

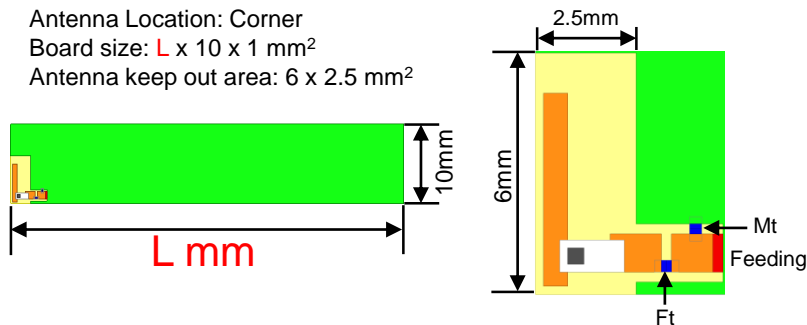
## ANT016008LCS2442MA2



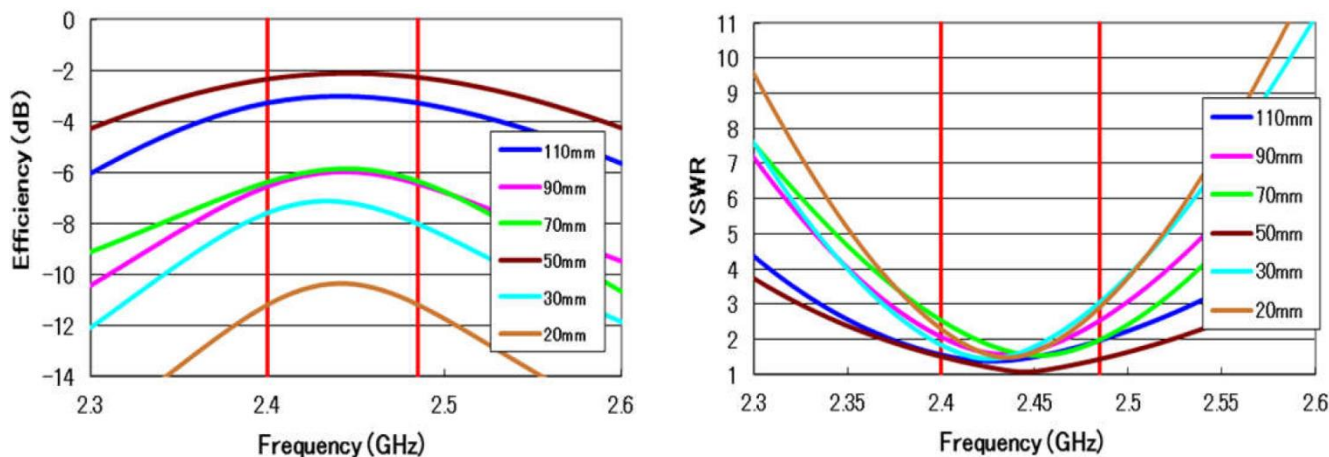
Dimensions (mm)		
L	W	T
1.60	0.80	0.40
±0.10	±0.10	Max.

## EVALUATION BOARD

Antenna Location: Corner  
 Board size: L x 10 x 1 mm<sup>2</sup>  
 Antenna keep out area: 6 x 2.5 mm<sup>2</sup>



