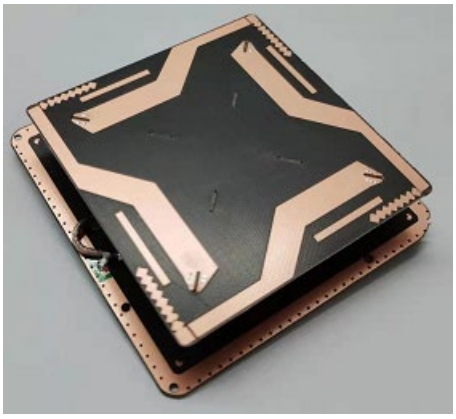
RFID handheld UHF ultra-high frequency American standard antenna specifications



Model: RR-UANT-FAS8-SQ53 American Standard

size: 80mmx80mmx14mm

Net weight 30g

brief introduction

RR-UANT-FAS8-SQ53 American standard is a high-performance UHF American standard antenna. It can be used to produce handheld devices, integrated devices, and is widely used in various wireless radio frequency identification (RFID) systems such as logistics, access control systems, anti-counterfeiting systems, and production process control.

Extreme parameters

project	Symbols	Numerical val	Unit
Working temperature	T_{OPR}	-20 ~ +65	℃
Storage temperature	T_{STR}	-35 ~ +70	℃

specifications

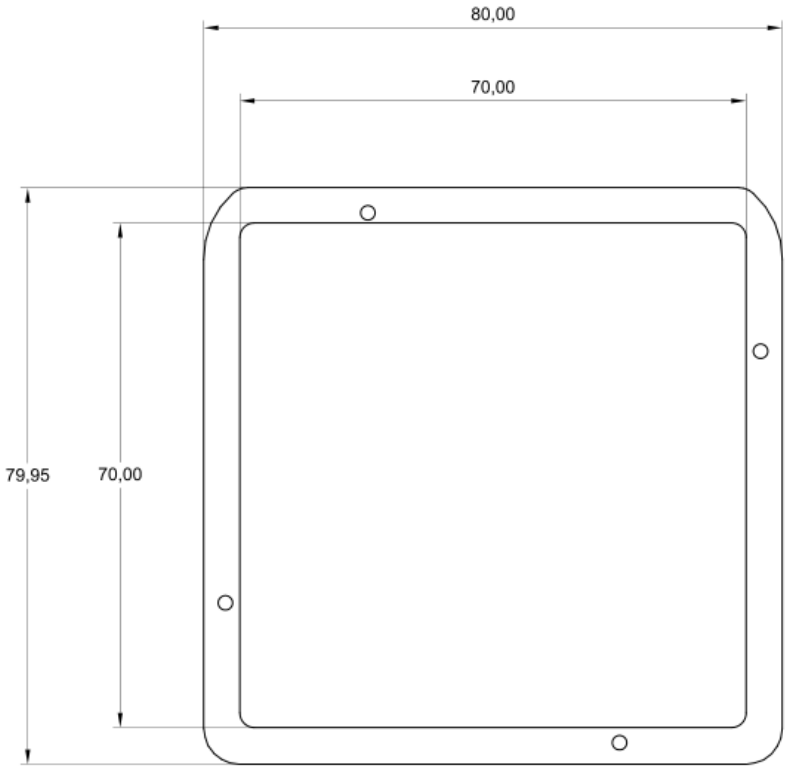
project	describe
Frequency band*	902 ~ 928 MHz

manufacturer: Shenzhen Rongrui Hexin Technology Co., Ltd
Add: 4th Floor, West Block, Building A1, Xiufeng Industrial Zone, No. 2 Xiufeng Road, Longgang District, Shenzhen E-Mail: market@rr-rfid.com rr-rfid@163.com
Tel: +86 755 25531562 25606619 25636705
www.rr-rfid.com
Fax: +86 755 25531562

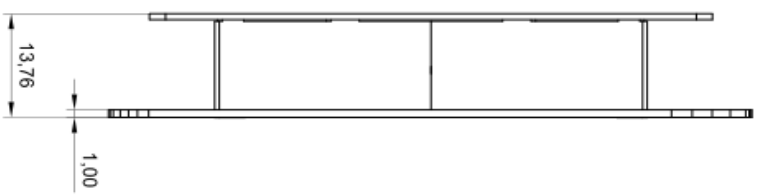
Gain	3.75 dB
Polarization mode	Circular polarization
Lobe width	114°
Voltage standing wave ratio	≤ 1.5（Typical value）
Axis ratio	＜ 2.5 dB
Impedance	50 Ω
Materials	PCB Antenna
RF line length	80±3 mm （Customizable）
Joint type	MMCX-M （Customizable）

