



台灣安潔電子股份有限公司  
Taiwan Anjie Electronics Co., Ltd

承認書  
APPROVAL SHEET

Customer: 研華  
Customer Model No.: 1751000196-01  
Part No.: AJLQ1J-Q0002  
Product Description: Antenna Internal LTE 1.13/115mm(Blue)IPEX\_IV  
Issue Date: 20211202  
REV.: A

客戶承認用印	安潔承認用印

核准	審核	承辦
		Anders

Taiwan Anjie Electronics Co., Ltd  
台灣安潔電子股份有限公司  
ADD: 1F,No.236,Sec.3,Huanbei Rd.,Jubei City,Hsinchu County,30265,Taiwan  
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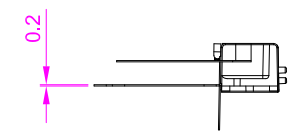
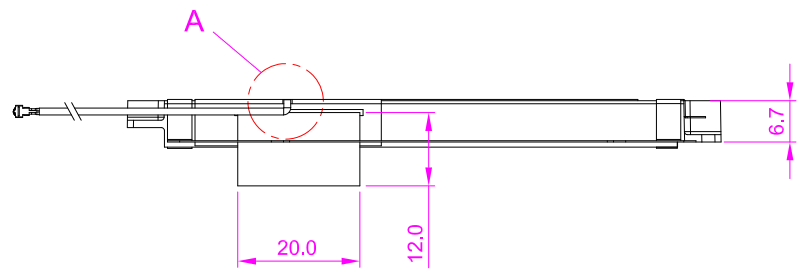
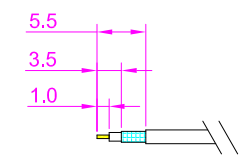
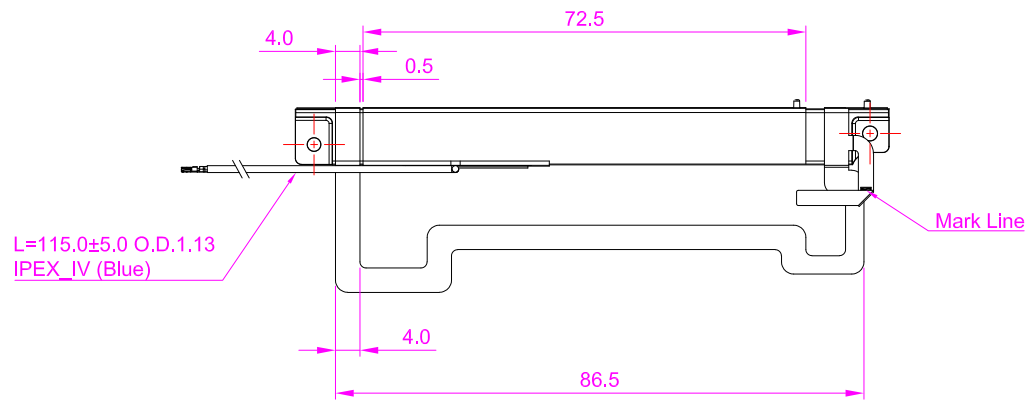
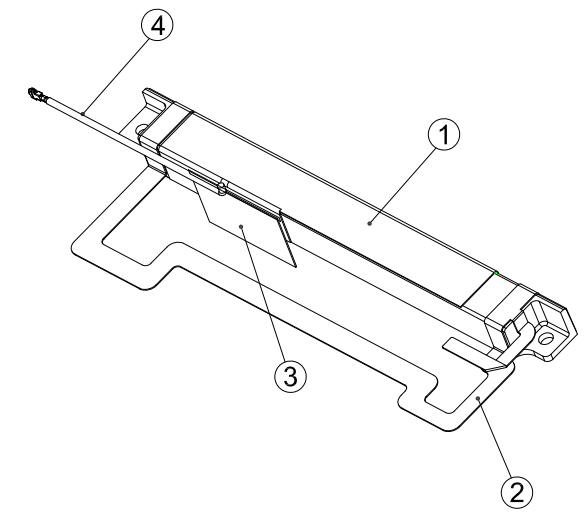
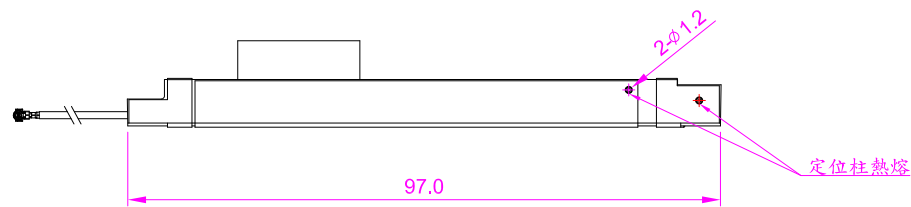
- Antenna
  - Connector
-



