



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

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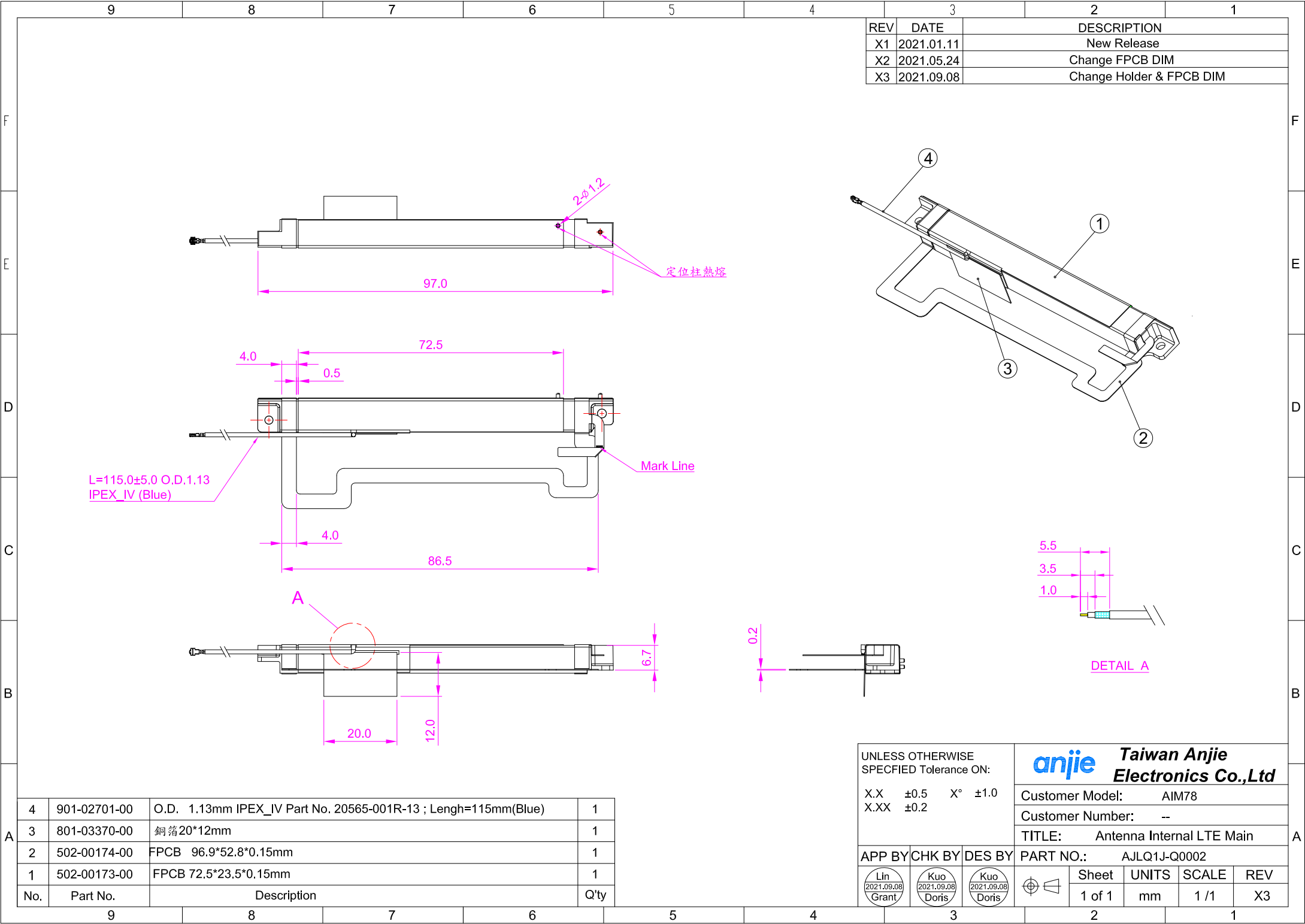
3. Material Certifications

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



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

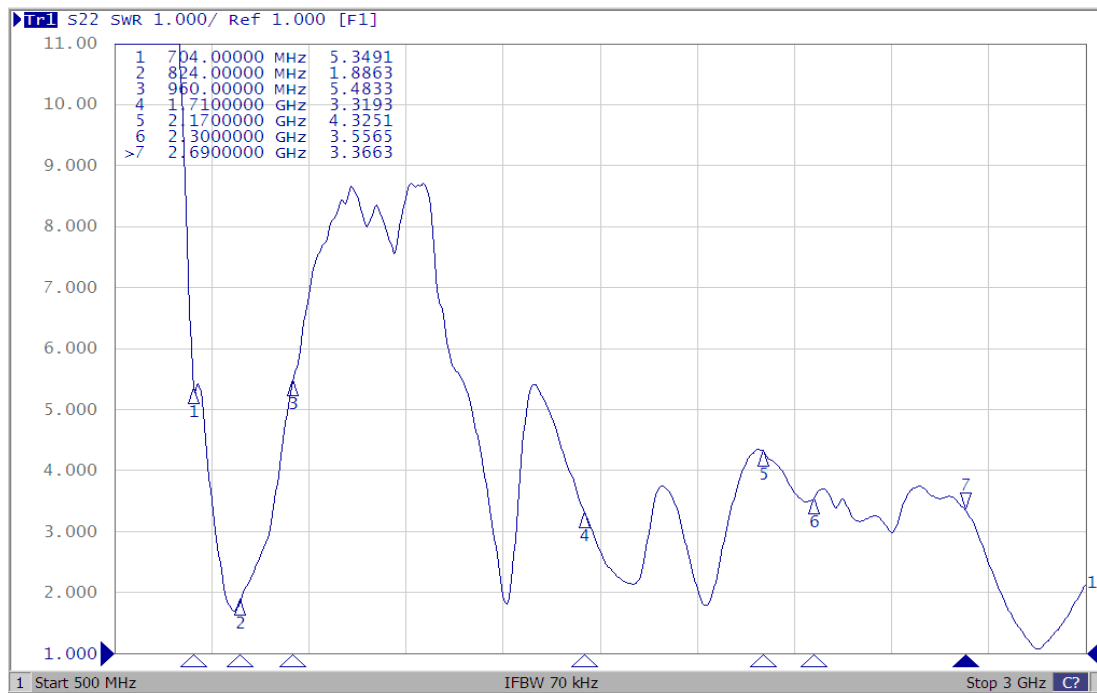
UNLESS OTHERWISE SPECIFIED Tolerance ON: X.X ±0.5 X° ±1.0 X.XX ±0.2			anjie Taiwan Anjie Electronics Co.,Ltd			
			Customer Model: AIM78			
			Customer Number: --			
			TITLE: Antenna Internal LTE Main			
APP BY	CHK BY	DES BY	PART NO.: AJLQ1J-Q0002			
				Sheet	UNITS	SCALE
				1 of 1	mm	1 / 1
						REV
						X3



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Electrical test





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Antenna Gain and Efficiency

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

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

Frequency(MHz)	915	925	940	960	1710	1730	1750	1770	1785	1805	1840
Gain (dBi)	-1.68	-2.29	-2.41	-2.39	1.57	2.09	2.13	2.35	2.52	2.43	2.33
Directivity (dBi)	3.04	3.03	3.31	3.48	5.68	5.76	5.53	5.35	5.42	5.57	6.08
Efficiency (dB)	-4.72	-5.32	-5.73	-5.87	-4.11	-3.67	-3.4	-3	-2.9	-3.14	-3.75
Efficiency (%)	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

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

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

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



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Antenna 3D Pattern

