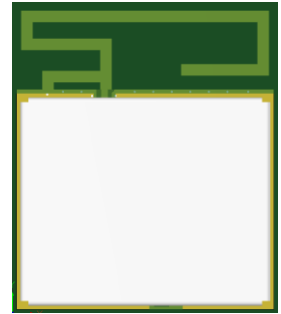


1. Description

BDE-ANT-LE2340RA is an integrated PCB trace antenna designed for BDE-LE2340RA module series, including but not limited to the below part numbers:

- BDE-LE2340R53KPA
- BDE-LE2340R52KPA
- BDE-LE2340R22KPA
- BDE-LE2340R52GEA
- BDE-LE2340R21GEA

The dimension of the antenna area is 11.5mm x 3.8mm.



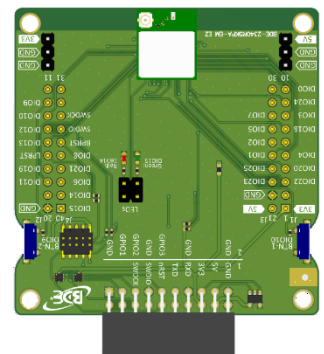
2. Specifications

Electrical	
Frequency (MHz)	2400 - 2500
Efficiency	35.08% @ 2.4G band
Peak Gain	0.96dBi @ 2.4G band
Impedance	50 ohm
Polarization	Linear
Radiation	Omni-directional
Mechanical	
Dimension	11.5mm x 3.8mm x 0.6mm
PCB Substrate	FR4
Environmental	
Temperature Range	-40°C to 85°C

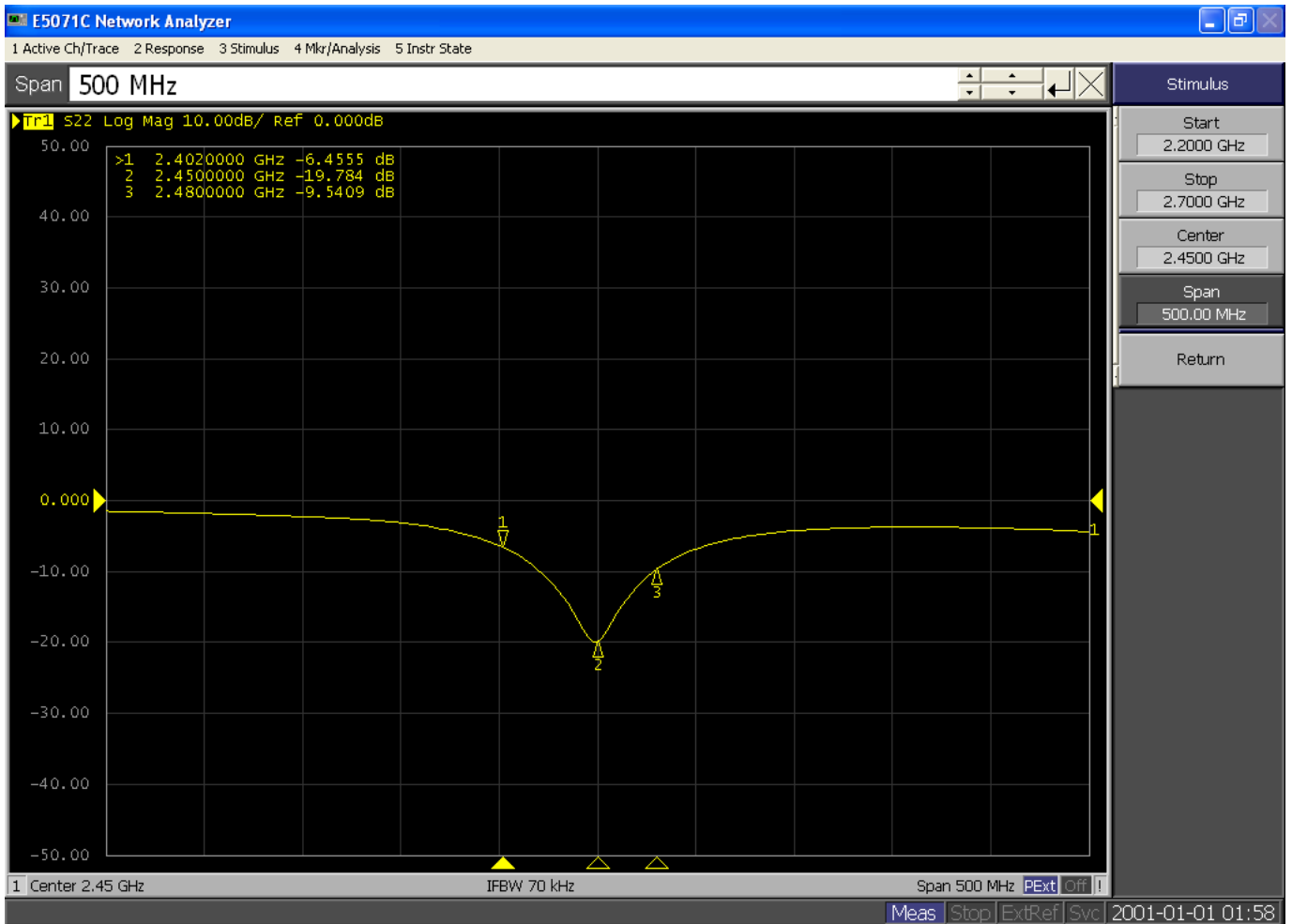
3. Antenna Characteristics

The antenna characteristics data are measured with the module sitting on the evaluation board as the picture on the right shows.

