

Type 2FR PCB monopole Antenna Data Sheet

Kanazawa Murata Mfg. Co., Ltd
Chi-18, Sodanimachi, Hakusan-shi,
Ishikawa 920-2101 Japan

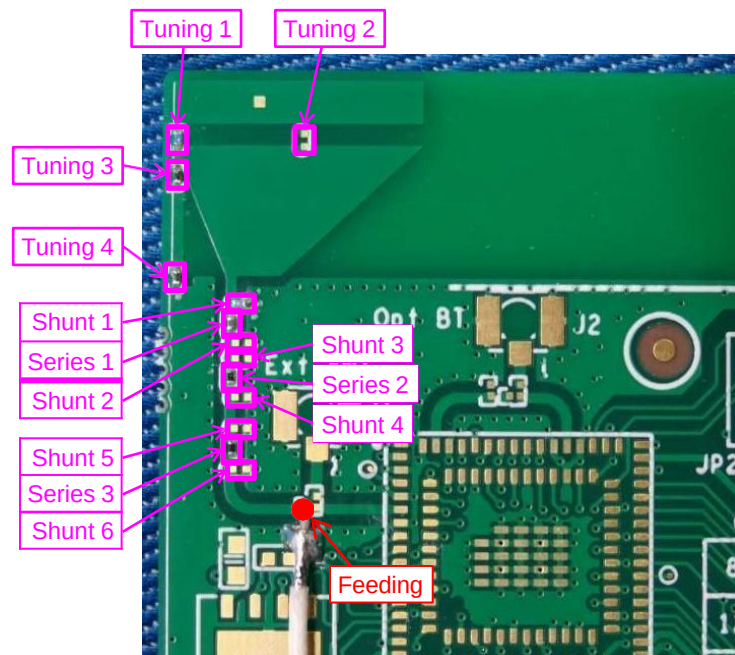
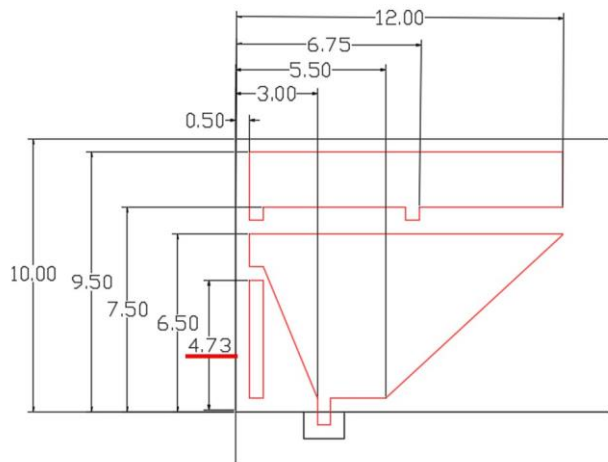


2. Antenna Layout information and Matching values

Condition	Memo	Tuning 1	Tuning 2	Tuning 3	Tuning 4	Matching circuit								
						Shunt 1	Series 1	Shunt 2	Shunt 3	Series 2	Shunt 4	Shunt 5	Series 3	Shunt 6
Condition 1	Applied matching circuit of Condition 1 in RERC23039-SE to redesigned EVB	3.0nH	None	0ohm	0ohm	5.6nH	2.2pF	None	None	0ohm	None	None	0ohm	None

Dimensions in mm

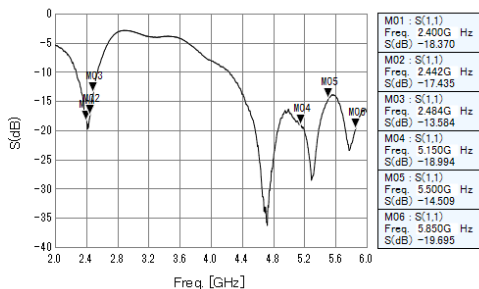
Size:0603 LQP03 / GRM03 / Resistor



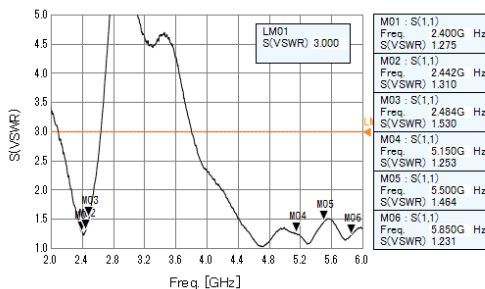
3. Return Loss, VSWR and Radiation Patterns

