DALRC

QUHF 433 MHZ Operating Manual

Transmitter description diagram:

GND=These 3 GND pins are all common ground.

VCC=transmitter power supply input (support 2s-6s, 3s recommended)

P/S=PPM or SBUS signal input (PPM and SBUS signal will be identified automatically)

5V=5Voutput (power supply receiver)

1=Channel 1 PWM input (if PPM2 was turn on then PPM2 input via this pin)

2=Channel 2 PMW input

3=Channel 3 PMW input

4=Channel 4 PMW input

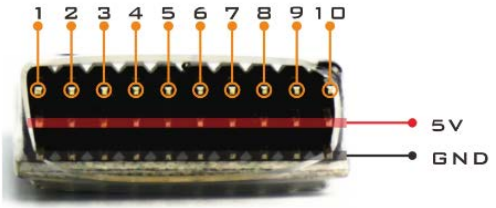
TX/5=Channel 5 PMW input (when upgrading connect USB to TT L 's RX)

RX/6=Channel 6 PMW input (when upgrading connect USB to TT L 's TX)

7==Channel 7 PMW input

8==Channel 8 PMW input

Receiver description diagram:



Ground wire=These 10 GND pins are all common ground on receiver.

5V=Receiver 5V power supply input (support 3.3v-8v power suppl y, 5v recommended)

Channel 1=Channel 1 PWM output

Channel 2=Channel 2 PWM output

Channel 3=Channel 3 PWM output

Channel 4=Channel 4 PWM output

Channel 5=Channel 5 PWM output

Channel 6=Channel 6 PWM output

Channel 7=Channel 7 PWM output

Channel 8=Channel 8 PWM output

Channel 9=RSSI output (Capable to set output mode)

Channel 10=PPM output (Capable to set output mode)

Above each pin's function was defaulted by receiver, which is capable to reset to change its function, For example , set the channel 10 to SBUS output, details of setting process please refer the function diagram.

Note :To keep the 433 signal on the best condition, we recommend setting the transmitter and receiver's antenna vertical to the ground ,the receiver's antenna can be set up by using a plastic beverage straw or a chopstick (Do not using the carbon stick or any metal related sticks)

Setting process of common used function

Note: Before frequency binding or setting fail-safe transmitter must be accessed in one of PPM,PWM or SBUS signal successfully.

(1) Single receiver's frequency binding process: keep press receiver's button until blue light flashing release it, then power supply to receiver (when transmitter's blue light stop flashing, receiver's red light on, frequency binding success)

(2) Lost control protection setting process: Set all the channel of remote controller to the position where the receiver was expected to output the proper signal during the lost control condition, then keep press the button until the red light start flashing to release it, power supply to the receiver(transmitter's red light stop flashing and receiver's red light on means set success, Note:before set lost control protection the frequency binding must be finished successfully)

(3) Multiple receivers frequency binding process: Follow the "(1)Single receiver's frequency binding process" binding the first receiver's frequency. The second one or more than two receivers please refer following process.

Keep press the transmitter's button until purple light flashing release it, then power supply to receiver (when transmitter's purple light stop flashing ,frequency binding success)

Transmitter restore to default setting: keep click the button 9 times and wait for instruction, once red light rapidly flashing press button 1s more, release the button after the red light and blue light start flashing alternately , restore success.

DALRC 433Mhz Transmitter Setup

Continuously click the button on the Transmitter “N” times on standby mode condition system will enter into the corresponding f unction setting.

- For example: we want to set the transmitting power to (1500mW) 1.5W, only need to click the function button 3 times, then flashes 3 times purple light (the purple light flashing times are same with the times you click the button) after that, coming to red light or blue light flashing (if the blue light intermittent flashed 4 times that mean the current power is 1000mW(1wM)), when need to change the power just click the function button which will switch to next step setting, intermittent flashed 5 times red light means 1500mW), by this time in order to save the current setting you need to press the function button 1s more, red light and blue light alternately flash 2 times means saving success, automatically restart.

After function 5-8 set finished, transmitter need to reenter frequency binding mode,(transmitter needs transfer the set parameter to receiver), then power supply to receiver will finish frequency binding . (all the setting will be saved permanently unless Restore factory setting or reset it deliberately) the following is function diagram.

