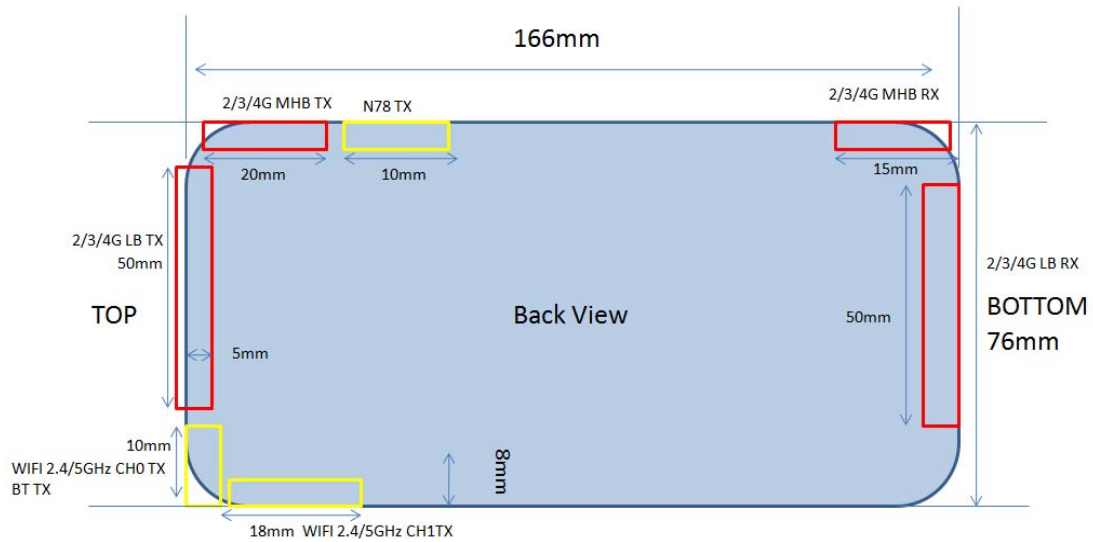


# Nubia Technology Co., Ltd.

## Antenna parameter sheet for NX709S

	Main antenna	Diversity antenna	GPS/WIFI/BT antenna	NR antenna
Antenna type	Internal PIFA	Internal PIFA	Internal PIFA	Internal PIFA
Model	NX709S_main antenna	NX709S_Diversity antenna	NX709S_GPS/WIFI/BT antenna	NX709S_NR antenna
Antenna manufacturer	VLG wireless Technology			
Antenna position	bottom	up	up	up



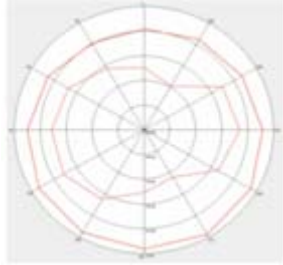
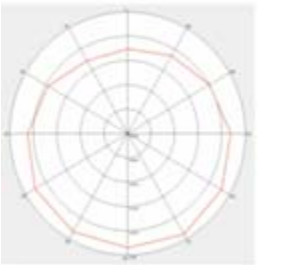
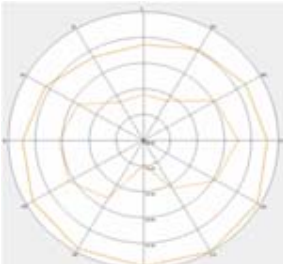
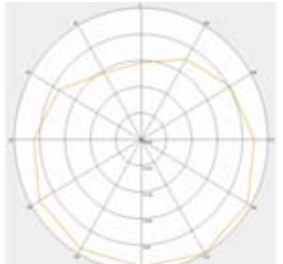
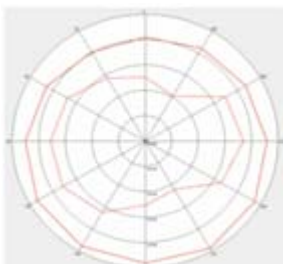
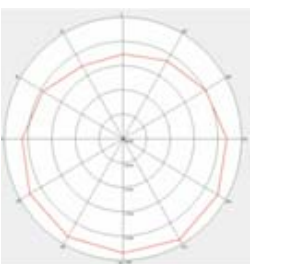
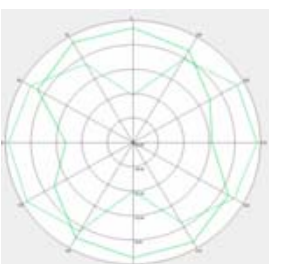
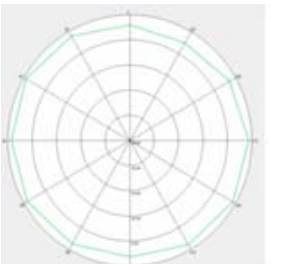
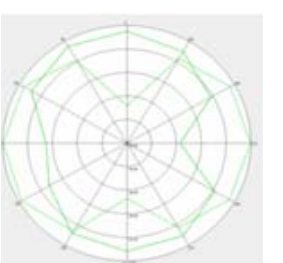
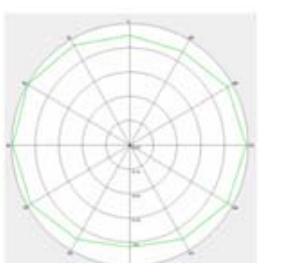
## Test environment

