TEST REPORT

Product Name: 8/9 dBi LPDA Antenna

Product Model ANT705

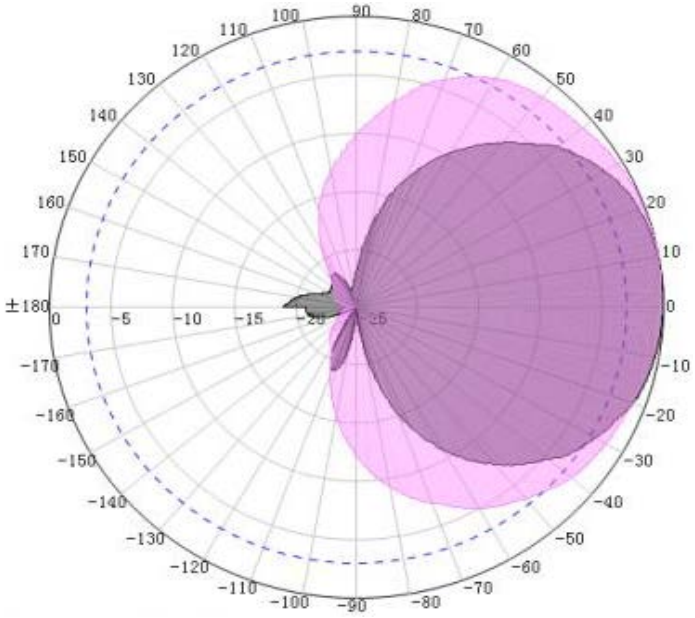
Note: 700-960/1710-2500MHz Gain: 8/9 dBi Connector: N-Female

1. PRODUCT PICTURE

2. PRODUCT TECHNICAL SPECIFICATION

Electrical Specifications	
Frequency Range	700-960/ 1710-2500MHz
Gain	8/ 9dBi
VSWR	≤2.0
Input Impedance	50Ω
Polarization	Vertical or Horizontal
Horizontal Half Power Angle	65°/ 50°
Vertical Half Power Angle	50°/ 40°
Front To Back Ratio	≥ 15dB
Max Input Power	100W
Mechanical Specifications	
Working Temperature	-40°C~65°C
Connector Type	N-K or Customised
Cable Length	0.3m LMR200 or Customised
Antenna Weight	550g
Size	295x210x65mm
Pole Diameter	Φ38~55mm
Rated Wind Velocity	210km/h
Antenna	ABS
Color	White

3. ANTENNA PATTERN

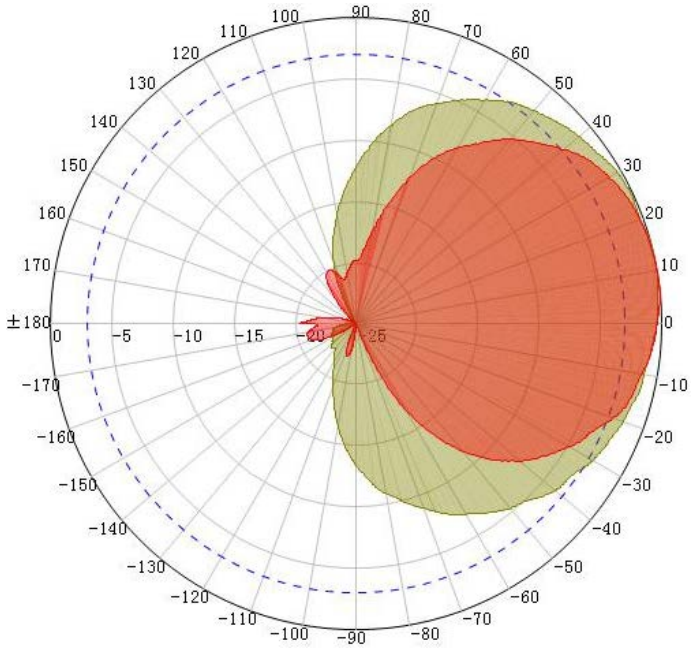


Test Frequency	700MHz
Test Plane	Vertical plane
Polarisation	Horizontal
Peak Level	-24.35dB
3dB Beamwidth	70.17
F/B Ratio	19.05dB

