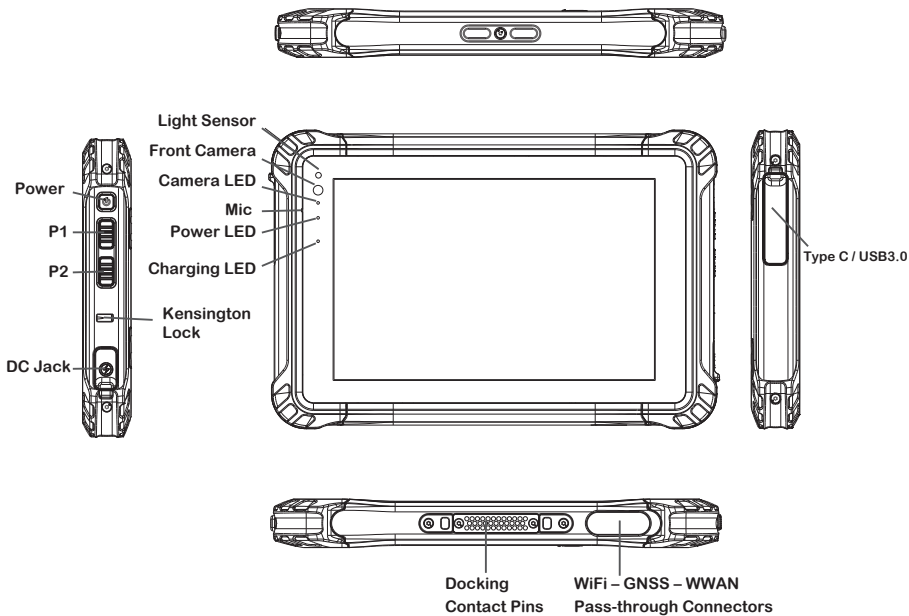


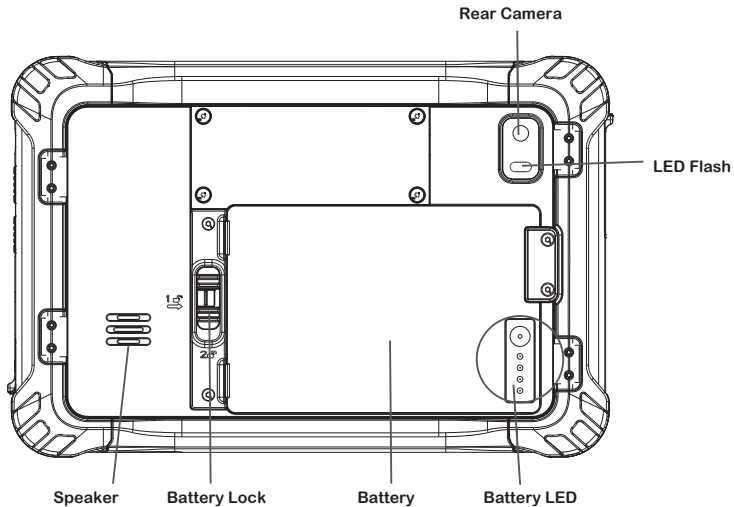
UT20

Quick Start Guide

① UT20 Front/Side View



② UT20 Rear View



③ PANEL INDICATORS

Power LED

- OFF -----When UT20 is shut down or in hibernation mode
- Green ON -----When UT20 is powered on
- Green Blinking ---- When UT20 is in sleep mode

Camera LED

- White ON ----- When in front camera mode
- OFF -----When front camera mode is off

Charging LED

- OFF -----No Battery or not charging
- Red ON -----Battery is charging
- Green ON----- Battery is fully charged
- Red blinking every 2 seconds ---- Battery capacity is below 10%

