

## User's Manual

For Model: SK-7360 RF Wireless Keyboard

Version: 1.0

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## 1. General

SK-7260 is a 27 MHZ RF keyboard set, the product is composed of a wireless desk top PC keyboard and a PS2 receiver.

The keyboard includes Standard function keys and several (option) easy access keys.

General the receiver supports both keyboard and mouse function. There are only described

keyboard and receiver functionality in the product specification but excluded mouse specification.

The product package includes wireless keyboard and receiver, mouse device is optional according to customer's demend.

#### 1.1 Main feature

The product provides 2 channels /256 ID operation to prevent frequency interference. The receiver interface of supporting both keyboard and mouse to the system through PS2 ports.

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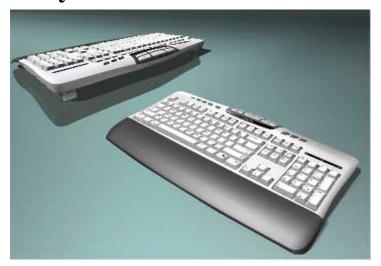
- Single chip keyboard & Receiver controller.
- Phantom key detection.
- Low power consumption.
- 4k bps baud rate in air.
- Provides 2 RF channels.
- 256 ID codes randomly generated to resist interference.
- EEPROM interface for ID keeping
- Low battery detector function for transmitter.

## 1.2 Software requirement

The keyboard, receiver and drivers are compatible with operating systems that are WIN98, Windows Millennium and Windows 2000. The driver-application also must meet all current and future Microsoft WHQL requirements.

## 2. Mechanical ID

# **Keyboard:**

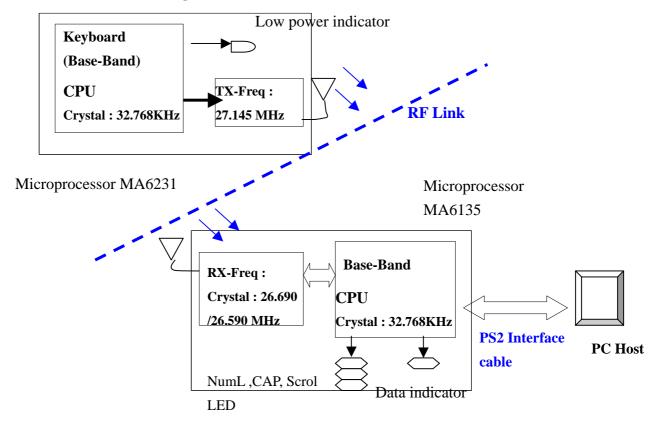


## **Receiver:**



# 3. Electrical Specification

## **Functional Block diagram:**



## 3.1 Keyboard Transmitter

## **Operating voltage**

The operating voltage range for keyboard is  $2 \sim 3.3$  Vdc.

There are 2 AA batteries providing 3.0V for operation f

## **Current consumption**

Typical current consumption is 8 mA, .Maximum at 10 mA Suspend current is about 80 uA.

## **Power consumption**

The power consumption is less than 0.024 W at operation mode and 240 uW at sleep mode.

#### **Low Power Indicator**

Low power indicator on the keyboard will be lit during hitting key when the battery voltage in the keyboard transmitter is less than about 2V.

## 3.1.1 Circuitry

## **PCB** Assembly

Microprocessor MA6231, MosArt 's Chip is applied. It's placed on the PCB main board. There is also an antenna connected to this PCB for transmitting RF signal.

### 3.1.2 Battery Life

The battery life under the operating condition of 10 keystrokes/sec continuous use is 80 hours for alkaline type and 30 hours for Zinc-Carbon type.

#### 3.1.3 Effective Transmission Distance

Effective transmission distance is 2 meters.