Test Frequency	700MHz
Test Plane	Horizontal plane
Polarisation	Vertical
Peak Level	-22.98dB
3dB Beamwidth	110.05
F/B Ratio	22.86dB

Gain	7.8dBi

Frequency	Test	Polarisation	Peak Level	3dB Beamwidth	F/B Ratio	XPD (0)	XPD (3dB)	Gain
700MHz	Vertical plane	Horizontal	-24.35	70.17	19.05			
700MHz	Horizontal plane	Vertical	-22.98	110.05	22.86			7.8

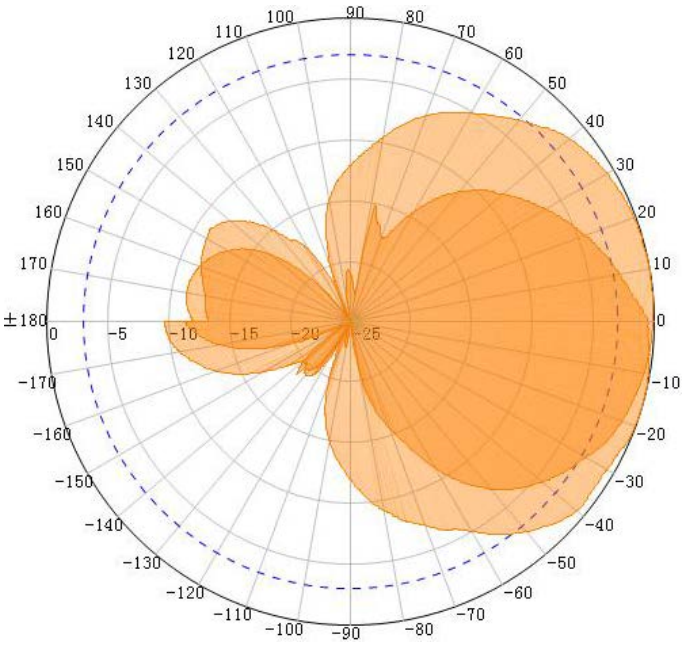


Test Frequency	820MHz
Test Plane	Vertical plane
Polarisation	Horizontal
Peak Level	-25.03dB
3dB Beamwidth	87.79
F/B Ratio	22.72dB

Test Frequency	820MHz
Test Plane	Horizontal plane
Polarisation	Vertical
Peak Level	-25.97dB
3dB Beamwidth	62.24
F/B Ratio	20.4dB

Gain	8.83dBi

Frequency	Test	Polarisation	Peak Level	3dB Beamwidth	F/B Ratio	XPD (0)	XPD (3dB)	Gain
820MHz	Vertical plane	Horizontal	-25.03	87.79	22.72			
820MHz	Horizontal plane	Vertical	-25.97	62.24	20.4			8.83