## VSWR & EFFICIENCY (SIMULATION RESULTS)

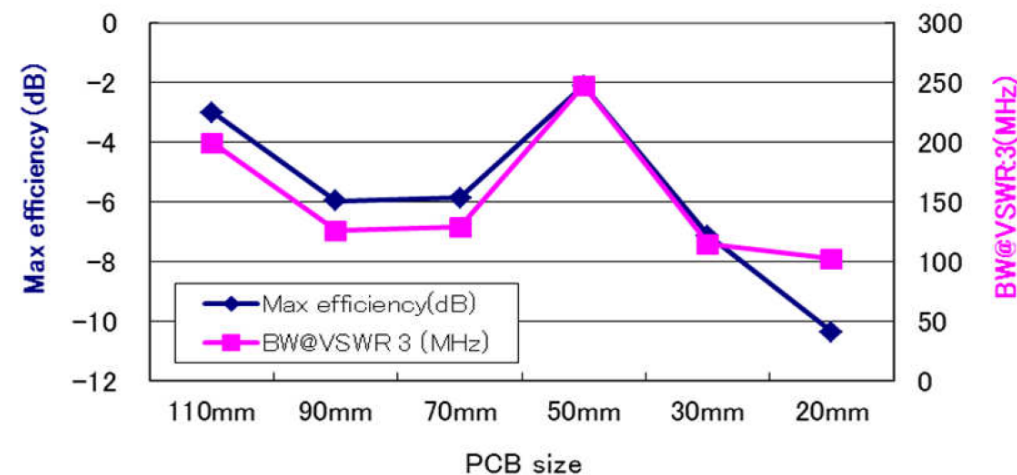


Item	VSWR			Efficiency(dB)			
	Frequency(GHz)	2.4	2.442	2.485	2.4	2.442	2.485
L=110mm		1.6	1.4	2.0	-3.3	-3.0	-3.3
L=90mm		2.1	1.6	2.5	-6.6	-6.0	-6.5
L=70mm		2.5	1.6	2.0	-6.4	-5.9	-6.4
L=50mm		1.5	1.1	1.4	-2.3	-2.1	-2.3
L=30mm		1.8	1.6	3.1	-7.6	-7.2	-8.0
L=20mm		2.3	1.5	2.9	-11.2	-10.4	-11.2

## TUNING COMPONENTS

PCB Size	110mm	90mm	70mm	50mm	30mm	20mm
Ft (nH)	1.5	1.5	1.5	1.3	1.6	1.7
Mt (nH)	2.2	1.8	1.8	2.2	1.6	1.5

## MAX EFFICIENCY & BANDWIDTH (SIMULATION RESULTS)



PCB Size	110mm	90mm	70mm	50mm	30mm	20mm
Max efficiency(dB)	-3.0	-6.0	-5.9	-2.1	-7.1	-10.4
BW@VSWR 3 (MHz)	199.2	125.5	128.5	247.2	114.5	101.9

## TECHNICAL REMARKS

- For maximum efficiency with corner mount antenna: length L = 50

## ANT016008LCS2442MA2

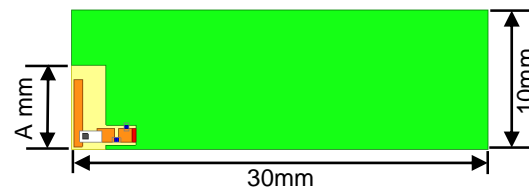


Dimensions (mm)		
L	W	T
1.60	0.80	0.40
±0.10	±0.10	Max.

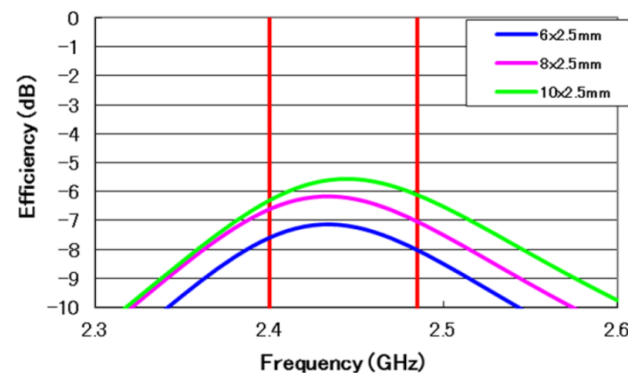
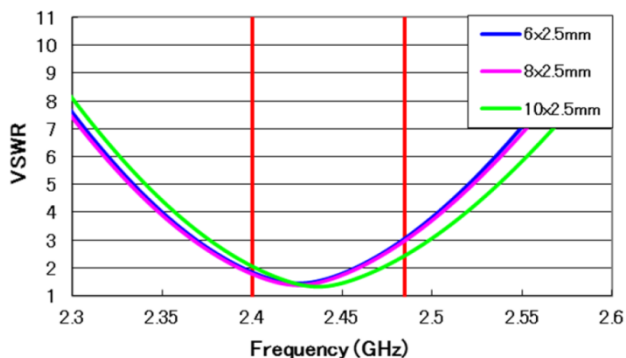
## EVALUATION BOARD