2FR PCB Antenna Data

<Return Loss>



<V.S.W.R.>



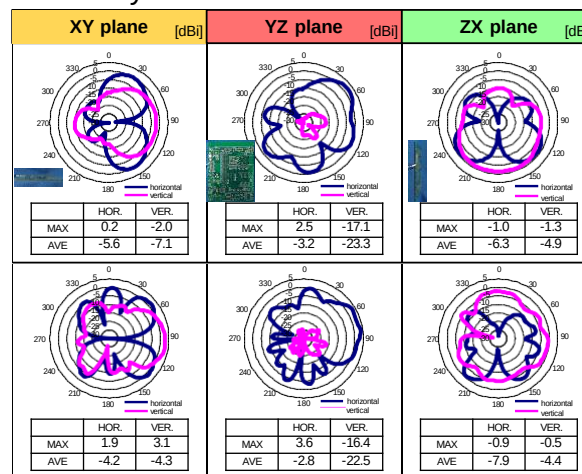
<Efficiency>

LINEAR POLAMIZATION		XY-plane		YZ-plane		ZX-plane		Total Efficiency
		hor.	ver.	hor.	ver.	hor.	ver.	
2400 MHz	MAX.	0.6	-1.7	2.6	-17.7	-0.7	-1.1	-1.7
	AVE.	-5.3	-7.0	-3.1	-23.6	-6.1	-4.6	
2442 MHz	MAX.	0.2	-2.0	2.5	-17.1	-1.0	-1.3	-1.9
	AVE.	-5.6	-7.1	-3.2	-23.3	-6.3	-4.9	
2484 MHz	MAX.	-0.1	-2.3	2.1	-18.2	-1.2	-1.8	-2.2
	AVE.	-5.9	-7.3	-3.4	-23.9	-6.7	-5.4	

LINEAR POLAMIZATION		XY-plane		YZ-plane		ZX-plane		Total Efficiency
		hor.	ver.	hor.	ver.	hor.	ver.	
5150 MHz	MAX.	2.0	1.9	3.4	-16.5	-2.2	0.4	-2.2
	AVE.	-3.8	-5.0	-2.9	-23.1	-8.8	-4.0	
5500 MHz	MAX.	1.9	3.1	3.6	-16.4	-0.9	-0.5	-2.4
	AVE.	-4.2	-4.3	-2.8	-22.5	-7.9	-4.4	
5850 MHz	MAX.	2.5	2.2	3.6	-14.6	0.2	-2.2	-2.6
	AVE.	-4.0	-4.8	-2.9	-21.3	-7.1	-6.4	

*Red color shows peak gain

<Directivity>



4. Efficiency and Gain

Total efficiency

	Frequency [MHz]						Average	Average	Average	Average
	2400	2442	2484	5150	5500	5850	2GHz band	5GHz band	2GHz band	5GHz band
Efficiency	-1.7 dB	-1.9 dB	-2.2 dB	-2.2 dB	-2.4 dB	-2.6 dB	-1.9 dB	-2.4 dB	64.0 %	57.7 %

Peak gain

	Frequency [MHz]						Max.	Max.
	2400	2442	2484	5150	5500	5850	2GHz band	5GHz band
Antenna gain	2.6 dBi	2.5 dBi	2.1 dBi	3.4 dBi	3.6 dBi	3.6 dBi	2.6 dBi	3.6 dBi