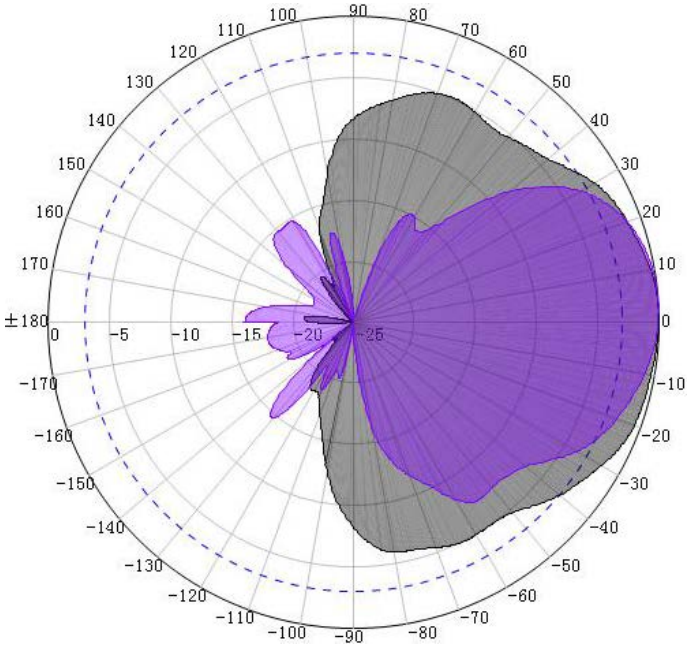


Test Frequency	960MHz
Test Plane	Vertical plane
Polarisation	Horizontal
Peak Level	-27.05dB
3dB Beamwidth	65.49
F/B Ratio	9.7dB

Test Frequency	960MHz
Test Plane	Horizontal plane
Polarisation	Vertical
Peak Level	-26.12dB
3dB Beamwidth	80.12
F/B Ratio	11.31dB

Gain	8.67dBi

Frequency	Test	Polarisation	Peak Level	3dB Beamwidth	F/B Ratio	XPD (0)	XPD (3dB)	Gain
960MHz	Vertical plane	Horizontal	-27.05	65.49	9.7			
960MHz	Horizontal plane	Vertical	-26.12	80.12	11.31			8.67

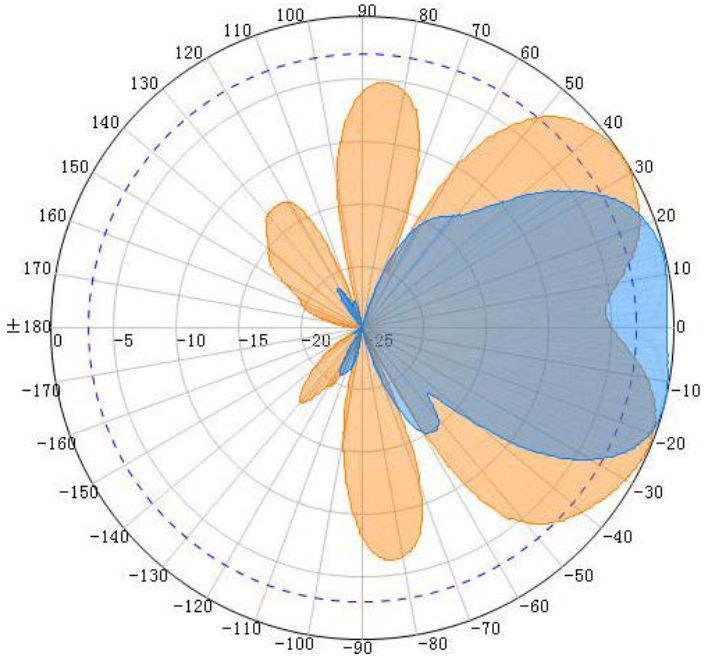


Test Frequency	1710MHz
Test Plane	Vertical plane
Polarisation	Horizontal
Peak Level	-33.32dB
3dB Beamwidth	73.72
F/B Ratio	20.92dB

Test Frequency	1710MHz
Test Plane	Horizontal plane
Polarisation	Vertical
Peak Level	-37.99dB
3dB Beamwidth	54.01
F/B Ratio	15.91dB

Gain	8.72dBi

Frequency	Test	Polarisation	Peak Level	3dB Beamwidth	F/B Ratio	XPD (0)	XPD (3dB)	Gain
1710MHz	Vertical plane	Horizontal	-33.32	73.72	20.92			
1710MHz	Horizontal plane	Vertical	-37.99	54.01	15.91			8.72