Antenna Location: Corner  
 Board size: 30 x 10 x 1 mm<sup>2</sup>  
 Antenna keep out area: A x 2.5 mm<sup>2</sup>

A = 6,8,10mm

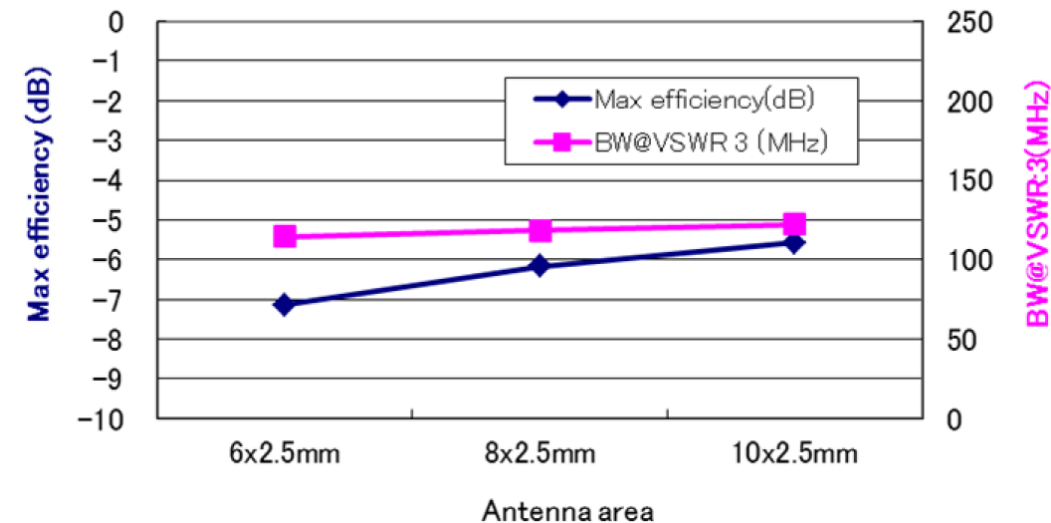


## VSWR & EFFICIENCY (SIMULATION RESULTS)



Item	VSWR			Efficiency(dB)		
	Frequency(GHz)	2.4	2.442	2.485	2.4	2.442
6x2.5mm	1.8	1.6	3.1	-7.6	-7.2	-8.0
8x2.5mm	1.8	1.6	3.0	-6.6	-6.2	-7.0
10x2.5mm	2.1	1.3	2.4	-6.3	-5.6	-6.1

## MAX EFFICIENCY & BANDWIDTH (SIMULATION RESULTS)



PCB Size	6x2.5mm	8x2.5mm	10x2.5mm
Max efficiency(dB)	-7.1	-6.2	-5.6
BW@VSWR 3 (MHz)	114.5	118.1	122.2

## ANT016008LCS2442MA2



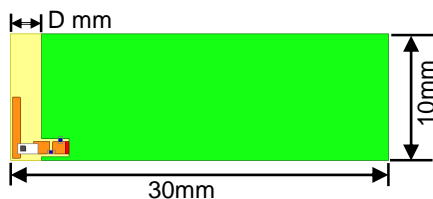
### Dimensions (mm)

L	W	T
1.60	0.80	0.40
±0.10	±0.10	Max.

