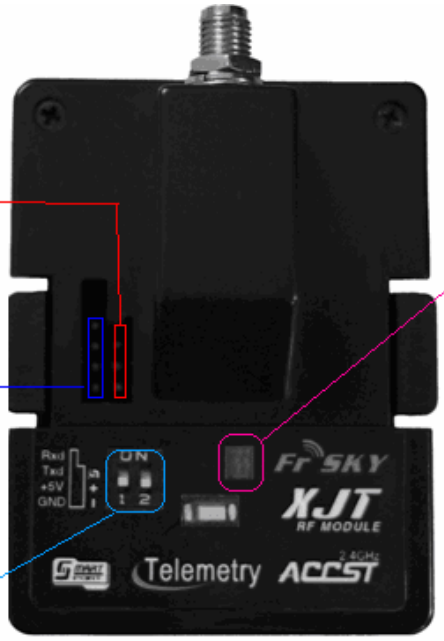
Instruction Manual for FrSky XJT Module

Introduction

Thank you for purchasing FrSky XJT telemetry module. In order to fully enjoy the benefits of this system, please read the instruction manual carefully and set up the device as described below.

Overview



Smart Port
All products enabled with Smart Port (such as FSD FrSky Smart Dashboard, etc.)

RS232 Serial Port
With FLD-02 (telemetry display)
FrUSB-3 (alarm setting, firmware upgrade)
VSpeak module, etc.

LED Indication

Green LED	Red LED	Status
Flashing	ON	Normal
Flashing	OFF	Range Check
ON	Flashing	Binding

Mode and Compatibility

Switch 1	Switch 2	Mode of XJT	Compatible Receiver
ON	OFF	D8	V8-II series receivers (V8FR-II, V8R7-II, V84R-II, VD5M, etc.) D series receiver (D8R-II plus, D8R-XP, D6FR, D4R-II, etc.)
OFF	OFF	D16	X series receiver (X8R, X4R, etc.)
OFF	ON	LR12	L series receiver (L9R, etc.)
ON	ON	Not Defined	

Specifications

Operating Voltage Range: 6~15 V
Operating Current: 140mA (@6V), 80mA (@12V)
Output Power: ≤ 100mW
Module Slot: JR/Graupner Type

Modulations: PXX or CPPM (auto-detected)
Modes: D8, D16 or LR12 (selectable)
Telemetry Interface: Smart Port, RS232 Serial Port
Upgrade Interface: Smart Port, RS232 Serial Port

What's New!

- Two auto-detected modulations of PXX (mode selection, bind, model match, range check, failsafe, etc. on radio side) or CPPM.
- Three selectable modes of D8 (existing 8ch two-way), D16 (new 16ch two-way full duplex transmission) and LR12 (new 12ch one-way long range).
- Smart Port enabled, realizing two-way full duplex transmission.
- Detect the module antenna's working status and give sound warnings if the module antenna is broken or does not have intact contact, etc.
- Super lower latency (approx. 1/3 of current systems) and higher precision (transmitter's hardware and software support required, such as FrSky transmitters).

Smart Port (S. Port) is a signal wire full duplex digital transmission interface developed by FrSky Electronic Co., Ltd. All products enabled with Smart Port (including XJT module, X8R receiver, new hub-less sensors, new Smart Dashboard, etc), serial port user data and other user input/output devices can be connected without limitations for numbers or sequences at a high transmission speed.

Binding Procedure

Binding is the process of uniquely associating a particular receiver to a transmitter module. A transmitter module can be bound to multiple receivers (not to be used simultaneously). A receiver can only be bound to one transmitter module. Follow the steps below to finish the binding procedure.

1. Turn on the transmitter while holding the F/S button on the XJT module (see Mode and Compatibility table above). Release the button. The RED LED on the XJT module will flash and GREEN LED ON , indicating the transmitter is ready to bind to the receiver.
2. Connect the battery to the receiver while holding the F/S button on the receiver. The RED LED on the receiver will flash, indicating the binding process is completed (please refer to the corresponding receiver's instruction manual for details)
3. Turn off both the transmitter and the receiver.
4. Turn on the transmitter and connect the battery. The GREEN LED on the receiver indicates the receiver is receiving commands from the transmitter. The receiver/transmitter module binding will not have to be repeated, unless one of the two is replaced.

Note: After binding procedure is completed, recycle the power and check if the receiver is really under control by linked transmitter.

Range Check

A pre-flight range check should be done before each flying session. Reflections from nearby metal fences, concrete buildings or trees can cause loss of signal both during range check and during the flight.

Follow the steps below to perform the range check.

1. Place the model at least 60cm (two feet) above non-metal contaminated ground (e.g. on a wooden bench).
2. The receiver antennas should be separated in the model, and do not touch the ground.
3. The module antenna should be in a vertical position.
4. Turn on the transmitter and the receiver, press the F/S button on the XJT module for 4 seconds to enter range check mode, the RED LED will be off, GREEN LED will flash rapidly. The effective distance will be decreased to 1/30 of full range.
5. Walk away from the model while simultaneously operating the controls on the transmitter to confirm all controls' normal operation (please refer to the corresponding receiver's instruction manual for details).
6. Press the F/S button on the XJT module for 1~2seconds to exit range check mode, RED LED will be back on, indicating normal operation is back.

Safe Flying Distance

FrSky telemetry system has a feature to return the Received Signal Strength Indication (RSSI) of the receiver to the transmitter. The transmitter develops an internal voltage representing the receiver signal strength. Alarms are programmed in the transmitter to warn the pilot when the model is nearing maximum control range. See the table below for reference.

Number	***Beep Alarming***	***Meaning***
0	*No Beep*	*The signal strength is strong*
1	*Single Beep*	*The signal strength is adequate*
2	*Constant double Beeps*	*The model is far, but safe range*
3	*Constant triple Beeps*	*The model in near maximum range*
	Constant Beeps	*The module antenna is broken, or does not have intact contact, etc.*

For more details, please check the complete manual for XJT from www.frsky-rc.com - Download – Manual – XJT.

Should you have other questions, please send e-mails to FrSky technical support sales4tech@gmail.com.