

Antenna Specifications

At Wavelink, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

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Catalogue

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1 Product Description

This wavelink antenna covers 433MHz.

2 Product Features

Easy to install
High efficiency
Removable



3 Product Specifications

Passive Electrical Specifications

Frequency Range	433 MHz
Input Impedance	50 Ω

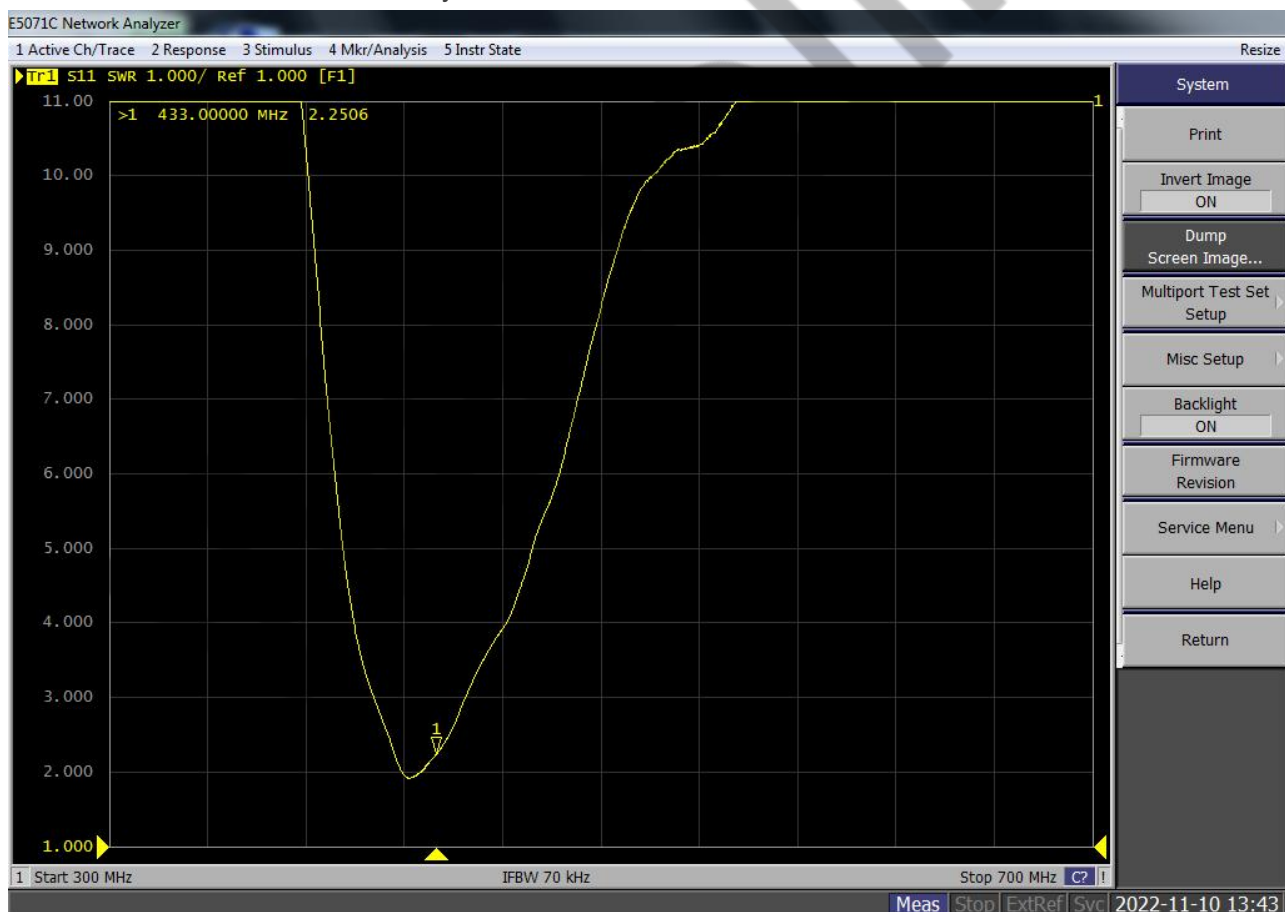
VSWR	≤ 3
Gain	≤ 1 dBi
Polarization Type	Linear