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<b>SPECIFICATION</b>	
<b>Frequency Range</b>	<b>704~960MHz&amp;1710~2690MHz</b>
<b>Impedance</b>	<b>50Ω</b>
<b>V.S.W.R</b>	<b>704~960MHz<math>\leq</math> 7.0 704~960MHz<math>\leq</math> 5.0</b>
<b>Radiation</b>	<b>Omni</b>
<b>Gain</b>	<b>704~960&lt;0.76dBi 1710~2690&lt;2.52 dBi</b>
<b>Type</b>	<b>PIFA</b>
<b>Polarization</b>	<b>Vertical</b>
<b>Mechanical Properties</b>	
<b>Connector</b>	<b>I-PEX_IV</b>

REV	DATE	DESCRIPTION
X1	2021.01.11	New Release
X2	2021.05.24	Change FPCB DIM
X3	2021.09.08	Change Holder & FPCB DIM



4	901-02701-00	O.D. 1.13mm IPEX_IV Part No. 20565-001R-13 ; Lengh=115mm(Blue)	1
3	801-03370-00	銅箔20*12mm	1
2	502-00174-00	FPCB 96.9*52.8*0.15mm	1
1	502-00173-00	FPCB 72.5*23.5*0.15mm	1
No.	Part No.	Description	Q'ty

UNLESS OTHERWISE SPECIFIED Tolerance ON:  
 X.X ±0.5 X° ±1.0  
 X.XX ±0.2

**anjie Taiwan Anjie Electronics Co.,Ltd**

Customer Model: AIM78  
 Customer Number: --  
 TITLE: Antenna Internal LTE Main

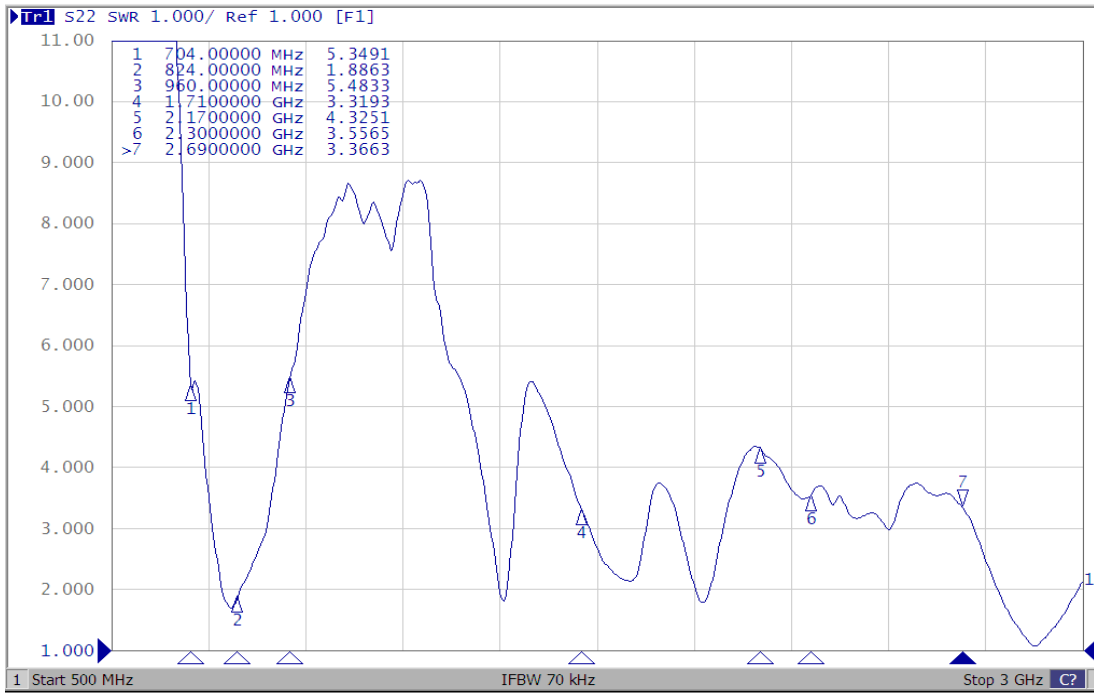
APP BY: Lin (2021.09.08) Grant  
 CHK BY: Kuo (2021.09.08) Doris  
 DES BY: Kuo (2021.09.08) Doris

