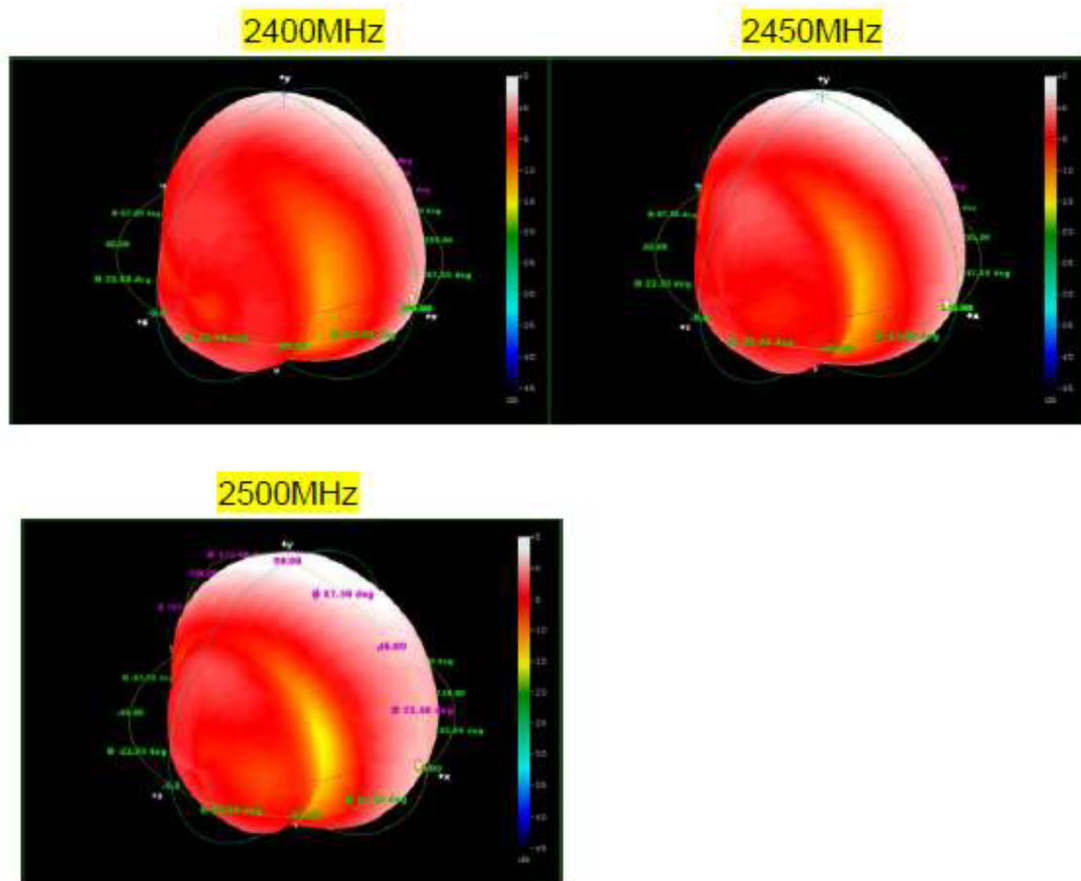


Antenna Information

Item	Contents
Antenna Type	Dipole Antenna
Antenna peak gain	6.15 dBi
Manufacturer / Model name	Fanstel Corp. / ANT060
Address of manufacturer	7466 E. Monte Cristo Ave. Scottsdale, AZ 85260 USA
Test Laboratory	Fanstel Corp.
Antenna Length	195 mm
Antenna Width	13 mm



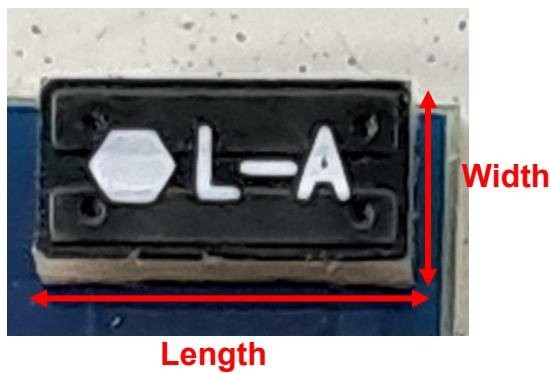
Model name: UTO-NBL-54L



Frequency (MHz)	Peak Gain (dBi)	Avg-gain (dBi)	Efficiency (%)
2400	6.06	-0.82	85
2450	6.15	-0.65	90
2500	6.22	-0.77	88

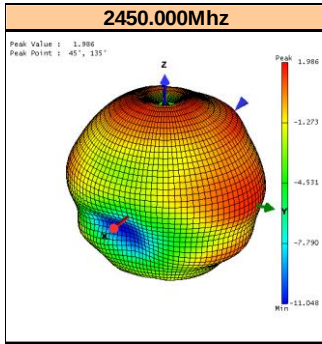
Antenna Information

Item	Contents
Antenna Type	Chip Antenna
Antenna peak gain	1.99 dBi
Manufacturer / Model name	DIT Corp. / AHSBTF0402-L00
Address of manufacturer	355-50, Gajang-ro, Jeongnam-myeon, Hwaseong-si, Gyeonggi-do, Republic of South Korea
Test Laboratory	DIT Corp.
Antenna Length	4.0 mm
Antenna Width	2.0 mm



Model name: UTO-NBL-54LA

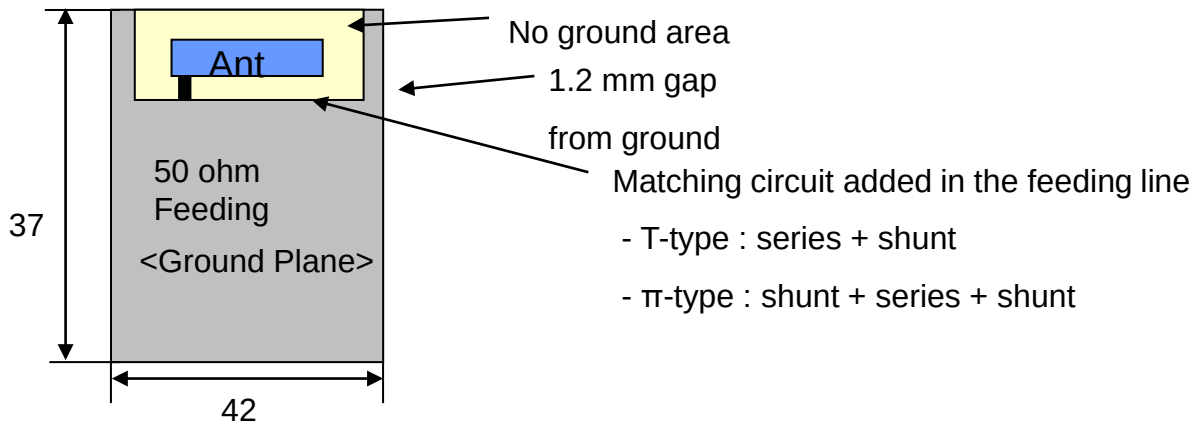
Gain on Evaluation Board (3D)



(unit : dBi)

Frequency (MHz)	3D Data	
	Peak Gain	Avg. Gain
2400	-0.4	-3.3
2450	1.9	-1.0
2500	1.0	-1.8

Typical Test Board



Recommended Pad Layout

