

Type1DX Antenna Design Guide

April, 2019

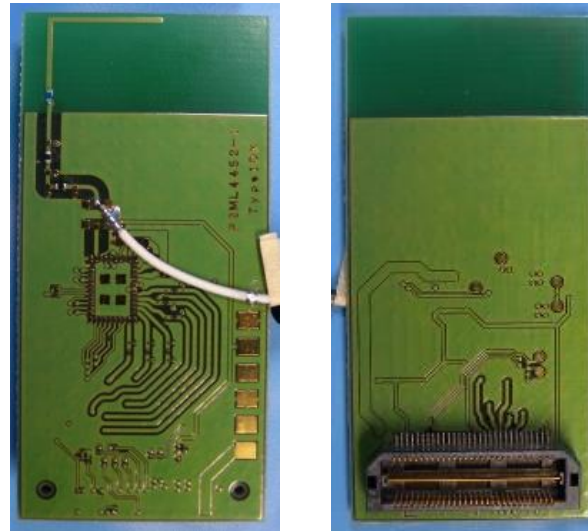


PCB manufacturer

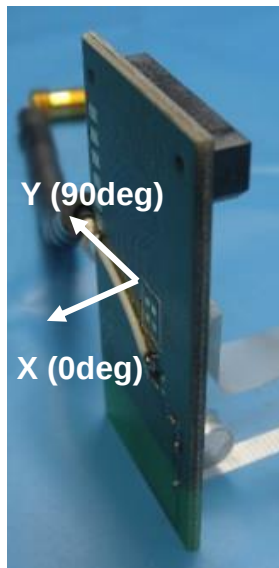
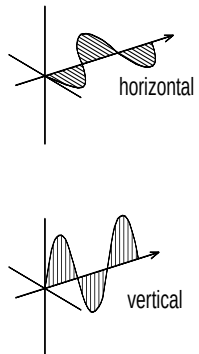
Name : Shenzhen JLC Technology Group Co.,Ltd.

Address : 27th Floor, Olympic Building, Shangbao Road, Futian District,
Shenzhen, Guangdong, China

