

UniStrong

UT50

Quick Start Guide

Unpacking

1. One UT50 Fully Rugged Windows Tablet Unit
 2. Two Battery Packs
 3. One AC Adapter
 4. Power Cord (US/EU)
 5. One Digitizer Pen
 6. One Hand Strap
- NOTE: This package does not include headset.

Front and Rear Views



A: Double Channel Speakers

B: Light Sensor

C: Front Camera

D: Microphone

E: Front Camera Indicator LED

F: Four Status Indicator LEDs

Power LED

- Green ON-----When UT50 is powered on
- Green Blinking----When UT50 is in sleep mode

HDD LED

- ON-----When there is HDD activity
- OFF-----When there is no HDD activity

Battery A LED

- OFF-----No Battery A or not charging
- Red ON-----Battery A is charging
- Green ON-----Battery A is fully charged
- Green blinking every 2 seconds-----Battery A is over charged, system will stop charging.
- Green blinking every 4 seconds----- Battery A charging temperature is above specifications, please unplug the AC adapter and stop charging immediately.
- Red blinking every 2 seconds-----Battery A capacity is below 10%
- Red blinking every 4 seconds-----Battery A operating temperature is above specifications, shut down UT50 immediately and wait for the temperature recovery between -20°C and 55°C

Battery B LED

- OFF-----No Battery B or not charging
- Red ON-----Battery B is charging
- Green ON-----Battery B is fully charged
- Green blink every 2 seconds-----Battery B is over charged, system will stop charging.
- Green blink every 4 seconds----- Battery B charging temperature is

above specifications, please unplug the AC adapter and stop charging immediately.

- Red blink every 2 seconds-----Battery B capacity is below 10%
- Red blink every 4 seconds-----Battery B operating temperature is beyond scope, please shut down UT50 immediately and wait the temperature recovery between -20°C and 55°C.

G: Keys

Power ----- Power on or Shutdown UT50

Volume Up ----- Increase Volume

Volume Down ----- Decrease Volume

Windows ----- Return to desktop

Light Key ----- On or Off back light LED

F1 ----- Function Key 1, increase brightness (Default setting)

F2 ----- Function Key 2, decrease brightness (Default setting)

H: 10.1 Display

I : 3.5 mm headphone out / Mic-in Combo

J: USB 2.0 port

K: HDMI type A

L: Expansion 1, RJ45 LAN default

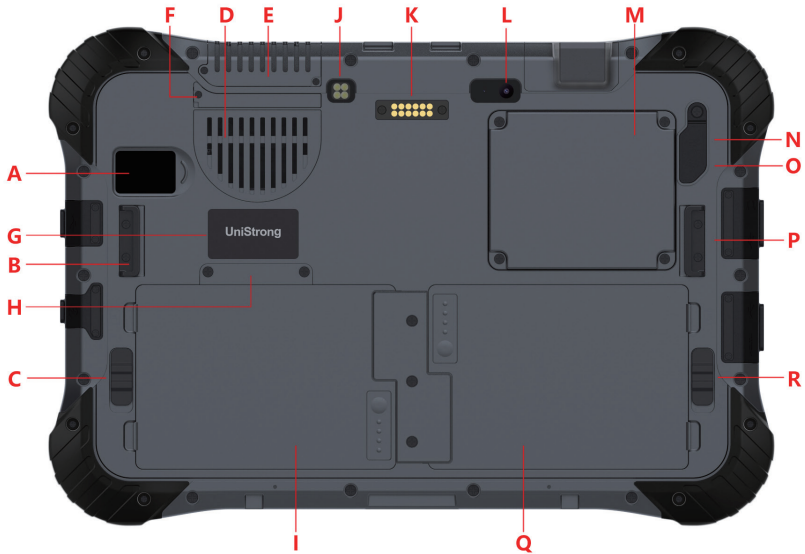
M: USB 3.0 port

N: DC-In slot

O: Kensington lock

P: Mounting slot

Q: 35 pin Expansion Bus Connector



A: Fingerprint

B: Hand Strap Mounting

C: Battery A Locking Latch

D: Ventilation Holes (Intake)

E: Ventilation Holes (Exhaust)

F: Dust Cover

G: Nameplate

H: Nano SIM Card and MicroSD Card Slot

I: Battery A

J: LED Light

K: 12-pin Back Pogo-pin

L: Rear Camera

M: Expansion 2, NFC Antenna (Default)