## 3.1.4 Features of keyboard

- This model contains easy access keys, including web. and multimedia keys.
- There is one LED on the keyboard for battery low power indication.
- It has a standard keyboard function with the language layout of US English version.
- ◆ Two AA batteries are to be installed at the bottom of the keyboard for operation.
- There is a channel selection button at the bottom side of keyboard.
- Single chip solution, imbedded DC-to-DC converter to prevent malfunction of low battery power, integrated RF components especially optimized for 27 MHz RF keyboard transmitter
- ◆ 32.768kHz main clock to reach a quite low power consumption.

## **Easy Acess Key Code Table**

Win2000 compatible, they are include, refer to table below: PS/2 Hot key

No	Usage Name / Key	Set1	Set1	Set2 Make	Set2 Break
	Name	Make	Break		
1	Scan Next Track	E0 19	E0 99	E0 4D	E0 F0 4D
2	Scan Previous Track	E0 10	E0 90	E0 15	E0 F0 15
3	Stop	E0 24	E0 A4	E0 3B	E0 F0 3B
4	Play / Pause	E0 22	E0 A2	E0 34	E0 F0 34
5	Mute	E0 20	E0 A0	E0 23	E0 F0 23
6	Volume Increment	E0 30	E0 B0	E0 32	E0 F0 32
7	Volume Decrement	E0 2E	E0 AE	E0 21	E0 F0 21
8	EMail Reader	E0 6C	E0 EC	E0 48	E0 F0 48

9	WWW Home	E0 32	E0 B2	E0 3A	E0 F0 3A
10	WWW Back	E0 6A	E0 EA	E0 38	E0 F0 38
11	WWW Forward	E0 69	E0 E9	E0 30	E0 F0 30
12	WWW Favorites	E0 66	E0 E6	E0 18	E0 F0 18
13	WWW Search	E0 65	E0 E5	E0 10	E0 F0 10
14	WWW Refresh	E0 67	E0 E7	E0 20	E0 F0 20

<sup>\*</sup>These controls are currently supported in Windows Me only.

#### 3.2 Receiver

## 3.2.1 Operating voltage

Voltage supplied to keyboard: 5+/-0.25 VDC

With ripple lower than 150mv, and capable of supply load current up to 100 mA with voltage drop less than 0.25 VDC

## **Current consumption**

Under nominal 5 VDC power supplied, typical current operating is 10 mA and 15 mA at maximum.

## **Power consumption**

Under normal operation, the power consumption of total unit will be less than

#### 3.2.2 Circuitry

**PCB Incl**ude a MosArt's microprocessor MA6135 (Keyboard + Mouse ) as a base band controller , two 3361 IF chips for RF receiving function and a EEPROM 93C46 for ID memory.

There are put on to a double side PCB.

#### Cable connector:

6 pin PS2 min-DIN connector compatible with IBM PS2 spec..

#### **LED** indicators

There are four indicators(green) on the receiver included NumLock ,CapLock,ScroLock and Receiving Data LEDs. The data indicator will be ON only when data is receiving from the transmitter.

## 3.3 Function description

#### 3.3.1 Interface specification with host PC

The keyboard Receiver uses IBM PS2 interface to PC host in data communication between them.

## 3.3.2 Operation

## **Battery Installation**

Installs two AA batteries to transmitter and connected the receiver with PC system, it's ready for connection procedure.

## Connection (ID Pairing) procedure

## **Procedure by steps**

**Step-1:**Pressing channel button on the transmitter one time first,

**Step-2:** Right away to press the channel button on the receiver at second and they Should be in connection between,

**Step-3:** Then go to the normal operate.

Note: preset in the production line as default setting before delivery

### **ID** change:

Same as the the procedure of "connection procedure".

## **Channel and ID numbers**

**Channel:** two channels including CH1 for keyboard(27.145mHZ) and CH2 For mouse (27.045mHz)

**ID:** There has a randomly 256 ID from for selection.

Note: The ID indication is to prevent from interfering each other.

End of SK-7360 User's Manual

#### FEDERAL COMMUNICATIONS COMMISSION

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.

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

#### **NOTE**

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 radiated 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.

#### Note:

This device and its antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.