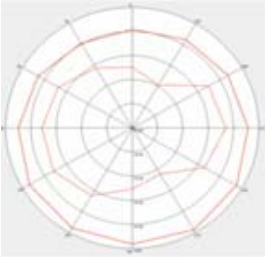
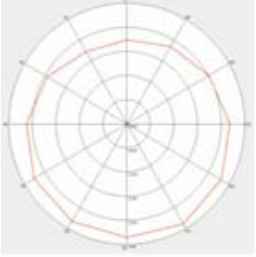
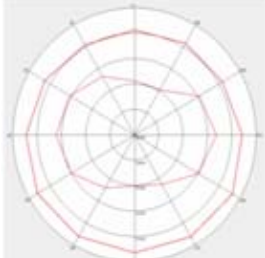
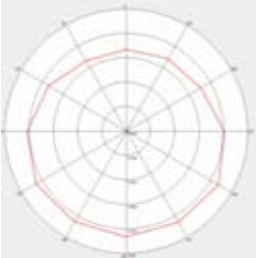
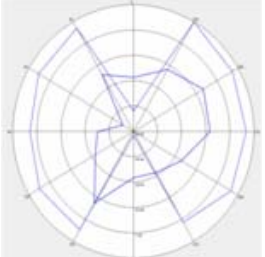
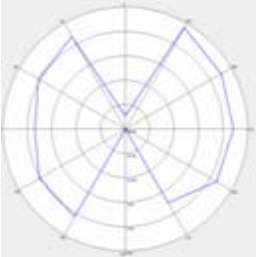
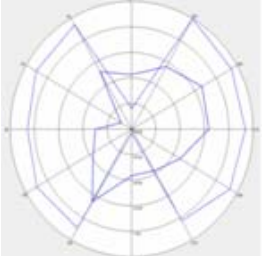
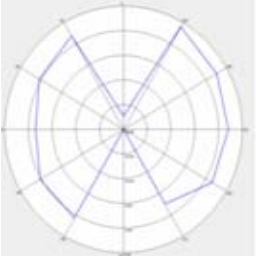
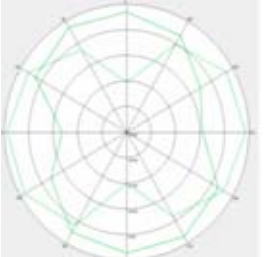
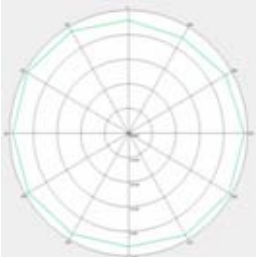
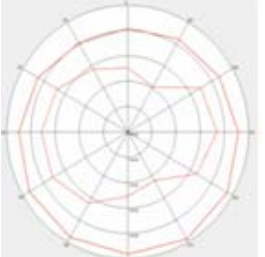
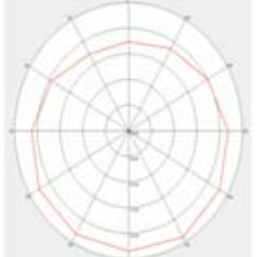
	Test Project	Equipment
1 (Parameter)	1、 Retune Loss 2、 VSWR	Agilent E5071C
2 (Active)	1、 TRP 2、 TIS	1、 GTS 1800 2、 Agilent E5071C 3、 WLAN Dual-Channel Amplifier 4、 CMW 500
3 (Passive)	1、 Gain 2、 Efficiency	1、 GTS 1800 2、 Agilent E5071C