N: External GNSS Antenna Connector

O: Remote WIFI Antenna Connector

P: Hands Straps Mounting

Q: Battery B

R: Battery B Locking Latch

Installing Nano SIM and MicroSD Cards

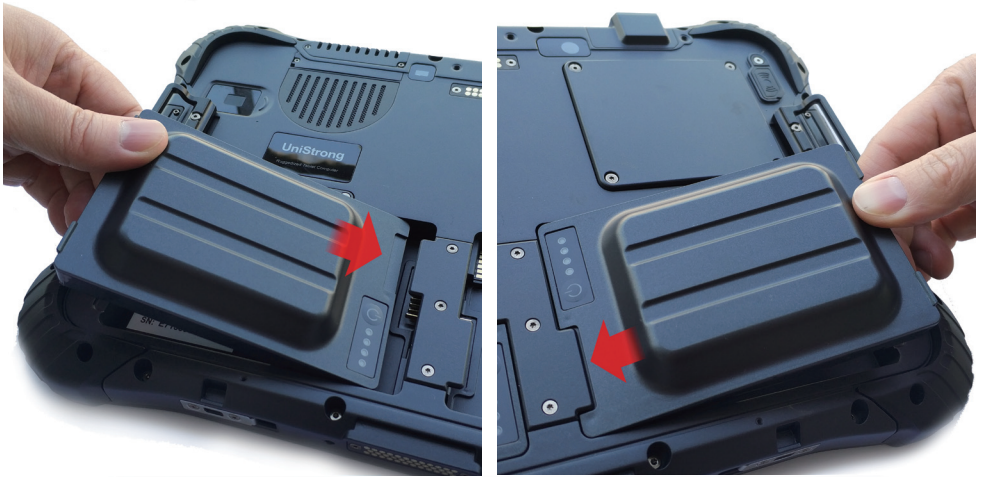
- Remove Battery A and you can see two logos in the battery compartment. The left slot is for MicroSD card and the right slot is for Nano SIM card.
- You can use a T6 screwdriver to remove the two screws below the nameplate.
- Remove the cover to access the card slots.
- Insert MicroSD card to the left slot.
- Insert Nano SIM card to the right slot.



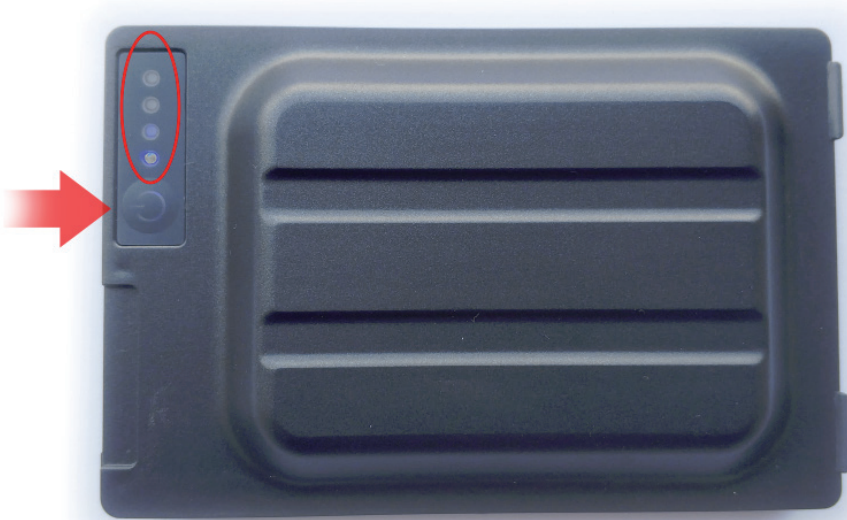
Installing Battery Packs

Turn over the computer and insert the battery packs into the battery compartments to a secured seated position.

- Ensure no foreign objects are under the computer.
- Ensure that the battery locking latch is in locked position. Otherwise, the battery packs may drop during operation.
- Do not touch the terminals of the battery packs and computer.
- Doing so may cause damage or dirty the terminals and result in computer or battery malfunction.



Note: There is a button and four LEDs on the battery. The LEDs will indicate battery capacity when you give the button a short press.