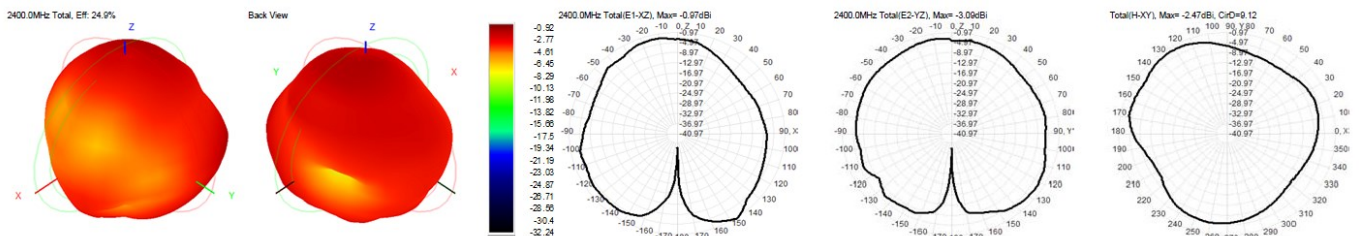
The dimension of the evaluation board is 58.5mm x 59mm x1.6mm.

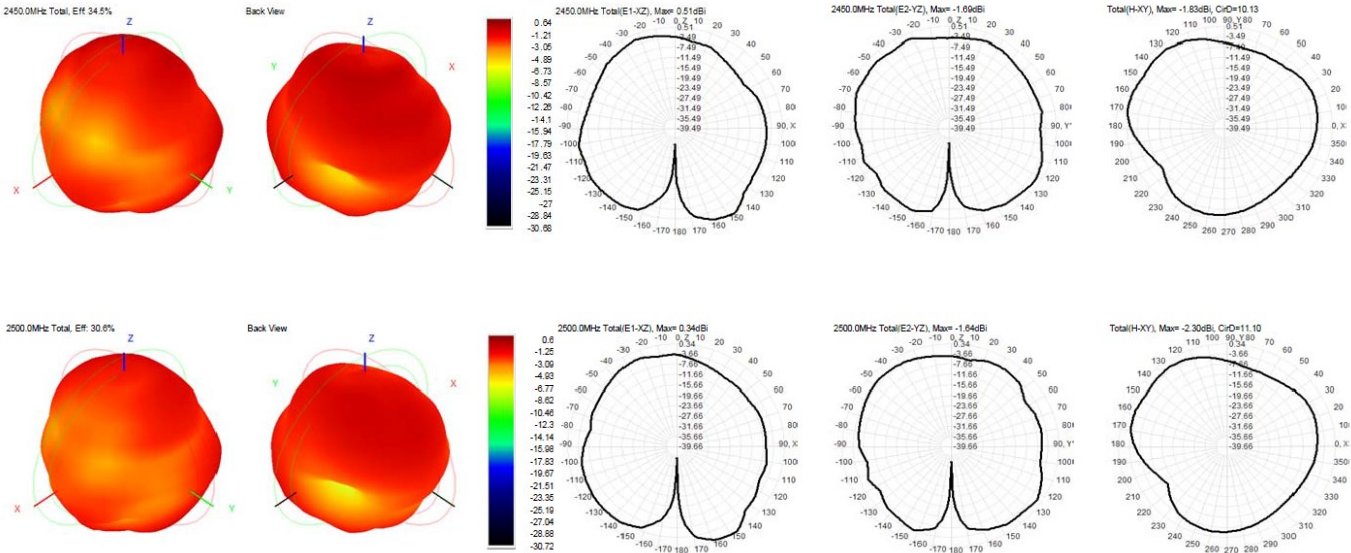


3.1 Return Loss



3.2 Radiation Pattern





3.3 Efficiency and Gain

Frequency (MHz)	Efficiency (%)	Gain (dBi)
2.4G Band		
2400	24.86	-0.92
2410	27.25	-0.51
2420	30.05	-0.01
2430	33.18	0.70
2440	34.58	0.85
2450	34.50	0.64
2460	35.08	0.78
2470	34.89	0.92
2480	32.68	0.95
2490	32.42	0.96
2500	30.63	0.60

4. Revision History

Revision	Remark	Date
V1.0	Initial release	2024/8/21

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