SPECIFICATION FOR Remote Pointer-BD type

PAGE: 3/15

DATE: 2002/7/25

2. Description:

The TopSeed RF Remote Pointer is a FSK (Frequency Shift Key) Transmitter for the frequency band 433-435 MHz. The Remote Pointer offers a full-integrated PLL synthesizer and a high efficiency power amplifier to drive a loop antenna, A special circuit design and an unique power amplifier design are used to save current consumption and to save battery life.

This RF Remote Pointer is a best companion of Microsoft Power Point with Laser pointer designed, scroll wheel, FSR Moues Sensor, lets you scroll up and down as desired, when browsing the Internet move Mouse cursor or scrolling through any Windows documents gives reliable control and accuracy. Remote Pointer RF's radio frequency wireless technology solves all of your presentation input needs.

For the Receiver Modular use with USB 1.1 compliant can be easily actuated without affecting the position of the Remote Pointer.

Note that the Channel button (Red button) on the receiver should flash any time the Cordless device is moved or a button is pressed. Then, it will remember your product ID and Channel ID



The Radio Frequency designed in this Version of RF Remote Pointer is FSK 433.92MHz and can be use in a range about 7-10 Meter from the Receiver at any directions. The Remote Pointer can operate for 6 months with AAA X2 DC 3V batteries

\triangle						APPD.	CHKD.	DSGD.	SPEC. NO.	
\triangle										Remote Pointer
\triangle									RCBD0002-402	FSK (433.92MHZ)
SYMB.	PAGE	DATE	APPD.	SHKD.	OSGD.					

Regulatory Statement to the user.

15.21

You are cautioned that any changes or modifications not expressly approved in this manual could void your authorization to use the device.

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

15.105 Federal Communications Commission (FCC) Requirements, Part 15

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ---Reorient or relocate the receiving antenna.
- ---Increase the separation between the equipment and receiver.
- ---Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ---Consult the dealer or an experienced radio/TV technician for help.

TopSeed Technology Corp.

SPECIFICATION FOR Remote Pointer-BD type

PAGE: 4/15

DATE: 2002/7/25

3. Physical Description and Specification:



3.1 Dimensions

The approximate dimensions of the mouse's transmitter is as follows:

Length 135mm Width 48 mm Height 27 mm

3.2 Weight

The approximate dimensions of the mouse's transmitter is as follows: Weight of the RF Remote Pointer not to exceed 85 grams (without batteries).

\triangle						APPD.	CHKD.	DSGD.	SPEC. NO.	
\triangle										Remote Pointer
\triangle									RCBD0002-402	FSK (433.92MHZ)
SYMB.	PAGE	DATE	APPD.	SHKD.	OSGD.					

SPECIFICATION FOR Remote Pointer-BD type

PAGE: 5/15

DATE: 2002/7/25

4.RF Remote Pointer Specification

The RF Remote Pointer consists of three major parts; a baseband controller, a radio that suitable for America available 433–435 MHz frees ISM band applications, and a low power uC-controlled, includes RF antenna supporting circuitry, together with basic RF software level.

4- 1 Range in meters: 7-10 Meter from the Receiver

4- 2 Frequency Range: 433.92MHz+/-50KHz (64 channels ID for Remote Pointer)

4-3 Data transmitting by transistor module

4- 4 Operational voltage: 2.4~3.0 V

4-5 Low power consumption: On normal operation less than 6 mA

On Laser operation less than 25 mA

On sleep mode. Less than 10 uA.

- 4-6 Support Power down Mode and high efficiency power amplifier.
- 4-7 Receiver Fully Compliant Low Speed (1.5Mbps) USB 1.1 Interface
- 4-8 Suspend/resume operation and device remote wakeup
 - 4-9 .FSR sensors unique pressure sensitivity delivers 360-cursor or motion control of both directions with a single touch And it is Microsoft serial, PS/2 two-button mouse standard.

4-A Multimedia Function

- a. Easy and quick touch to Multimedia features, such as Play ,Stop,Pause, Volume. Up/Down, and Mute.
- b. Compatible with Windows® 98, Windows® 2000, Windows® ME and Windows XP
- Support Multimedia audio CD and video CD player functions
- d. One key to launch defined applications

\triangle						APPD.	CHKD.	DSGD.	SPEC. NO.	
\triangle										Remote Pointer
\triangle									RCBD0002-402	FSK (433.92MHZ)
SYMB.	PAGE	DATE	APPD.	SHKD.	OSGD.					

SPECIFICATION FOR Remote Pointer-BD type

4.RF Remote Pointer Specification

4-10 Key Definition

	Mode-1	Mode-2 (Multimedia)
1	Left Mouse Key	
2	Laser Key	
3	Right Mouse Key	
4	FSR Mouse	
5	Mode key 1	Mode key 2
6	F5	Stop
7	ESC	Play/Pause
8	A	Previous track
9	В	Next track
10	С	Media player on
11	Up: Line Up	Up: Volume Up
12	Push: Drag	Push: Mute
13	Down: Line Down	Down: Volume Down



PAGE: 6/15

DATE: 2002/7/25

1) In Mode-1, M-Key have special function.

M-Key+ Laser Key (Laser Pointer Enable/Disable Button)

M-Key and Laser Key are pushed simultaneously more than 2 seconds (Red LED flashed), the laser pointer is enable/disable to use.

2) Change ID : Open the battery cover and push the ID button (Green LED flashed), the ID is changed.

Notice:

For safety consideration, in the laser pointer is enable to use situation, the M-key red LED flashed 1 time per 2 seconds. Besides, after you stop using laser pointer about 30 minutes, the laser pointer function will be disable.

\triangle						APPD.	CHKD.	DSGD.	SPEC. NO.	
\triangle										Remote Pointer
\triangle									RCBD0002-402	FSK (433.92MHZ)
SYMB.	PAGE	DATE	APPD.	SHKD.	OSGD.					

TopSeed Technology Corp.

SPECIFICATION FOR Remote Pointer-BD type

PAGE: 8/15 DATE: 2002/7/25

4.RF Remote Pointer Specification

4-12

Frequency Range	433.92 MHz			
Modulation	FSK			
Channel No.	1			
Channel I.D	6 bits → 64			
Operation Voltage	3V			
Battery	AAA x 2 DC 3V batteries.			
Batter Life	6 months			
TX Power	< 0dBm (1mW)			
Transmission rate	6K bps			
TX FM frequency deviation	+/- 60 KHz			
Frequency tolerance	+/- 20ppm			
Button	7			
ECD Mouse	Microsoft serial, PS/2			
FSR Mouse	two-button mouse standard.			
Transmission Distance	7-10 Meter			

\triangle						APPD.	CHKD.	DSGD.	SPEC. NO.	
\triangle										Remote Pointer
\triangle									RCBD0002-402	FSK (433.92MHZ)
SYMB.	PAGE	DATE	APPD.	SHKD.	OSGD.					

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