

ANT Gain

RAK1003

Shenzhen RAKwireless Technology Co., Ltd.

Room 506, Building B, New Compark, Pingshan First
Road, Taoyuan Street, Nanshan District, Shenzhen,
Guangdong, P.R. China

➤ LoRa ANT (PCB ANT (M/N: 2701C02Q with 0.8dBi)

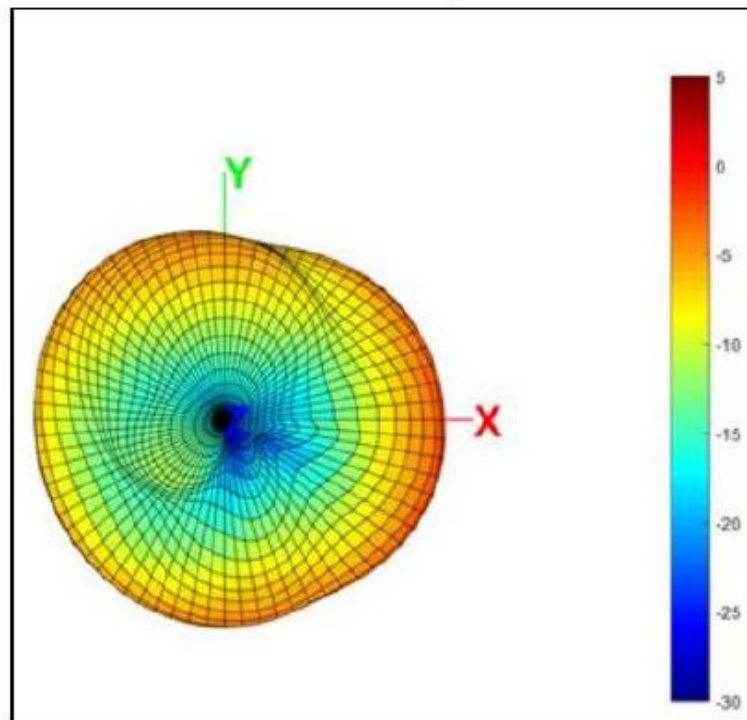
(Antenna is attached on a 2.0mm-thick ABS + PC material plate)

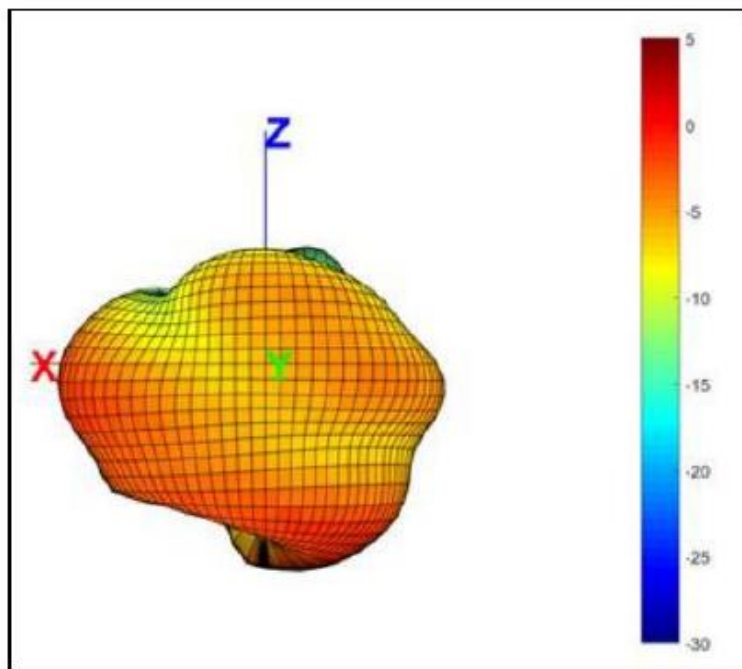
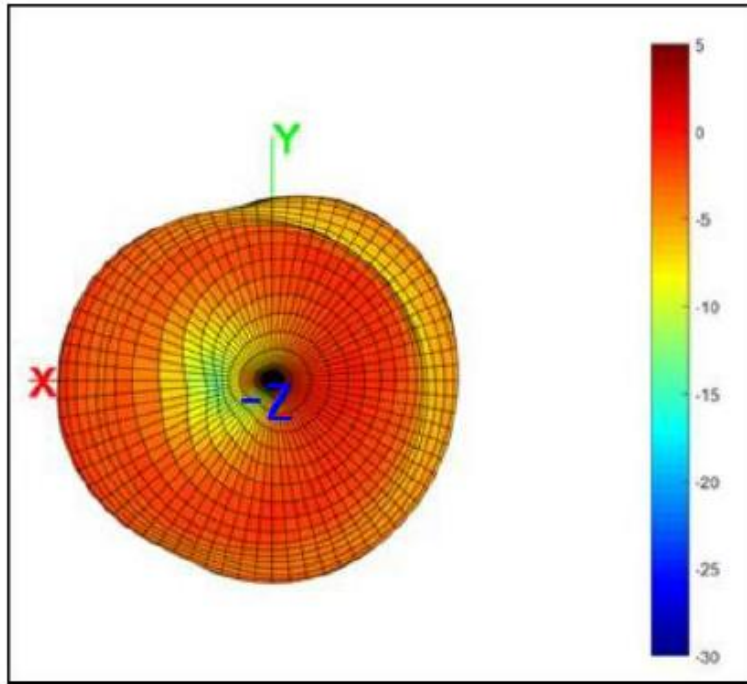
5-1. Electrical Table:

