

# User Manual

## RF Remote Control



Product Name: RF Remote Control

Product No.: RCIJ0002AG-2401

Model No.: TSIJ-2401

Version: Ver. 1.0

Date: 2008/07/05

**Description:****1. Preliminary Product Specification:****1.1 Scope:**

This Spec. provides an overview of the required RF remote control and receiver functionality for Customer systems. The product includes:

- an RF Remote Control (2.4GHz)
- an USB Receiver dangle
- 2 AA batteries.

**1.2 General:**

1.2.1 Batteries: 2 AA batteries are designed to be used in RF remote to support at least 3 months normal usage.

1.2.2 Restricted Substances and Environmental Requirements: all the materials and manufacturing process used to produce RF remote must comply to RoHS requirements.

1.2.3 RoHS (we can put some RoHS requirements here and state that all the materials used in the product specification complies to RoHS requirements).

**1.3 Ergonomics Requirements:**

This product was designed to be ergonomics for all users.

1.3.1 The ergonomic remote design is to fit into users' palms to reduce the discomfort caused by long time usage.

1.3.2 The symmetrical design is to be fit for both left-handed and right-handed users to reduce the discomfort or strain caused to users.

1.3.3 Every key designed on the remote is to be designed easy to reach for users for easy usability and reduce strain.

**1.4 Product Functional Requirements:**

1.4.1 Operation System: needs to be functional when working under Customer systems.

1.4.2 Interface: Receiver needs to be working under USB 1.1 and 2.0 Interface.

1.4.3 Range Requirements: the transmission of the remote control shall be at least 30-50 meters with optical filter in place.

1.4.4 RF Protocol: Using Topseed Standard RF protocol with HID Driver.

1.4.5 Frequency Range: 2.4 to 2.483 GHz (16 multi channels and 65535 ID channels for RF Remote Control)

1.4.6 Battery Life: 2 AA batteries to provide at least 3 months normal usage.

1.4.7 Weight: 125.8g

1.4.8 Operation Temperature: 50°C

## 1.5 Detailed Product Specification – RF Remote Control

### 1.5.1 RF Remote Control

Item	Standard Specification		Option
RF Characteristics (TX)	Frequency Range	2.4GHz-2.483 GHz	
	Modulation	GFSK	---
	Channel Spacing	1 MHz	---
	Channel No.	78	---
	Channel I.D	65535	
	TX Power	1 mW	
	Transmission rate	64K bps	
	TX frequency deviation	+/- 100 KHz	
	Frequency tolerance	+/- 20ppm	
	Distance of Transmission	30 m min.	
	Antenna type	PCB Track	
Input power	AA*2 DC 3.2V batteries.		---
Power Consumption	working mode	9.5mA Max	
	saving mode	100uA	
Power	Battery	AA*2 DC 3.2V batteries	
	Batter Life	3 months	
Electrical Performance	Supply Voltage	DC 2.2V ~ 3.2V	---
	Button	52	---
Mechanical Performance	Dimension	217.93 x 61.46x 28.02 mm	---
	Key Operating Force	105 ± 40 gf	
	Operating Stroke	0.9 ± 0.1 mm	---
	Keytop Material	Silicon Rubber	---

## 1.5.2 Physical Description and Specification – 2D Drawing



Body	
Case	Color
Upper Case Bottom Case Battery Cover	Pantone Process Black C (fine texture)
FRONT LENS	Dark purple
PROTECTIVE FLATE	Pantone Process Black C
Keypad (R1)	TRANSLUCENT
Keypad (R2)	PANTONE 130 C
Other Keys	Pantone Process Black C














Print	
Upper case	Color
TV PC ABC DEF GHI JKL MNO PQRS TUV WXYZ * 0 #	Pantone White C

Print	
Rubber keypad	Color
	Pantone White C
TV1 TV2 TV3 ZV	Pantone White C
•	Pantone 185 C













Print	
Rubber keypad	Color
	PANTONE 611 C
	PANTONE 378 C
	PANTONE 5285 C

Label	
36.74 mm	24.63 mm












1.5.3 Remote Control Buttons

item	Function	Icon
1	Power (PC Standby)	
2	Power ( TV)	
3	TV1	
4	TV2	
5	TV3	
6	ZV Button	
7	Mouse R Button	
8	Mouse L Button	
9	Input	
10	Guide	
11	Menu	
12	Media Center Start	
13/14	Volume Up/Down	


1.5.3 Remote Control Buttons (cont.)

item	Function	Icon
15/16	Channel up/down	
17	Browser Back	
18		
19		
20	More	
21	Volume Mute	
22	OK	
23	Up	
24	Down	
25	Left	
26	Right	
27	Media Reocrd	

1.5.3 Remote Control Buttons (cont.)

item	Function	Icon
28	Media Pause	
29	Media Play	
30	RWD	
31	FWD	
32	Replay	
33	Media Stop	
34	Skip	
35	A	
36	B	
37	C	
38	D	

**1.5.3 Remote Control Buttons (cont.)**

item	Function	Icon
39	0	
40	1	
41	2	
42	3	
43	4	
44	5	
45	6	
46	7	
47	8	
48	9	
49	*	
50	#	
51	ESCAPE	
52	RETURN	



## Appendix: Warning Statement

### FCC Guidelines

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Declaration of Conformity for R&TTE directive 1999/5/EC

Essential requirements – Article 3

Protection requirements for health and safety – Article 3.1a

Testing for electric safety according to EN 60950-1 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1, EN 301 489-3 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2

Testing for radio test suites according to EN 300 440-2 has been conducted. These are considered relevant and sufficient.

Hereby, [Dong Guan Jess-Link Electronics Co., Ltd.], declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

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前項合法通信，指依電信法規定作業之無線電通信。

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