DreamLNK

SPECIFICATION

Shenzhen DreamLNK Technology Co., Ltd.
深圳市骏眸科技有限公司

433MHZ Spring Antenna

Product Specification

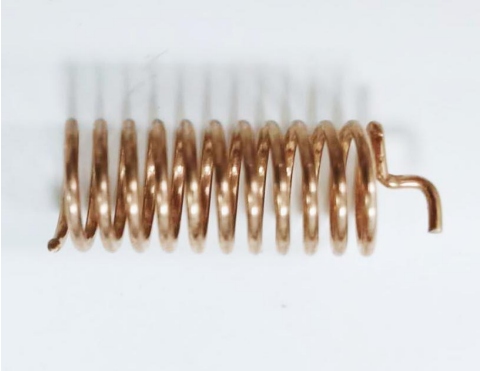
Client Name		**Frequency Band**	433 MHz
Wire Name		**Version**	A1
Customer's Part Number		**DreamLNK's Part Number**	T18
RF Designer	James Wang	**RF Manager**	Knight Ai
Structural Designer		**Structural Design Manager**	
Technical Director		**Date**	2018-06-22

Client confirmation:

Whether the product meets your requirements? □ OK □ NG

Contents

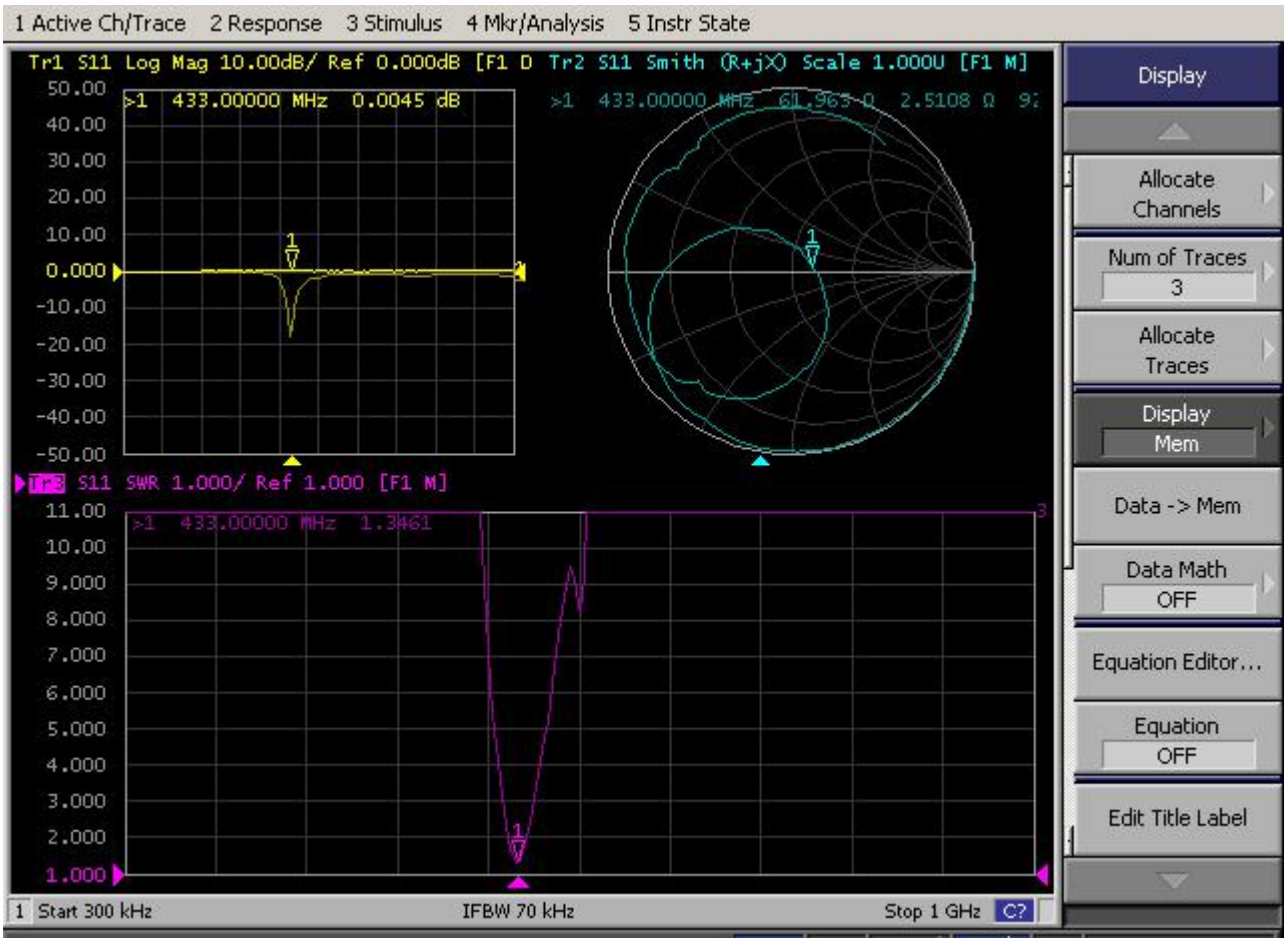
1. Photos

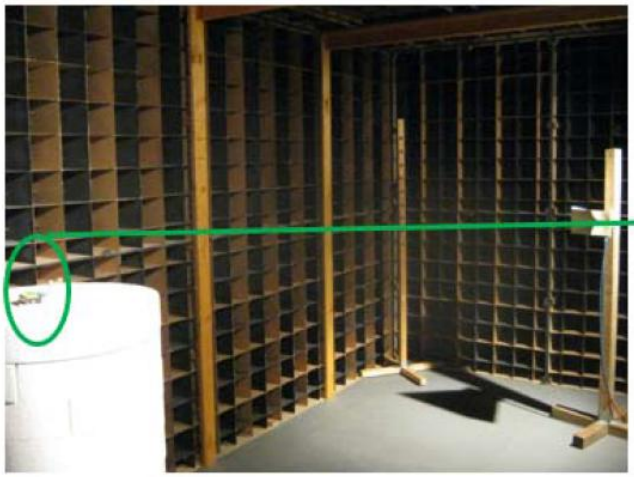