If there is no LED light, it indicates no power in battery.

If there is one LED light, it indicates very low power in battery.

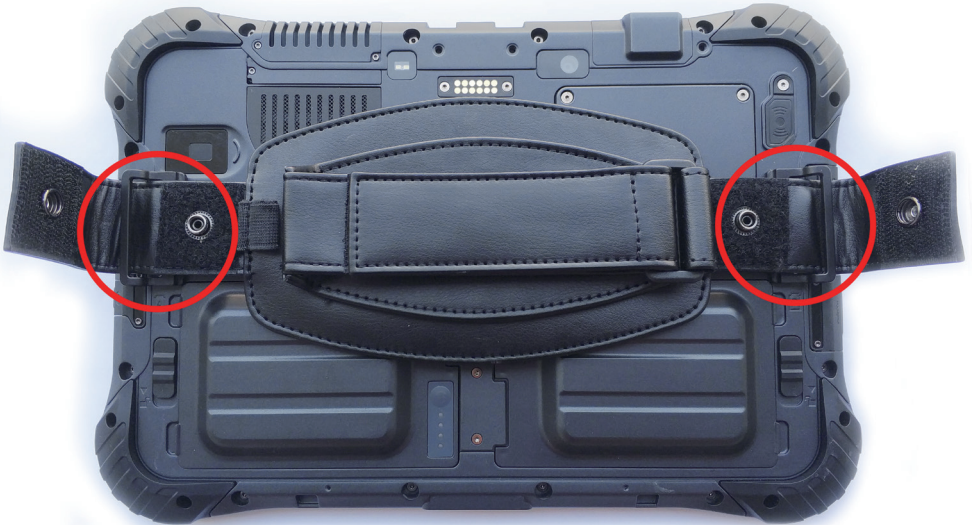
If there are two LED lights, it indicates power is below 50%.

If there are three LED lights, it indicates power is more than 50%.

If there are four LED lights, it indicates almost full power in the battery.

Installing Hand Strap

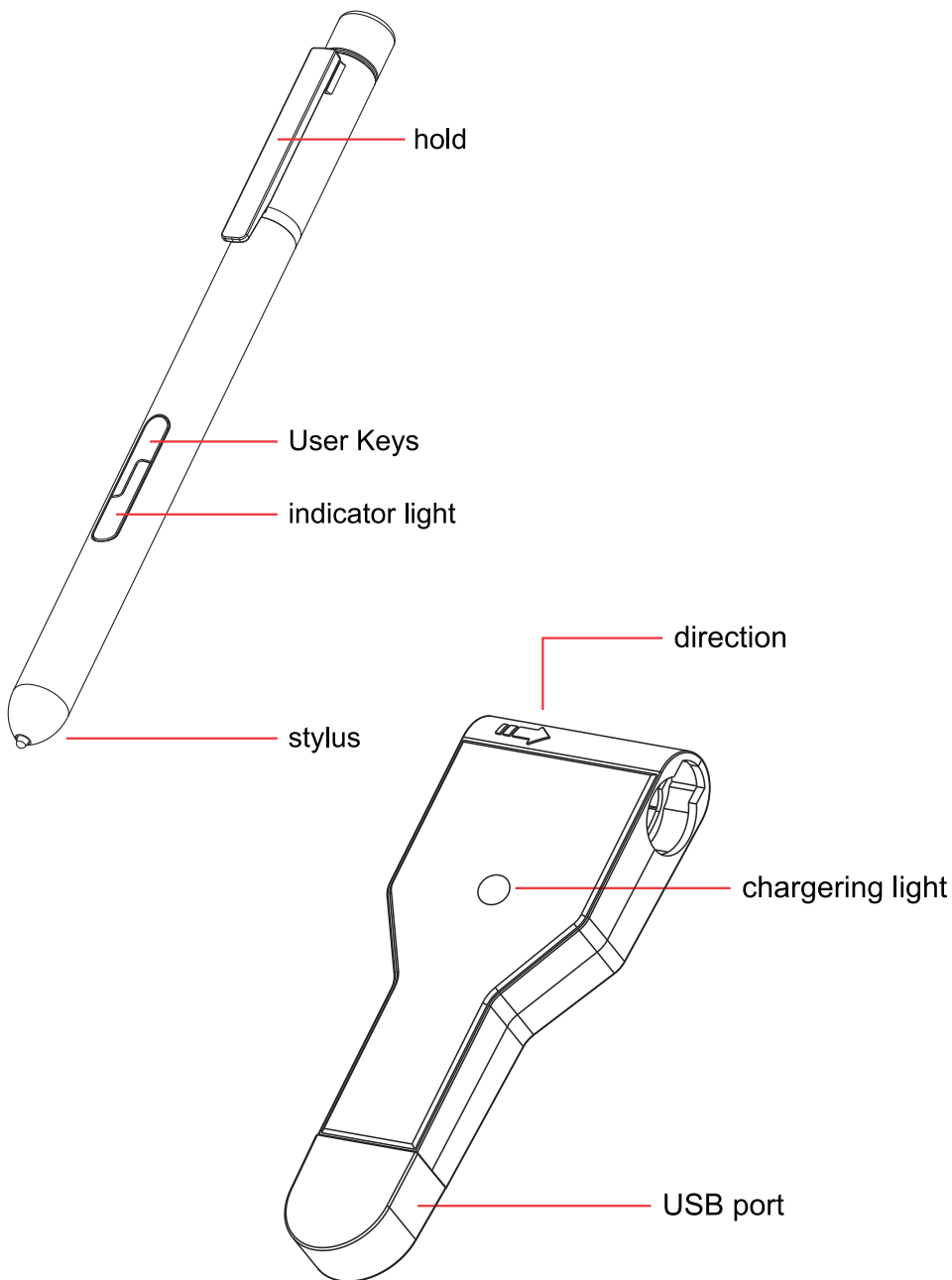
Install hand strap as shown below.