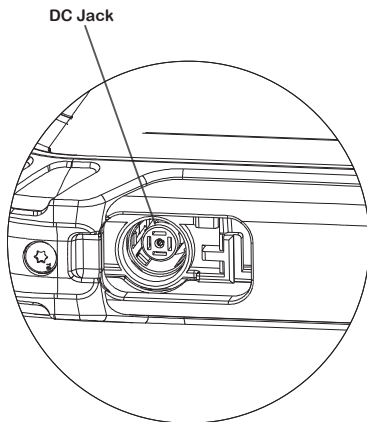
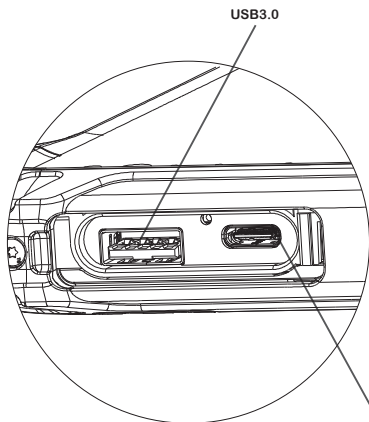
Power ----- Power on or let UT20 goes into sleep mode

P1 ----- Function Key 1: Increase brightness (Default setting)

P2 ----- Function Key 2: Decrease brightness (Default setting)

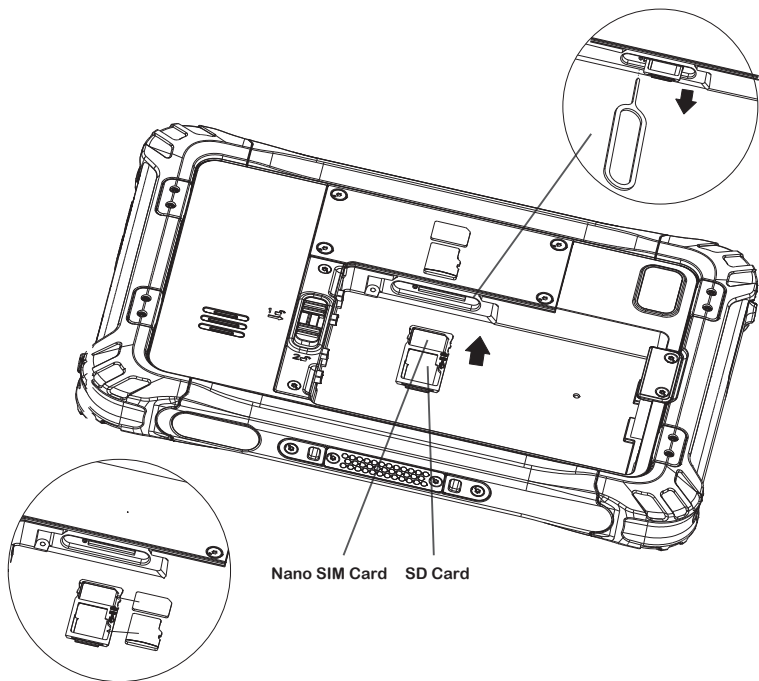
WiFi - GNSS – WWAN --- Pass-through connectors to external antenna

④ I/O COMPARTMENT LAYOUT



⑤ INSERT/REMOVE SIM

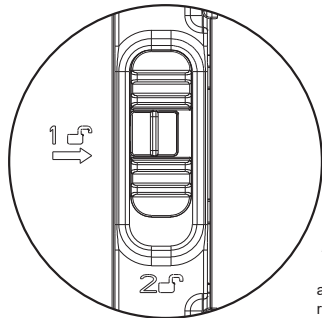
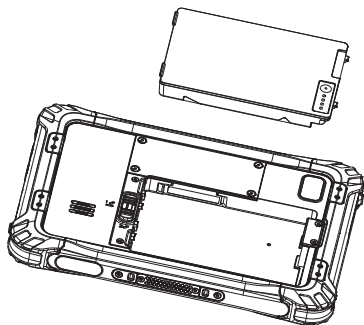
This is how you insert and remove the micro SD/SIM



⑥ INSERT/REMOVE BATTERY

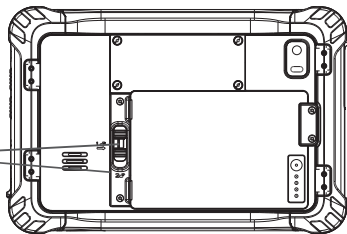
This is how you insert and remove the Battery

Place the battery pack on the back as shown.



