

RS6130 AIP ANTENNA TEST REPORT

2025/02/25

V1.3

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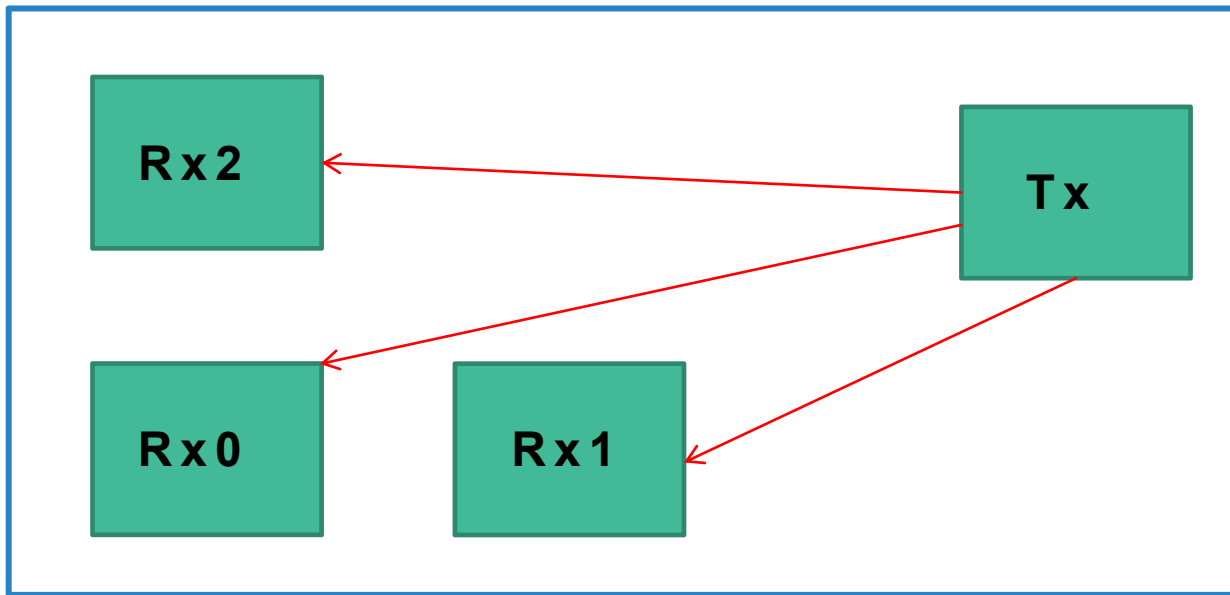
Model Name: RS6130

Model Size: 8.8mm(Length)X5.8mm(Width)X0.68mm(Thickness)

Antenna Type: Antenna in Package(AiP)