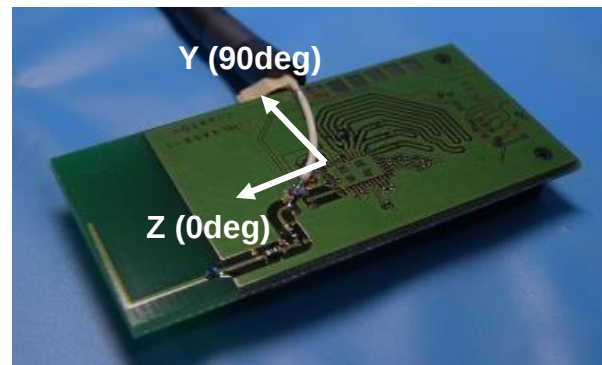
Measurement Board



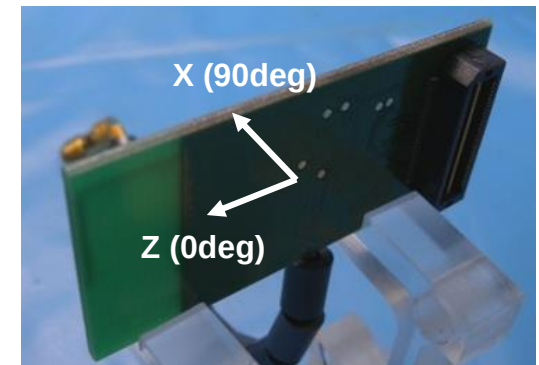
XY plane



YZ plane

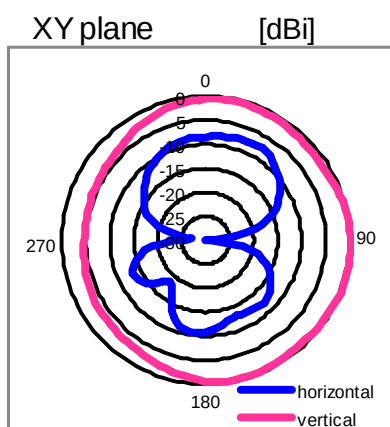


ZX plane

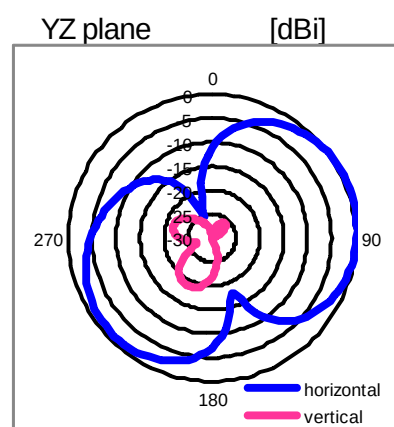


Antenna Performance

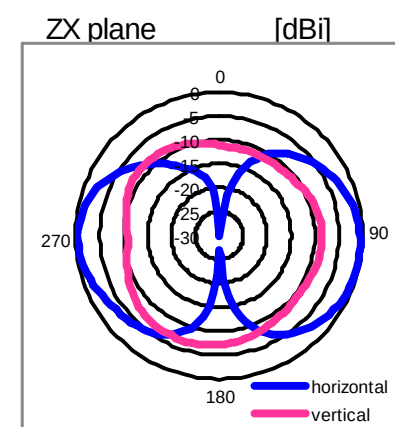
						[dBi]		[dB]
LINEAR POLARIZATION		XY-plane		YZ-plane		ZX-plane		Total Efficiency
		hor.	ver.	hor.	ver.	hor.	ver.	
2400 MHz	MAX.	-7.9	0.0	0.3	-21.4	-0.4	-7.1	-2.4
	AVE.	-12.3	-1.5	-3.6	-26.0	-4.5	-9.1	
2442 MHz	MAX.	-7.5	0.3	0.6	-18.8	-0.4	-6.8	-2.3
	AVE.	-12.0	-1.4	-3.4	-24.5	-4.3	-8.9	
2484 MHz	MAX.	-7.1	0.4	0.5	-18.3	0.1	-6.4	-2.2
	AVE.	-11.5	-1.3	-3.6	-23.5	-4.1	-8.7	



	HOR.	VER.
MAX	-7.5	0.3
AVE	-12.0	-1.4



	HOR.	VER.
MAX	0.6	-18.8
AVE	-3.4	-24.5

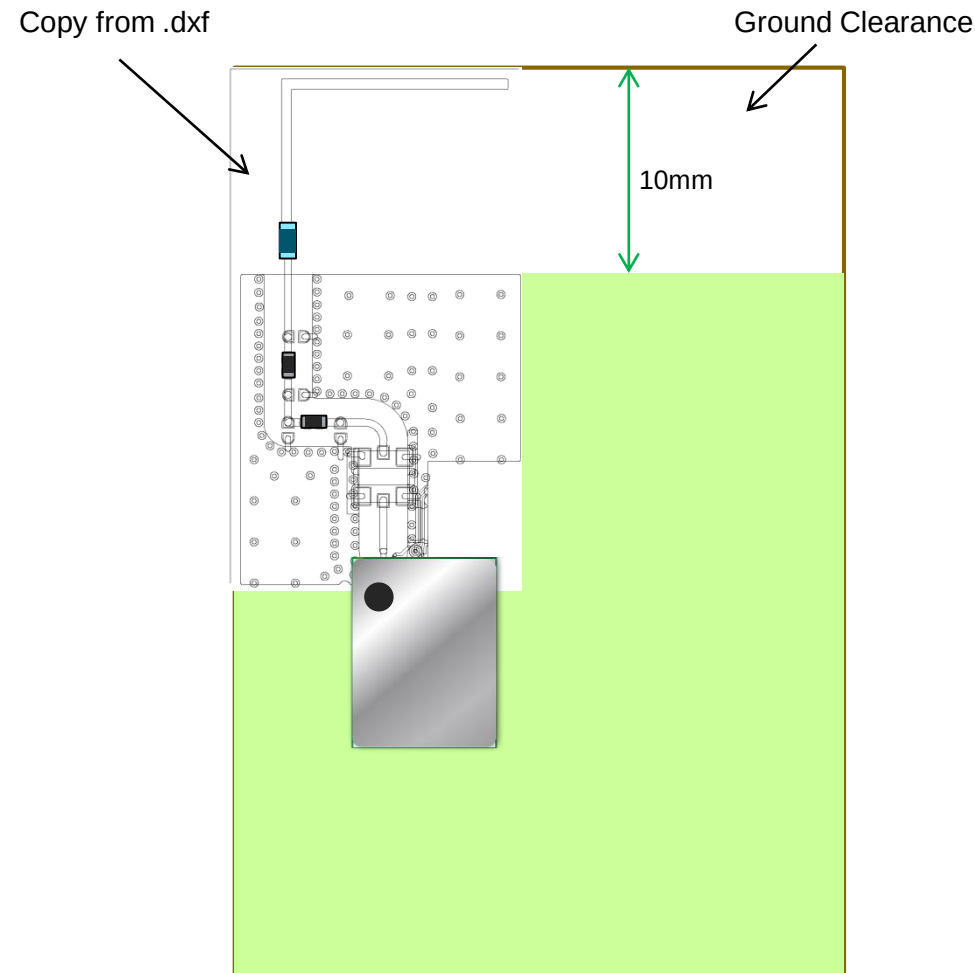


	HOR.	VER.
MAX	-0.4	-6.8
AVE	-4.3	-8.9

Antenna Type: Monopole (pattern antenna)