Remove battery from device

(Move the switch to the right as shown in 1, and move the switch down as shown in 2 to remove the battery)



1. Turning the device on and off

- To turn on the device, press firmly and hold the bottom right **【Power Button】** until the boot screen appears.
- To turn off the device, click on the bottom left **【Windows Icon】** to display the options menu. Select the Power off option to shut down.
- With the device turned on, press the **【Power Button】** once to turn off the screen and goes into sleep mode. Press the **【Power Button】** once again to wake the device. Swipe upwards on the screen to unlock. If the device has been idle for a certain period, the screen will automatically turn off and goes into sleep mode.

2. Home screen operation

- From the home screen, you can view the device status and access the applications.
- At the bottom of the home screen is the status bar, which contains the notification area, the status area and the display area.
- The shortcut panel is at the bottom as shown in Figure 3.



Figure 3

Notice

This device is restricted to indoor use where operated in the European Community 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.

	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		

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 $-20^{\circ}\text{C}\sim+45^{\circ}\text{C}$ 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.

Importer : UniStrong APAC Pte Ltd
51 Ubi Ave 1 #01-22 Paya Ubi Industrial Park Singapore 408933 +65 62968238

Manufacturer : Shenzhen UniStrong Science & Technology Co.,Ltd.
B Zone, No.4-4 Workshop Zhengcheng 2nd Road, Fuyong Street,Bao'an District,
Shenzhen City, Guangdong Province, P.R. China

NOTICE:

The SAR limit of Europe is 2.0 W/kg. Device types UT20 has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification when properly worn on the body is 1.496W/kg and the highest Simultaneous SAR value is 1.815W/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: $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$

Storage Temperature: $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Charging mode need to operate indoors, please pay attention to the environment temperature should be $-0^{\circ}\text{C} \sim +40^{\circ}\text{C}$

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 [UT20] 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>

UT20 CE Appendix A

Normal Mode RF Power Range (WCDMA)

Mode	Range(dBm)
WCDMA Band 1 RMC	23.00-24.00
HSDPA Band 1	22.00-24.00
HSUPA Band 1	21.00-24.00
WCDMA Band 3 RMC	23.00-23.50
HSDPA Band 3	22.00-23.00
HSUPA Band 3	20.00-23.00
WCDMA Band 8 RMC	23.00-23.50
HSDPA Band 8	22.00-23.00
HSUPA Band 8	20.00-23.00

Normal Mode RF Power Range (LTE)

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 1	20 MHz	1	QPSK	22.50-24.50
		50		22.00-23.00
		100		22.00-23.00
		1	16QAM	22.00-24.00
		50		21.00-22.00
		100		21.00-22.00
	15 MHz	1	QPSK	22.50-24.00
		36		22.00-23.00
		75		22.00-23.00
		1	16QAM	21.00-23.10
		36		20.00-21.50
		75		20.50-21.50
	10 MHz	1	QPSK	22.50-23.50
		25		21.50-22.50
		50		21.50-22.50
		1	16QAM	21.00-23.00
		25		20.50-21.50
		50		20.50-21.50
	5 MHz	1	QPSK	22.50-23.50
		12		21.50-22.50
		25		21.50-22.50
		1	16QAM	21.50-23.00
		12		20.50-21.50
		25		20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 3	20 MHz	1	QPSK	22.00-24.00
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	22.00-23.50
		50		20.50-21.50
		100		20.50-21.50
	15 MHz	1	QPSK	22.50-23.50
		36		21.50-22.50
		75		21.50-22.50
		1	16QAM	21.50-23.00
		36		20.50-21.50
		75		20.50-21.50
	10 MHz	1	QPSK	22.50-23.50
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.50-22.50
		25		20.00-21.00
		50		20.00-21.00
	5 MHz	1	QPSK	22.50-23.00
		12		21.50-22.00
		25		21.50-22.00
		1	16QAM	21.00-22.50
		12		20.00-21.00
		25		20.00-21.00
	3 MHz	1	QPSK	22.00-23.00
		8		21.00-22.00
		15		21.00-22.00
		1	16QAM	21.00-22.10
		8		20.00-21.00
		15		20.00-21.00
1.4 MHz	1	QPSK	22.00-23.00	
	3		22.00-23.00	
	6		21.00-22.00	

