



SPECIFICATION

Shenzhen DreamLNK Technology Co., Ltd.
深圳市骏晔科技有限公司

Sword-shaped Black Color 5G Antenna

Product Specification

Client Name		Frequency Band	700-960/ 1710-2700/3000-5000MHz
Product Name	5G Antenna	Version	V1.0
Customer's Part Number		DreamLNK's Part Number	DL-J024-5GB
RF Designer	Jason Wang	RF Manager	Knight Ai
Structural Designer		Structural Design Manager	
Technical Director	Fagan Xu	Date	2023-11-10

Approved By:

Whether the product meets your requirements? ☐ Yes ☐ No

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1. Product Introduction

This 700-5000Mhz Sword-shaped antenna can be used for 4G and Sub-5G LTE Broadband (GSM UMTS) & GPS 1575MHz equipment, which is compatible with LET/DUT/4G/5G/GSM/GPRS/NB IoT networks.

Its waterproof ABS cover is made of high-grade shielding material, which is eco-friendly and durable; and its pure copper gold-plated SMA connectors are resistant to oxidation with stable transmission; while the inside part of the antenna is a precision circuit board, which has higher gain, better transmission efficiency, and stronger anti-interference ability.

With all these above features, it can transmit/receive stable & strong signal, with high receiving sensitivity, strong wireless penetration ability, and wider coverage. It can be widely used for Smart Home, Power Monitoring, Network Communication, Vehicle Navigation, Rail Transit, Smart Traffic, Smart Power, Smart Vending Machines, Meteorological Monitoring, etc.