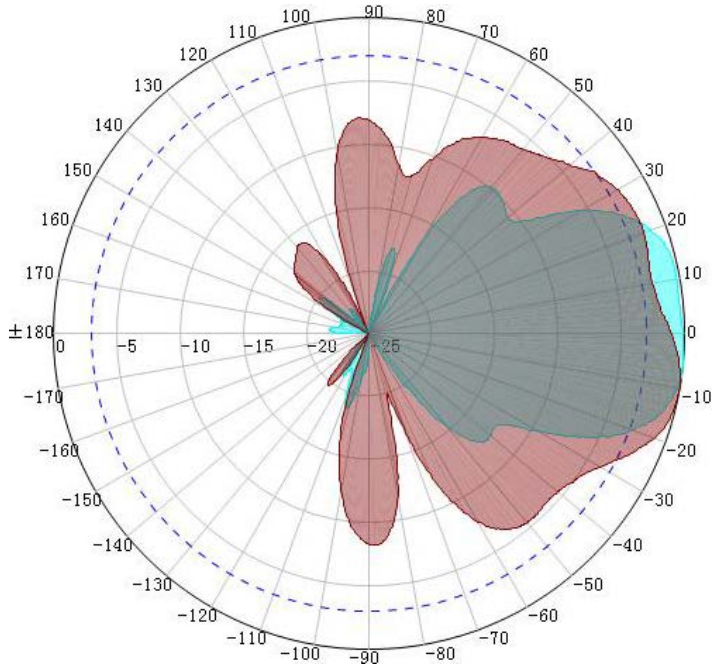


Test Frequency	2170MHz
Test Plane	Vertical plane
Polarisation	Horizontal
Peak Level	-39.15dB
3dB Beamwidth	36.16
F/B Ratio	17.83dB

Test Frequency	2170MHz
Test Plane	Horizontal plane
Polarisation	Vertical
Peak Level	-37.57dB
3dB Beamwidth	57.3
F/B Ratio	24.38dB

Gain	9.14dBi

Frequency	Test	Polarisation	Peak Level	3dB Beamwidth	F/B Ratio	XPD (0)	XPD (3dB)	Gain
2170MHz	Vertical plane	Horizontal	-39.15	36.16	17.83			
2170MHz	Horizontal plane	Vertical	-37.57	57.3	24.38			9.14



Test Frequency	2500MHz
Test Plane	Vertical plane
Polarisation	Horizontal
Peak Level	-38.35dB
3dB Beamwidth	45.95
F/B Ratio	21.58dB

Test Frequency	2500MHz
Test Plane	Horizontal plane
Polarisation	Vertical
Peak Level	-38.72dB
3dB Beamwidth	62.37
F/B Ratio	21.49dB

Gain	10.56dBi

Frequency	Test	Polarisation	Peak Level	3dB Beamwidth	F/B Ratio	XPD (0)	XPD (3dB)	Gain
2500MHz	Vertical plane	Horizontal	-38.35	45.95	21.58			
2500MHz	Horizontal plane	Vertical	-38.72	62.37	21.49			10.56

4. MECHANICAL CHARACTERISTICS

1	BENDING TEST	Put away from the connector of line on 30 CM and bear 120g, fixed the connector and then test the Swing, swing Angle around each 60 degrees, swing 1000 times for test characteristics.	After 1000 times Swing have no any electrical properties damaged
2	SRRENGTH TEST	15 pounds of static load on the wire bottom lasted one minutes	Have no any revealed mechanical and electrical damaged
3	PULL TEST	Between the Connector and Wire for the Pull Test	Bear 7Kg Stuff have no any revealed mechanical and electrical damaged
4	VIBRATION TEST	With 1.10 mm and amplitude 33.30 Hz/SEC vibration frequency to the X axis vibration 120 minutes, Y axis vibration 120 minutes, Z axis vibration 240 minutes.	have no any revealed mechanical and electrical damaged

5. DURABILITY TEST

1	SAIT SPRAY TEST	Salt spray test：Refer to GB1266-86 standard Distilled water：Once Distilled PH6.5~7 SPRAY：1.4me80cm²/h Compressed air pressure：1Kgf/ cm² relative degrees：98° Temperature：45°~47° Pressure temperature：35° Test time：96hr	All characteristic range is 30% of the initial value
2	HEAT TEST	85+2°C for 96 hours, after keep in normal condition for 30mim the to test.	
3	HUMIDITY TEST	40+2°C 90-95%RH for 96hours, after keep in normal condition for 30mim the to test.	
4	COLD TEST	-40+2°C for 96hours, after keep in normal condition for 30mim the to test	