

Product Number: HN0433-5501SM
Product Name: Antenna

东莞市皓诺电子有限公司
Dongguan Haonuo Electronics Co., Ltd

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1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	433 MHz
S.W.R.	≤ 2.0 @ 433 MHz
Antenna Gain	2dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	Body: TPE Hinge: ABS Holder: PC
Cable Type	RG-178
Connector Type	SMA Male
Connector Pull Test	$\geq 3\text{Kg}$
Connector Torque Test	200 ~500 g.cm
C. Environmental	
Operation Temperature	- 40 °C ~ + 85 °C
Storage Temperature	- 40 °C ~ + 85 °C

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2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 85°C; Time: 96 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

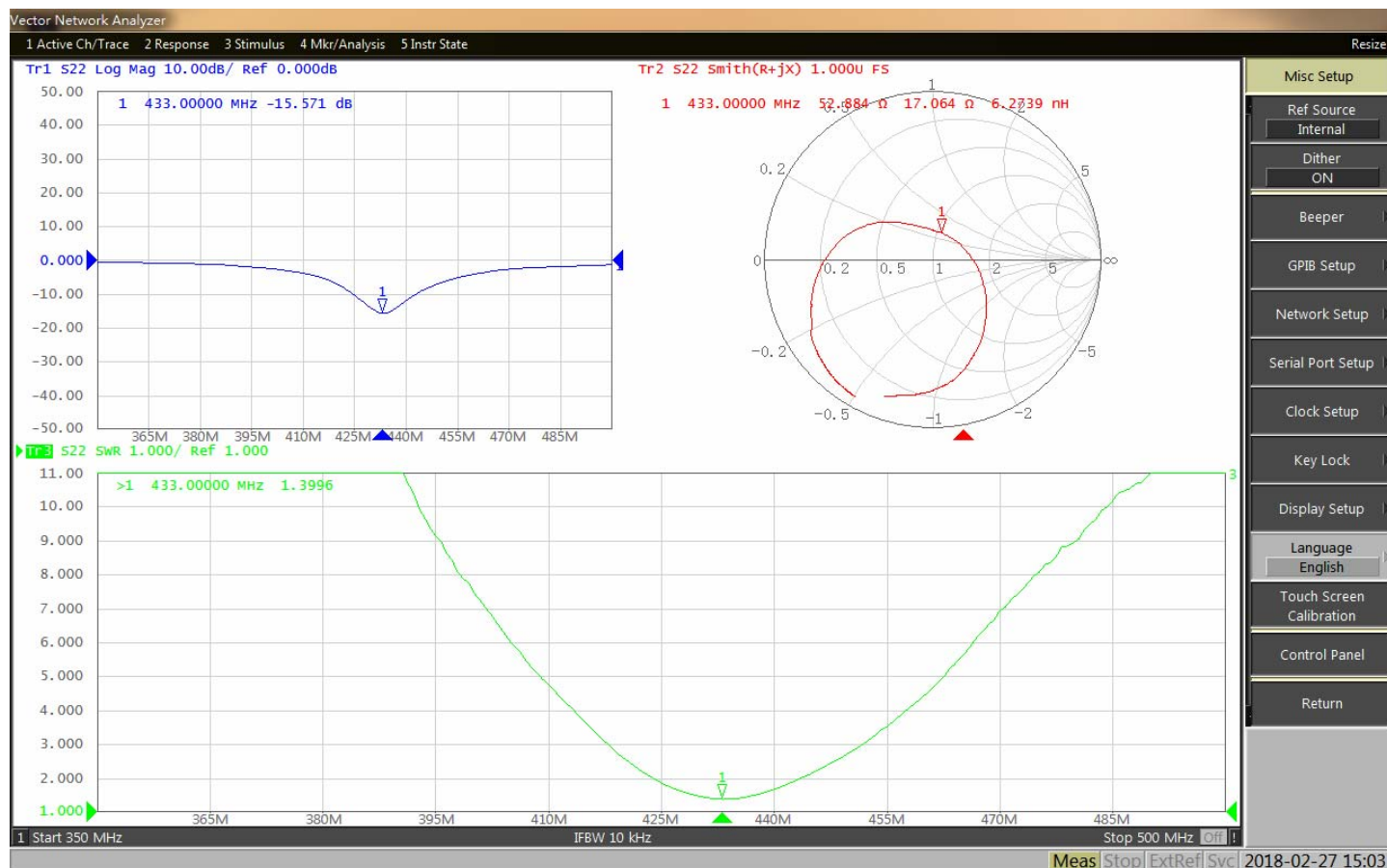
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3. Antenna - S Parameter Test Data



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4. Antenna - Radiation Pattern Test Data

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

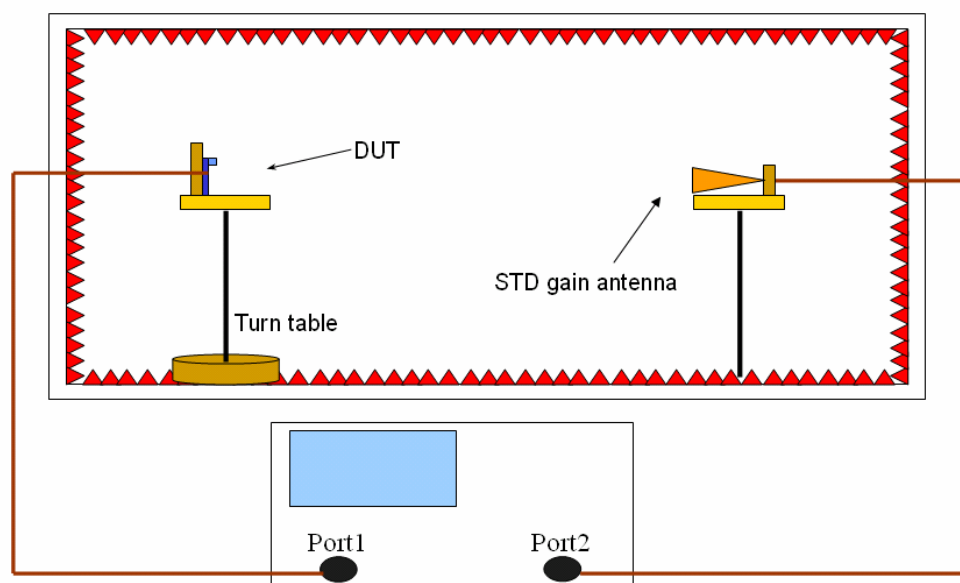
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