**Customized frequency bands can be provided for selection within a certain range, depending on the specific situation.*

Installation specifications and dimensions



Front (working face) (unit: mm)



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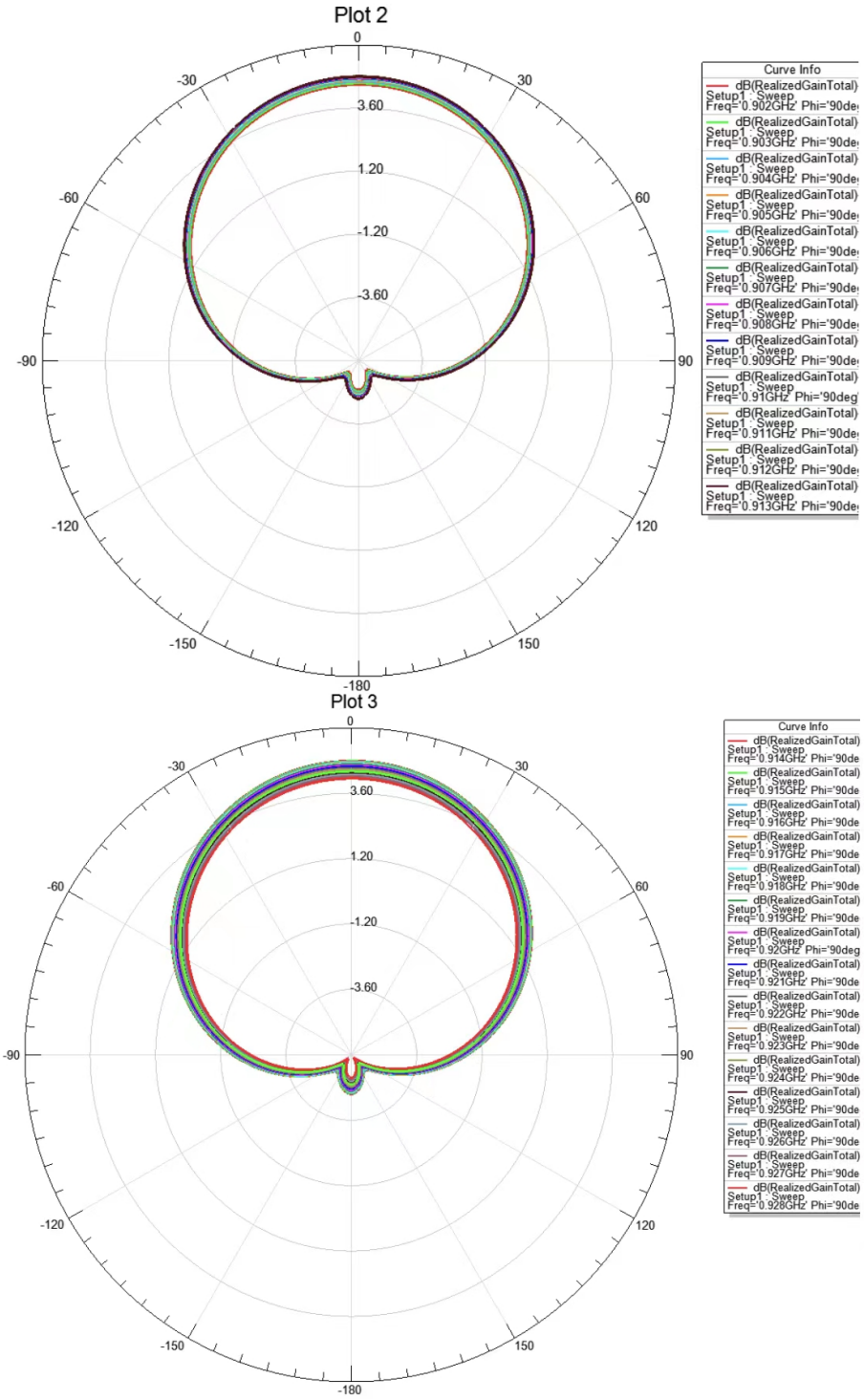
Side view (unit: mm)