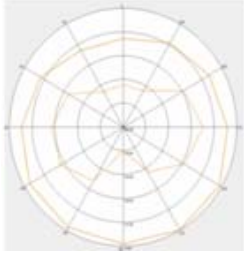
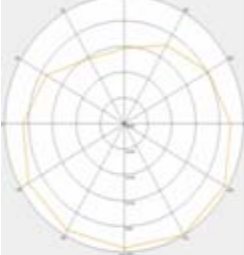
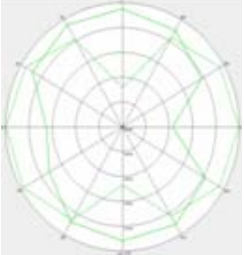
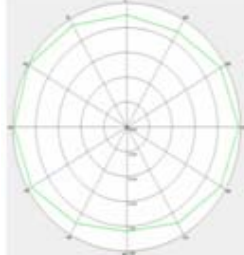
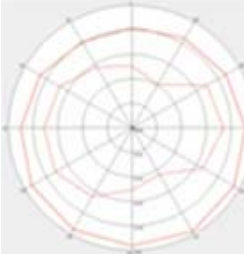
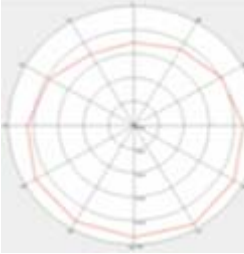
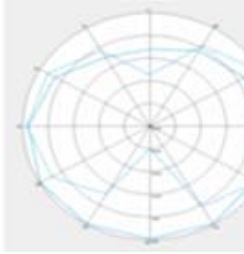
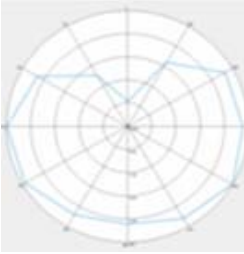
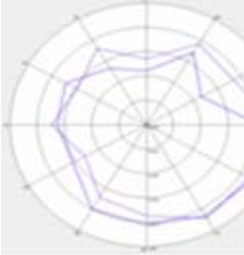

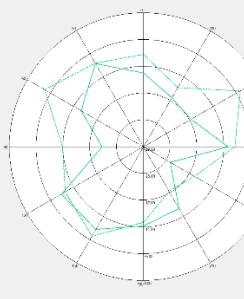
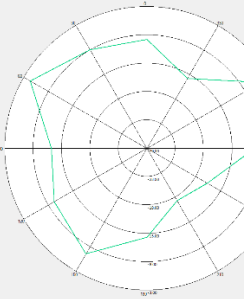
## Test Equipment



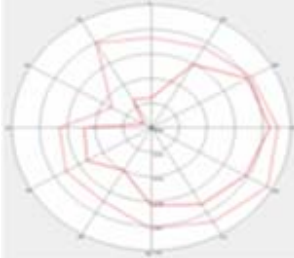

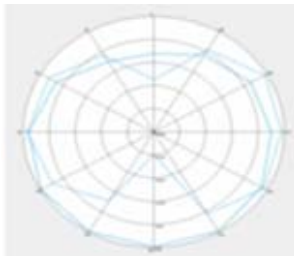
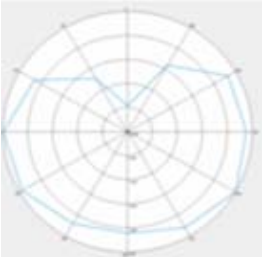
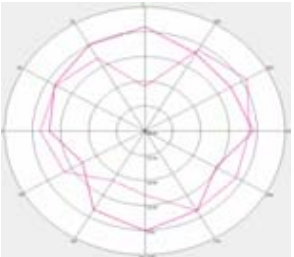

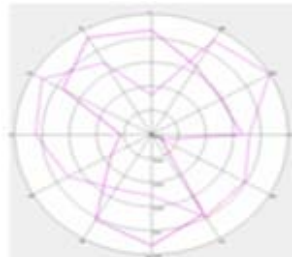



# Radiated pattern diagram

Antenna	PIFA Antenna		Gain data ( dbi )
Band	Radiated pattern diagram		
	H+V	H\V	
LTE B19 (834MHZ)			-3.6
LTE B8 (910MHZ)			-2.3
LTE B26 (831MHZ)			-3.6
LTE B1 (1930MHZ)			-1.3
LTE B3 (1715MHZ)			-1.5

<p>LTE B18 (830MHZ)</p>			<p>-3.4</p>
<p>LTE B28 (720MHZ)</p>			<p>-4.7</p>
<p>LTE B38 (2610MHZ)</p>			<p>-2.07</p>
<p>LTE B41 (2578MHZ)</p>			<p>-1.5</p>
<p>WCDMA B1 (1920MHZ)</p>			<p>-1.3</p>
<p>WCDMA B6 (840MHZ)</p>			<p>-3.4</p>

