



Version 1.0



(color optional)

1.PRODUCT DESCRIPTION

The Minibox-V2.0 is an exquisite portable and small wireless router which designed for those who use mobile devices like smart phone, PADs, notebook to surf the internet. The Router has 2 FE RJ45 ports which support both wired connection and wireless connection at the same time. It allows users not only able to share their internet by wired connection but also wireless connection.

The MINIBOX-V2.0 Wi-Fi link is a 1T1R 802.11b/g/n solution. The Wi-Fi link is highly integrated, and includes an energy efficient on-board power amplifier and LNA. For the 2.4 GHz band, RF switches are also integrated. The MINIBOX-V2.0 Wi-Fi link is optimized for low system cost, and minimizes the number and cost of any components required to achieve a reliable Wi-Fi link.

2. Features

2.1 Wi-Fi Link features:

IEEE 802.11n, Single Stream 1x1

MT7688AN with 580 MHZ MIPS 24KEc

B/G/N 2.4 GHz

Integrated PA, LNA

Built-in smart omnidirectional antenna

Data rates up to 150 Mbps

Powered through a micro USB port by an external power adapter or connection to a computer

Supports WEP, WPA/WPA2, WPA-PSK/WPA2-PSK encryptions

2.2 System cost optimization

Highly-Integrated Wi-Fi solution incorporating a single crystal, antenna, and the matching components ,two 10/100Mbps port,1USB port,1Reset Button,1Micro USB(5V/0.5A Input)

Integrated IPv4/IPv6 TCP/IP Stack

Integrated Network services such as HTTP, DNS, FTP

DDR2:64MB

Flash:16M/8MB optional

Dimensions: 64mm x 44.5mm x22.3mm(L x W x H)

3.PRODUCT SPECIFICATIONS

Main chipset :WiFi Single Chip: MT7688A

Functional Specifications

Standards	IEEE 802.11 b/g/n
Bus Interface	UART ; SPI ; USB2.0
Data Rate	11n: Up to 135Mbps(dynamic) 11g: Up to 54Mbps(dynamic) 11b: Up to 11Mbps(dynamic)
Modulation Techniques	802.11b: CCK, DQPSK, DBPSK 802.11g: 64 QAM, 16 QAM, QPSK, BPSK 802.11n: 64 QAM, 16 QAM, QPSK, BPSK
Network Architecture	Ad-hoc mode (Peer-to-Peer) Infrastructure mode Software AP WiFi Direct
Frequency Range	2.400GHz ~ 2.4835 GHz
Security	WPA, WPA-PSK, WPA2, WPA2-PSK, WEP 64bit & 128bit, IEEE 802.11x, IEEE 802.11i

4.Power Supply DC Characteristics

DC Characteristics

model	Voltage	Current ption (linking)
Minibox V2.0	5V	Power consumption (surf the Internet or watching a movie)

5. Electrical Specifications

1) RF Characteristics for IEEE802.11b (11Mbps mode unless otherwise specified)

Items	Contents			
Specification	IEEE802.11b			
Mode	CCK 11 Mbps			
Channel frequency	2412 ~ 2484 MHz			
RX (per \leq 85 dBm@8%)	-85 dBm			
TX Characteristics	Min.	Typ.	Max.	Unit
Power Level (17 ± 2 dBm)		17		dBm
EVM (≤ -15)		-15		dB

2) RF Characteristics for IEEE802.11g (54Mbps mode unless otherwise specified)

Items	Contents			
Specification	IEEE802.11g			
Mode	OFDM 54 Mbps			
Channel frequency	2412 ~ 2484 MHz			
RX (per \leq 70 dBm@10%)	-70 dBm			
TX Characteristics	Min.	Typ.	Max.	Unit
Power Level (15 ± 2 dBm)		15		dBm
EVM (≤ -28)		-28		dB

3) RF Characteristics for IEEE802.11n (HT20_MCS7)

Items	Contents			
Specification	IEEE802.11n (BW20_MCS7)			
Mode	OFDM 65 Mbps			
Channel frequency	2412 ~ 2484 MHz			
RX (per \leq 65 dBm@10%)	-65 dBm			
TX Characteristics	Min.	Typ.	Max.	Unit
Power Level (15 ± 2 dBm)		15		dBm
EVM (≤ -28)		-28		dB

4) RF Characteristics for IEEE802.11n (HT40_MCS7)

Items	Contents			
Specification	IEEE802.11n (BW40_MCS7)			
Mode	OFDM 135 Mbps			
Channel frequency	2412 ~ 2484 MHz			
RX (per \leq 65 dBm@10%)	-65 dBm			

TX Characteristics	Min.	Typ.	Max.	Unit
Power Level (14 ± 2 dBm)		14		dBm
EVM (≤ -28)		-28		dB

6.Mechanical

Dimensions (mm)	Length	Width	Height
	64 (Tolerance: ± 0.2 mm)	44.5 (Tolerance: ± 0.2 mm)	22.3 (Tolerance: ± 0.2 mm)

7.ENVIRONMENT

Certification	CE FCC, RoHS,
System Requirements	Microsoft® Windows® 98SE, NT, 2000, XP, Vista™ or Windows 7, MAC® OS, NetWare®, UNIX® or Linux
Environment	Operating Temperature: $0^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ($32^{\circ}\text{F} \sim 104^{\circ}\text{F}$)
	Storage Temperature: $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 158^{\circ}\text{F}$)
	-Operating Humidity: 10%~90% non-condensing Storage Humidity: 5%~90% non-condensing