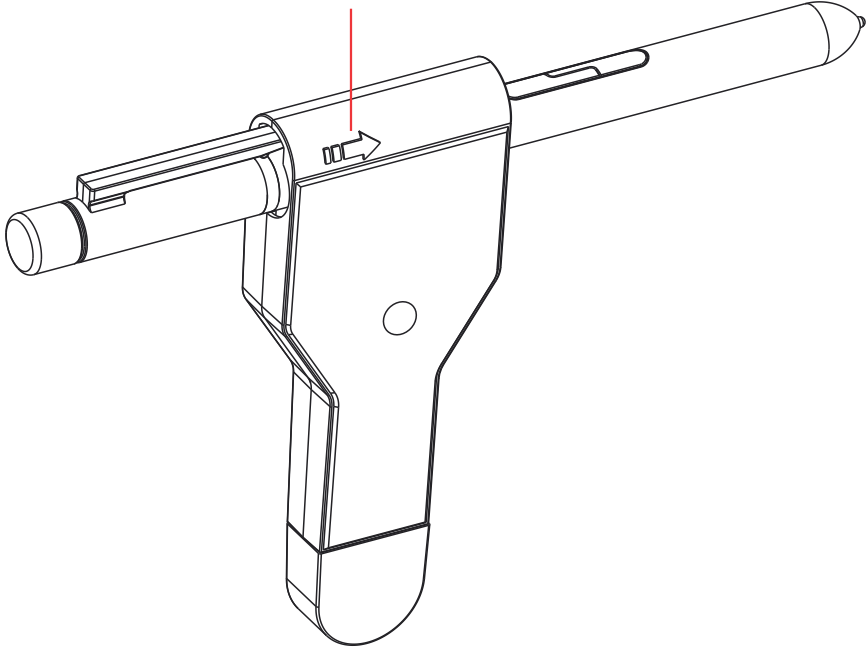


Digitizer Pen

Install hand strap as shown below.



insert the stylus to the charger follow this direction



Stylus Indicator Light (Operational)

Red ----- Low Voltage.

Blue ----- Normal operational state.

Stylus Indicator Light (Charging)

Red ----- Charging when connected to power outlet.

Off ----- Fully Charged.

NOTE:

- a. The stylus must be charged using the original charger. **DO NOT ATTEMPT** to charge using other third party chargers.
- b. Please follow the instructions to ensure that the stylus is plug in the right direction.
- c. For safety concerns, the stylus cannot be used during charging.

First-time Power On

- Charging the Batteries before First Use

Connect the AC power adapter to the power connector of UT50. Use the correct power cord to connect to a power outlet.

