

☒ New regulations

☐ Update

Technical specifications

Product Name: Ceramic Antenna

Product model: ceramic antenna\HY160808 SRF08\ZN

Part number: 1257868

Shenzhen Hanyang Antenna Design Co., Ltd.

Address: No. 9, Taohuayuan Science and Technology

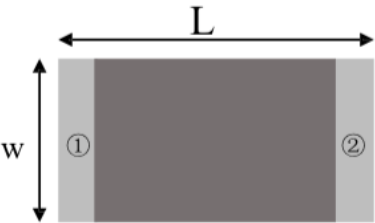
Innovation Park, Tiegang Community, Xixiang Subdistrict,

Bao'an District, Shenzhen City

	Material code	1257868
Ceramic Antenna\HY160808 SRF08\ZN	Edition	pages
	V1.00	3

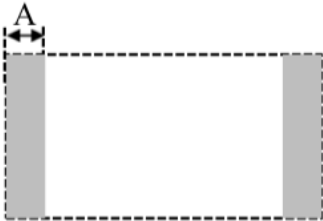
Engineering drawings

Dimensions (Unit: mm)

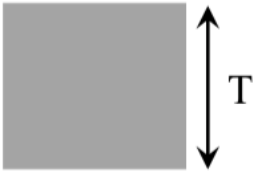


(Top View)

Number	Terminal Name
①	INPUT
②	NC



(Bottom View)



(Side View)

Symbols	L	W	T	A
Dimensions	1.60±0.20	0.80±0.20	0.80±0.20	0.30±0.10

	Material code	1257868
--	---------------	---------

<u>Ceramic Antenna\HY160808 SRF08\ZN</u>	Edition	pages
	V1.00	5

Appendix: Key structural specifications and drawings;
--

	Material code	1257868
<u>Ceramic Antenna\HY160808 SRF08\ZN</u>	Edition	pages
	V1.00	6

2. Performance index parameter requirements

2.1 Key performance index requirements

Serial number	project	Specifications:	
1	Frequency bands	2400-2500MHz/ 5150-5850 MHz	
2	Directionality	Omnidirectional antenna	
3	Input impedance	50 Ohm Nominal	
4	Echo loss	-15dB(Max)2.4-2.5G; -15dB(Max)5.15G-5.85G	
5	VSWR	2	
6	Polarization mode	Line polarization	
7	gain	0.86dBi (Max) 2.4G~2.5GHz ; 0.19dBi (Max) 5.15G-5.85GHz	Horizontal gain with cable test
8	efficiency	$\geq 40\%$	

2.2 Test data

Serial number	Test item	2.4G~2.5G	5.15G~5.85G
1	Input impedance	50 Ohm Nominal	
2	Echo loss	$\geq -14\text{dBi}$	$\geq -14\text{dBi}$
3	VSWR	≤ 1.5	≤ 1.5
4	Average efficiency	46%	45%
5	Cable loss	$\leq 3.15\text{dB/M}$	$\leq 3.15\text{dB/M}$

	Material code	1257868
<u>Ceramic Antenna\HY160808 SRF08\ZN</u>	Edition	pages
	V1.00	7

2.3 Environmental and reliability index requirements

Serial number	project	Specifications:	Note:
1	Operating temperature requirements	-20℃~+85℃	
2	Operating humidity requirements		
3	Storage temperature requirements	-30℃~+85℃	
4	Storage humidity requirements		
5	Tensile test	The tensile force is 25N>Φ 1.13>9.8N, and the cable will not break	The clamp is fixed at the base of the antenna and pulls the cable at one end
6	Plugging and unplugging requirements		
7	Salt spray test	There is no abnormality or rust in appearance	Saline concentration: 5%; Test temperature: 35° C; Pressure barrel temperature: 47° C; Test time: 48 hours
8	High temperature resistance	\	
9	Resistant to low temperatures	\	
10	Temperature cycling	\	
11	Alternating dampness and heat	\	
12	Environmental protection requirements	Meet EU ROHS and REACH directives, meet Chinese ROHS directives, and meet lead-free	

