

Hugs BLE Antenna

The tag is attached to baby's leg, so its performance should be optimal for such a use-case

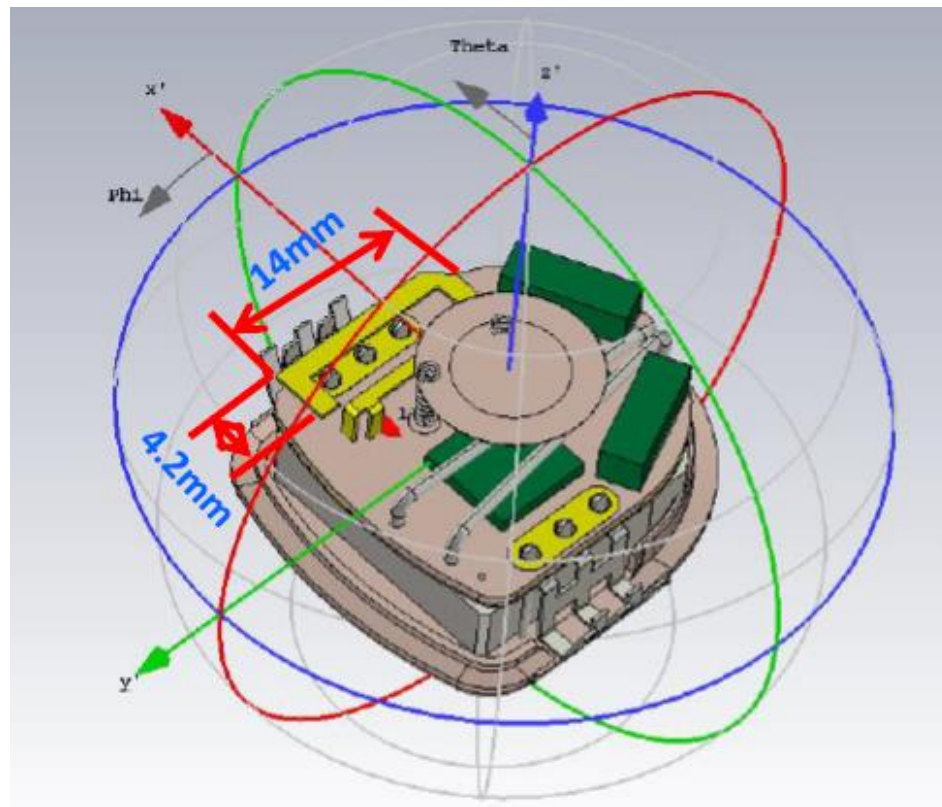
Antenna type: Metal Inverted F antenna

Frequency band: 2402-2480MHz

Omni-directional

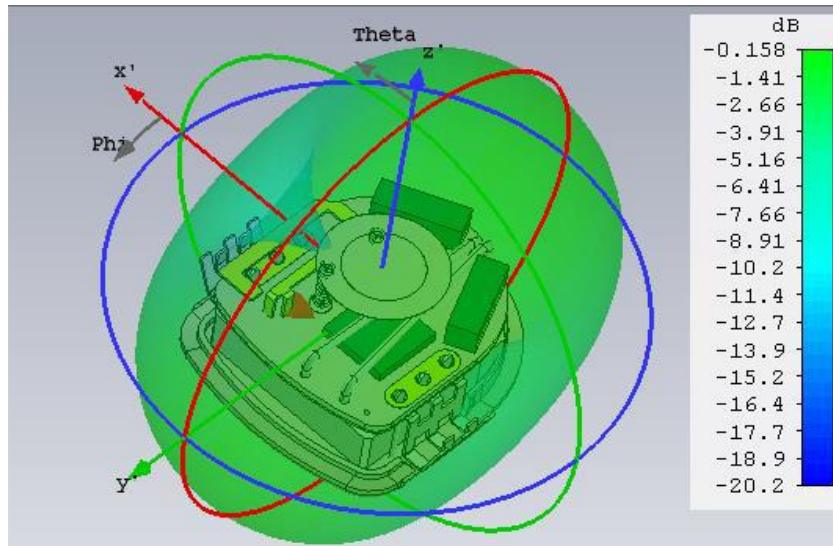
Integral antenna

Maximum gain (folded metal better than printed)