		1	16QAM	21.00-22.00
		3		21.00-22.00
		6		20.00-21.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 7	20 MHz	1	QPSK	22.00-24.00
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	21.50-23.00
		50		20.50-21.50
		100		20.50-21.50
	15 MHz	1	QPSK	22.00-23.50
		36		21.00-22.10
		75		21.00-22.00
		1	16QAM	21.50-23.00
		36		20.00-21.10
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.50
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.00-22.50
		25		20.00-21.00
		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	21.50-22.50
		12		20.00-21.00
		25		20.00-21.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 8	10 MHz	1	QPSK	22.00-23.00
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.00-22.50
		25		20.00-21.00
		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	21.50-22.50
		12		20.00-21.00
		25		20.00-21.00
	3 MHz	1	QPSK	22.00-23.00
		8		21.00-22.00
		15		21.00-22.00
		1	16QAM	21.00-22.50
		8		20.00-21.00
		15		20.00-21.00
	1.4 MHz	1	QPSK	22.00-23.00
		3		22.00-23.00
		6		21.00-22.00
		1	16QAM	21.50-22.50
		3		21.00-22.00
		6		20.00-21.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 20	20 MHz	1	QPSK	22.00-23.00
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	22.00-23.00
		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	21.50-22.50
		36		20.00-21.00
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.00
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.50-22.50
		25		20.00-21.00
		50		20.00-21.00
	5 MHz	1	QPSK	22.50-23.10
		12		21.00-22.00
		25		21.00-22.00
1		16QAM	21.50-22.50	
12			20.00-21.00	
25			20.00-21.00	

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 28	20 MHz	1	QPSK	22.00-23.00
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	21.50-22.50
		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	QPSK	22.00-23.00
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.00-22.50
		25		20.00-21.00
		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	21.50-22.50
		12		20.00-21.00
		25		20.00-21.00
	3 MHz	1	QPSK	22.00-23.00
		8		21.00-22.00
		15		21.00-22.00
1		16QAM	21.00-22.50	
8			20.00-21.00	
15			20.00-21.00	

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 38	20 MHz	1	QPSK	22.00-24.00
		50		21.00-22.50
		100		21.00-22.50
		1	16QAM	21.50-23.50
		50		20.00-21.50
		100		20.00-21.00
	15 MHz	1	QPSK	22.00-23.50
		36		21.00-22.10
		75		21.00-22.00
		1	16QAM	21.50-23.00
		36		20.00-21.10
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.00
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.50-22.50
		25		20.00-21.00
		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	21.50-22.50
		12		20.00-21.00
		25		20.00-21.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 40	20 MHz	1	QPSK	22.50-24.00
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	21.50-23.00
		50		20.00-21.50
		100		20.00-21.50
	15 MHz	1	QPSK	22.00-23.50
		36		21.00-22.00
		75		21.00-22.00
		1	16QAM	21.50-23.00
		36		20.00-21.00
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.10
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.00-22.50
		25		20.00-21.00
		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	21.50-22.50
		12		20.00-21.00
		25		20.00-21.00

Normal Mode RF Power Range (WLAN/Bluetooth)

Band (GHz)	Mode	Range(dBm)
WLAN 2.4G (2.4~2.4835)	802.11b	15.00-16.00
	802.11g	12.00-16.00
	802.11n(HT20)	12.00-16.00
	802.11n(HT40)	11.00-16.00

Band (GHz)	Mode	Range(dBm)
WLAN 5.2 G (5.15~5.25)	802.11a	13.00-15.50
	802.11n(HT20)	13.00-15.50
	802.11n(HT40)	11.00-16.00
	802.11ac(VHT20)	13.00-15.50
	802.11ac(VHT40)	11.00-16.00
	802.11ac(VHT80)	13.00-13.50
WLAN 5.8G (5.725~5.850)	802.11a	12.50-13.50
	802.11n(HT20)	12.50-13.50
	802.11n(HT40)	12.50-13.50
	802.11ac(VHT20)	12.50-13.50
	802.11ac(VHT40)	12.50-13.50
	802.11ac(VHT80)	12.50-13.50

