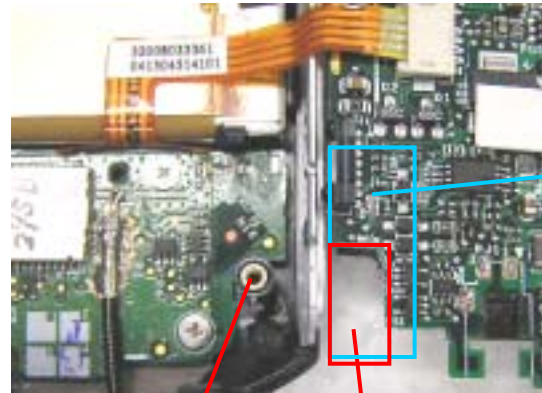
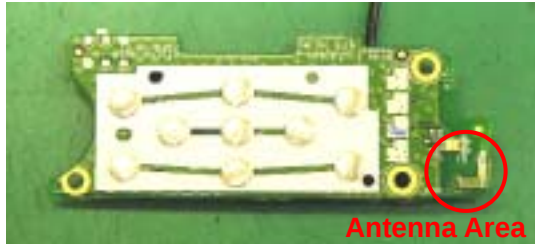


Chip Multilayer Antenna for Bluetooth

No.02

***Multilayer Components Department
Murata Manufacturing Co., Ltd.***

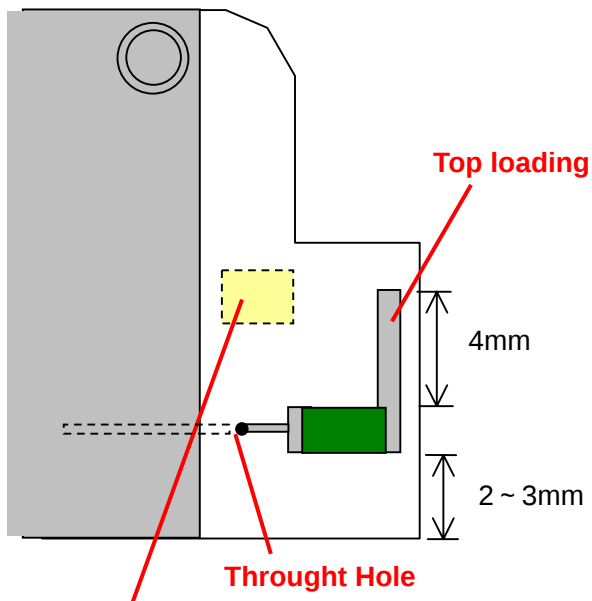
Recommendation of layout



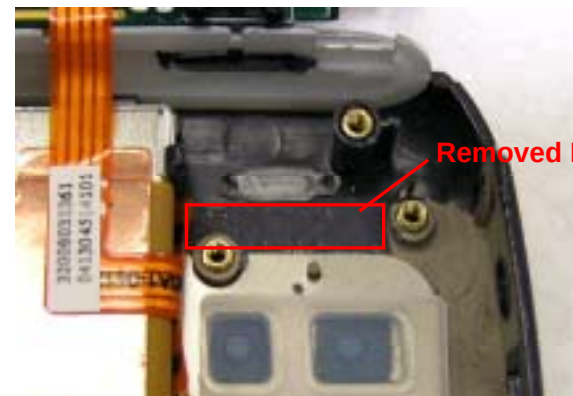
No GND Area (Ideal condition)

The screw is not connected to the GND.

No GND Area

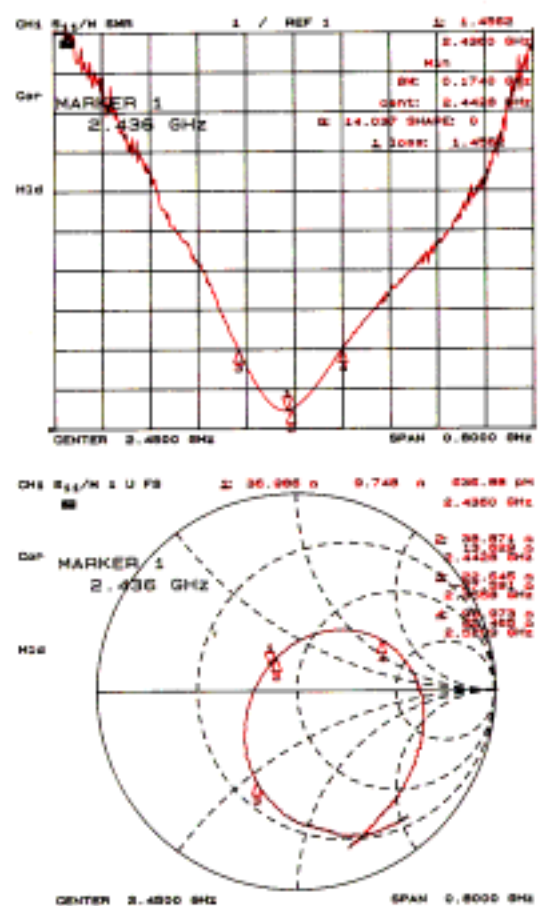


This component should be removed or shifted



Removed Metal Area

Original layout



(2400MHz)

Plane	polarization	Gain [dBd]	
		Max	Ave.
X-Y	vertical	-13.2	-17.3
X-Y	horizontal	-15.7	-21.8
Z-X	vertical	-9.9	-13.5
Z-X	horizontal	-12.5	-17.3
Y-Z	vertical	-14.0	-19.8
Y-Z	horizontal	-12.2	-16.4
Total Average Gain [dBi]		-11.8	
Efficiency (XY,YZ) [dB]		-14.0	
Efficiency (ZX,YZ) [dB]		-11.2	

(2442MHz)

Plane	polarization	Gain [dBd]	
		Max	Ave.
X-Y	vertical	-13.5	-17.0
X-Y	horizontal	-15.8	-19.5
Z-X	vertical	-9.6	-13.6
Z-X	horizontal	-12.7	-16.8
Y-Z	vertical	-12.7	-18.8
Y-Z	horizontal	-11.3	-16.6
Total Average Gain [dBi]		-11.5	
Efficiency (XY,YZ) [dB]		-13.1	
Efficiency (ZX,YZ) [dB]		-10.7	

(2484MHz)

Plane	polarization	Gain [dBd]	
		Max	Ave.
X-Y	vertical	-14.5	-17.8
X-Y	horizontal	-15.0	-19.2
Z-X	vertical	-9.8	-13.9
Z-X	horizontal	-12.5	-16.6
Y-Z	vertical	-12.5	-18.4
Y-Z	horizontal	-11.3	-16.6
Total Average Gain [dBi]		-11.6	
Efficiency (XY,YZ) [dB]		-13.4	
Efficiency (ZX,YZ) [dB]		-11.0	