- Turning on UT50

Press and hold the power button until the power indicator lights up. Do not press repeatedly or hold for more than four seconds.

- Entering/Exiting Sleep mode

When UT50 is in power on mode, press the power button once. The display will be off and power LED will start blinking. The system enters into sleep mode.

When UT50 is in sleep mode, press the power button once. The display will be on and power LED will be on. The system has exited sleep mode.

- Turning off UT50

You can shut down UT50 using the Start menu of Windows.

[Start]->[Power]->[Shut down]

UT50 will display the power off screen and power LED will be off after a few seconds. The system will shut down completely.

PRODUCT SAFETY WARNINGS

Use responsibly. Read all instructions and safety information before use to avoid injury. The maximum operating ambient temperature of the equipment is 55°C.

- **Battery safety**

Battery works at ambient temperatures ranging from -20°C to 55°C.

(1)CAUTION: Risk of explosion if battery is replaced incorrectly. Replace with the same or equivalent type of battery as recommended by the manufacturer. Dispose used batteries according to battery manufacturer's instructions.

Note: Charging temperature specifications is from 0°C to 45°C.

- **Charger safety**

Please place the device in an environment that has a normal room temperature with good ventilation when charging. It is recommended to charge the device in an environment with an ambient temperature that ranges from 5°C~40°C

- **Wi-Fi Safety**

Turn Wi-Fi off in areas where Wi-Fi use is prohibited or when it may cause interference or danger, such as in airplanes while flying.

- **Avoid damage to your hearing**

Exposure to loud volumes from earphones and headphones over prolonged periods can cause hearing loss.

Notice

1. Some special places, such as airports, hospitals, gas stations and other places, do not allow the use of electronic equipment. Please comply with the rules and do not use this product in these places.
2. For your safety and the safety of others, please do not use this product while driving a vehicle.
3. In order to avoid potential safety problems, do not put this product near the vehicle's airbag.
4. For your safety, please do not use this product during thunderstorms.
5. Although this product is waterproof, do not leave this product for long periods of time in areas with water or moisture.
6. This product has an operating temperature range of $-20^{\circ}\text{C}\sim+55^{\circ}\text{C}$ and a storage temperature range of $-40^{\circ}\text{C}\sim+70^{\circ}\text{C}$. Extreme temperatures can affect the device's performance and service life.
7. Please use an original rechargeable lithium battery. Low-quality batteries will affect the performance and service life of the device, and may even have the danger of explosion.
8. Although the product has been tested to withstand harsh operating environments, do use the product in an improper manner.
9. Please do not disassemble this product. In case of failure, please send to our authorized service centres to proceed with repairs.
10. After the device has reached the end of its service life, please discard in a proper way to avoid environmental pollution.
11. When replacing the battery or during the use of an external power supply, shut down the device completely before removing the battery or disconnecting the external power supply to prevent damage.
12. This product is a Class B product, which may cause radio interference. The user may be required to take necessary preventive measures.
13. Only use AC adaptor with 3-pin and 2-pin detachable pin for Singapore.

Battery Instructions

1. This product uses a rechargeable lithium battery as a power source. When the power is low, please charge the battery. To maintain battery life, it is recommended to deplete the battery's power before charging.
2. When the battery charger is not in use, please remove it from the power supply. Do not connect the charger to the battery for more than one week. Excessive charging will shorten the battery life.
3. Temperature affects the battery charging limit. Therefore, the battery may need to be cooled or warmed up before charging.
4. Please use the battery for its original intended purpose to prevent short-circuiting the battery. A short circuit will occur when a conductive material connects the battery's positive and negative terminals.
5. Do not use a battery that is damaged.
6. Placing the battery in extremely cold or hot places will lead to shortened battery life. Exposing the battery to extreme temperatures may cause the phone to malfunction, even if the battery is fully charged.
7. Do not put the battery in a fire. Please discard the battery in a proper manner or take the battery to a battery recycling station. Please dispose waste batteries in accordance with local laws and regulations.

NOTICE:

The SAR limit of Europe is 2.0 W/kg. Device types UT50 has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use on the body is 0.675W/kg. This device was tested for typical body - worn operations with the back of the handset kept 0 cm from the body. To maintain compliance with RF exposure requirements, use accessories that maintain a 0 cm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided.

