



Electrical **Simulation** Report For PicoRaptor 1

1.0 SPECIFICATION

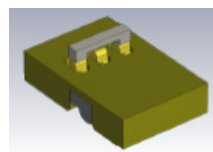


Pin Design

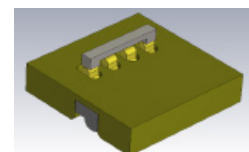
Name	PicoRaptor 1
Part Number	P-R109A
Revision	A
Material	BeCu-Ni-Au
X-Y-Z Size	1.60mm x 0.965mm x 0.20mm

2.0 SETUP

Software Used	CST Studio Suite 2022
Simulation	S11 (Return Loss) S21 (Insertion Loss) S31 (Near End Crosstalk) S41 (Far End Crosstalk) Inductance Capacitance
Pitching	0.50mm
Pin Thickness	0.20mm
Configuration	GSG & GSSG



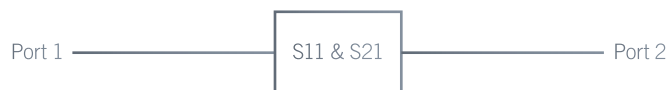
GSG Configuration



GSSG Configuration

3.0 DIAGRAM

3.1 : GSG Configuration

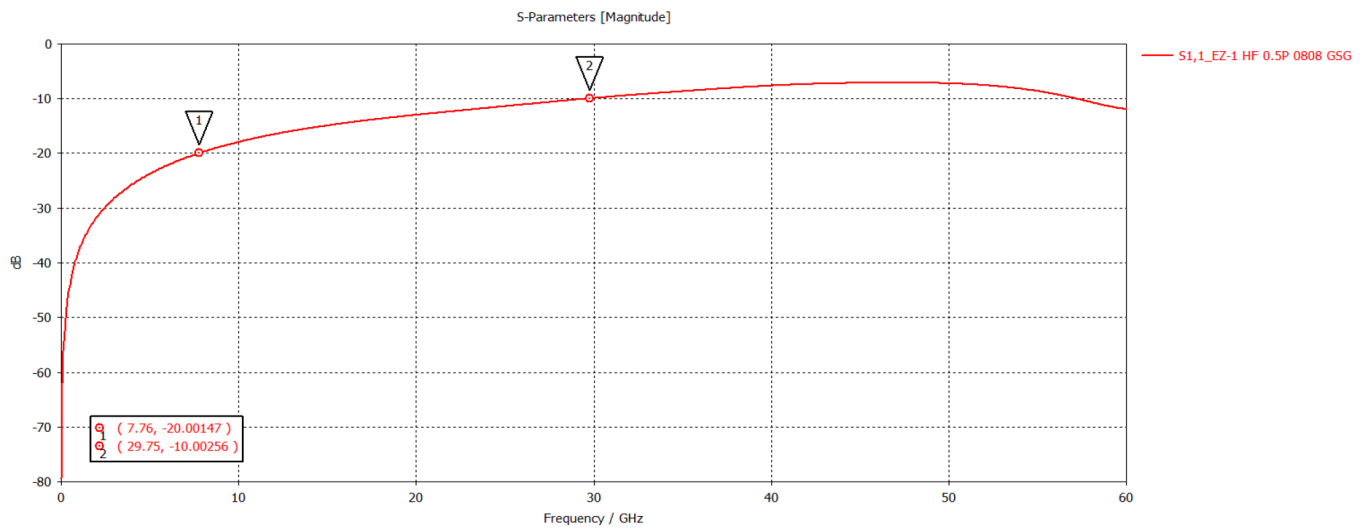


3.2 : GSSG Configuration

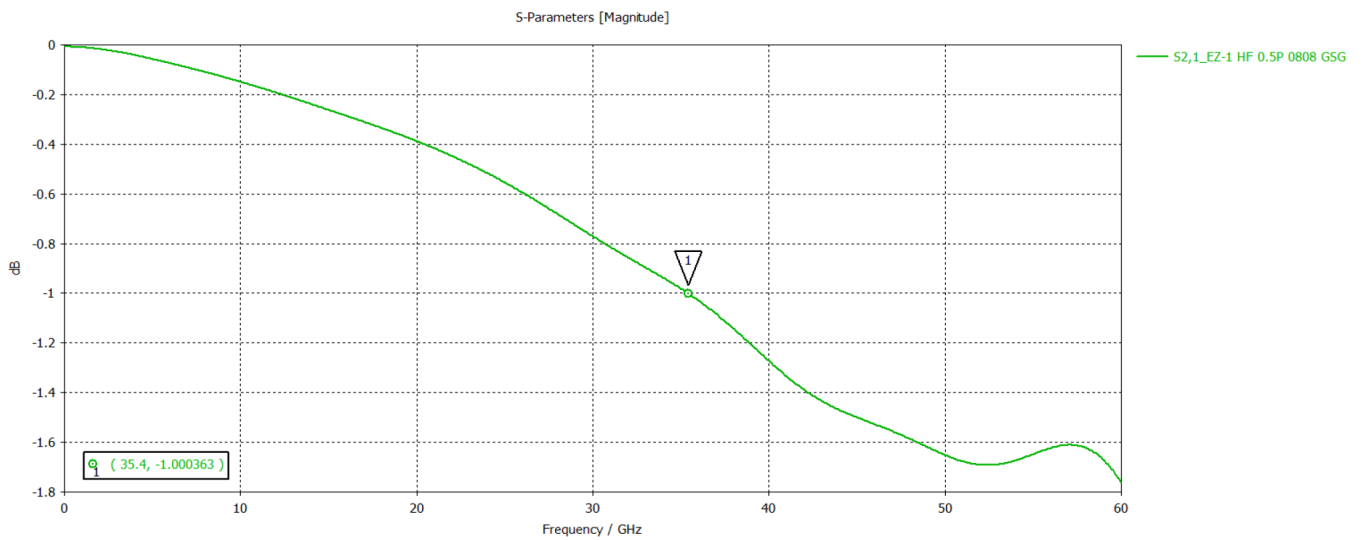


4.0 PERFORMANCE

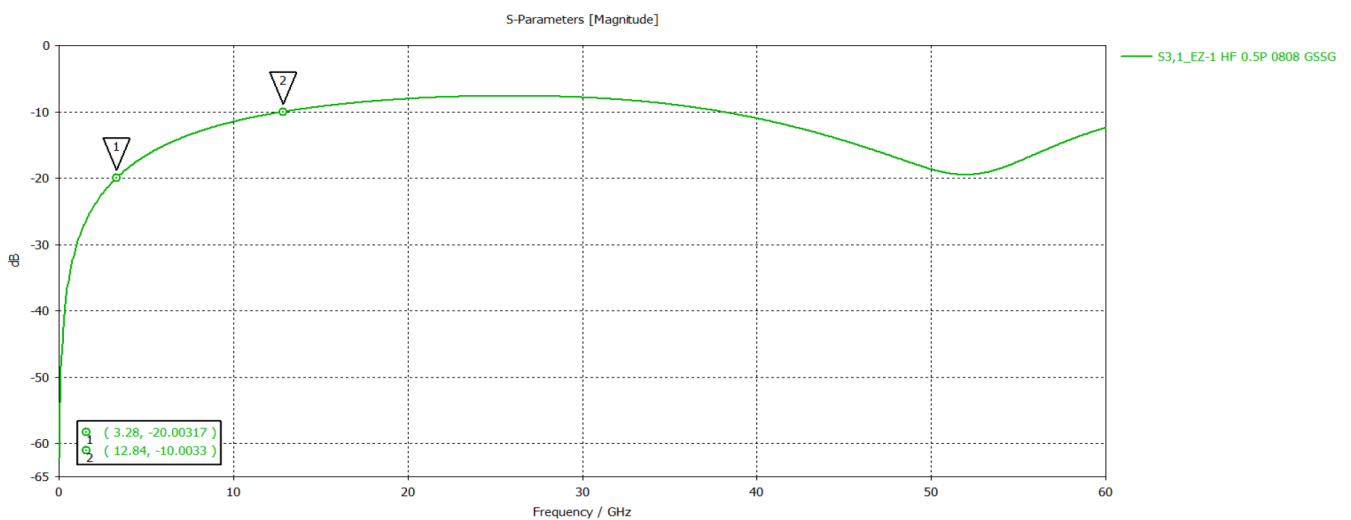
4.1 : S11 (Return Loss)



