

# **MaxComm**

## **4G LTE INDOOR CPE ROUTER**

**MODEL : WR-111**



**MaxComm Co.,Ltd**

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# Purpose and Scope

The purpose of this document is to define product specification of LTE with 3GPP release 9 compliant Indoor CPE.

It describes the HW and SW requirements of the following products:

Company	Model Name	Product Name
<b>MaxComm</b>	<b>WR-111</b>	<b>LTE Indoor CPE</b>

## Product Features

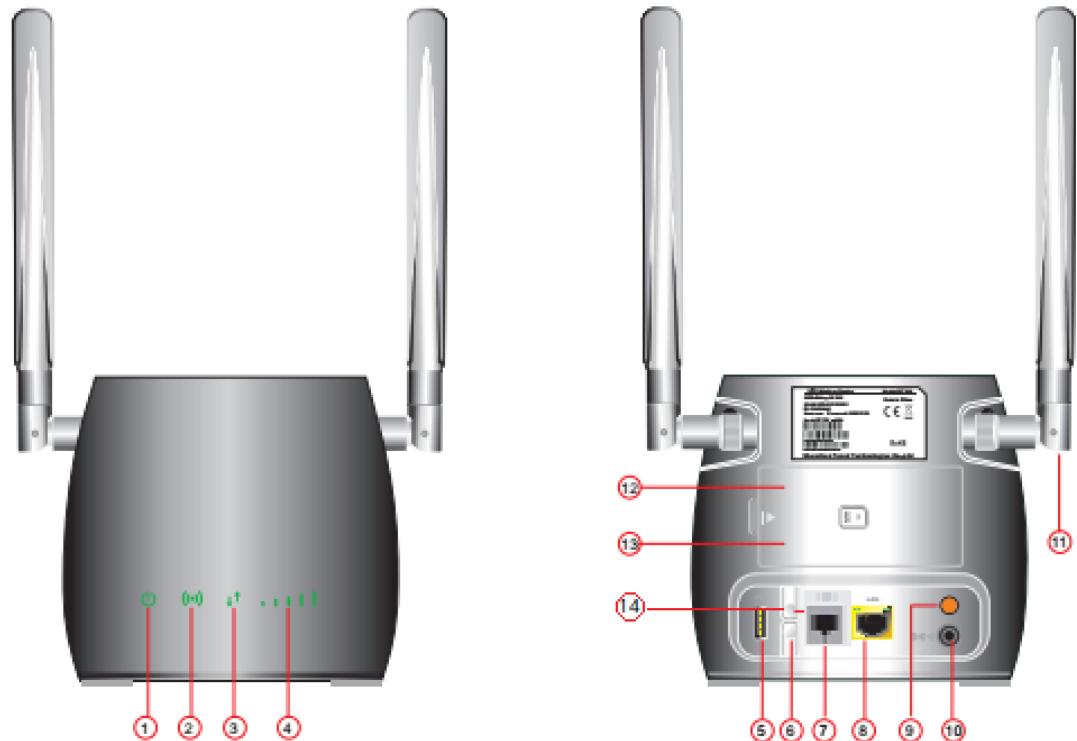
- Support TDD-LTE
- Support FDD-LTE
- Support 3GPP Release 9 compliant
- Support MIMO2\*2 1TX/2RX
- Support UE Category 4
- Support QoS service flow initiated by CPE
- Support Dynamic Host Configuration Protocol
- Support Built-in web server for web-based configuration
- Support Password protected access and configuration
- Support IEEE 802.11b/g/n
- Support IEEE 802.3, IEEE 802.3u
- Support RJ45(Ethernet)
- Support LED indicators
- Support USIM Slot
- Support LTE External Antenna
- Support RJ11
- Support VoLTE/VOIP/CSFB

## General Specification

No.	Feature	Description	Comments
	LTE BB ASIC	ZX297520V3	ZTE
	LTE RF ASIC	ZX234220A1	ZTE
	Flash	1Gb	
	SDRAM	1Gb	
	WIFI	RTL8192ES	Realtek
	Ethernet LAN port	1*10/100 auto-sensing, auto-MDX	
	LED Indicators	Signal Strength / LTE/WIFI/ETH/POWER	

	Button	Reset 、 WPS 、 WIFI	
	Power supply	Input: Universal range 100~240VAC Output: 12V/1A	