Antenna Gain: 0.6dBi (peak)

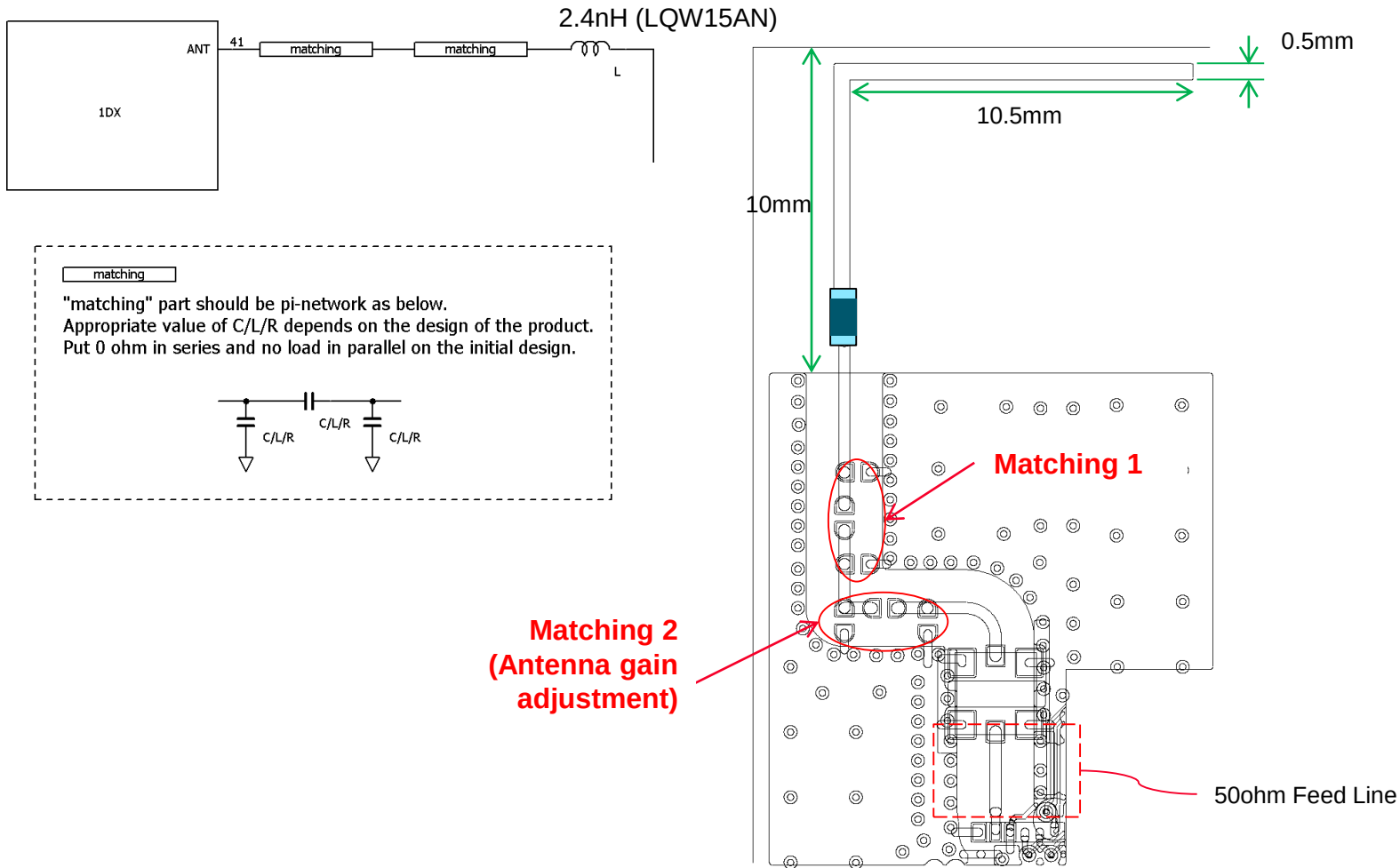
Layout Guide for Good Antenna Performance



- Place the antenna on top-left corner.
- Keep GND clearance all along the top edge.
- Place metal stuff as far as possible.
- Place two pi-network for matching and attenuating.
 - Put 0ohm in series and no load in parallel on the initial design.
 - Put appropriate value of C/L/R depends on actual performance.

Please follow Installation Manual.

Antenna Design



Please follow "type1dx_antenna_p2ml4452-1.dxf"