RS6130 1T3R(Tx→Rx0, Tx→Rx1, Tx→Rx2) Gain and Radiation Pattern of three channels

RS6130



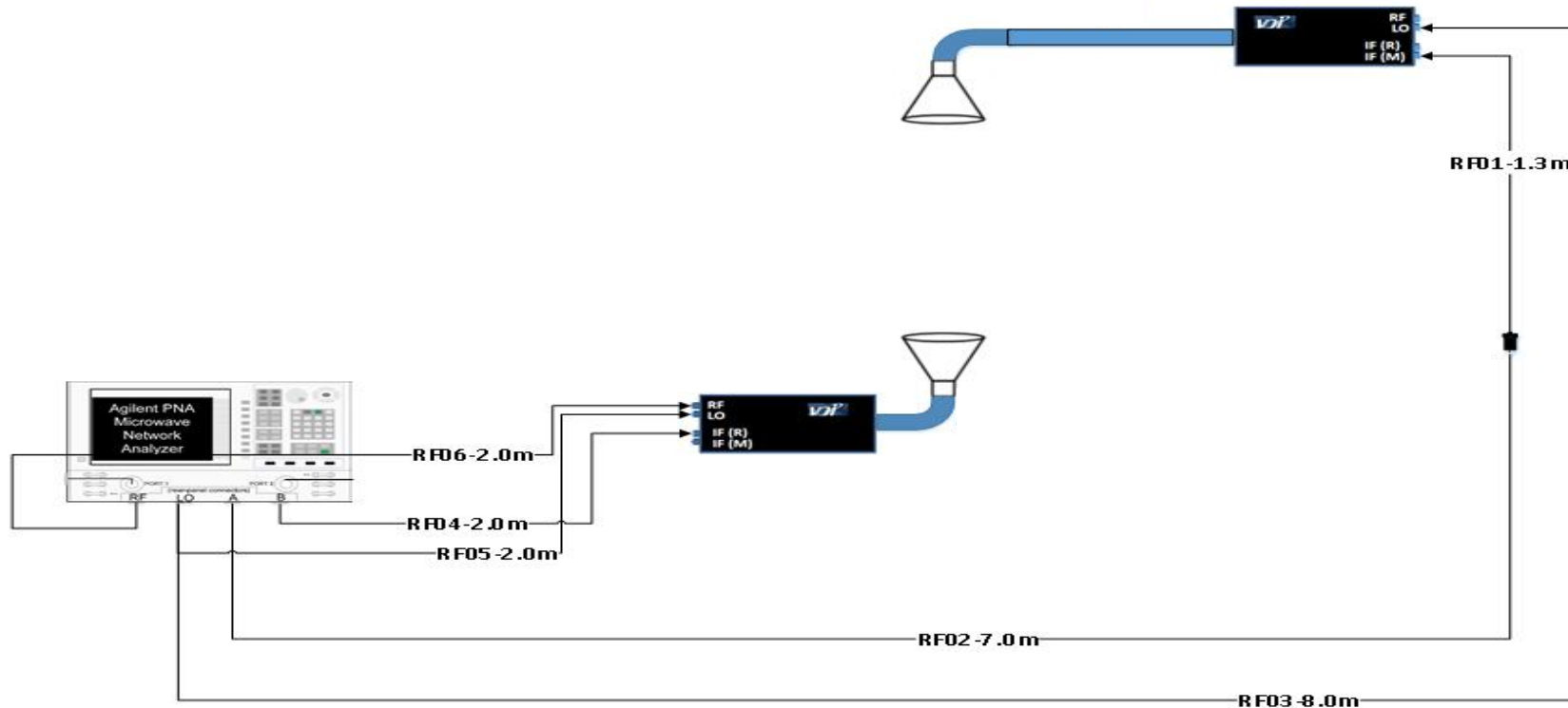


AIP ANTENNA TEST PRINCIPLE AND METHOD

Principle: Conservation, that is, the signal power received by Rx is equal to the power lost in the energy space when the Tx transmit power is lost.

Gain test method: Comparison method, using the equal power loss in space, replacing the Rx antenna with a horn antenna for reception to obtain the Rx antenna gain.

Directional pattern test method: Use angular reflection to collect level values in different directions, and then obtain a normalized pattern.



ANTENNA GAIN RESULTS

ANT Gain=EIRP-Tx Output Power
Average Gain of AiP antenna about **7dBi**

Frequency (GHz)	EIRP (dBm)	Chip Tx Output Power (dBm)	ANT Gain (dBi)
58	17.67	10.5	7.17
59	17.62	10.7	6.92
60	17.39	10.5	6.89
61	17.93	10.5	7.43
62	16.81	9.7	7.11
63	15.65	9.0	6.65
64	15.00	8.2	6.80