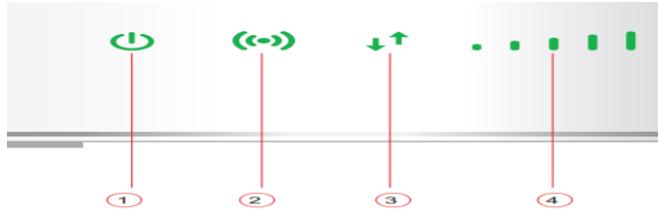
## ID design



1	POWER LED	2	WIFI LED
3	LTE LED	4	Signal Strength LED
5	USB Port	6	WIFI Button
7	Voice Port	8	LAN Port
9	POWER KEY	10	DC POWER
11	Antenna	12	SIM Slot(Under the SIM cover)
13	SIM Cover	14	WPS Button

Physical Size	Description
Size	130x120x52(mm)
Weight	220g (Without Battery)

# Unit Interface

Connector	Description
LAN – RJ 45	The LAN port allows you to connect Modem to PC
RJ11	Support CPE own voice
USIM Slot	Support standard 1.8V /3.3V
SMA Interface	Support LTE external antennas
LED	

# LTE Radio Specification

No.	Feature	Capability				Comments
		min	type	max	Units	
1	Supported LTE Bands	FDD: 1/3/7/20				Customization
2	Channel Band Width	1.4/3/5/10/15/20			MHz	Bandwidth supported follow the 3GPP
3	Channel Step Size	100			kHz	
4	Output Power optional		23		dBm	
5	Modulation	UP: QPSK/16QAM				
6		DOWN: QPSK/16QAM/64QAM				

# Environmental Specification

No.	Feature	Capability				Comments
		min	Type	max	units	
1	Operating temperature	0		40	°C	
2	Storage temperature	-20		85	°C	
3	Operating humidity	5		95	%	
4	Storage humidity	5		95	%	

## Regulatory Specification

No.	Feature	Requirement Specification	Comments
1	Radio	CE	Follow CE regulatory
2	Safety	CE	Follow CE regulatory
3	EMC	CE	Follow CE regulatory

## Reliability Specification

No.	Feature	Requirement Specification	Comments
	MTBF	300,000 @ 55 °C	

## LTE Capability

No	Feature	Status	Comments
1	3GPP Release 9	Ready	
2	2x2 MIMO	Ready	
3	UE Cat 4	Ready	
4	Inbuilt and External Antennas Auto Switch	Ready	

## Networking Security

No	Feature	Status	Comments
1	User Name/Password configuration	Ready	
2	Firewall	Ready	
3	Port Forwarding	Ready	
4	DMZ	Ready	

## Wi-Fi Specification

No	Feature	Status	Comments
1	Network Name (SSID)	Ready	
2	SSID Broadcast Enable	Ready	
3	Operating Frequency	Ready	
	2.412 GHz~2.472GHz		
4	Adaptive / non-adaptive equipment	Ready	
	Adaptive Equipment		

5	Antenna Type/Gain	Ready	
	PCB Antenna /4.33dBi		
6	Support Channels	Ready	
	13 Channels (iEEE802.11b/g/n)		
	01:2412MHZ 03:2422MHZ 04:2427MHZ 06:2437MHZ 07:2442MHZ 09:2452MHZ 10:2457MHZ 12:2467MHZ 13:2472MHZ	02:2417MHZ 05:2432MHZ 08:2447MHZ 11:2462MHZ	
7	802.11 Mode selection	Ready	
	● 802.11b	Ready	
	● 802.11g	Ready	
	● 802.11n – 20MHz	Ready	
	● 802.11n – 40MHz	Ready	
	● 802.11b+g+n mode – This is the Factory Default option	Ready	
8	Security	Ready	
	● Open (Unsecured)	Ready	
	● WPA/WPA2-PSK(TKIP)-ASCII string, 8 to 63 characters in length	Ready	
	● WPA/WPA2-PSK(AES) – ASCII string, 8 to 63 characters in length	Ready	
9	WIFI TX power output (dBm) (Max)	Ready	
	● 18dBm		
10	Maximum work range in open ground	90 meters	

## System/Debug Utility

No	Feature	Status	Comments
1	Power Switch	Ready	
2	Software reset button	Ready	
3	LED for LTE Link Diagnostic	Ready	
4	System log	Ready	
5	Firmware Verification	Ready	
6	Diagnostic & Monitoring	Ready	