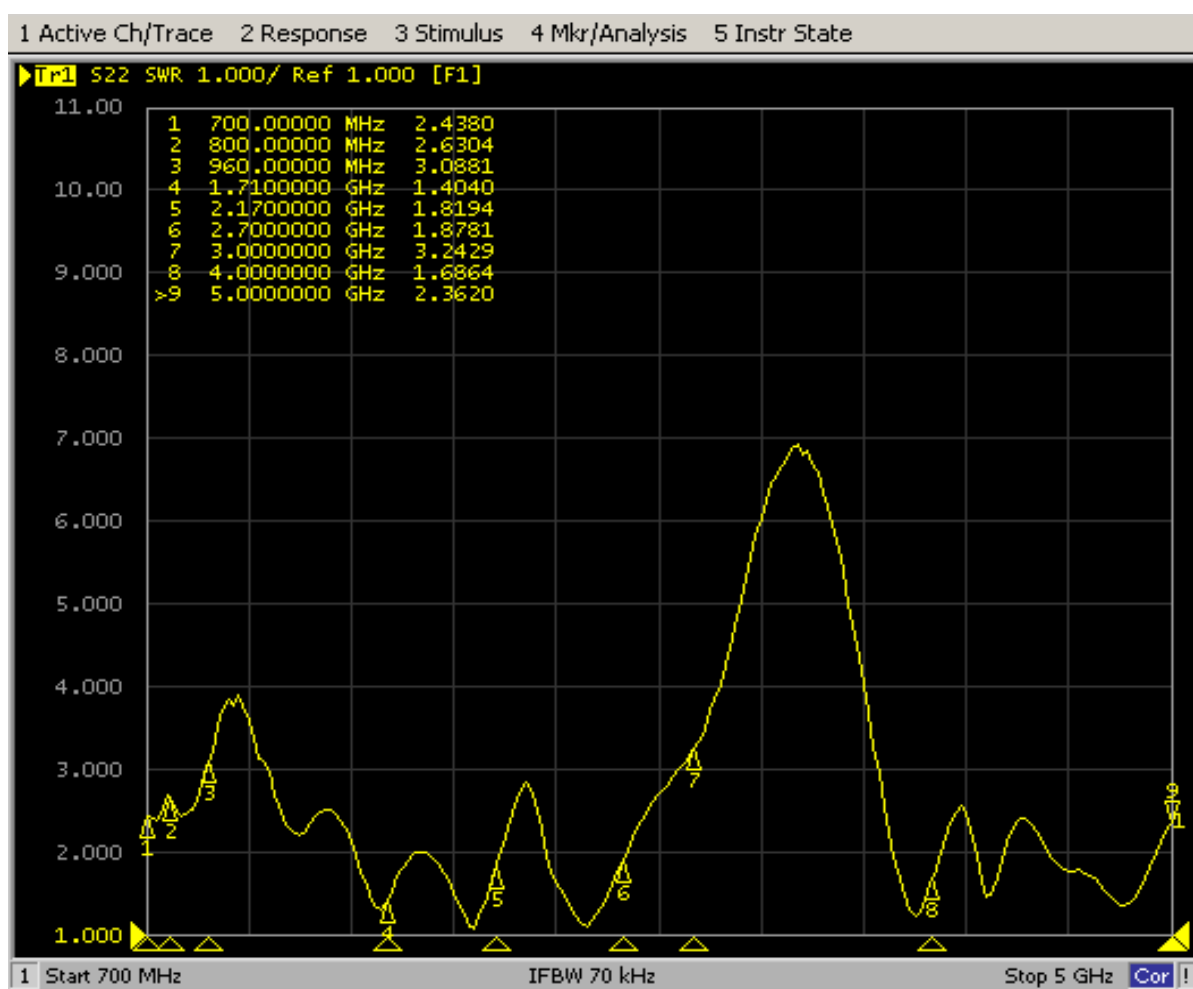
2. Parameters

Test Parameters			
Product Name	5G Sword Antenna	Model No	DL-J024-5GB
Electrical Specifications			
Frequency Range	700-960/ 1710-2700/3000-5000MHZ	Polarization	Linear, Vertical
Input Impedance	50 Ω	Radiation direction	Omni-directional
VSWR	≤ 2.0	Power Capacity	5W
Gain	3.5 dBi (no-load gain)	Continuity Test	Path testing
Mechanical Specifications			
Dimensions	155 x 21.6 x13.8mm	Color	Black
Connector Type	SMA-J (as picture shown)	Storage Temperature	-40℃ ~ 70℃
Shell Material	ABS	Working Temperature	-35℃ ~ 75℃

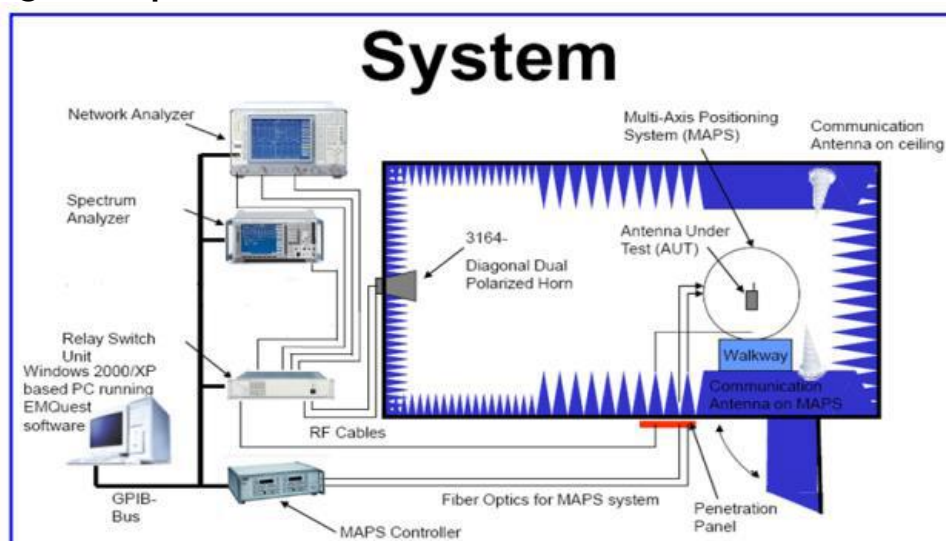
3. Product Photo



4. S11 Data (Test Report)



Testing Principle:



Testing Equipment:

Network Analyzers: Agilent 8753D 5071B

Communications Test Set: Agilent E5515C

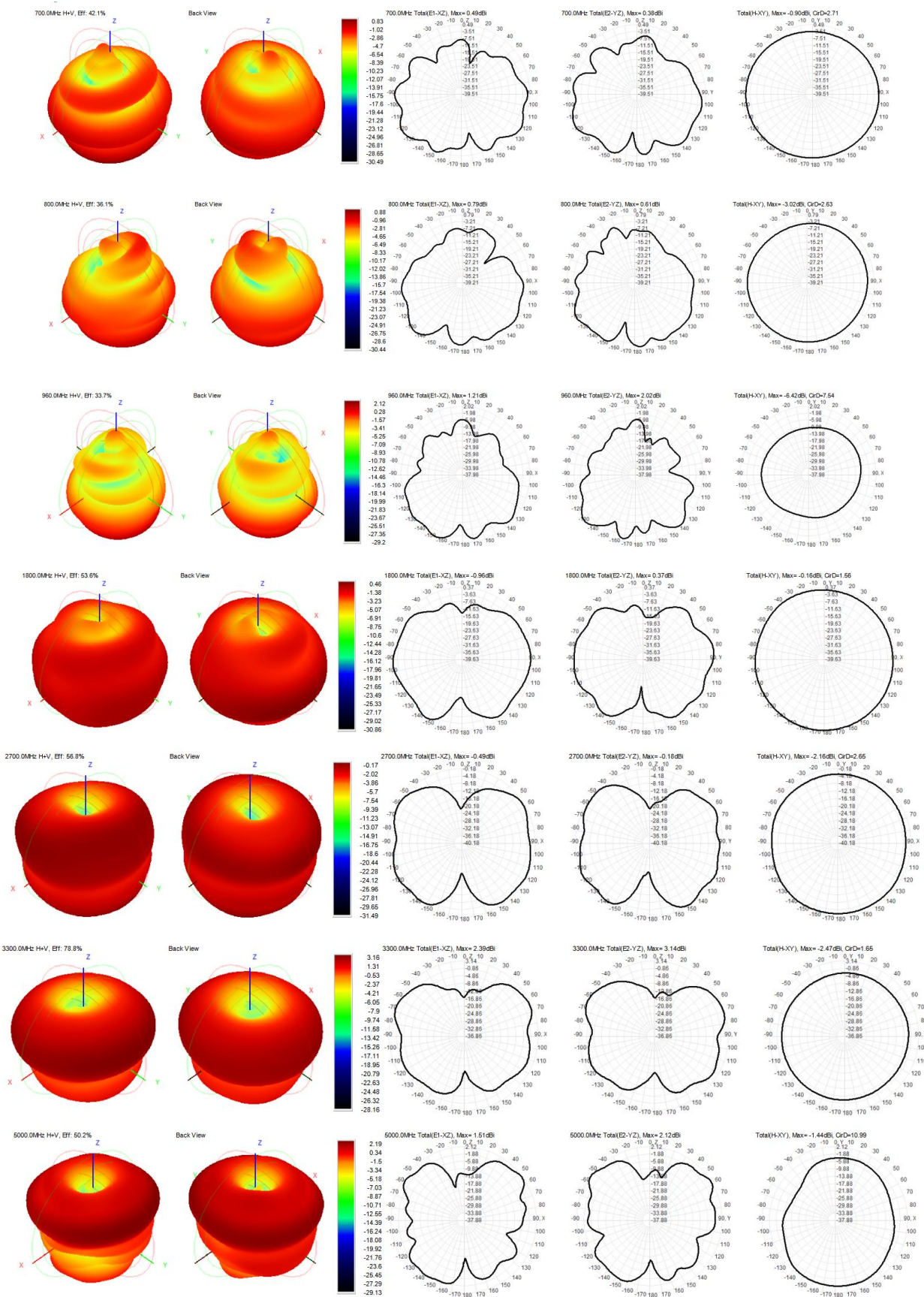
3D Chamber Test System

Antenna Efficiency & Gain

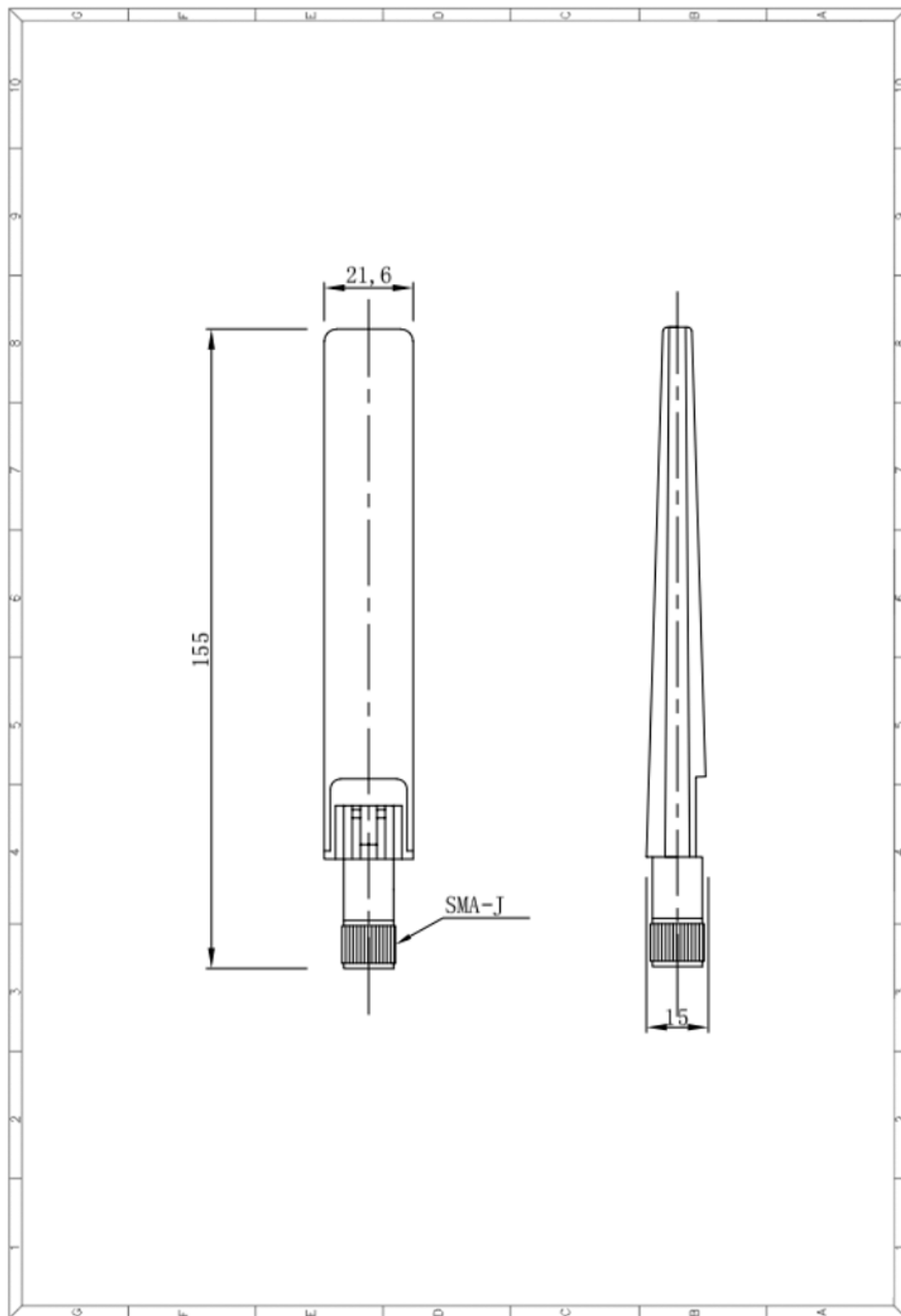
Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
700	42.08	0.83
800	36.12	0.88
960	33.66	2.12
1800	53.59	0.46
2500	47.71	1.95
2700	56.81	-0.17
3300	78.83	3.16
5000	50.15	2.19

The information provided by us should be kept strictly confidential, and it is not allowed to disclose to anyone else or other companies, without prior written consent

2D&3D Radiation Pattern



5. Structure diagram



Structure diagram

6. Environmental reliability experiment report

Item	Test condition	Specification
Storage environment	Tested temperature, humidity and air pressure as following without specifying: 1. The temperature is $-30\text{ }^{\circ}\text{C} \sim +80\text{ }^{\circ}\text{C}$ 2. Relative humidity is 45% -85% 3. The air pressure is 86kpa-106kpa	The electrical mechanical performance is normal
High and low temperature test	Perform 5 cycles between $70\text{ }^{\circ}\text{C}$ and $40\text{ }^{\circ}\text{C}$, then check the appearance quality, under normal conditions 1-2H	The size should meet the requirements for mechanical and electrical performance
Resistant to constant heat and humidity	Test Relative humidity: $95 \pm 3\%$, Test temperature: $40\text{ }^{\circ}\text{C}$. After continuous 2H running, take out the sample, and measure its electrical properties within 5 minutes, put the sample in a normal condition for another 1-2H, check the appearance quality	The size should meet the standard, and meet for mechanical and electrical performance
Vibration test	Vibration frequency range 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M / S, frequency of sweeping cycle: 30 times	Normal electrical and mechanical performance
Drop test	1M high-altitude free fall 3 times, in the direction of mutually perpendicular axes	Normal electrical and mechanical performance

7. Contact us

Shenzhen DreamLnk Technology Co., Ltd

★ Data collection, Smart home, Internet of Things applications, Wireless remote-control technology, Remote active RFID, Antennas ★

Office Add.: 602-603, Unit C, Zone A, Huameiju Business Center, Xinhua Rd., Bao'an District, Shenzhen, Guangdong Province, China

Factory Add.: Huazhi Innovation Valley, No. 7 Yuhua Street, 138 Industrial Zone, Tangxia Town, Dongguan, Guangdong Province, China