Continuously click button frequency	Menu	Indicator flash frequency and color	Corresponding function	Description
1	Transmitting power switch	**Blue light 3 times**	Low power	Low power is 300mw, available switch to 100-1500mw , (Continuously click button 3 times will switch) defaulted is 1000mw
		Red light 3 times	User defined power	
2	Signal input mode selection	**Blue light 1 time (default)**	SBUS or PPM or PWM input mode (the 3 sorts signal identification automatically)	If inputted signal is SBUS, then 16 channels can be contain directly
		Red light 2 times	Double PPM input mode(PPM2 channel will identification automatically)	Head tracking input was suggested this mode (If this mode can not identifying properly then select below double ppm mode)
		Blue light 3 times	Double PPM input mode(channel 7 and 8 acquired from PPM2 signal, channel 1,2,3,4,5,6 acquired from PPM1signal)	

2	Signal input mode selection	**Red light 4 times**	Double PPM input mode(channel 5 and 6 acquired from PPM2 signal, channel 1,2,3,4,7,8 acquired from PPM1signal)	PPM1 corresponding with transmitter 's "P/S" input pin, PPM2 corresponding transmitter's channel "1" input pin
		Blue light 5 times	Double PPM input mode(channel 3 and 4 acquired from PPM2 signal, channel 1,2,5,6,7,8 acquired from PPM1 signal)	
		Red light 6 times	Double PPM input mode(channel 1 and 2 acquired from PPM2 signal, channel 3,4,5,6,7,8 acquired from PPM1 signal)	
		Blue light 7 times	16 channel mode(channel 1-8 inputted from p/s In , channel 9-16 inputted from PPM2)	16 channel model can be directly with a receiver SBUS contains 16 channels 2 receivers can be also used working together ,set one of receiver output 1-8 channel signal or

		Red light 8 times	16 channel mode(channel 1-8 input from p/s In,channel 9-16 input from PPM1-PWm8 port)	Output 9-16 channel signal (both of 2 receivers' lost control protection can be set independent and running, without interfere each other.)
3	Transmitting power adjustment	**Blue light 1 time**	100mw	The greater the power, the greater the heat on transmitter
		Blue light 2 times	300mw	
		Blue light 3 times	700mw	
		Blue light 4 times (default)	1000mw	
		Red light 5 times	1500mw	
4	Receiver output mode setting	**Blue light 1 times (default)**	Receiver's channel 1-8 output PWM, channel 9 output RSSI, channel 10 output PPM	This 6 items set is for set up receiver's output mode, keep press the saving button after receiver was set to corresponding mode, by this time receiver will flash purple light enter to frequency binding mode, then power supply to receiver, transmitter will transmit the
		Blue light 2 times	Receiver's channel 1-8 output PWM, channel 9 output RSSI, channel 10 output SBUS	
		Blue light 3 times	Receiver's channel 1-8 output PWM, channel 9 output PPM, channel 10 output SBUS	