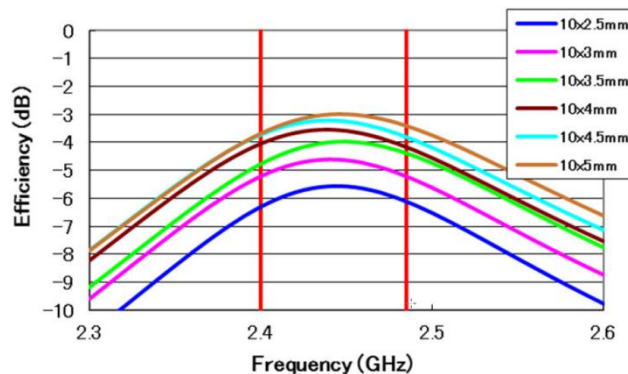
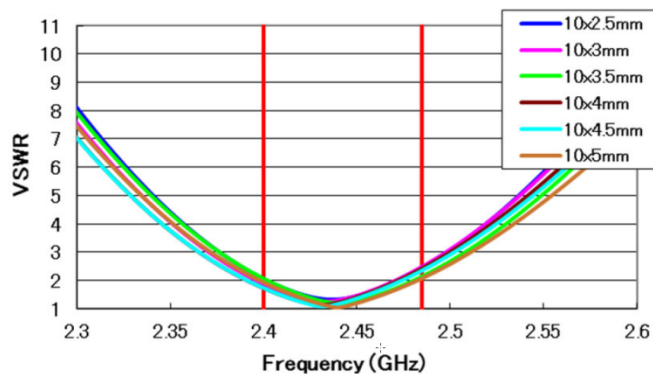
## EVALUATION BOARD

Antenna Location: Corner  
 Board size: 30 x 10 x 1 mm<sup>2</sup>  
 Antenna keep out area: 10 x D mm<sup>2</sup>

D=2.5, 3, 3.5,  
4, 4.5, 5mm

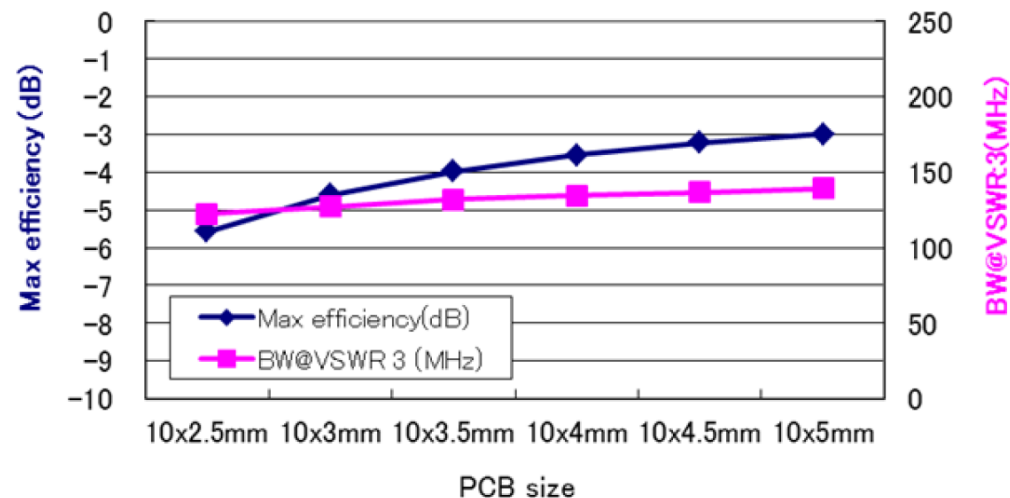


## VSWR & EFFICIENCY (SIMULATION RESULTS)



Item	VSWR			Efficiency(dB)			
	Frequency(GHz)	2.4	2.442	2.485	2.4	2.442	2.485
10x2.5mm		2.1	1.3	2.4	-6.3	-5.6	-6.1
10x3mm		1.9	1.3	2.5	-5.2	-4.6	-5.2
10x3.5mm		2.1	1.2	2.1	-4.8	-4.0	-4.4
10x4mm		1.7	1.3	2.4	-4.0	-3.6	-4.2
10x4.5mm		1.7	1.2	2.4	-3.7	-3.2	-3.8
10x5mm		1.9	1.1	2.1	-3.7	-3.0	-3.4

