

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	/

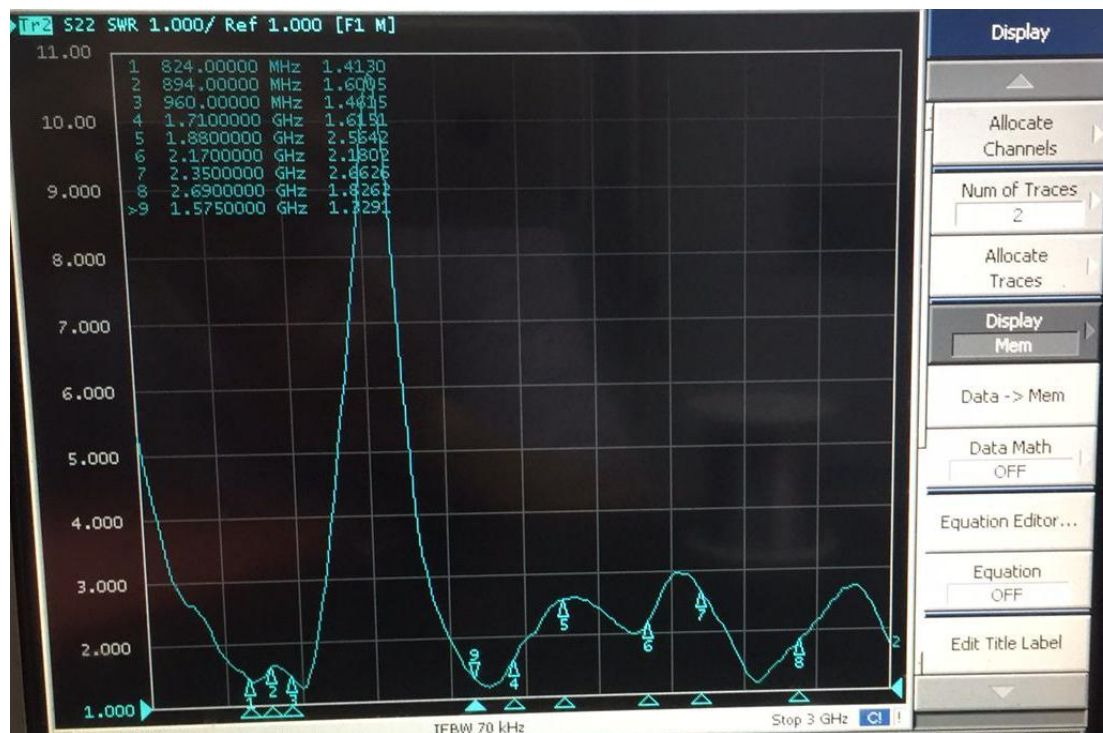
2. Product Image



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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