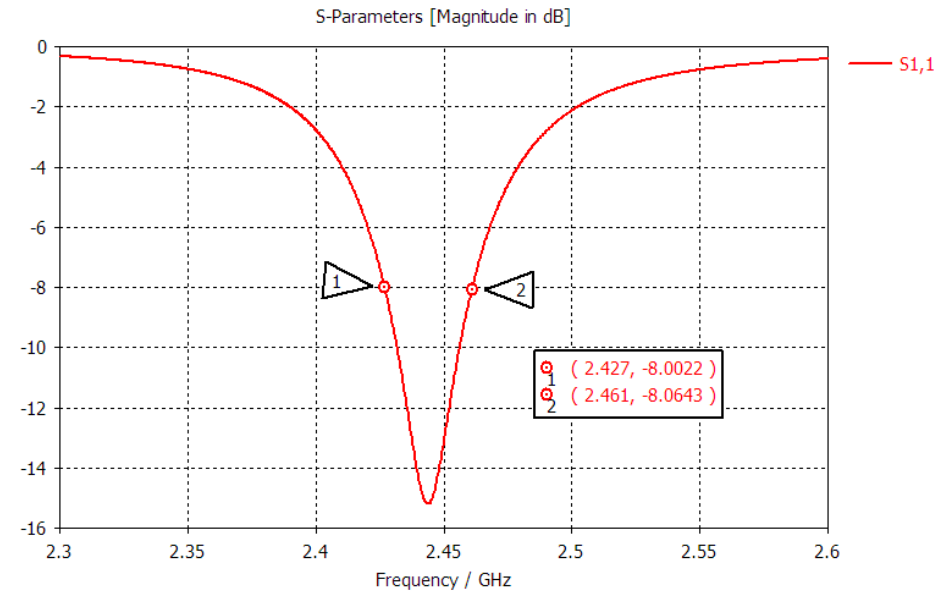
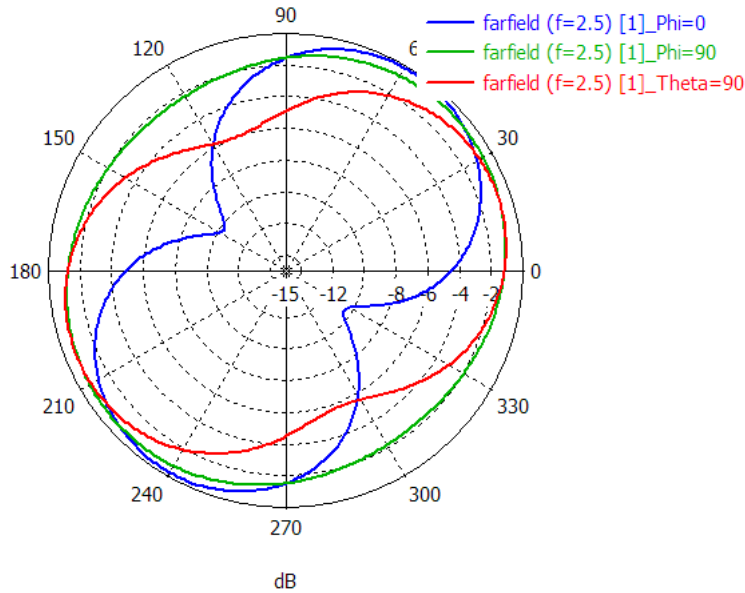