Band (GHz)	Mode	Range(dBm)
Bluetooth (2.4~2.4835)	GFSK	3.00-5.00
	$\pi/4$ DQPSK	(-1.00)-1.00
	8-DPSK	(-2.00)-0.00
	BLE	2.00-4.00

Power Reduction Mode RF Power Range (WCDMA)

Mode	Range(dBm)
WCDMA Band 1 RMC	18.00-19.00
HSDPA Band 1	17.00-19.00
HSUPA Band 1	16.00-19.00
WCDMA Band 3 RMC	18.00-19.00
HSDPA Band 3	17.00-18.50
HSUPA Band 3	15.50-18.50

Power Reduction Mode RF Power Range (LTE)

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 1	20 MHz	1	QPSK	18.00-19.50
		50		17.00-18.00
		100		17.00-18.00
		1	16QAM	17.00-19.00
		50		16.00-17.00
		100		16.00-17.00
	15 MHz	1	QPSK	17.50-19.00
		36		17.00-18.00
		75		17.00-18.00
		1	16QAM	16.50-18.50
		36		15.50-16.50
		75		15.50-16.50
	10 MHz	1	QPSK	17.50-18.50
		25		16.50-17.50
		50		16.50-17.50
		1	16QAM	16.50-18.00
		25		16.00-17.00
		50		16.00-17.00
	5 MHz	1	QPSK	17.50-18.50
		12		16.50-17.50
		25		16.50-17.50
		1	16QAM	16.50-18.00
		12		16.00-17.00
		25		15.50-16.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 3	20 MHz	1	QPSK	17.50-19.00
		50		16.50-17.50
		100		16.50-17.50
		1	16QAM	17.00-18.50
		50		15.50-16.50
		100		15.50-16.50
	15 MHz	1	QPSK	17.50-19.00
		36		16.50-17.50
		75		16.50-17.50
		1	16QAM	16.50-18.00
		36		15.50-16.50
		75		15.50-16.50
	10 MHz	1	QPSK	17.50-18.50
		25		16.50-17.50
		50		16.50-17.50
		1	16QAM	16.50-17.50
		25		15.50-16.50
		50		15.50-16.00
	5 MHz	1	QPSK	17.50-18.50
		12		16.50-17.00
		25		16.50-17.00
		1	16QAM	16.50-17.50
		12		15.50-16.50
		25		15.50-16.00
	3 MHz	1	QPSK	17.50-18.00
		8		16.50-17.00
		15		16.50-17.00
		1	16QAM	16.50-17.50
		8		15.00-16.00
		15		15.00-16.00
1.4 MHz	1	QPSK	17.00-18.00	
	3		17.00-18.00	
	6		16.50-17.00	

		1	16QAM	16.50-17.50
		3		16.50-17.50
		6		15.00-16.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 7	20 MHz	1	QPSK	17.50-19.00
		50		16.50-17.50
		100		16.50-17.50
		1	16QAM	16.50-18.50
		50		15.50-16.50
		100		15.50-16.50
	15 MHz	1	QPSK	17.00-18.50
		36		16.50-17.50
		75		16.50-17.50
		1	16QAM	16.50-17.50
		36		15.00-16.50
	75	15.50-16.50		
	10 MHz	1	QPSK	17.00-18.50
		25		16.50-17.50
		50		16.50-17.50
		1	16QAM	16.00-17.50
		25		15.50-16.50
	50	15.50-16.50		
	5 MHz	1	QPSK	17.50-18.50
		12		16.00-17.50
		25		16.50-17.00
		1	16QAM	16.50-17.50
		12		15.00-16.50
		25		15.00-16.50

*To be the leading provider of high-precision professional,
solution & service in the global geospatial industry*

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