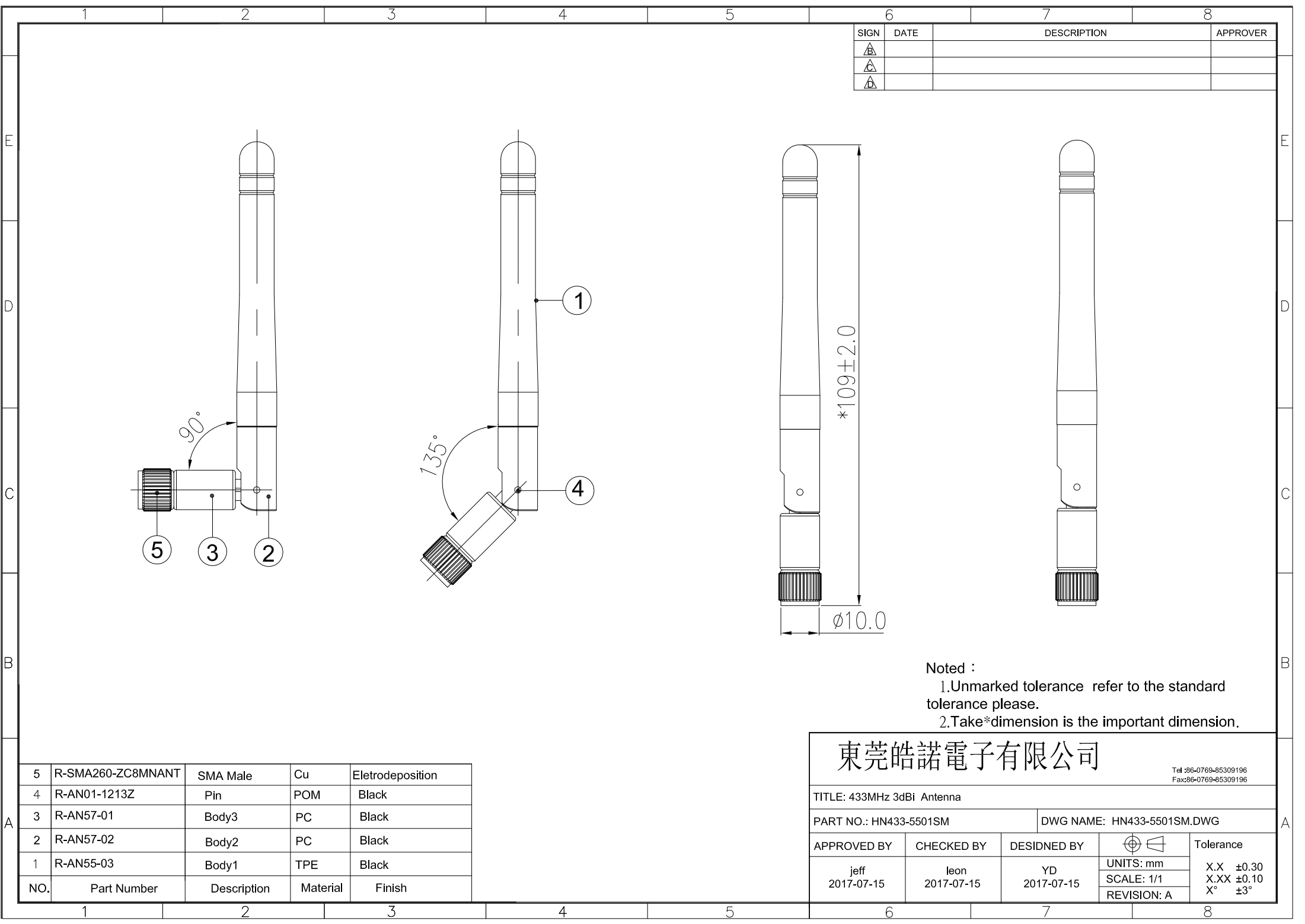
Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna



5. Mechanical Drawing

See attached files



SIGN	DATE	DESCRIPTION	APPROVER

Noted :
1.Unmarked tolerance refer to the standard tolerance please.
2.Take*dimension is the important dimension.

5	R-SMA260-ZC8MNANT	SMA Male	Cu	Eletrodeposition
4	R-AN01-1213Z	Pin	POM	Black
3	R-AN57-01	Body3	PC	Black
2	R-AN57-02	Body2	PC	Black
1	R-AN55-03	Body1	TPE	Black
NO.	Part Number	Description	Material	Finish

東莞皓諾電子有限公司					Tel :86-0769-85309196 Fax:86-0769-85309196	
TITLE: 433MHz 3dBi Antenna						
PART NO.: HN433-5501SM				DWG NAME: HN433-5501SM.DWG		
APPROVED BY	CHECKED BY	DESIDNED BY			Tolerance	
jeff 2017-07-15	leon 2017-07-15	YD 2017-07-15			UNITS: mm	X.X ±0.30
					SCALE: 1/1	X.XX ±0.10
					REVISION: A	X° ±3°