Working Temperature: -20°C ~ +55°C Storage Temperature: -40°C ~ +70°C

Charging mode need to operate indoors, please pay attention to the environment temperature should be 0°C ~ +45°C

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

Hereby, [Shenzhen UniStrong Science & Technology Co.,Ltd.] declares that the radio equipment type [UT50] is in compliance with Directive 2014 / 53 /EU.

The full text of the EU declaration of conformity is available at the following internet address: <http://en.unistrong.com/declaration.html>

This device complies with Part 22 & 24 and Part 27 of the FCC Rules.

SAR INFORMATION

The SAR limit of FCC and ISED is 1.6 W/kg averaged over one gram of tissue. Device types UT50 (FCC ID:2AOPD-UT50 and IC: 11546A-UT50) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use on the body is 1.248 W/kg. This device was tested for typical body -worn operations with the back of the handset kept 0 cm from the body. To maintain compliance with FCC and ISED RF exposure requirements, use accessories that maintain a 0 cm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC and ISED RF exposure requirements, and should be avoided.

NOTICE:

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

NOTICE:

Changes or modifications made to this equipment not expressly approved by Shenzhen UniStrong Science & Technology Co.,Ltd. may void the FCC authorization to operate this 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 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.

NOTICE:

This Class [B] digital apparatus complies with Canadian ICES -003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB - 003 du Canada. RF mode and power tune-up refer to appendix A

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NOTICE: This device is restricted to indoor use where operated in the European Community and Canada using frequency in 5150MHz ~ 5250MHz to reduce the potential for interference. Restriction in BE, BG, CZ, DK, DE, EE, IE, EL, ES, FR, HR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, UK.



Do not change antenna types ,just only allowed to use Original configuration antenna (PIFA)

Antenna Type

PIFA Antenna

Antenna Gain

WCDMA/HSDPA/HSUPA Band : 2 dBi

LTE FDD Band : 2 dBi

wifi and BT 2400-2483.5MHz 1.57dBi

wifi (5150-5250MHz) (5725-5850MHz) 2.01dBi

Power class :

WCDMA/HSDPA/HSUPA Band 1: 3

WCDMA/HSDPA/HSUPA Band 3: 3

WCDMA/HSDPA/HSUPA Band 8: 3

LTE FDD Band 1: 3

LTE FDD Band 3: 3

LTE FDD Band 7: 3

LTE FDD Band 8: 3

LTE FDD Band 20: 3 LTE FDD

WCDMA Release 6 ; LTE Release 8

NFC : 13.56MHz/ Power class 4 / Modulation type: ASK / antenna gain : 0dBi

WCDMA band 1 (1922.4MHz---1977.6MHz)

WCDMA band 3 (1712.4MHz---1877.6MHz)

WCDMA band 8 (882.4MHz---957.6MHz)

LTE BAND 1 (1922.5---1977.5)MHz

LTE BAND 3 (1710.7---1784.3)MHz

LTE BAND 7 (2502.5---2567.5)MHz

LTE BAND 8 (880.7---914.3)MHz

LTE BAND 20 (834.5---859.5)MHz

Normal Mode RF Power Range (WCDMA)

Mode	Range(dBm)
WCDMA Band I RMC	22.00-23.00
HSDPA Band I	20.50-22.50
HSUPA Band I	20.00-22.50
WCDMA Band III RMC	23.00-23.50
HSDPA Band III	21.00-22.50
HSUPA Band III	20.00-22.50
WCDMA Band VIII RMC	22.00-23.00
HSDPA Band VIII	20.50-21.50
HSUPA Band VIII	19.80-21.50

Normal Mode RF Power Range (LTE)

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 1	20 MHz	1	QPSK	22.00-23.00
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	21.00-22.10
		50		19.50-20.50
		100		20.00-21.00
	15 MHz	1	QPSK	21.50-22.70
		36		20.00-22.00
		75		20.00-21.50
		1	16QAM	20.00-22.00
		36		19.00-21.00
		75		19.00-20.50
	10 MHz	1	QPSK	20.50-23.00
		25		21.00-21.70
		50		20.90-21.70
		1	16QAM	20.50-22.00
		25		19.50-21.00
		50		20.00-21.00
	5 MHz	1	QPSK	22.00-23.00
		12		21.00-22.00
		25		21.00-22.00
		1	16QAM	20.00-22.00
		12		21.00-21.00
		25		21.00-21.00
LTE Band 3	20 MHz	1	QPSK	22.00-23.00
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	21.50-22.60
		50		20.00-21.00
		100		20.00-21.00
	15 MHz	1	QPSK	22.00-23.00
		36		21.00-22.00
		75		21.00-22.00