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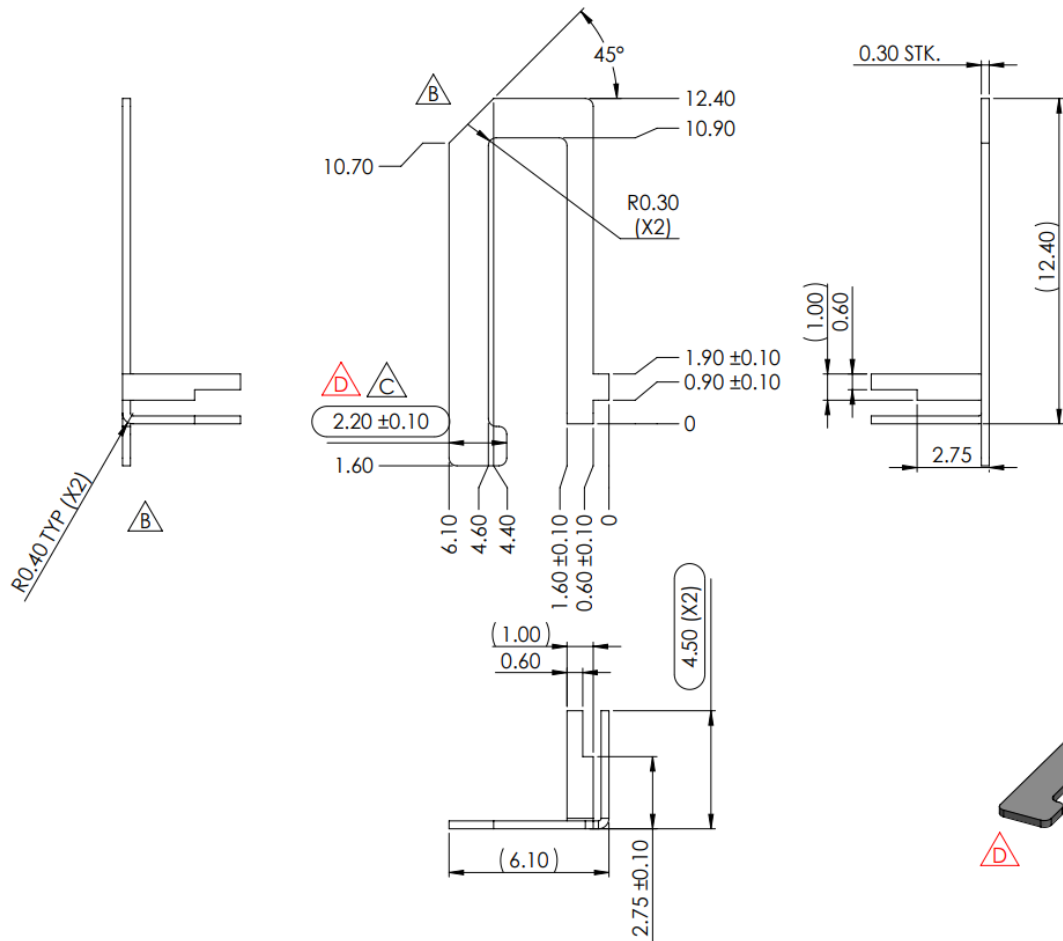
Simulation



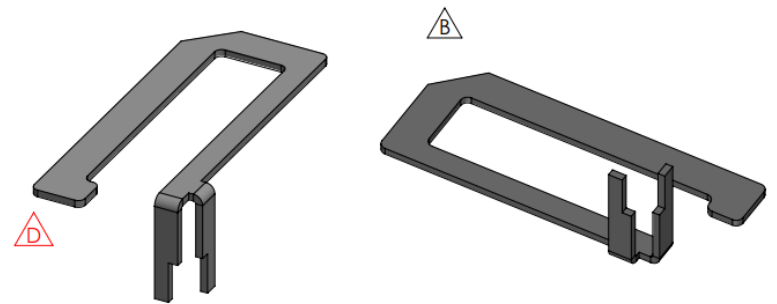
1D Results\New Folder 1



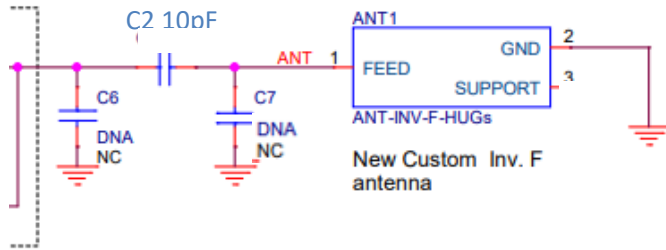
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REVISION HISTORY (3D-MODEL AND DRAWING ARE IN SAME REVISION; DRAWING - ALL SHEETS ARE IN SAME REVISION)				
REV.	ECO	DESCRIPTION	DATE	APPROVED
A	23000069	RELEASE FOR PRODUCTION	07/12/2023	DROR E.
B		DIMENSION UPDATED AND LEG REMOVED	18/03/2024	MEIR
C		DIMENSION UPDATED - 3.1MM	16/05/2024	MEIR
D		DIMENSION UPDATED - 2.2MM	07/07/2024	MEIR