## MAX EFFICIENCY & BANDWIDTH (SIMULATION RESULTS)



PCB Size	10x2.5mm	10x3mm	10x3.5mm	10x4mm	10x4.5mm	10x5mm
Max efficiency(dB)	-5.6	-4.6	-4.0	-3.5	-3.2	-3.0
BW@VSWR 3 (MHz)	122.2	127.0	131.7	134.5	136.6	139.3

## ■ ANT016008LCS2442MA2



### Dimensions (mm)

L	W	T
1.60	0.80	0.40
±0.10	±0.10	Max.

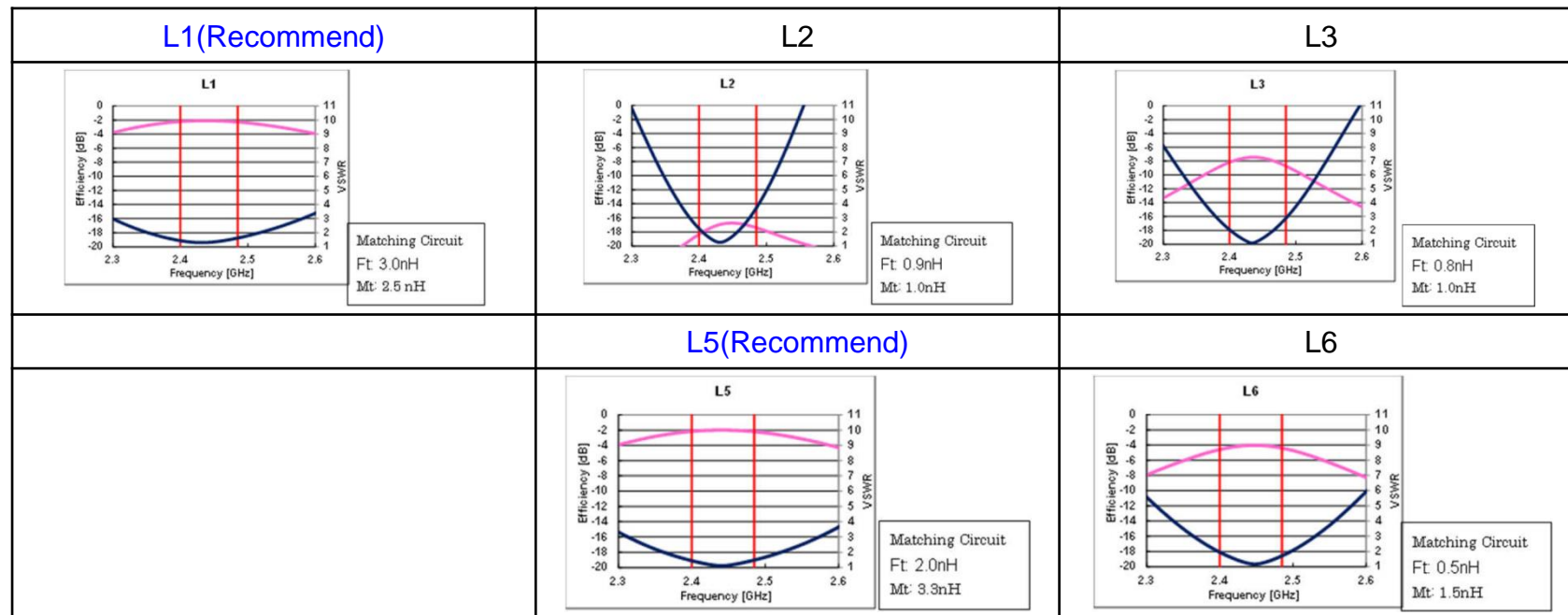
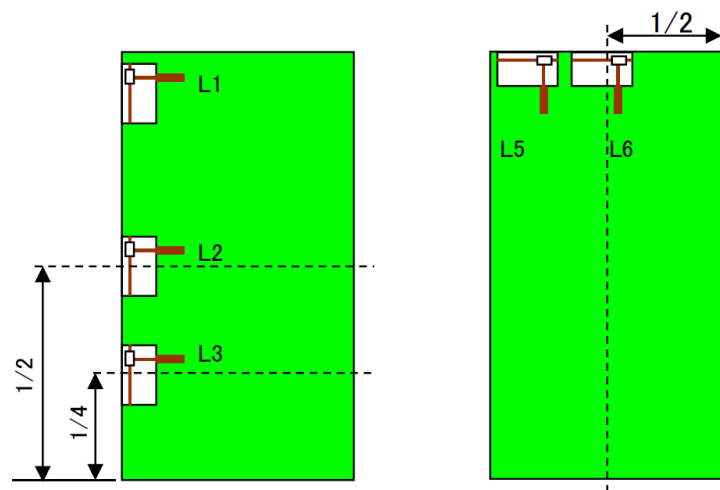
## □ EVALUATION BOARD

