ALPHA Networks

ARS-ST01 前方雷達3T4R_simulation report

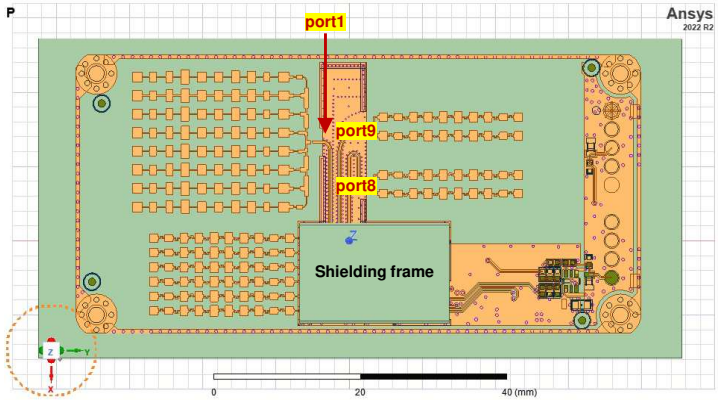
2023/09/03

ARS-ST01雷達_3Tx Pattern and simulation condition

Antenna Model 1: ARS-ST01_MRR
Antenna Model 2 : ARS-ST01_SRR

- **In order to shorten the simulation time, we remove the via place beside the transmission line.**
- **The small shielding frame is implanted and check the passive performance.**

PCB Material: RO3003 G2 (dk=3.16 / df=0.001/ Thickness= 0.127mm)

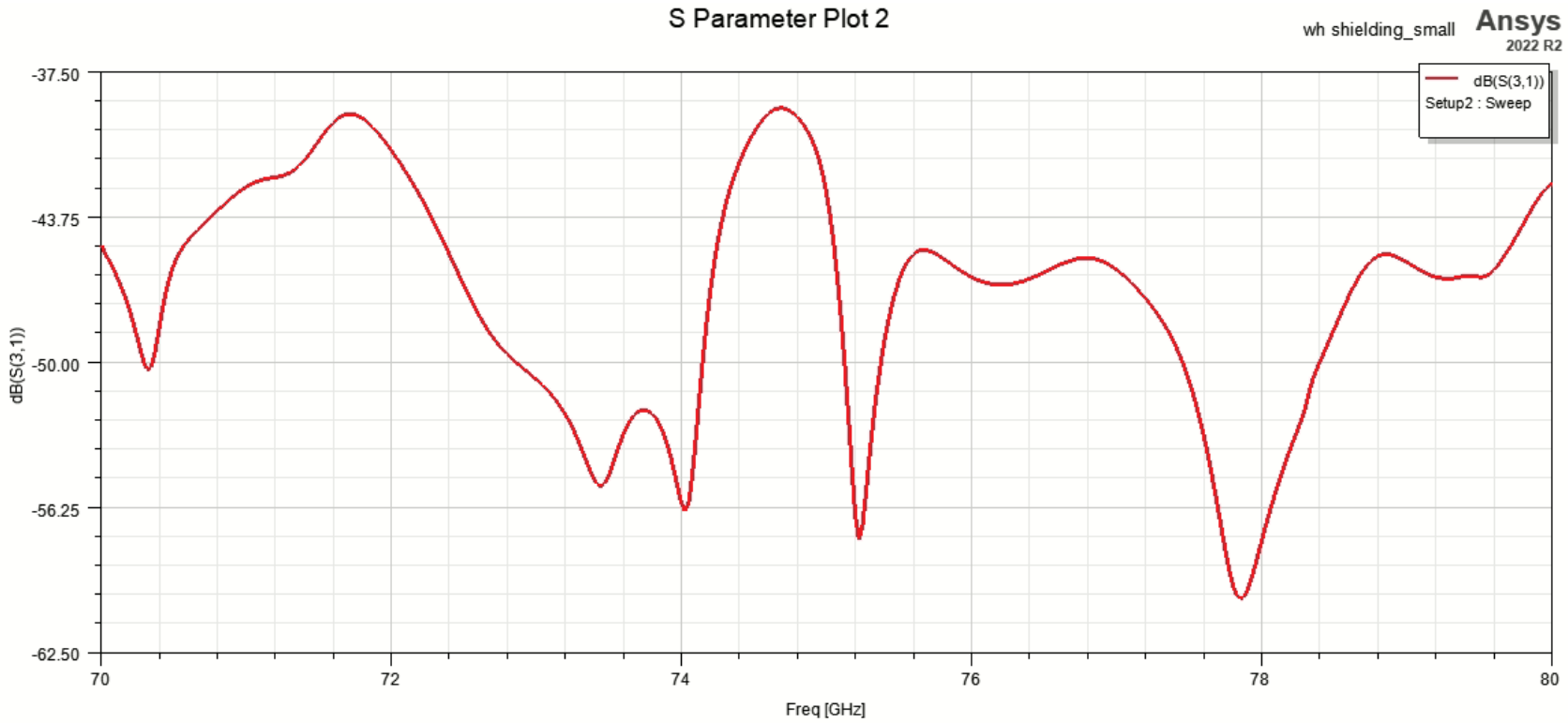


Port 1 8X10 Series-fed Antenna
Port 9 2X10 Series-fed Antenna
Port 8 2X10 Series-fed Antenna