		1	16QAM	21.00-22.50	
		36		20.00-21.00	
		75		20.00-21.00	
	10 MHz	1	1	QPSK	22.00-23.10
			25		21.50-22.00
			50		21.50-22.00
		25	16QAM	1	21.50-22.50
				25	20.50-21.00
				50	20.50-21.00
	5 MHz	1	1	QPSK	22.00-23.00
			12		21.00-22.00
			25		21.00-22.00
		12	16QAM	1	21.00-22.50
				12	20.50-21.00
				25	20.00-21.00
	3 MHz	1	1	QPSK	22.00-23.00
			8		21.00-22.00
			15		21.00-22.00
		8	16QAM	1	21.00-22.50
				8	20.00-21.00
				15	20.00-21.00
	1.4 MHz	1	1	QPSK	22.00-23.00
			3		22.00-23.00
			6		21.00-22.00
3		16QAM	1	21.00-22.50	
			3	21.00-22.00	
			6	20.00-21.00	
LTE Band 7	20 MHz	1	QPSK	21.20-22.00	
		50		20.20-21.00	
		100		20.30-21.00	
		50	16QAM	1	20.50-21.40
				50	19.30-19.70
				100	19.30-19.70
	15 MHz	1	1	QPSK	21.10-21.70
			36		22.20-22.75
			75		20.20-20.60

		1	16QAM	20.00-21.10		
		36		19.10-19.75		
		75		19.10-19.65		
	10 MHz	1	QPSK	21.20-21.80		
				25	20.10-20.80	
				50	20.20-20.70	
		25	16QAM	20.30-21.40		
				19.10-19.80		
				19.20-19.75		
	5 MHz	1	QPSK	21.40-22.00		
				12	20.20-20.75	
				25	20.10-20.65	
		12	16QAM	20.60-20.95		
				19.50-19.80		
				19.10-19.70		
	LTE Band 8	10 MHz	1	QPSK	21.50-23.00	
					25	21.00-22.00
					50	21.00-21.50
25			16QAM	20.50-22.00		
				20.00-21.00		
				20.00-20.50		
5 MHz		1	QPSK	21.00-23.00		
				12	21.50-22.00	
				25	21.00-21.50	
		12	16QAM	20.50-22.50		
				20.00-21.00		
				20.00-21.00		
3 MHz		1	QPSK	21.40-22.60		
				8	21.50-22.00	
				15	21.00-21.50	
		8	16QAM	20.50-22.00		
				19.50-20.60		
				20.00-21.00		
1.4 MHz	1	QPSK	21.00-22.60			
			3	21.00-22.50		
			6	20.50-21.50		

		1	16QAM	20.00-22.00
		3		20.50-22.00
		6		19.50-20.60
LTE Band 20	20 MHz	1	QPSK	22.00-23.00
		50		21.00-22.00
		100		21.00-21.50
		1	16QAM	21.00-22.50
		50		20.00-20.50
		100		20.00-20.50
	15 MHz	1	QPSK	22.00-22.00
		36		21.00-21.50
		75		21.00-21.50
		1	16QAM	21.00-22.00
		36		20.00-20.50
		75		20.00-20.50
	10 MHz	1	QPSK	22.00-23.00
		25		21.00-21.50
		50		21.00-21.50
		1	16QAM	21.00-22.00
		25		20.00-21.00
		50		20.00-21.00
	5 MHz	1	QPSK	21.50-22.60
		12		21.00-21.50
		25		21.00-21.50
		1	16QAM	21.00-22.10
		12		20.00-20.60
		25		20.00-20.50

Normal Mode RF Power Range (WLAN, Bluetooth)

Band (GHz)	Mode	Range(dBm)
2.4 (2.4~2.4835)	802.11b	14.00-17.00
	802.11g	14.00-16.00
	802.11n(HT20)	14.00-16.00
	802.11n(HT40)	14.00-16.00

