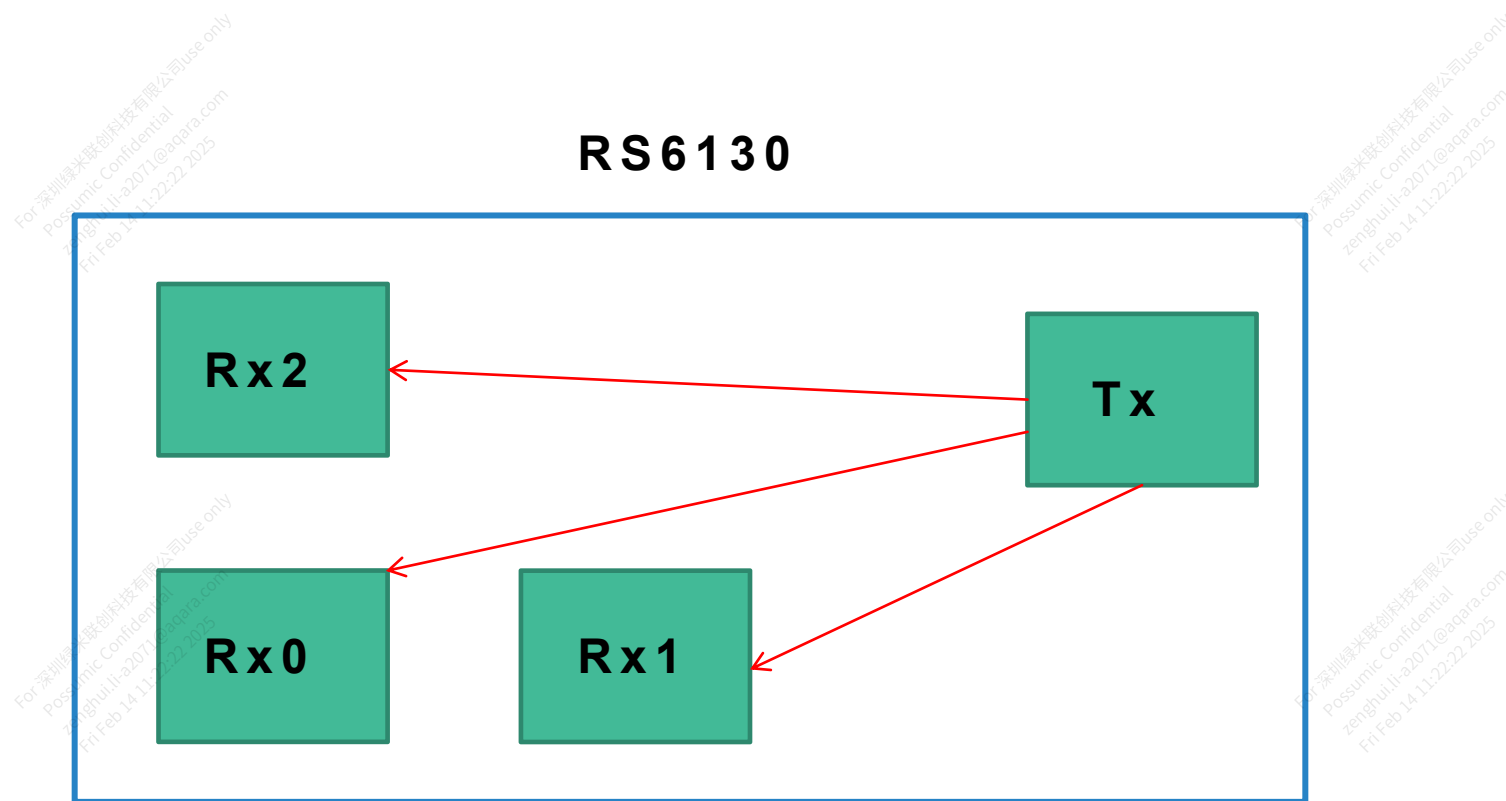


RS6130 AIP ANTENNA TEST REPORT

2025/02/10

AIP ANTENNA TEST DESCRIPTION

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





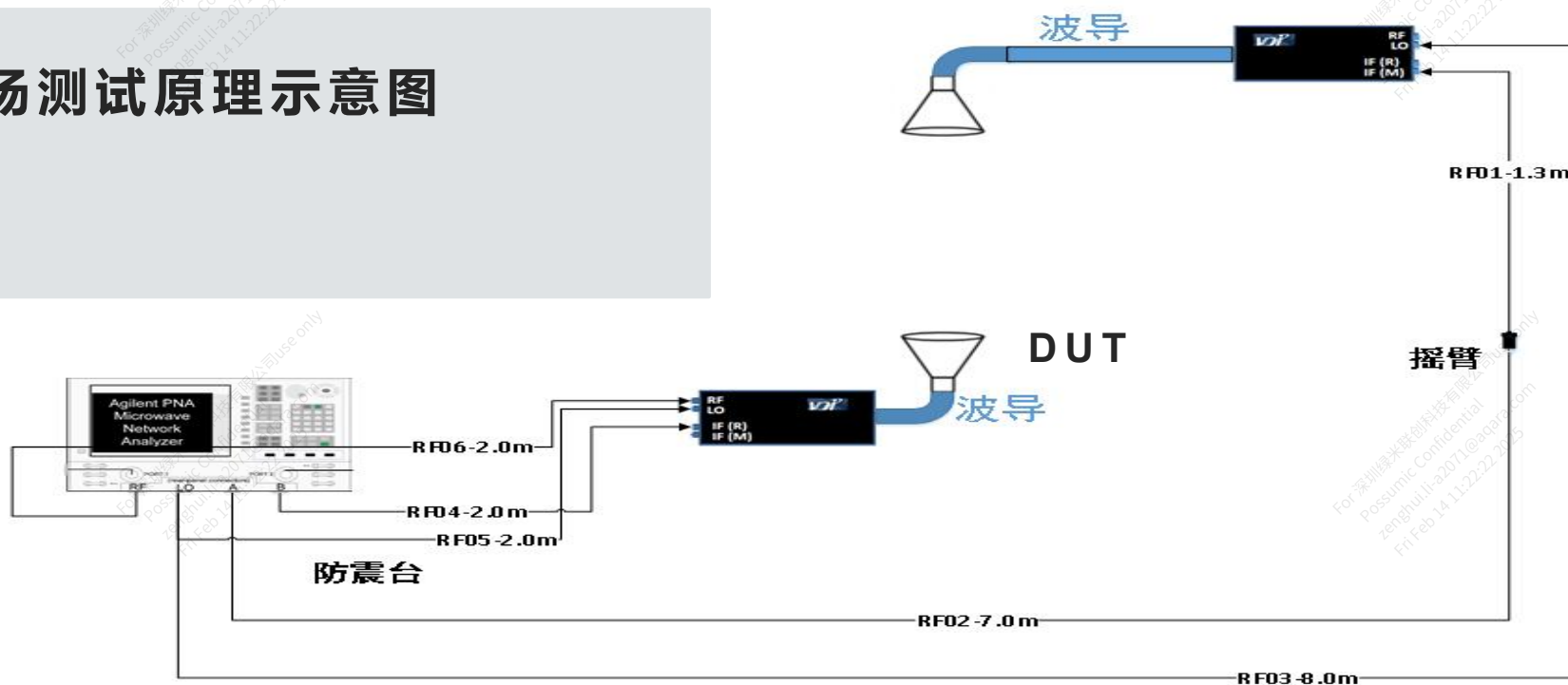
AIP ANTENNA TEST PRINCIPLE AND METHOD

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.

远场测试原理示意图





ANT GAIN RESULTS

ANT Gain=EIRP-Tx Output Power

Frequency	EIRP	Tx Output Power	ANT Gain
58GHz	16.67	9.5dbm	7.17dB
59GHz	16.62	9.8dbm	6.82dB
60GHz	16.39	10.0dbm	7.39dB
61GHz	16.93	9.8dbm	7.13dB
62GHz	15.81	8.7dbm	7.11dB
63GHz	14.65	8.2dbm	6.45dB
64GHz	14.40	8.0dbm	6.40dB