PART NO.: AJLQ1J-Q0002

Sheet	UNITS	SCALE	REV
1 of 1	mm	1 / 1	X3



## Electrical test





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**Antenna Gain and Efficiency**

<b>Frequency(MHz)</b>	704	710	716	734	740	746	751	756	777	782	787
<b>Gain (dBi)</b>	-3.77	-3.47	-3.24	-1.68	-1.24	-0.99	-0.45	-0.07	0.4	0.44	0.57
<b>Directivity (dBi)</b>	2.55	2.7	2.62	2.69	2.74	2.61	2.84	2.97	3.54	3.46	3.5
<b>Efficiency (dB)</b>	-6.32	-6.17	-5.85	-4.37	-3.98	-3.6	-3.29	-3.04	-3.14	-3.02	-2.93
<b>Efficiency (%)</b>	23.32	24.17	25.98	36.6	40.01	43.63	46.87	49.69	48.5	49.87	50.94

<b>Frequency(MHz)</b>	791	806	821	824	836	849	862	869	880	894	900
<b>Gain (dBi)</b>	0.52	0.76	0.51	0.37	0.02	0.1	0.1	0.16	0.19	-0.35	-0.83
<b>Directivity (dBi)</b>	3.37	3.42	3.42	3.44	3.57	3.69	3.65	3.68	3.74	3.69	3.35
<b>Efficiency (dB)</b>	-2.85	-2.66	-2.91	-3.06	-3.55	-3.59	-3.55	-3.52	-3.55	-4.04	-4.17
<b>Efficiency (%)</b>	51.88	54.25	51.14	49.38	44.19	43.76	44.14	44.49	44.16	39.43	38.24

<b>Frequency(MHz)</b>	915	925	940	960	1710	1730	1750	1770	1785	1805	1840
<b>Gain (dBi)</b>	-1.68	-2.29	-2.41	-2.39	1.57	2.09	2.13	2.35	2.52	2.43	2.33
<b>Directivity (dBi)</b>	3.04	3.03	3.31	3.48	5.68	5.76	5.53	5.35	5.42	5.57	6.08
<b>Efficiency (dB)</b>	-4.72	-5.32	-5.73	-5.87	-4.11	-3.67	-3.4	-3	-2.9	-3.14	-3.75
<b>Efficiency (%)</b>	33.73	29.36	26.76	25.89	38.84	42.99	45.75	50.16	51.33	48.58	42.19



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**Antenna Gain and Efficiency**

<b>Frequency(MHz)</b>	1850	1880	1910	1920	1930	1950	1960	1980	1990	2010	2018
<b>Gain (dBi)</b>	1.89	-0.48	-0.88	-0.47	-0.2	0.84	1.18	2.07	2.17	2.48	2.14
<b>Directivity (dBi)</b>	6.14	4.4	3.79	4.23	4.51	4.93	5.01	5.39	5.34	5.39	5.05
<b>Efficiency (dB)</b>	-4.25	-4.88	-4.66	-4.7	-4.71	-4.09	-3.83	-3.32	-3.17	-2.91	-2.92
<b>Efficiency (%)</b>	37.56	32.48	34.16	33.89	33.77	39	41.43	46.55	48.18	51.19	51.08

<b>Frequency(MHz)</b>	2025	2110	2140	2170	2300	2325	2350	2375	2400	2500	2515
<b>Gain (dBi)</b>	1.91	1.08	1	1.14	0.05	-0.28	0.23	0.7	1.43	0.57	0.31
<b>Directivity (dBi)</b>	5.08	5.05	5.16	5.12	4.18	3.76	4.07	4.43	4.96	5.36	5.27
<b>Efficiency (dB)</b>	-3.17	-3.97	-4.16	-3.98	-4.13	-4.04	-3.84	-3.73	-3.53	-4.79	-4.96
<b>Efficiency (%)</b>	48.17	40.12	38.37	39.95	38.64	39.45	41.33	42.41	44.31	33.17	31.9

<b>Frequency(MHz)</b>	2535	2555	2570	2595	2620	2630	2655	2680	2690
<b>Gain (dBi)</b>	0.05	0.51	0.86	1.38	1.37	1.47	1.92	1.95	1.87
<b>Directivity (dBi)</b>	5.07	5.53	5.68	5.86	5.67	5.57	5.79	5.81	6.02
<b>Efficiency (dB)</b>	-5.02	-5.01	-4.82	-4.49	-4.3	-4.1	-3.88	-3.86	-4.15
<b>Efficiency (%)</b>	31.46	31.53	33	35.6	37.16	38.89	40.96	41.1	38.46



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## Antenna 3D Pattern