2. Parameters

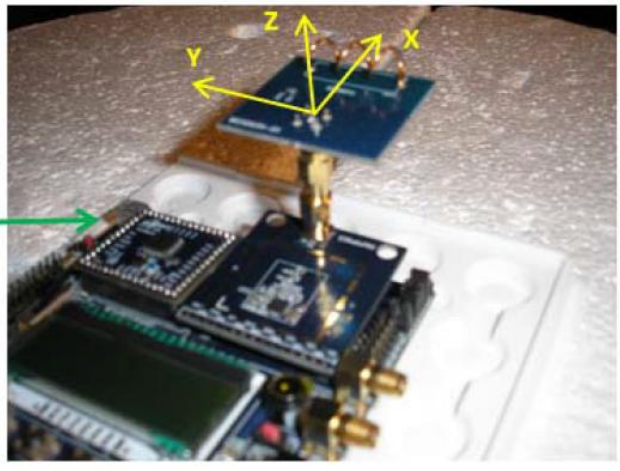
Test parameters			
Product Name	**Spring Antenna**	**Model No**	T18
Electrical Specifications			
Frequency Range	433MHz	**Polarization**	Vertical
Input Impedance	50 Ω	**Radiation direction**	Omnidirectional
VSWR	≦3.0	**Power Capacity**	1W
Gain	2.5 dBi	**Bandwidth**	433±5MHZ
Mechanical Specifications			
Dimensions	21.5*7.5mm	**Color**	Gold
Installation	Welding on PCB	**Cable Length**	/
Antenna Material	Phosphor bronze	**Storage Temperature**	-30℃-+65℃
Working Temperature	-40℃-+85℃	**Relative Humidity**	40~85%