60G RADIATION PATTERN

tx-rx loop gain

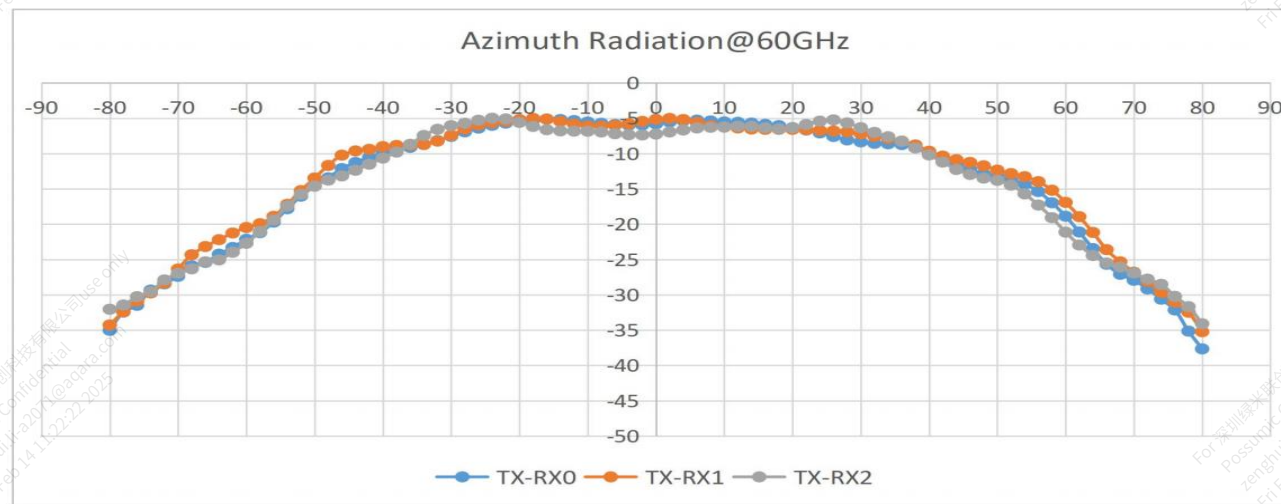


Figure 5-2 Antenna Azimuth(XOZ) Radiation Pattern^{1,2}

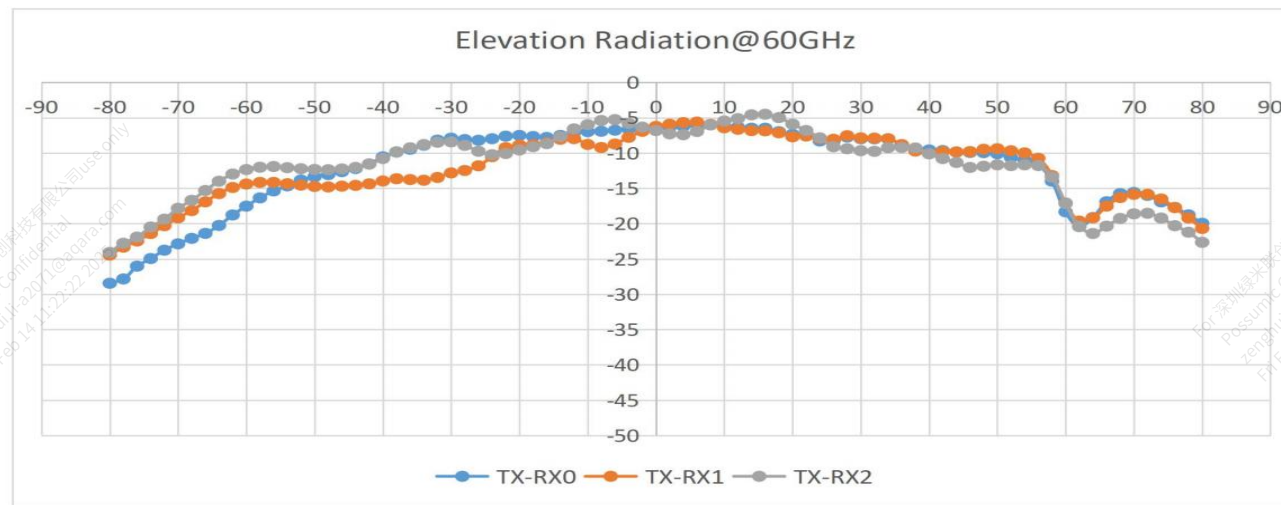


Figure 5-3 Antenna Elevation(YOZ) Radiation Pattern^{1,2}