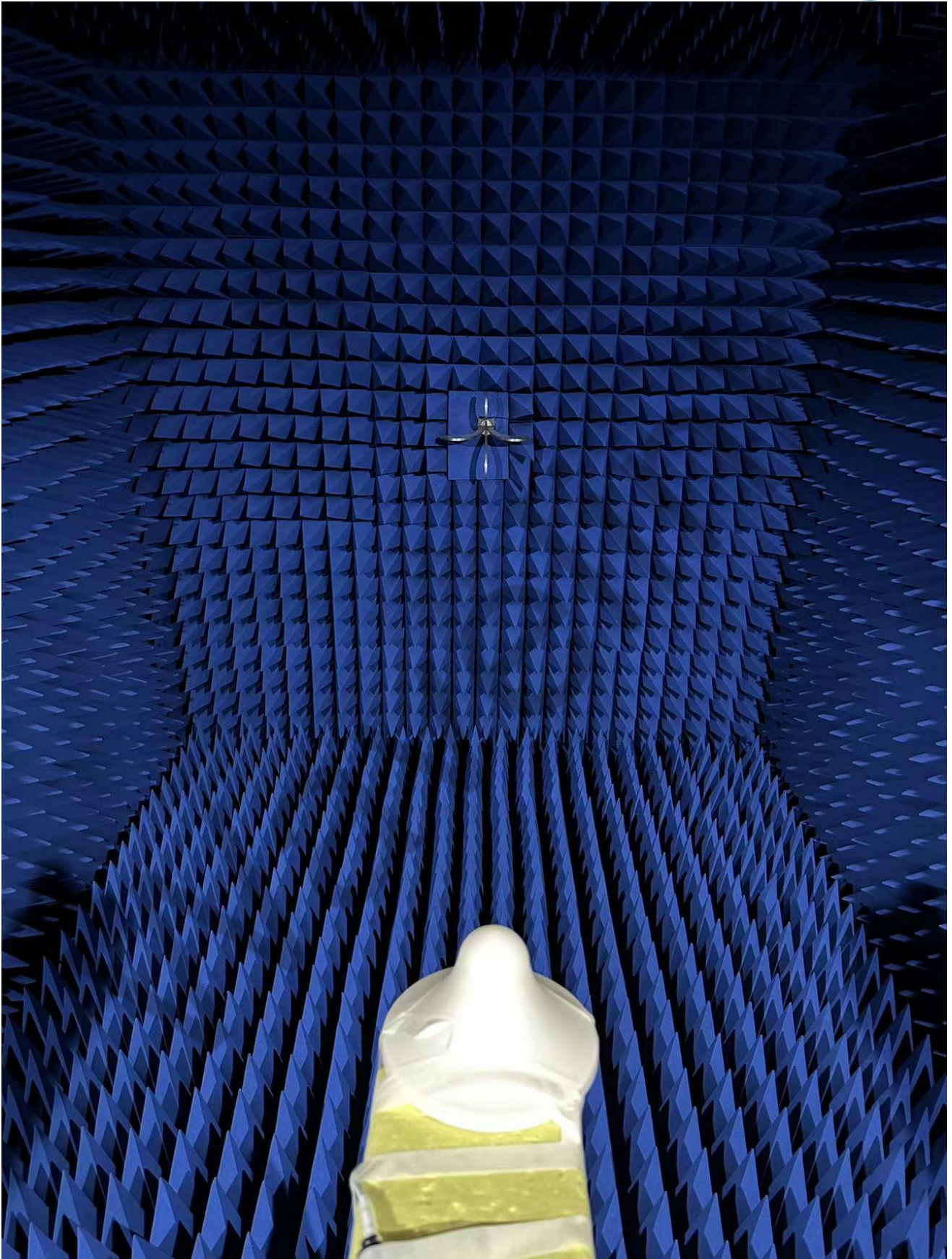
Mechanical Specifications

Antenna Size	160mm × 90mm
Connector Type	SMA
Working Temperature	-40 °C to +85 °C
Radome Color	White

