Product Specification

Vista Remote control & Receiver – 2.4 GHz



Product Name: RF Vista Remote Product No.: RCGP0012AG-2404 Model No.: TSGP-2404, TSBX-2404 Reversion: Ver.01 Date: 12/20/2006

Topseed - RF Vista Remote (2.4GHz)



Revision History:

Revision	Release Date	Remarks	Edited by	Approved by
Ver 01	12/20/2006	Launch	Eddie	Amen

	Approved by			
Topseed:_	Eddie Feng	Topseed: Amen Chi		
Date:	2006/12/20	Date: 2006/12/20		

- 1. About RF VISTA Remote
 - 1.1. Preliminary Product Specification:
 - 1.2.1. Scope:

This Spec. provides an overview of the required Vista remote control and receiver functionality for Windows® Media Center in the Windows Vista[™] Home Premium and Windows Vista Ultimate operating systems. The "Vista" product includes

- an RF Remote Control (2.4 GHz)
- an USB Receive dangle
- a manual and 2 AAA battery.
- 1.2.2. General:
 - 1.2.2.1. Batteries: 2 AAA batteries are designed to be used in RF VISTA remote to support at least 6 months normal usage.
 - 1.2.2.2. Restricted Substances and Environmental Requirements : all the materials and manufacturing process used to produce RF VISTA remote must comply to RoHS requirements
 - 1.2.2.3. RoHS (we can put some RoHS requirements here and state that all the materials used in the product specification complies to RoHS requirements)
- 1.2.3. Ergonomics Requirements:

This product was designed to be ergonomics for all users.

- 1.2.3.1. The ergonomic remote design is to fit into users' palms to reduce the discomfort caused by long time usage.
- 1.2.3.2. The symmetrical design is to be fit for both left-handed and right-handed users to reduce the discomfort or strain caused to users.
- 1.2.3.3. Every key designed on the remote is to be designed easy to reach for users for easy usability and reduce strain.
- 1.2.4. Product Functional Requirements:
 - 1.2.4.1. Operation System: Vista needs to be functional when working under Windows® Media Center in the Windows Vista[™] Home Premium and Windows Vista Ultimate operating systems.
 - 1.2.4.2. Interface: Receiver needs to be working under USB 1.1 and 2.0 Interface.
 - 1.2.4.3. PC Host Hardware Compatibility: Vista need to be compatible with the PC host which runs Windows® Media Center in the Windows Vista[™] Home Premium and Windows Vista Ultimate operating systems.

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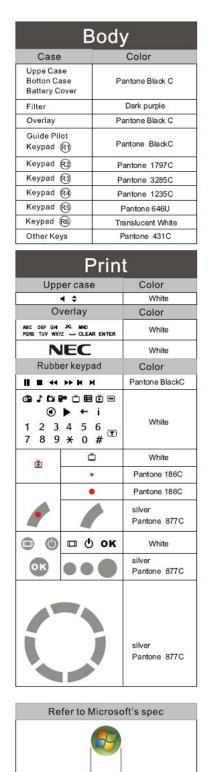
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- 1.2.4.4. Range Requirements: the transmission of the remote control shall be at least 10 meters with optical filter in place.
- 1.2.4.5. RF Protocol: Using Topseed Standard RF protocol with HID Driver.
- 1.2.4.6. Teletext: Teletext buttons are required in locales that support Teletext functionality. These buttons are used for Integrated Services Digital Broadcasting (ISDB) data functions in addition to Teletext. Teletext buttons appear below the numeric keypad on the remote control.
- 1.2.4.7. Frequency Range : 2.4 to 2.483 GHz (16 multi channels and 65535 ID channels for Remote Pointer)
- 1.2.4.8. Battery Life : 2 AAA batteries to provide at least 6 months normal usage
- 1.2.5. Detailed Product Specification RF Remote Control
 - 1.2.5.1. 2.4GHz RF VISTA Remote Control

Item	Standard Specification		Option
RF	Frequency Range	2.4GHz-2.483 GHz	
Characteristics	Modulation	GFSK	
(TX)	Channel Spacing	1 MHz	
	Channel No.	16	
	Channel I.D	65535	
	TX Power	1 mW	
	Transmission rate	1M bps	
	TX frequency deviation	+/- 156 KHz	
	Frequency tolerance	+/- 20ppm	
	Distance of Transmission	10 m min.	
	Antenna type	PCB Track	
Input power	AAA*2 DC 3V batteries.		
Power	working mode	7mA	
Consumption	saving mode	200uA	
Power	Battery	AAA*2 DC 3V batteries	
	Batter Life	6 months	
Electrical	Supply Voltage	DC 2.2V ~ 3.4V	
Performance	Button	50	
Mechanical	Dimension	205 x 48 x 24 mm	
Performance	Key Operating Force	105 ± 40 gf	
	Operating Stroke	0.9 ± 0.1 mm	
	Keytop Material	Silicon Rubber	

Physical Description and Specification – Text type -Teletext





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1.2.5.3. Remote Control Buttons

item	Function	Icon
1	Power (Standby)	٢
2	Zoom	Ξ
3	My Radio	0
4	My Music	0
5	My Pictures	0
6	My Videos	®
7	Live TV	ø
8	DVD Menu	Θ
9	Recorded TV	6
10	Guide	
11	Media Center Start	O
12/13	Volume Up/Down	



1.2.5.2. Remote Control Buttons (cont.)

item	Function	Icon
14/15	Channel up/down	Î +
16	Browser Back	0
17	More	0
18	Volume Mute	
19	OK	OK
20	Up	
21	Down	
22	Left	<
23	Right	>
24	Media Reocrd	

1.2.5.3. Remote Control Buttons (cont.)

item	Function	Icon
25	Media Pause	0
26	Media Play	0
27	RWD	Ø
28	FWD	Ð
29	Replay	C
30	Media Stop	0
31	Skip	Ð
32	TELETEXT On/Off	8
33	Red	•
34	Green	•
35	Yellow	0
36	Blue	۲

1.2.5.3 Remote Control Buttons (cont.)

item	Function	Icon
37	0	ŏ
38	1	1
39	2	ABC
40	3	3
41	4	GHI
42	5	JKL 5
43	6	MNO 6
44	7	PQRS
45	8	1 0V
46	9	WXYZ 9
47	*	\bigotimes
48	#	(#)
49	ESCAPE	GEEAD
50	RETURN	(ENTER)



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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低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停用,並改善至無 干擾時方得繼續使用。

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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。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。