Directional diagram

902mhz-928Mhz Phi=90°



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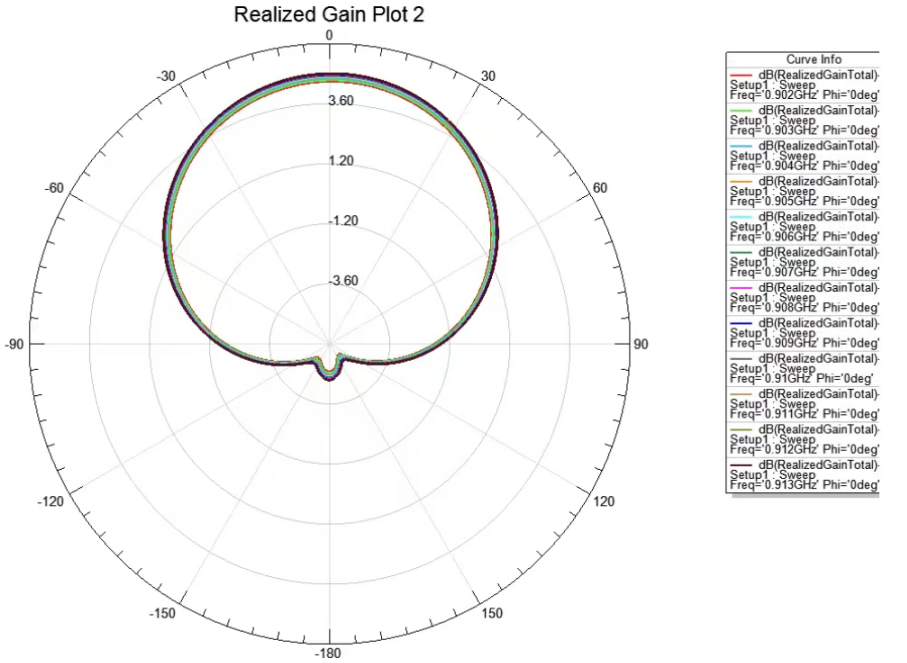
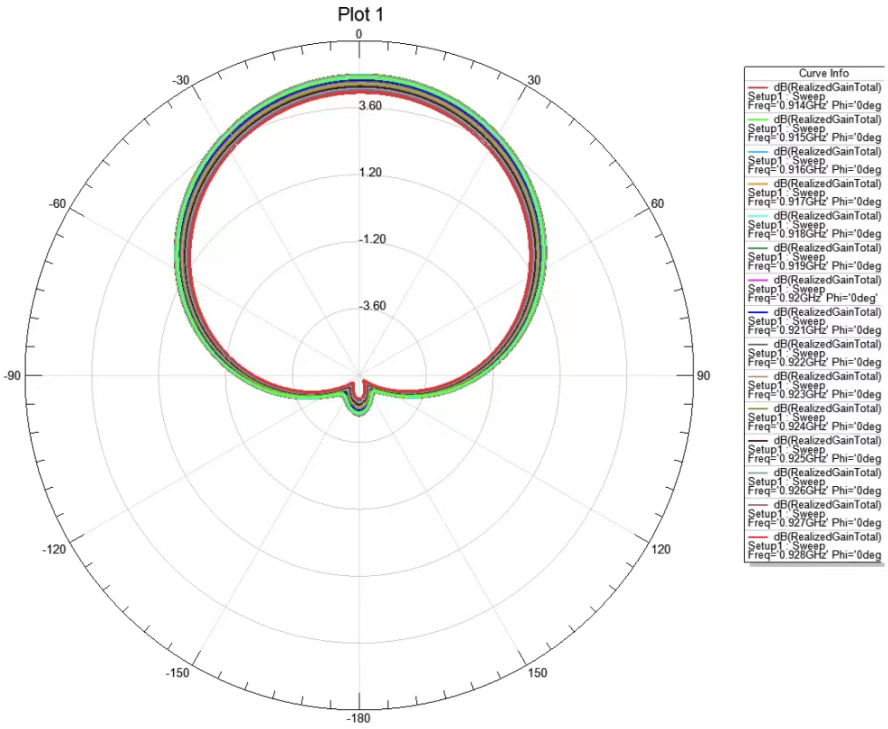
902mhz-928Mhz Phi=0°





Note:

1. *If there are any changes to the manual, please refer to the latest version.*
2. *Shenzhen Rongrui Hexin Technology Co., Ltd. reserves the final interpretation right.*

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Attachment:

Ultra high frequency antenna
Material code: 3.01.59.80019
(RR-UANT-FAS8-SQ53 US standard)

