						[1003] Please tell me the learning instruction to turn on the yellow light										
						[1004] Please tell me the learning instruction to turn on the natural light										
						[1006] Please say brighten up the learning instruction										
						[1007] Please tell me the instruction to dim a little										
						[1008] Please tell me the learning instruction with the darkest light										
						[1009] Please say the learning instruction with the brightest light										
						[1010] Please tell me the learning instruction for delaying turning off the lights										