60GHZ RADIATION PATTERN

TX-RX loop gain

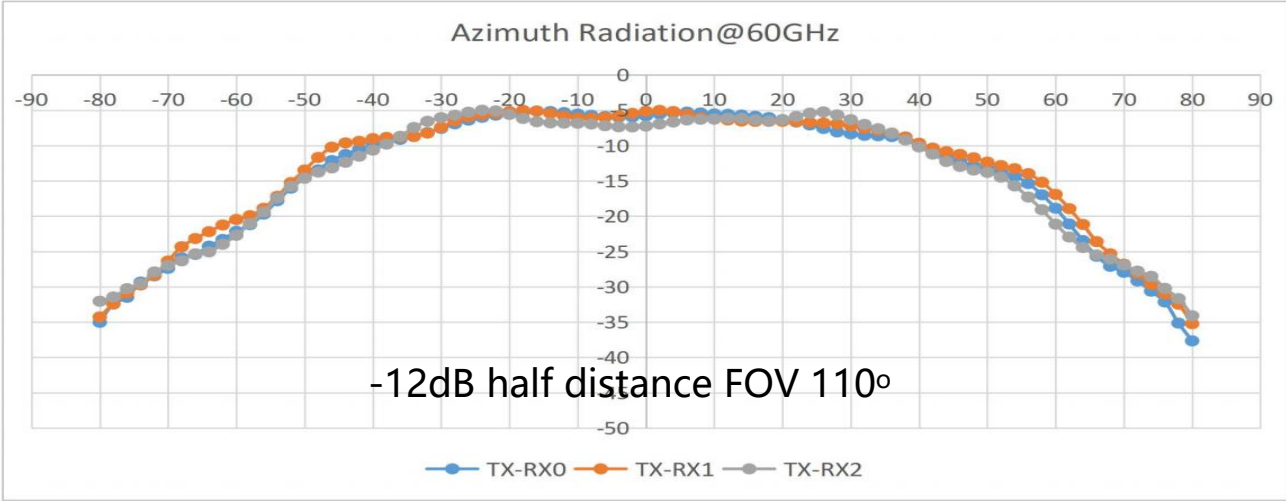


Figure 5-2 Antenna Azimuth(XOZ) Radiation Pattern^{1,2}

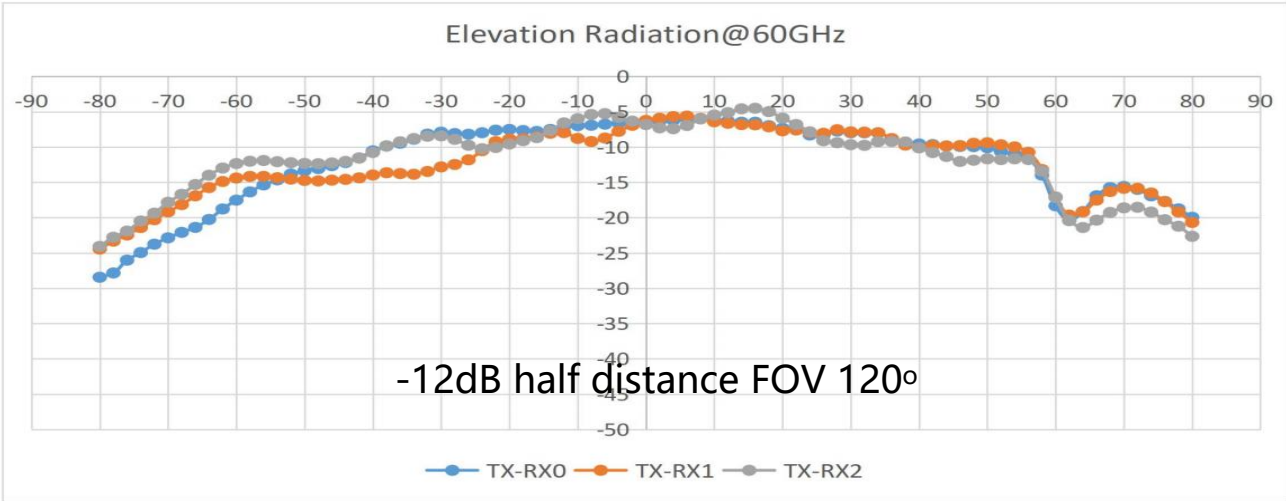


Figure 5-3 Antenna Elevation(YOZ) Radiation Pattern^{1,2}