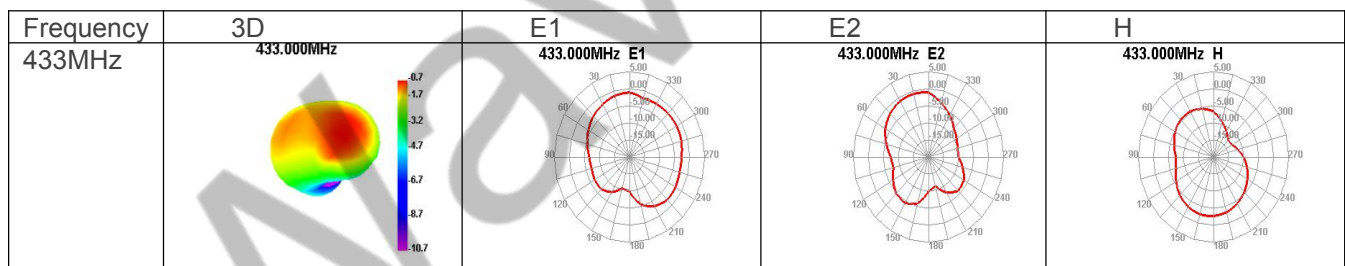
4 Overall Performance

KEYSIGHT VNA Network Analyzer E5071C 100 kHz – 8.5 GHz





Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
420	40.03	-3.98	-0.03	-2.18	-0.03	-16.16	3.95	195	36.58	38.43
421	39.42	-4.04	-0.09	-2.24	-0.09	-15.86	3.96	195	36.53	38.35
422	38.81	-4.11	-0.13	-2.28	-0.13	-15.48	3.98	195	36.49	38.28
423	38.41	-4.16	-0.15	-2.3	-0.15	-15.17	4	195	36.44	38.2
424	38.1	-4.19	-0.18	-2.33	-0.18	-14.91	4.01	195	36.39	38.13
425	37.76	-4.23	-0.22	-2.37	-0.22	-14.68	4.01	195	36.34	38.05
426	37.81	-4.22	-0.22	-2.37	-0.22	-14.42	4	195	36.34	38.06
427	37.74	-4.23	-0.24	-2.39	-0.24	-14.17	3.99	195	36.33	38.06
428	37.57	-4.25	-0.28	-2.43	-0.28	-13.96	3.97	195	36.32	38.06
429	37.34	-4.28	-0.32	-2.47	-0.32	-13.72	3.95	195	36.32	38.07
430	37.1	-4.31	-0.38	-2.53	-0.38	-13.52	3.93	195	36.31	38.07
431	36.2	-4.41	-0.51	-2.66	-0.51	-13.42	3.91	195	36.24	37.97
432	35.43	-4.51	-0.63	-2.78	-0.63	-13.28	3.88	195	36.16	37.86
433	34.8	-4.58	-0.73	-2.88	-0.73	-13.14	3.86	195	36.09	37.76
434	34.32	-4.64	-0.81	-2.96	-0.81	-13.25	3.83	195	36.02	37.66
435	33.97	-4.69	-0.89	-3.04	-0.89	-13.39	3.8	195	35.94	37.55
436	33.33	-4.77	-0.99	-3.14	-0.99	-13.57	3.78	195	35.82	37.4
437	32.67	-4.86	-1.11	-3.26	-1.11	-13.76	3.75	195	35.7	37.26
438	31.83	-4.97	-1.22	-3.37	-1.22	-13.94	3.75	195	35.58	37.11
439	30.85	-5.11	-1.35	-3.5	-1.35	-14.12	3.76	195	35.45	36.96
440	29.89	-5.25	-1.48	-3.63	-1.48	-14.32	3.76	210	35.33	36.81



5 Product Size

The technical drawing shows a 433MHz antenna with the following dimensions and features:

- Antenna Head: 90±10 (width), 160±10 (length), 17.7±0.2 (height).
- Antenna Body: 1000±100 (length), 45.7±0.5 (width), 17.8±0.5 (height).
- Antenna Base: 17.8±0.5 (width), 45.7±0.5 (length).
- Antenna Connector: SMA Female, R658 White, ABS White.

The BOM table is as follows:

NO	DESCRIPTION	QTY	REMARK
3	CONN	1	
2	Cable	1	
1	Antenna Body	1	

6 Others

DESCRIPTION	SPECIFICATION
Temperature /Humidity cycling	1, The device under test is kept for 30 mins in an environment with a temperature of -40 °C. 2, Kept for 4 Hours in an environment with a temperature of 8cthe conditions are stabilized at room temperature. 3, Parts should meet RF spec before and after test. 4, No cosmetic problem(No soldering problem;No adhesion problem of glue).
Temperature Shock	1, The device under test at -40 °C ⇌125 °C by 100 cycles, Dwell of 30 mins, transition time between Dwell 30 secs (~ 61 mins / cycle) and each item should be measured after exposing them in normal temperature and humidity for 24 h. 2, Parts should meet RF spec before and after test. 3, No cosmetic problem(No soldering problem; No adhesion problem of glue).
High Temperature	1, Temperature:125°C, time:1008 hours 2, There is no substantial obstruction to air flow across and around the samples, and the samples are not touching each other 3, Parts should meet RF spec before and after test. 4, No cosmetic problem(No soldering problem; No adhesion problem of glue).
Salt mist test	1, The device under test is exposed to a spray of a 5% (by volume) resolution of NACL in water for 2 hours. Thereafter the device under test is left for 1 week in room temperature at a relative humidity of 95%. The cycle is repeated until a total of 2 cycles have been completed. Here after the conditions are stabilized at room temperature. 2, Parts should meet RF spec before and after test. 3, No visible corrosion. Discoloration accept.