Antenna gain test data and daily efficiency

Gain & Efficiency

NO.	FREQUENCY (MHz)	GAIN (dBi)	EFFICIENCY (%)	NO.	FREQUENCY (MHz)	GAIN (dBi)	EFFICIENCY (%)
1	902.1	2.80	82.4%	71	916.1	3.51	82.4%
2	902.3	2.85	82.2%	72	916.3	3.52	82.6%
3	902.5	2.81	82.5%	73	916.5	3.52	82.5%
4	902.7	2.82	82.2%	74	916.7	3.57	82.7%
5	902.9	2.84	82.9%	75	916.9	3.54	82.2%
6	903.1	2.87	82.7%	76	917.1	3.55	82.4%
7	903.3	2.86	82.4%	77	917.3	3.57	82.7%
8	903.5	2.85	82.6%	78	917.5	3.58	83.1%
9	903.7	2.87	82.8%	79	917.7	3.60	83.1%
10	903.9	2.90	82.2%	80	917.9	3.69	83.2%
11	904.1	2.89	82.7%	81	918.1	3.64	83.8%
12	904.3	2.90	82.8%	82	918.3	3.65	84.1%
13	904.5	2.92	82.4%	83	918.5	3.67	84.2%
14	904.7	2.94	82.2%	84	918.7	3.69	84.5%
15	904.9	2.96	82.3%	85	918.9	3.70	84.9%
16	905.1	2.94	82.5%	86	919.1	3.71	85.5%
17	905.3	2.98	82.3%	87	919.3	3.71	85.2%
18	905.5	3.01	82.6%	88	919.5	3.71	85.3%
19	905.7	3.03	82.4%	89	919.7	3.72	85.9%
20	905.9	3.01	82.9%	90	919.9	3.72	86.0%
21	906.1	3.04	82.6%	91	920.1	3.73	86.1%
22	906.3	3.03	82.7%	92	920.3	3.73	86.2%
23	906.5	3.05	82.8%	93	920.5	3.73	86.3%
24	906.7	3.07	82.7%	94	920.7	3.74	86.4%
25	906.9	3.05	82.4%	95	920.9	3.74	86.5%
26	907.1	3.08	82.7%	96	921.1	3.75	86.7%
27	907.3	3.10	82.5%	97	921.3	3.75	86.7%
28	907.5	3.15	82.6%	98	921.5	3.75	86.9%
29	907.7	3.11	82.4%	99	921.7	3.75	86.9%
30	907.9	3.12	82.5%	100	921.9	3.75	86.9%
31	908.1	3.13	82.3%	101	922.1	3.74	86.6%

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32	908.3	3.14	82.4%		102	922.3	3.74	86.6%
33	908.5	3.15	82.4%		103	922.5	3.73	86.4%
34	908.7	3.17	82.8%		104	922.7	3.73	86.4%
35	908.9	3.18	82.4%		105	922.9	3.72	86.2%
36	909.1	3.20	82.8%		106	923.1	3.72	86.1%
37	909.3	3.21	82.5%		107	923.3	3.71	86.0%
38	909.5	3.22	82.4%		108	923.5	3.71	85.5%
39	909.7	3.23	82.9%		109	923.7	3.70	85.8%
40	909.9	3.23	82.7%		110	923.9	3.70	85.7%
41	910.1	3.25	82.6%		111	924.1	3.58	83.1%
42	910.3	3.27	82.8%		112	924.3	3.60	83.1%
43	910.5	3.26	82.4%		113	924.5	3.69	83.2%
44	910.7	3.27	82.3%		114	924.7	3.57	82.7%
45	910.9	3.29	82.4%		115	924.9	3.54	82.2%
46	911.1	3.29	82.7%		116	925.1	3.55	82.3%
47	911.3	3.30	82.7%		117	925.3	3.57	82.7%
48	911.5	3.32	82.8%		118	925.5	3.51	82.0%
49	911.7	3.33	82.9%		119	925.7	3.50	82.4%
50	911.9	3.32	82.5%		120	925.9	3.47	82.7%
51	912.1	3.35	82.3%		121	926.1	3.44	82.4%
52	912.3	3.37	82.7%		122	926.3	3.43	82.7%
53	912.5	3.36	82.4%		123	926.5	3.45	82.6%
54	912.7	3.39	82.7%		124	926.7	3.44	82.4%
55	912.9	3.39	82.6%		125	926.9	3.41	82.7%
56	913.1	3.38	82.2%		126	927.1	3.34	82.4%
57	913.3	3.41	82.3%		127	927.3	3.33	82.7%
58	913.5	3.41	82.6%		128	927.5	3.35	82.6%
59	913.7	3.44	82.4%		129	927.7	3.34	82.4%
60	913.9	3.43	82.7%		130	927.9	3.31	82.7%
61	914.1	3.45	82.6%					
62	914.3	3.47	82.8%					
63	914.5	3.49	82.4%					
64	914.7	3.51	82.0%					
65	914.9	3.50	82.4%					
66	915.1	3.47	82.7%					
67	915.3	3.50	82.4%					
68	915.5	3.51	82.7%					
69	915.7	3.55	82.7%					
70	915.9	3.51	82.3%					

The data in this table are all typical values, and some samples may have data deviations. Please refer to actual testing for accuracy.

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