

## Antenna specification for approval

Customer name: SANJIADA

Antenna type: BT/WIFI Antenna

Antenna band: 2.4G/5.8G

Material: FPC

Colour: Black

Material number: F1314A-1R24B-450-A F1314A-1R24G-450-A

Date of production: 2022-04-06

Version: A			
Acknowledge the signature Admit that signature			
<b>Confirmation Signature</b>		<b>Customer Approved</b>	
<b>Responsible</b>		<b>Responsible</b>	
<b>QC</b>		<b>Chief</b>	
<b>Approve</b>		<b>Approve</b>	
<b>Date</b>		<b>Date</b>	

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一：概述Overview

- This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of WLAN antenna.
- Antenna shape size: Meet the requirement of MID
- Antenna band: 2400MHz~2500MHz,5150MHz-5850MHz
- Antenna material: Antenna material meet the requirement of MID
- Adhesive performance: Adhesive performance meet the requirement of MID
- Antenna performance meet the spec below:

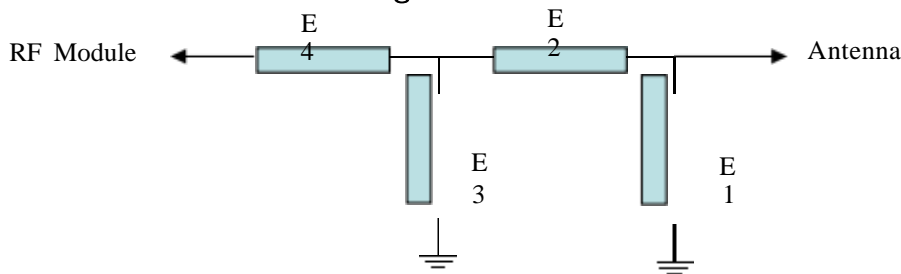
Description	2.4GHz~2.5GHz , 5.15G—5.85G	Units
VSWR	$\leq 2.0$	
Average Antenna Gain	$\geq -4.5$	dB
Antenna Efficiency	$\geq 40$	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

● Mechanical Information

Mechanical Dimension	
Cable Length	450mm/Black/Gray
Description	WLAN antenna
Material	FPC
Coaxial Cable	50Ohm/O.D.0.81mm
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