Characteristics	Specifications	Unit
Outline Dimensions	35 x 7.0 x 0.5	mm
Working Frequency	902~928	MHz
VSWR	2 Max. (typical).	
Characteristic Impedance	50	Ω
Polarization	Linear Polarization	
Peak Gain	0.8	dBi
Efficiency	41.9	%

7-2. 3D Efficiency Table

Frequency(MHz)	902	904	906	908	910	912	914	915	916	918	920	922	924	926	928
Efficiency(dB)	-4.4	-4.3	-4.3	-4.4	-4.5	-4.5	-4.3	-4.0	-3.9	-3.8	-3.8	-3.8	-3.8	-3.8	-3.9
Efficiency (%)	36.5	37.3	37.6	36.7	35.4	35.5	37.4	39.7	40.7	41.5	41.9	41.5	41.3	41.3	40.8
Peak Gain (dBi)	0.5	0.7	0.7	0.4	0.0	-0.1	0.2	0.5	0.7	0.8	0.8	0.6	0.5	0.4	0.1



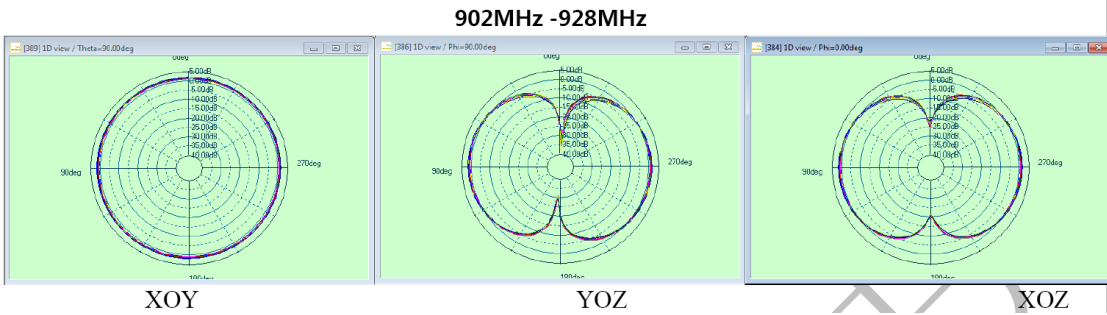


➤ LoRa ANT (Dipole Antenna (M/N: 2701C01A, 2701C01C with 2.37dBi)

Antenna Specification/天线技术参数		
Electrical Specification/电气特性		
Item/目录	Specification/规格	Comment/备注
Freq. Range/频段范围	902MHz-928MHz	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	<2.0	
Directional/辐射方向	Omni directional/全向天线	
Polarization/极化形式	Vertical Polarization/垂直极化	
Peak Gain/峰值增益	2.37dBi	
Test condition/测试条件	passive test (无源测试)	
Total Efficiency/无源效率	>75%	

4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果		
902MHz-928MHz		
Frequency	Efficiency (%)	Gain(dBi)
902MHz	77%	1.54
904MHz	77%	1.47
906MHz	78%	1.47
908MHz	81%	1.61
910MHz	84%	1.83
912MHz	84%	1.89
914MHz	80%	1.72
916MHz	79%	1.62
918MHz	82%	1.85
920MHz	88%	2.13
922MHz	87%	2.37
924MHz	81%	2.11
926MHz	79%	2.05
928MHz	82%	2.26
AVG	81%	1.85

4.2.3The antenna radiation pattern(2D)/天线辐射方向图 (2D)



4.2.4The antenna radiation pattern(3D)/天线辐射方向图 (3D)