		requirements for coating	

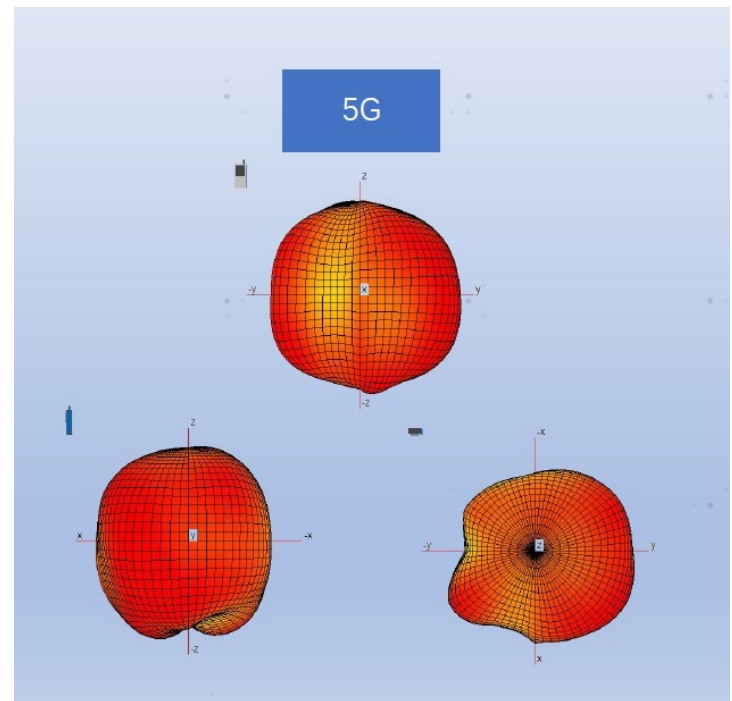
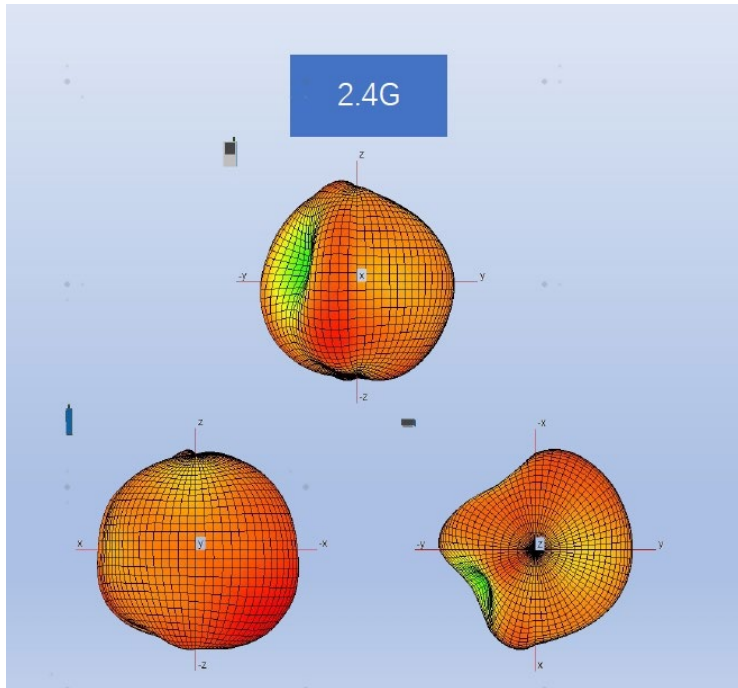
	Material code	1257868
<u>Ceramic Antenna\HY160808 SRF08\ZN</u>	Edition	pages
	V1.00	8

3. Dimensional test report

Customer name	Hisense	Product Name	Ceramic antenna			quantity	5SET	
Product material:	Ceramics	Material color	Grey			Date	2021/1/27	
Product Type: ☒ New Mold Samples ☐ Modified Mold Samples ☐ Mass Production ☐ Others								
NO	Engineering drawings require dimensions	Measured dimensions					Judgment	Note:
		1	2	3	4	5	OK/NG	
1	1.10±0.10	1.10	1.11	1.10	1.10	1.11	OK	
2	1.90±0.10	1.90	1.91	1.92	1.95	1.90	OK	
3	0.80±0.10	0.85	0.80	0.82	0.80	0.85	OK	
4								
5								
6								
7								
8								
Appearance: OK								
Performance: Qualified								
Overall verdict: OK ☐ OK ☐ NG								
Approval: Qin Zhike Review: Li Zhifeng Creation: Kang Fengyu								
Remarks:								