Band (GHz)	Mode	Range(dBm)
5.2 (5.15~5.25)	802.11a	12.00-13.00
	802.11n(HT20)	12.00-13.00
	802.11n(HT40)	12.00-13.00
	802.11ac(VHT20)	12.00-13.00
	802.11ac(VHT40)	12.00-13.00
	802.11ac(VHT80)	12.00-13.00

Band (GHz)	Mode	Range(dBm)
5.8 (5.725~5.825)	802.11a	11.00-12.00
	802.11n(HT20)	11.00-12.00
	802.11n(HT40)	11.00-12.00
	802.11ac(VHT20)	11.00-12.00
	802.11ac(VHT40)	11.00-12.00
	802.11ac(VHT80)	11.00-12.00

Band (GHz)	Mode	Range(dBm)
Bluetooth	GFSK	2.50-3.50
	$\pi/4$ DQPSK	0.00-1.00
	8-DPSK	(-1.00)-0.00
	BLE	(-1.00)-2.00

Power Reduction Mode RF Power Range (WCDMA)

Mode	Range(dBm)
WCDMA Band I RMC	17.00-18.00
HSDPA Band I	16.00-17.50
HSUPA Band I	15.00-17.50
WCDMA Band III RMC	18.00-19.00
HSDPA Band III	16.00-17.50
HSUPA Band III	15.50-17.50

Power Reduction Mode RF Power Range (LTE)

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 1	20 MHz	1	QPSK	17.00-18.00
		50		17.00-18.00
		100		17.00-18.00
		1	16QAM	17.00-18.20
		50		17.00-18.00
		100		17.00-18.00
	15 MHz	1	QPSK	16.90-18.00
		36		17.00-18.00
		75		17.00-18.00
		1	16QAM	16.50-18.00
		36		17.00-18.00
		75		17.00-18.00
	10 MHz	1	QPSK	17.00-18.00
		25		17.00-18.00
		50		17.00-18.00
		1	16QAM	17.00-18.00
		25		17.00-18.00
		50		17.00-18.00
	5 MHz	1	QPSK	17.00-18.00
		12		17.00-18.00
		25		17.00-18.00
1		16QAM	17.00-18.40	
12			17.00-18.00	
25			17.00-18.00	
LTE Band 3	20 MHz	1	QPSK	17.00-18.00
		50		17.50-18.00
		100		17.50-18.00
		1	16QAM	17.50-18.55
		50		17.50-18.00
		100		17.50-18.00
	15 MHz	1	QPSK	17.00-18.00
		36		17.00-18.00
		75		17.00-18.00

		1	16QAM	17.00-18.00	
		36		17.00-18.00	
		75		17.00-18.00	
	10 MHz		1	QPSK	17.00-18.00
			25		17.00-18.00
			50		17.00-18.00
			16QAM	1	17.00-18.45
				25	17.00-18.00
				50	17.00-18.00
	5 MHz		1	QPSK	17.00-18.00
			12		17.00-18.00
			25		17.00-18.00
			16QAM	1	17.00-18.50
				12	17.00-18.00
				25	17.00-18.00
	3 MHz		1	QPSK	17.00-18.00
			8		17.00-18.00
			15		17.00-18.00
			16QAM	1	17.00-18.30
				8	17.00-18.00
				15	17.00-18.00
	1.4 MHz		1	QPSK	17.00-18.00
			3		17.00-18.00
			6		17.00-18.00
		16QAM	1	17.00-18.30	
			3	17.00-18.00	
			6	17.00-18.00	
LTE Band 7	20 MHz	1	QPSK	16.00-17.00	
		50		16.00-17.00	
		100		16.00-17.00	
		1	16QAM	16.50-17.20	
		50		16.00-17.00	
		100		16.00-17.00	
	15 MHz	QPSK	1	16.10-16.70	
			36	16.10-16.70	
			75	16.10-16.70	

		1	16QAM	16.00-17.00	
		36		16.10-16.70	
		75		16.10-16.70	
	10 MHz		1	QPSK	16.10-16.80
			25		16.10-16.80
			50		16.10-16.80
			16QAM	1	16.10-17.10
				25	16.10-16.80
				50	16.10-16.75
	5 MHz		QPSK	1	16.20-17.00
				12	16.10-16.80
				25	16.00-16.70
			16QAM	1	16.30-17.60
				12	16.10-16.90
				25	16.10-16.80

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