二： Matching circuit diagram, machine picture、 Antenna picture

2.1 Match the circuit diagram



2.1 Machine picture, antenna picture



三: Standing wave ratio (VSWR), efficiency

3.1 Standing wave ratio





### 3.2. Efficiency and gain

Passive Test For WIFI2.4										
Freq (MHz)	Eff1 (%)	Eff1 (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	56.46	-2.48	2.59	0.44	23.815	32.642	2.59	-15.04	49.08	49.18
2410	56.06	-2.51	2.53	0.38	23.625	32.435	2.53	-15.15	49.16	49.32
2420	62.2	-2.06	3	0.85	26.552	35.652	3	-14.95	49.39	49.91
2430	63.45	-1.98	3	0.85	27.211	36.237	3	-16.09	49.38	49.71
2440	64.55	-1.9	2.94	0.79	27.947	36.603	2.94	-17.55	49.49	49.65
2450	67.09	-1.73	2.96	0.81	29.253	37.841	2.96	-18.95	49.73	49.82
2460	70	-1.55	3.03	0.88	30.804	39.194	3.03	-19.97	49.61	49.88
2470	68.52	-1.64	2.85	0.7	30.108	38.412	2.85	-20.51	49.62	49.8
2480	69.88	-1.56	3.02	0.87	30.626	39.25	3.02	-20.03	49.77	49.77
2490	72.42	-1.4	3.19	1.04	31.568	40.848	3.19	-19.31	49.97	49.86
2500	70.25	-1.53	3.08	0.93	30.614	39.632	3.08	-18.82	49.87	49.77
Passive Test For WIFI5.8										
Freq (MHz)	Eff1 (%)	Eff1 (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5150	50.14	-2.85	1.69	-0.46	31.065	17.072	1.69	-23.31	59.23	59.32
5170	51.77	-2.91	1.56	-0.59	29.422	16.345	1.56	-21.95	59.41	59.7
5190	53.33	-2.89	2.02	-0.13	31.847	17.479	2.02	-19.18	59.54	59.91
5210	51.45	-2.89	2.43	0.28	33.404	18.043	2.43	-18.68	59.32	59.84
5230	51.31	-2.9	2.51	0.36	33.566	17.749	2.51	-17.96	59.31	59.64
5250	51.49	-2.88	2.51	0.36	33.93	17.563	2.51	-17.42	59.69	59.84
5270	50.2	-2.99	2.34	0.19	33.358	16.845	2.34	-17.23	59.3	59.61
5290	57.2	-2.43	2.92	0.77	38.249	18.947	2.92	-17.54	59.91	60.34
5310	52.19	-2.82	2.56	0.41	35.13	17.062	2.56	-19.45	59.46	60.15
5330	53.9	-2.68	2.55	0.4	36.657	17.238	2.55	-21.13	59.73	60.36
5350	53.72	-2.7	2.46	0.31	36.62	17.101	2.46	-22.52	59.76	60.42
5370	56.04	-2.52	2.65	0.5	38.499	17.537	2.65	-22.71	59.72	60.58
5390	52.05	-2.68	1.78	-0.37	32.431	14.617	1.78	-24.7	59.38	59.82
5410	64.74	-1.89	3.01	0.86	44.58	20.165	3.01	-25.32	60.24	60.8
5430	60.87	-2.16	2.79	0.64	41.654	19.221	2.79	-29.55	60.22	60.97
5450	66.54	-1.77	3.29	1.14	45.606	20.933	3.29	-27.17	60.51	61.45
5470	66.36	-1.78	3.25	1.1	45.419	20.941	3.25	-23.8	60.66	61.57
5490	63.85	-1.32	3.62	1.47	50.511	23.336	3.62	-21.83	61.11	62.33
5510	61.22	-1.47	3.37	1.22	48.537	22.683	3.37	-18.44	61.54	62.8
5530	66.89	-1.75	2.95	0.8	45.933	20.953	2.95	-17.58	61.88	62.95
5550	67.03	-1.74	3.05	0.9	46.217	20.813	3.05	-16.88	61.98	63.16
5570	60.58	-2.18	2.82	0.67	41.987	18.594	2.82	-16.23	62.16	63.01
5590	63.61	-1.96	3.47	1.32	43.985	19.622	3.47	-15.43	62.53	63.83
5610	62.87	-2.02	3.63	1.48	43.542	19.327	3.63	-15.85	62.84	64.25
5630	60.06	-2.21	3.69	1.54	41.816	18.247	3.69	-17.2	63.15	64.22
5650	64.87	-1.88	4.24	2.09	45.374	19.493	4.24	-16.29	63.38	64.34
5670	58.11	-2.36	3.84	1.69	40.593	17.521	3.84	-16.96	63.11	63.92
5690	54.52	-2.63	3.5	1.35	38.26	16.258	3.5	-17.33	63.22	63.86
5710	56.29	-2.5	3.67	1.52	39.413	16.882	3.67	-18.14	62.58	63.49
5730	52.41	-2.81	3.13	0.98	36.817	15.594	3.13	-17.39	62.88	63.59
5750	58.45	-2.33	3.64	1.49	40.771	17.682	3.64	-17.97	62.83	63.8
5770	61.75	-2.09	3.53	1.38	42.702	19.051	3.53	-20.12	62.98	64.11
5790	57.46	-2.41	3.12	0.97	39.863	17.596	3.12	-20.09	62.92	63.84
5810	59.22	-2.28	3.34	1.19	41.203	18.021	3.34	-19.7	63.5	64.19
5830	62.24	-2.06	3.44	1.29	43.24	18.995	3.44	-19.65	63.7	64.5
5850	62.33	-2.05	3.2	1.05	43.073	19.255	3.2	-19.22	63.98	64.9

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