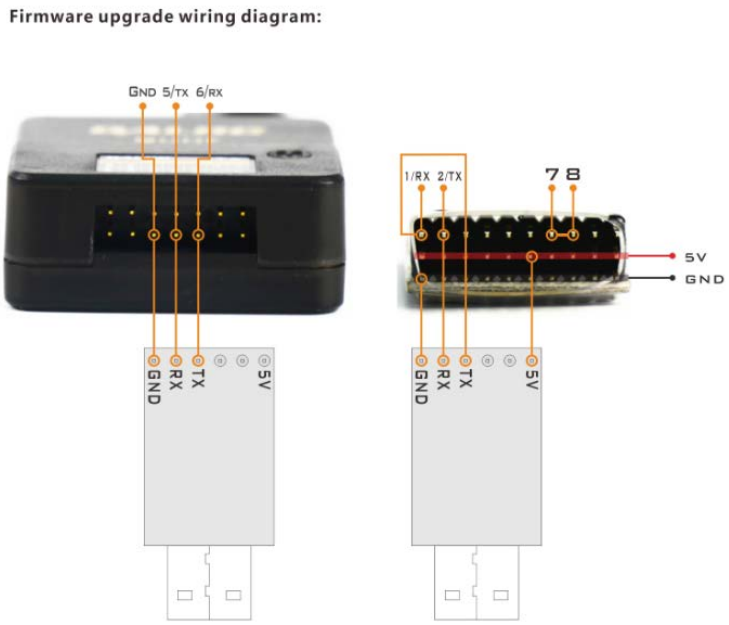
4		**Blue light 4 times**	Receiver's channel 1-10 output PWM	set parameters to receiver, once set up success transmitter 's indicator light will stop flashing (receiver outputted SBUS signal contain 16 channels)
		Blue light 5 times	Receiver's channel 1-8 output 9-16 channel 's PWM, channel 9 output RSSI, channel 10 output PPM	
		Blue light 6 times	Receiver's channel 1-8 output 9-16 channel 's PWM, channel 9 output RSSI, channel 10 output SBUS	
5	Data package transmitting frequency set	**Red light 1 time**	20Hz (transmitting 20 times data package per second) [9600bps]	Reduce this value distance will be further, but with too lower value to operate the remote controller will make the servo not smooth (normal remote controller's output won't beyond 50HZ(except high speed SBUS), so unless flying helicopter or multirotor racing need smoother operate feeling otherwise keep within 50HZ)
		Blue light 2 times	35Hz (transmitting 35 times data package per second)[19200bps]	
		Blue light 3 times (default)	50Hz (transmitting 50 times data package per second)[57600bps]	
		Red light 4 times	100Hz (transmitting 50 times data package per second)[125000bps]	

6	Frequency hopping points set	**Blue light 1 time (default)**	Random generated 6 Frequency hopping points	Keep in default mode for general case, the quantity of frequency hopping points is how many frequency hopping points can be divided from the frequency range 400Mhz-470Mhz to hopping ,the more frequency hopping points the lower rate to be interfered, meanwhile the higher rate around device be interfered.
		Blue light 2 times	Random generated 12 Frequency hopping points	
		Blue light 3 times	Random generated 18 Frequency hopping points	
		Red light 4 times	Random generated 24 Frequency hopping points	
7	Frequency hopping gap	**Red light 1 time**	1KHZ	Keep in default mode for general case, here is to set frequency gap between frequency hopping points .
		Red light 2 times	2KHZ	

7		**Blue light 3 times**	3KHZ	
		Blue light 4 times	4KHZ	
		Blue light 5 times (default)	5KHZ	
		Blue light 6 times	6KHZ	
		Blue light 7 times	7KHZ	
		Red light 8 times	8KHZ	
		Red light 9 times	9KHZ	
		Red light 10 times	10KHZ	
8	Relaying mode	**Blue light 1 time**	Mode 1	Default relaying mode is off state ,when need to use the relaying mode all the transmitter must be set up in same relaying mode. Note: replaying mode must be the final one to set,if transmitter has set other parameters, the replaying mode will off automatically,you must reset relaying mode again (including reset replaying mode after frequency binding)
		Red light 2 times	Mode 2	
		Blue light 3 times	Mode 3	
		Red light 4 times	Mode 4	
		Blue light 5 times	Mode 5	
		Red light 6 times	Mode 6	
		Blue light 7 times	Mode 7	
		Red light 8 times	Mode 8	
		Blue light 9 times	Mode 9	
		Red light 10 times	Mode 10	

9	Restore Factory Defaults	**Red light 1 time**	Set the transmitter to restore Factory Default.	After restore Factory Defaults all the settings will be reset to default

Firmware upgrade connecting diagram:



QUHF transmit, receive support online upgrade software, needing computer accessed into internet.

Transmitter enter into upgrade mode setting : connecting the upgrade module with transmitter, keep press the setting button, connect power, release the button after transmitter indicator light rapidly flashing in red with blue and to enter in upgrade mode, connect with computer afterwards.

Receiver enter into upgrade mode setting: connecting the upgrade module with receiver , linked channel 7 and channel 8 ‘s signal wire,plug in computer to enter in upgrade mode, then cancel the linking between channel 7 and channel 8.

Software operation: While plug in QUHF device, after select the correct COM from COM Port ,QUHF device will connected automatically (check the COM Port from the device manager), then select the firmware from the choice box which is below the software and click start upgrade firmware ,after upgrading finished QUHF will restart, pull out the upgrade module.