<p>WCDMA B8 (912MHZ)</p>			<p>-2.3</p>
<p>WCDMA B9 (1770MHZ)</p>			<p>-1.5</p>
<p>WCDMA B19 (835MHZ)</p>			<p>-3.4</p>
<p>WIFI 2.4G 11g (2420M)</p>			<p>0.7</p>
<p>WIFI 5G 11a (5150M)</p>			<p>-0.25</p>
<p>WIFI 5G 11a (5300M)</p>			<p>-0.2</p>

<p>WIFI 5G 11a (5500M)</p>			<p>-0.5</p>
<p>WIFI 5G 11a (5850M)</p>			<p>-2</p>
<p>BT(2425M)</p>			<p>0.7</p>
<p>N77(4100M)</p>			<p>-1.79</p>
<p>N78(3800M)</p>			<p>-0.5</p>

## VSWR&Gain

<b>Main antenna</b>								
Freq(MHz)	703	824	960	1710	1990	2170	2500	2690
VSWR	3.5	3	3.2	1.5	1.2	2.4	1.8	2.3
Gain(dBi)	-4.7	-3.4	-3.6	-1.5	-1.3	-2	-1.5	-2.07
<b>Diversity antenna</b>								
Freq(MHz)	703	824	960	1710	1990	2170	2500	2690
VSWR	6	3.4	3.8	2.1	1.8	2	1.5	1.9
Gain(dBi)	-4.9	-4.5	-5	-3	-2.1	-2.1	-2.2	-2.2
<b>GPS/WIFI CH0/BT antenna</b>								
Freq(MHz)	1571	2400	2500	5100	5300	5500	5800	
VSWR (MHz)	2	2.1	2.1	3.2	3	2.1	4	
Gain(dBi)	-1	0.7	0.7	0.5	-0.2	-0.5	-2	
<b>WIFI CH1 antenna</b>								
Freq(MHz)		2400	2500	5100	5300	5500	5800	
VSWR (MHz)		2.6	2.6	3.0	2.8	3	2.5	
Gain(dBi)		-0.5	-0.5	-0.5	-0.8	-1	-0.5	
<b>NR antenna</b>								
Freq(MHz)	3300	3500	4100					
VSWR (MHz)	2.6	2.4	3.8					

Gain(dBi)	0	-0.5	-1.79
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## TRP&TIS (Free Space)

<b>Band</b>	<b>WCDMA B1</b>			<b>WCDMA B6</b>			<b>WCDMA B8</b>		
<b>TRP(dBm)</b>	18.02	18.08	18.18	16.83	16.87	16.87	17.16	16.99	16.5
<b>TIS(dBm)</b>	-107.7	-107.8	-107	-103.8	-103.5	-103.7	-104.6	-104.2	-103.7
<b>Band</b>	<b>WCDMA B9</b>			<b>WCDMA B19</b>			<b>LTE B1</b>		
<b>TRP(dBm)</b>	17.80	18.11	18.48	15.55	15.42	15.61	18.24	18.15	17.87
<b>TIS(dBm)</b>	-107.5	-106.9	-107.0	-104.2	-103.5	-103.6	-95.8	-95.6	-95.9
<b>Band</b>	<b>LTE B3</b>			<b>LTE B18</b>			<b>LTE B19</b>		
<b>TRP(dBm)</b>	17.38	17.39	17.92	15.66	15.86	16	16.43	16.75	16.78
<b>TIS(dBm)</b>	-96.09	-96.21	-95.24	-91.05	-91.27	-90.8	-89.94	-90.5	-90.6
<b>Band</b>	<b>LTE B26</b>			<b>LTE B28</b>			<b>LTE B38</b>		
<b>TRP(dBm)</b>	15.47	16.06	16.5	15.95	15.88	15.82	18.84	18.88	18.67
<b>TIS(dBm)</b>	-93.24	-94.25	-93.33	-90.20	-90.03	-90.41	-92.08	-91.32	-91.16
<b>Band</b>	<b>LTE B41</b>			<b>NR 77</b>			<b>NR 78</b>		
<b>TRP(dBm)</b>	18.46	18.49	18.31	17.84	17.63	16.21	18.42	18.05	17.04
<b>TIS(dBm)</b>	-90.72	-92.1	-91.14	-85.07	-85.29	-86.38	-86.67	-86.39	-86.33

*Jay Xu*

Authorized signature \_\_\_\_\_

Position: \_\_\_ Regulatory Compliance Engineer \_\_\_