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	14	Lyr	5	L5	Plane	Plane			1.4	0	0	5	Copper	
	15	Lyr			Dielectric	Dielectric			4	0	0		Fr-4	
GND reference layer (L6)	16	Lyr	6	L6	Plane	Plane			1.4	0	0	6	Copper	
	17	Lyr			Dielectric	Dielectric			3	0	0		Fr-4	
	18	Lyr	7	L7	Conductor	Conductor		cnd	0.7	0	0	7	Copper	
	19	Lyr			Dielectric	Dielectric			3	0	0		Fr-4	
Antenna layer (bottom)	20	Lyr	8	BOTTOM	Conductor	Conductor		EXTERNAL	1.4	0	0	8	Copper	
	21	Lyr		SOLDERMASK_BOTTOM	Mask	Solder Mask			0.5	0	0		Polyimide	
	22	Lyr			Surface									

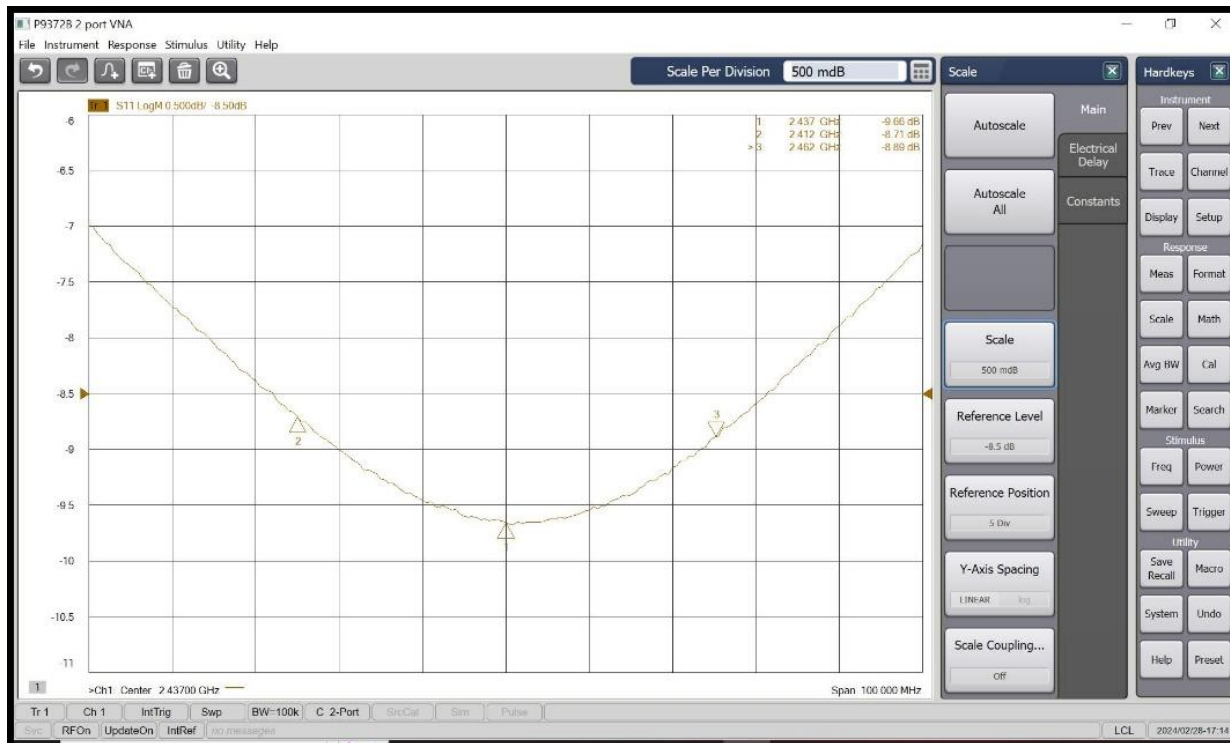
Gnd layer at L6, thickness from antenna layer= 6.7 mil

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Measurement

Tag is attached to a water bottle to best simulates the human body)

S11 Measurement



Peak gain = -1dB

Average gain=-3dBi