Antenna Location: Corner  
 Board size: 50 x 10 x 1 mm<sup>2</sup>  
 Antenna keep out area: 6 x 2.5 mm<sup>2</sup>



## ▶ SIMULATION RESULTS

### Antenna Locations



## ANT016008LCS2442MA2



Dimensions (mm)

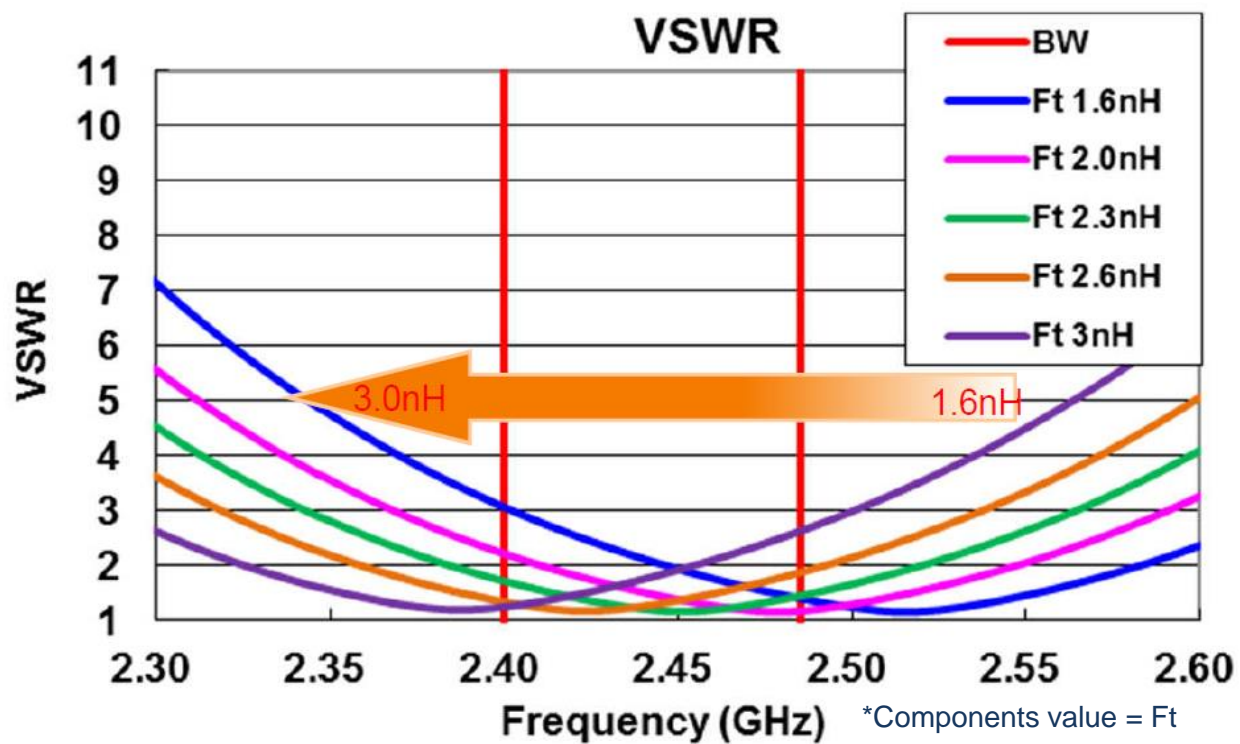
L	W	T
1.60	0.80	0.40
±0.10	±0.10	Max.