Port		-3dB Beam Width (deg)	-6dB Beam Width (deg)	Peak Gain (dBi)
1	Vertical (Plan X-Z)	13.8757	19.9285	18.87
	Horizontal (Plan Y-Z)	7.634	10.7656	22.36
8	Vertical. (Plan X-Z)	35.001	50.226	18.41
	Horizontal (Plan Y-Z)	10.5543	15.0012	18.23
9	Vertical. (Plan X-Z)	36.942	51.9149	18.68
	Horizontal (Plan Y-Z)	9.5825	13.9208	18.50

Brand : ALPHA
Manufacturer : Alpha Networks Inc.
Manufacturer address : No. 8, Li-Hsin 7th Rd., Hsinchu Science Park, Hsinchu 300094, Taiwan, R.O.C.

ARS-ST01雷達_Isolation (Tx1-Rx3)



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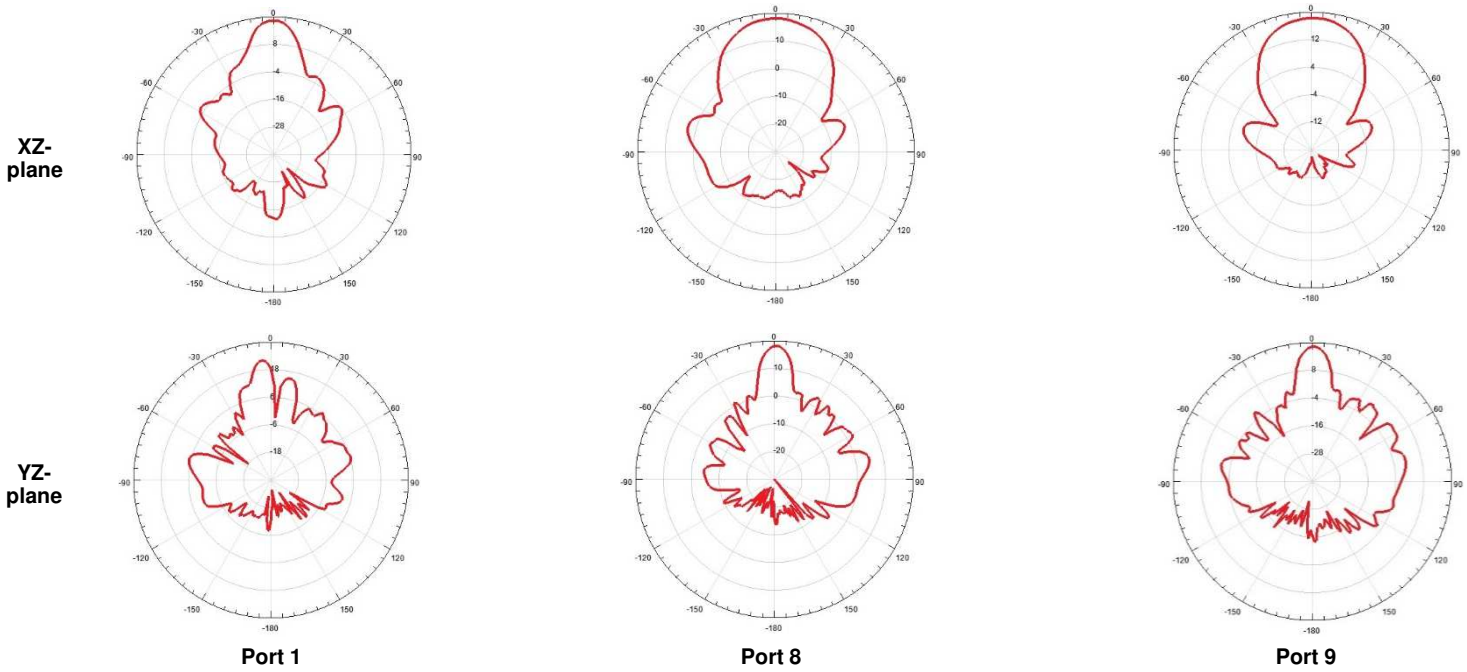
ARS-ST01雷達_2D Radiation pattern

- **The 2D radiation pattern of port 1, 8 and 9 at 77 GHz are shown on below:**



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THANK YOU