4.2 : S21 (Insertion Loss)

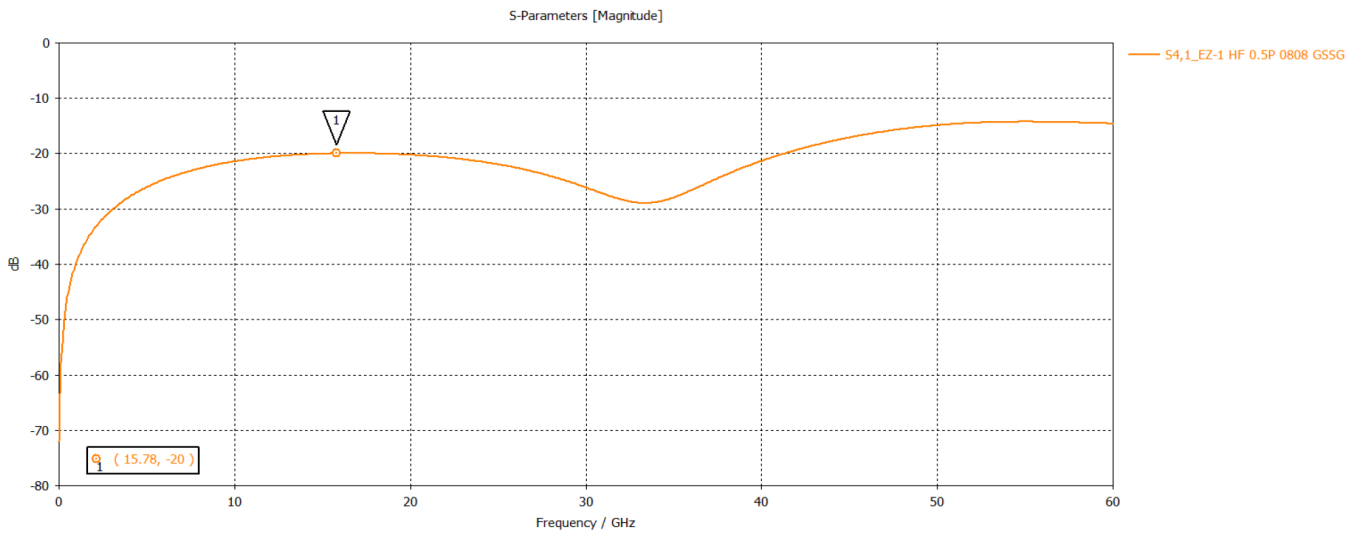


4.3 : S31 (Near End Crosstalk)



4.0 PERFORMANCE (CONT.)

4.4 : S41 (Far End Crosstalk)



5.0 DATA EXTRACTION

Electrical Specifications	Value
S11 (RL)	-10 dB @ 29.8 GHz
	-20 dB @ 7.8 GHz
S21 (IL)	-1 dB @ 35.4 GHz
S31 (NExT)	-10 dB @ 12.8 GHz
	-20 dB @ 3.3 GHz
S41 (FExT)	-20 dB @ 15.8 GHz
Capacitance	Ground: 0.06 pF
	Mutual: 0.085 pF
Inductance	Self: 0.62 nH
	Mutual: 0.23 nH

END OF REPORT
18 December 2024