## EVALUATION BOARD

Antenna Location: Corner  
 Board size: 50 x 10 x 1 mm<sup>2</sup>  
 Antenna keep out area: 6 x 2.5 mm<sup>2</sup>



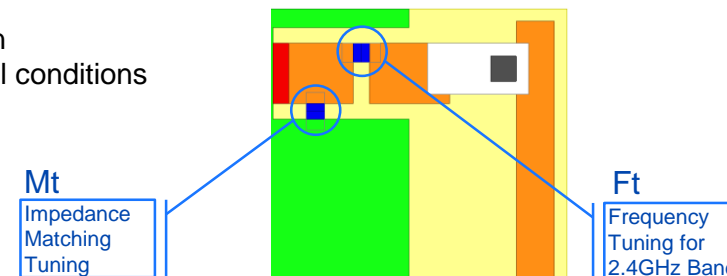
## FREQUENCY TUNING (SIMULATION RESULTS)



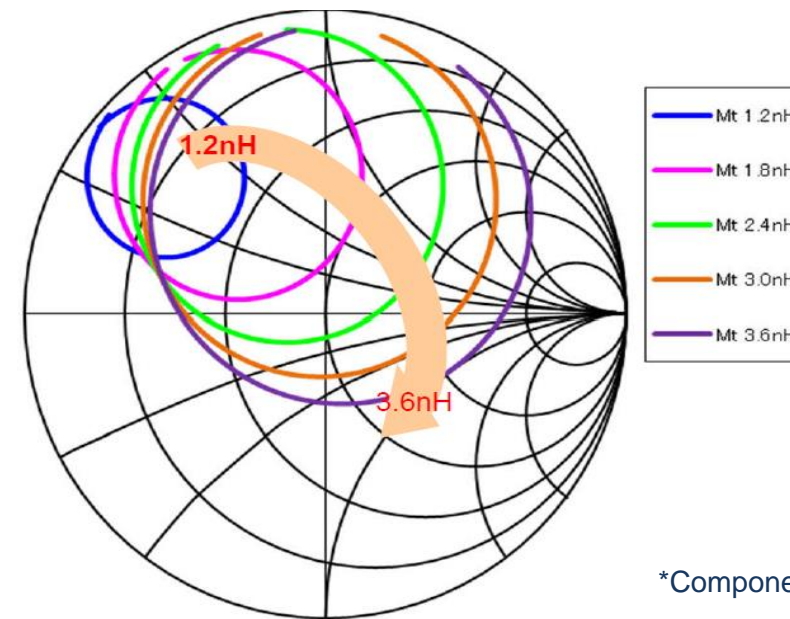
## TECHNICAL REMARKS

Value of tuning components depend on:

- PCB Size
- Antenna Location
- Other mechanical conditions



## IMPEDANCE MATCHING (SIMULATION RESULTS)



\*Components value = Mt