

一、Overview

The PCB antenna is an on-board antenna designed according to the dimensions of HLK-B50.

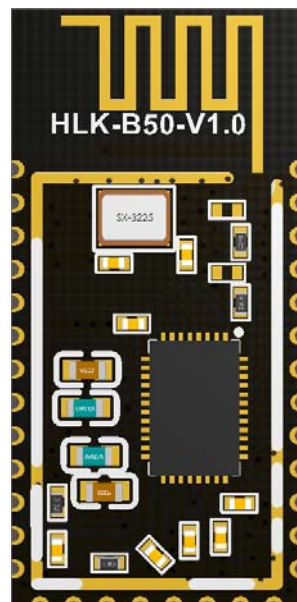
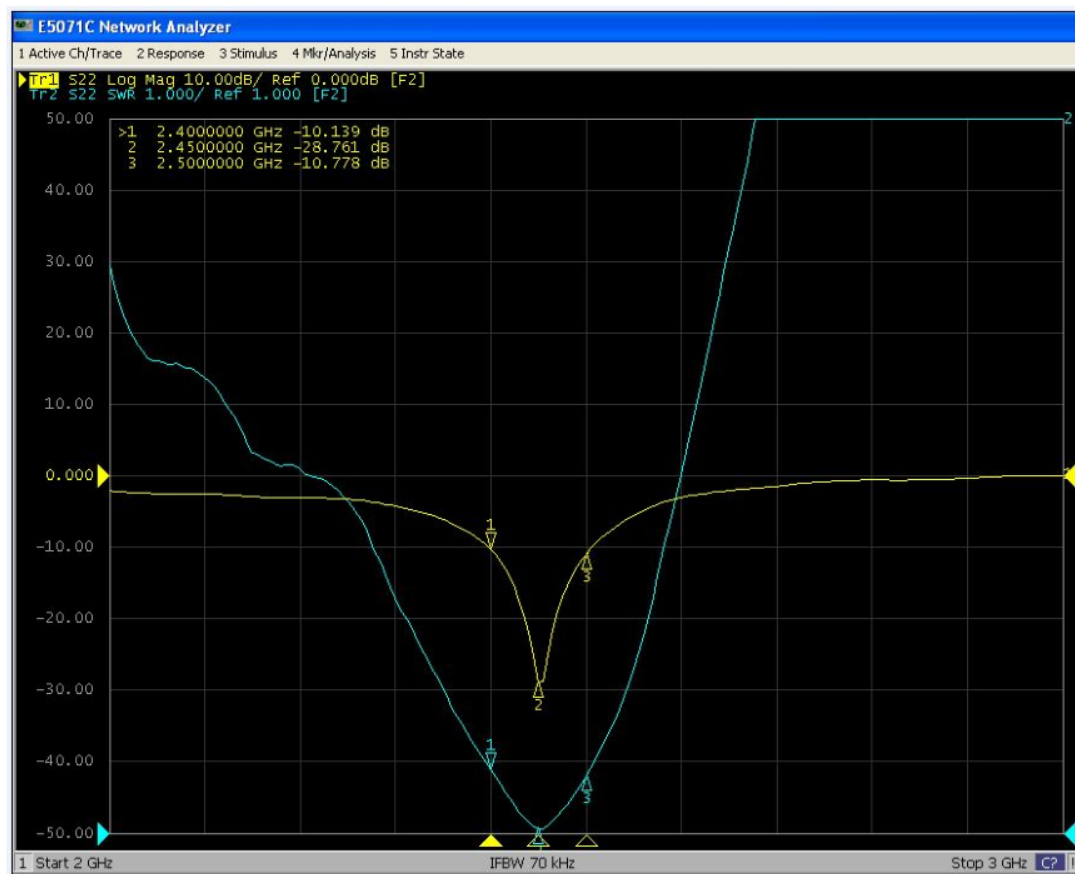


图 1: HLK-B50 Position and rendering of the onboard antenna

二、Basic parameters:

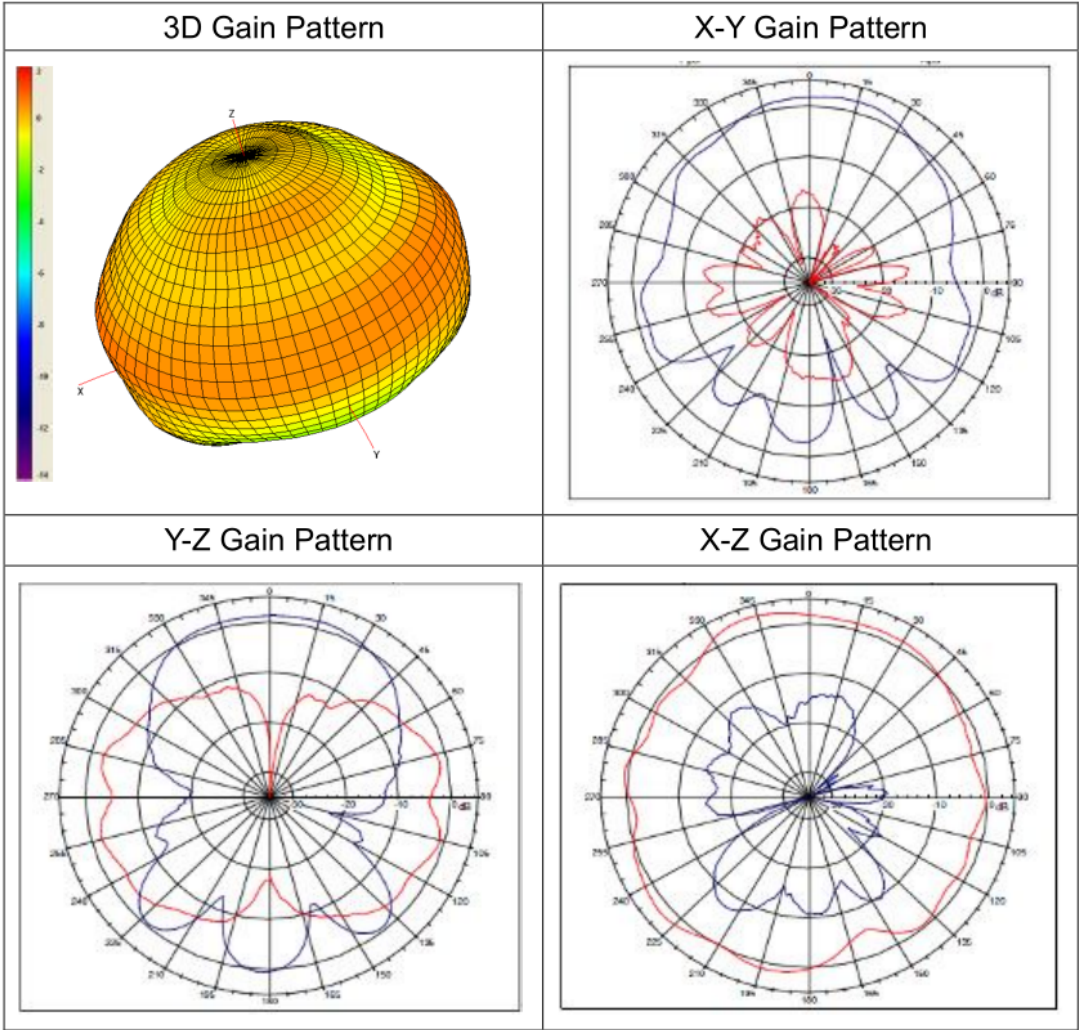
参数	指标	备注
频段 Frequency Range (MHz)	2400–2500	
增益 Gain (dBi)	2.51	
驻波比 V. S. W. R.	<1.5	
极化 Polarization	Vertical	
不圆度 Non-Circularity (dB)	± 0.5	
输入阻抗 Impedance (Ω)	50	
雷电保护 Lightning Protection	Direct Ground	
最大功率 Maximum Input Power (W)	50	
工作温度 Operating Temperature ($^{\circ}\text{C}$)	$-40^{\circ}\sim+70^{\circ}$	
储藏温度 Reposition Temperature ($^{\circ}\text{C}$)	$-55^{\circ}\sim+80^{\circ}$	

三、Return loss (S11/VSWR)



	2.4GHz	2.45GHz	2.5GHz
S11 (dB)	-10.1	-28	-10.7
VSWR	1.9	1.1	1.9

四、Radiation Mode (2.45GHz)



	X-Y plane	X-Y plane	X-Y plane
Avg gain(dBi)	-3.5	-0.36	-1.76
Peak gain(dBi)	2.08	2.51	1.46