3. S11 DATA (VSWR, Return loss, Smith)



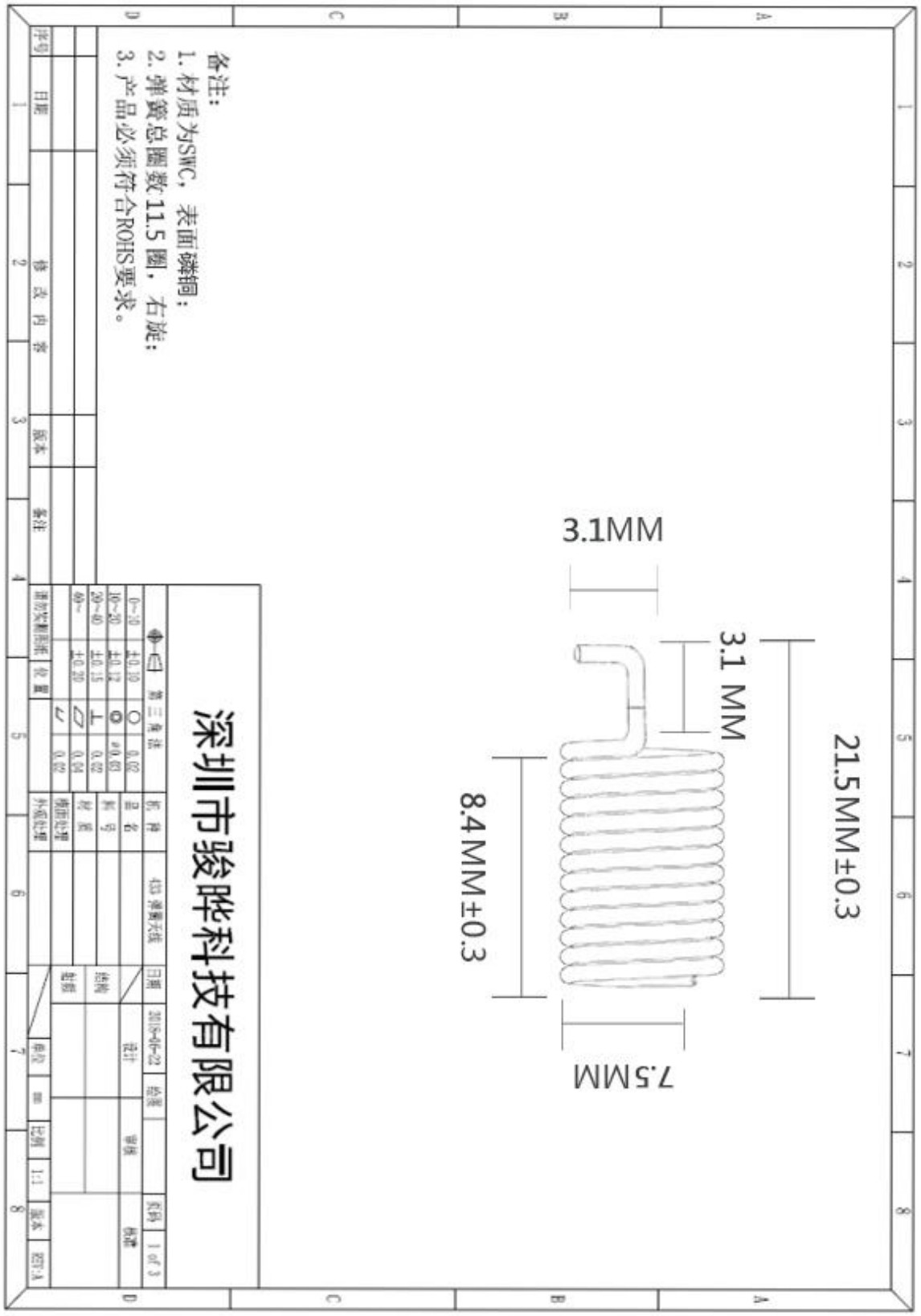


Dark Room Test

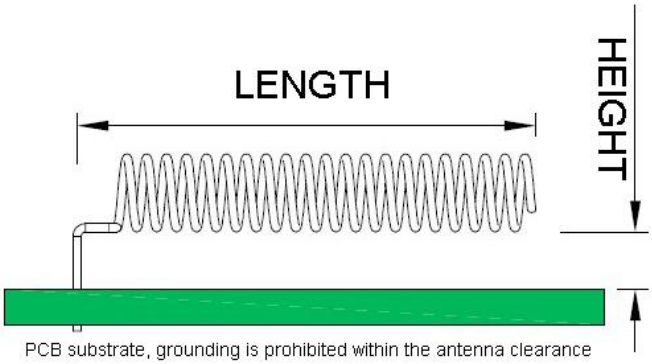


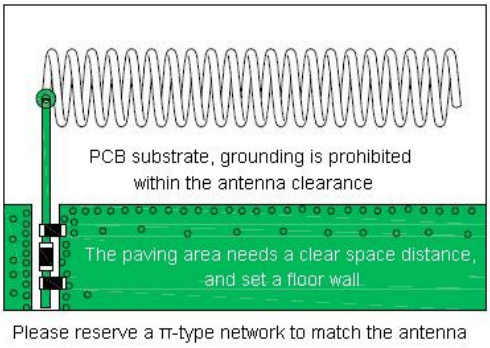
XYZ direction test

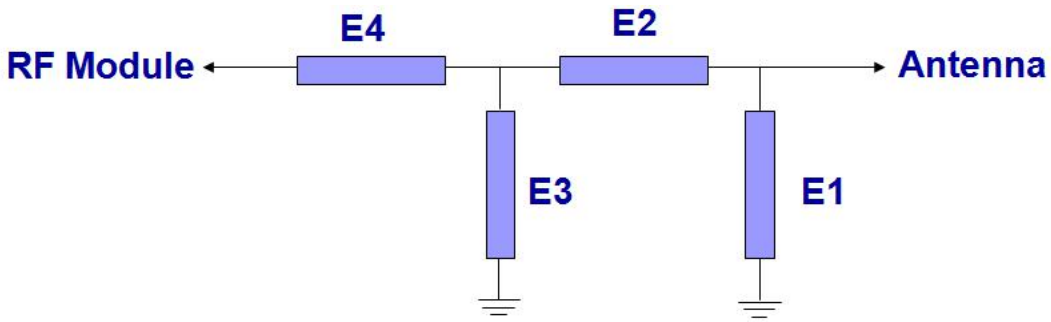
4. Structure Diagram



5. Application & Design Guidance







Note: The antenna design process needs to combine the product shape and structure, the position of the RF module signal input and output interface, and the position of the interference source inside the product to determine the position, angle, distance from the floor, and height from the PCB substrate.

Please reserve a π-type network to match the antenna. When debugging the antenna, be sure to provide a complete product shell and internal PCBA function board, calculate the external interference source and parasitic capacitance into the matching, so that the antenna can achieve the best performance indicators and work efficiency.

The PCB trace of the matching network refers to the 0.5mm line width, and the grounding on both sides of the network refers to the 0.35mm spacing to maintain good impedance characteristics.

If you have any questions, please send PCB documents to this e-mail support@dreamlnk.com

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 ℃ ~ + 80 ℃ 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 ℃ and 40 ℃, 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 ± 3%, Test temperature: 40 ℃. 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 ★

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