Form number: ZTX-QR-QA-016 version: A1

	Material code	1257868
<u>Ceramic Antenna\HY160808 SRF08\ZN</u>	Edition	pages
	V1.00	8

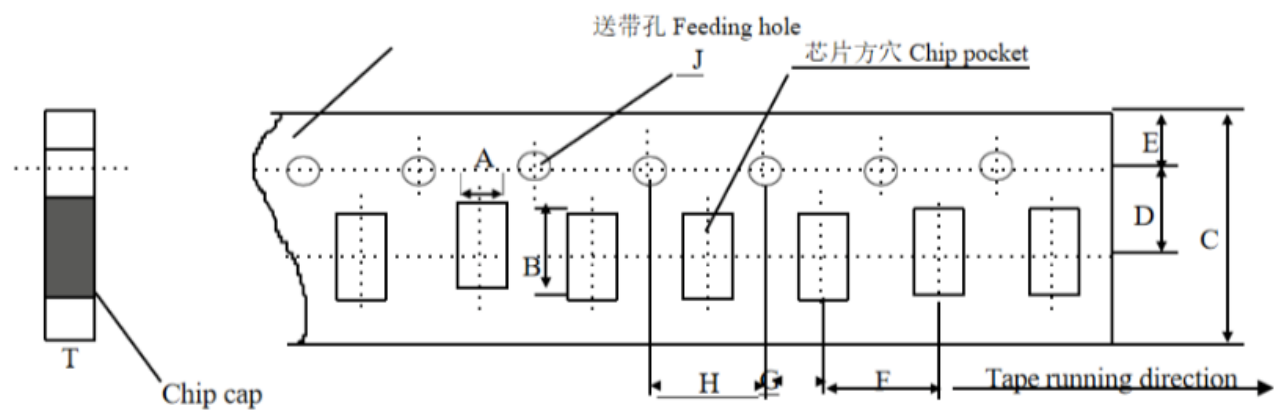


Frequency	eff-dB	Gain	eff-percent
2400	-4.76	-1.05	33.44
2410	-4.52	-0.83	35.35
2420	-4.4	-0.89	36.35
2430	-4.19	-0.73	38.09
2440	-3.93	-0.51	40.42
2450	-3.65	-0.25	43.14
2460	-3.56	-0.24	44.01
2470	-3.29	0.1	46.93
2480	-3.05	0.46	49.55
2490	-2.87	0.66	51.62
2500	-2.82	0.86	52.23

Frequency	eff-dB	Gain	eff-percent	Frequency	eff-dB	Gain	eff-percent
5150	-3.5	-0.18	44.72	5540	-3.71	-0.46	42.53
5180	-3.49	-0.4	44.76	5570	-3.49	-0.11	44.79
5210	-3.51	-0.44	44.53	5600	-3.8	-0.39	41.72
5240	-3.63	-0.52	43.36	5630	-3.82	-0.47	41.53
5270	-3.62	-0.51	43.5	5660	-3.59	-0.26	43.71
5300	-3.41	-0.23	45.62	5690	-3.49	0	44.82
5330	-3.61	-0.12	43.54	5720	-3.64	-0.09	43.27
5360	-3.62	-0.01	43.45	5750	-3.35	0.19	46.19
5390	-4.04	-0.63	39.46	5780	-3.64	-0.01	43.28
5420	-3.86	-0.32	41.16	5810	-3.89	-0.22	40.87
5450	-4.14	-0.64	38.55	5840	-3.78	-0.04	41.83
5480	-3.68	-0.32	42.87	5850	-3.74	-0.02	42.32
5510	-3.59	-0.47	43.7				

	Material code	1257868
Ceramic Antenna\HY160808 SRF08\ZN	Edition	pages
	V1.00	8

5.3 Packaging diagram



6. Environmental protection requirements

The raw materials and packaging materials used in parts must comply with Hisense Q/RSAG J15.002 chemical substance restriction requirements.