

Circuit Description

1、 Basic Functions

KC076-22 is a low cost broadband access terminal for today's world of communications convergence and digital multimedia entertainment. It provides multimedia entertainment, High-speed broadband internet access, and work on the go!

It is equipped with various functions, such as electronic-book, MP3 play, Game player, enlarged PDA, and common business software such as web browsing, word processing, spreadsheets and more. Perfect for the light business traveler, student, and every kid wanting to enjoy the experience of exploring the world of broadband multimedia

2、 Product features

- Processor: RK2926 CORTEX A9
- Display: 7-Inch 800*480 resolution LCD digital screen, True color image display
- Input: Touch Screen and Soft Keyboard
- Sound card:inside the RK2926(U1F)
- Communication: Build in Wireless LAN adapter (802.11b/g/n) RF module 8188E
- System: Embedded operating system

3、 Circuit Description

1) power supply

DC 5V Power supply or battery, Power is converted to 5V Voltage through the U11 TPS659102(DC-DC),then through other DC-DC/LDO,After Power supply IC proceed voltage converted ,the power supply to the machine; At the same time DC 5V power supply can provide battery charging

2) Minimal System

U1 (RK2926) is CPU, Control the work of the various parts of machine

U2,U3 is DDR3 SDRAM, mainly responsible for the data cache

U4 is NAND FLASH, Primarily responsible for program files and data storage

3) Audio

Inside the RK2926 is Audio codec,135 AND 137 PIN OUTPUT Audio signal, through U13(TCS7191)and Zoom handling,through SPEAKER output; Supports MIC recording

4) USB

U1C(RK2926)is a kind of Multifunction-chip, USB jack j13 connect rk2926 U1C, Through J13 can interface with USB keyboard, U disk, mouse, USB device connection

5) DISPLAY

U28 is Display interface cable, can be connected to LCD Screen

6) TF CARD

J2 is TF card base, can store data via TF card

7)Touch panel control

U44 GSL1680 is touch panel control IC

Antenna: PCB antenna with gain 2.0dBi.

Modulation type: 11b: DSSS (CCK, QPSK, BPSK),11/5.5/3/2/1 Mbps (Dynamic), 11g: OFDM (64QAM, 16QAM, QPSK, BPSK)54/48/36/24/18/12/9/6 Mbps (Dynamic), Frequency Range: 2.412-2.462GHz

Input Voltage: 5V powered by power adapter or 3.7V powered by Lion Battery

RTL-8188EUS

Product Specification

1 General Description

RTL-8188EUS product Accord with FCC CE and is 150 wireless USB adapter which has lower power consumption, high linearity output power, accords with IEEE802.11B/G/N, and supports IEEE802.11i safety protocol, along with IEEE 802.11e standard service quality. It connects with other wireless device which accorded with these standards together, supports the new data encryption on 64/128 bit WEP and safety mechanism on WPA-PSK/WPA2-PSK, WPA/WPA2. Its wireless transmitting rate rises 150M, equivalent to 10 times of common 11b product. The inner AI high gain ceramics antenna adapts different kinds of work environment. It's easy and convenient to link to wireless network for the users using desktop, laptop and other device that needs connect to wireless network.

2 The range of applying

MID, networking camera, STB GPS, E-book, Hard disk player, Network Radios, PSP, etc, the device which need be supported by wireless networking.

3 Features

Feature	Implementation
Power supply	VCC_3.3V +/-0.2V
Clock source	40MHz
Temperature range	Work temperature:-20°C ---70°C Storage temperature -55°C ~ +125°C
Package	SMT 6 pins
WLAN features	
General features	<ul style="list-style-type: none">■ CMOS MAC, Baseband PHY, and RF in a single chip for IEEE 802.11b/g/n compatible WLAN■ Complete 802.11n solution for 2.4GHz band■ 72.2Mbps receive PHY rate and 72.2Mbps transmit PHY rate using 20MHz bandwidth■ 150Mbps receive PHY rate and 150Mbps transmit PHY rate using 40MHz bandwidth

	<ul style="list-style-type: none"> ■Compatible with 802.11n specification ■Backward compatible with 802.11b/g devices while operating in 802.11n mode
Host Interface	Complies with USB Specification Revision 2.0
Standards Supported	<ul style="list-style-type: none"> ■IEEE 802.11b/g/n compatible WLAN ■IEEE 802.11e QoS Enhancement (WMM) ■IEEE 802.11h TPC, Spectrum Measurement ■802.11i (WPA, WPA2). Open, shared key, and pair-wise key authentication services
WLAN MAC Features	<ul style="list-style-type: none"> ■Frame aggregation for increased MAC efficiency (A-MSDU, A-MPDU) ■Low latency immediate High-Throughput Block Acknowledgement (HT-BA) ■PHY-level spoofing to enhance legacy compatibility ■Power saving mechanism ■Channel management and co-existence ■Transmit Opportunity (TXOP) Short Inter-Frame Space (SIFS) bursting for higher multimedia bandwidth
WLAN PHY Features	<ul style="list-style-type: none"> ■IEEE 802.11n OFDM ■One Transmit and one Receive path (1T1R) ■20MHz and 40MHz bandwidth transmission ■Short Guard Interval (400ns) ■DSSS with DBPSK and DQPSK, CCK modulation with long and short preamble ■OFDM with BPSK, QPSK, 16QAM, and 64QAM modulation. Convolutional Coding Rate: 1/2, 2/3, 3/4, and 5/6 ■Maximum data rate 54Mbps in 802.11g and 150Mbps in 802.11n ■Switch diversity for DSSS/CCK ■Hardware antenna diversity ■Selectable receiver FIR filters ■Programmable scaling in transmitter and receiver to trade quantization noise against increased probability of clipping Fast ■receiver Automatic Gain Control (AGC) ■On-chip ADC and DAC