

Shenzhen Kinghelm Electronics Co., Ltd

1. Design Requirements For Antenna Tuning In The Frequency Band

Frequency	Frequency Bands
2G	GSM 850 900 1800 1900
3G	WCDMA 2100 1900 900 850
4G	LTE-B1 2 3 4 5 7 8 20 12 17 28 38 39 40 41
Tri-band	/
Other	/

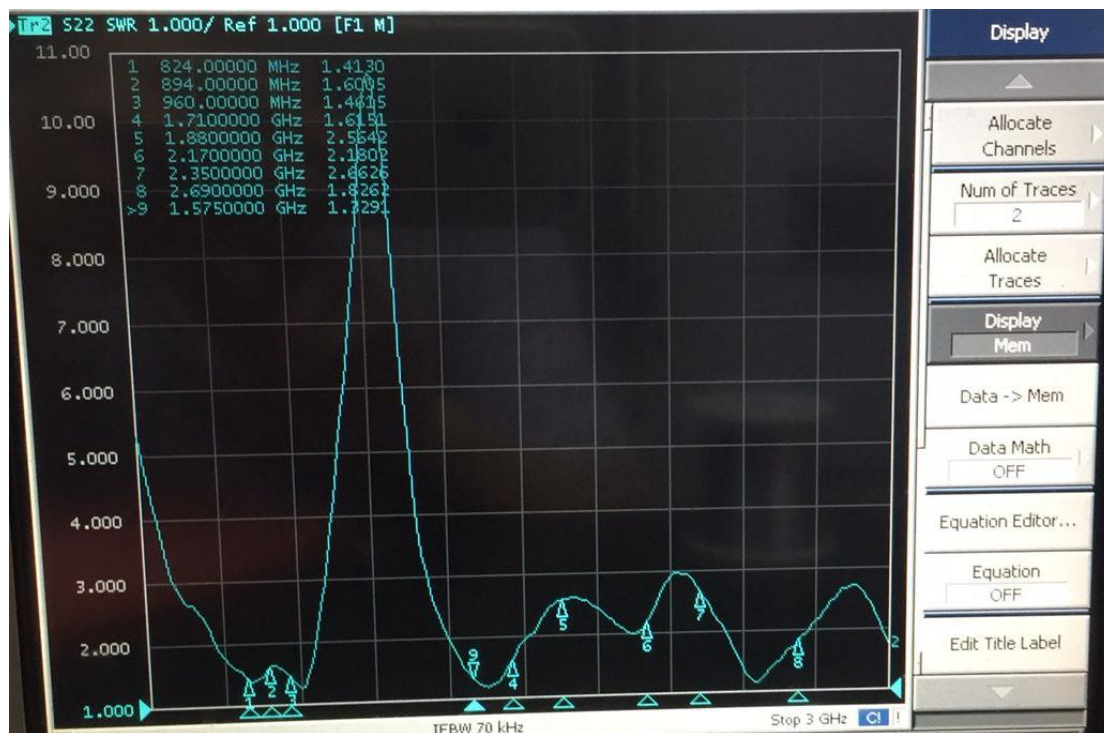
2. Product Image



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2.1 Passive VSWD

Main Antenna



2.2 Passive Data

Frequency	Efficiency	Gain.dBi	Frequency	Efficiency	Gain.dBi
824000000	39.56%	0.16289483	600000000	13.08%	-5.211173873
839111111	46.08%	0.593189553	640000000	18.69%	-2.913580229
854222222	45.46%	0.770635207	680000000	23.92%	-1.235307794
869333333	52.12%	0.733027729	720000000	29.02%	-0.615371252
884444444	58.29%	1.148442646	760000000	36.71%	0.837189113
899555555	57.33%	1.13847299	800000000	46.30%	0.452182543
914666666	62.90%	1.925185722	840000000	45.87%	0.370975128
929777777	59.80%	1.756549504	880000000	53.60%	0.520798315
944888888	65.56%	1.890637039	920000000	58.13%	1.526881119
960000000	60.53%	1.541309797	960000000	60.61%	1.547761536

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Frequency	Efficiency	Gain.dBi	Frequency	Efficiency	Gain.dBi
1710000000	64.44%	2.018866724	1850000000	60.48%	2.507949187
1728888888	65.59%	2.135416831	1865555555	58.13%	2.203016068
1747777777	62.68%	1.858830006	1881111111	57.25%	2.378721338
1766666666	61.20%	1.86101321	1896666666	57.15%	2.404335583
1785555555	58.48%	2.070071898	1912222222	56.06%	2.316480172
1804444444	56.90%	2.614717582	1927777777	54.54%	2.226536871
1823333333	58.89%	3.322414958	1933333333	54.37%	2.327252929
1842222222	58.36%	2.513650401	1958888888	51.85%	2.121258369
1861111111	59.10%	2.3006074	1974444444	50.60%	2.035204707
1880000000	57.47%	2.402532687	1990000000	50.28%	2.139083791

Frequency	Efficiency	Gain.dBi	Frequency	Efficiency	Gain.dBi
1975555555	50.64%	2.034389393	2170000000	59.48%	3.390365983
2003333333	48.19%	2.457394732	2228888888	55.54%	3.042848118
2031111111	51.33%	2.714187446	2287777777	50.83%	2.215707721
2058888888	54.84%	3.162775856	2346666666	48.92%	1.302765704
2086666666	56.17%	3.234018863	2405555555	51.91%	1.296490294
2114444444	58.83%	3.422610794	2464444444	59.25%	2.177551909
2142222222	61.82%	3.930447717	2523333333	62.01%	1.795191403
2170000000	59.43%	3.384258648	2582222222	63.26%	1.067685526
			2641111111	54.38%	0.397411675
			2700000000	51.74%	0.950108379