

QX-A931 Specification

1. Key Feature

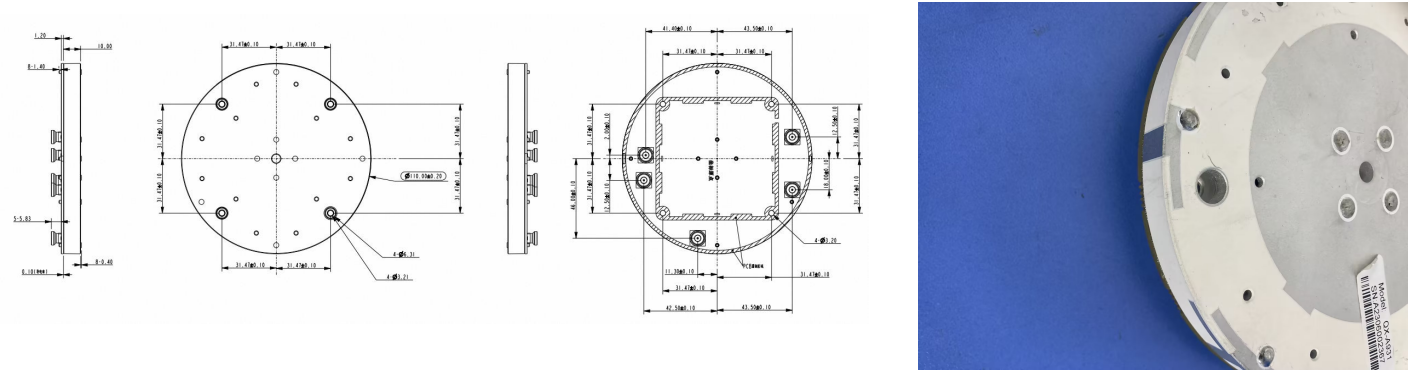
- 1). This antenna is with full frequency point of GPS/BDS/GLONASS/GALILEO/SBAS, BT/WIFI/UHF signal reception capability, integrated design.
- 2). The passive part of the antenna adopts multi-feed point design scheme to ensure the coincidence of phase center and geometric center, which effectively improves the phase center stability of the antenna.
- 3). Reliable phase center, low elevation signal tracking, and high signal gain offer millimeter position.
- 4). Great electromagnetic compatibility, easy for integration.

2. QX-A931 Performance

Antenna Specification					
Frequency Band	BDS B1/ GPS L1 GLONASS G1 GALILEO E1/E2 L_Band(1525M~1550M)	BDS B2/B3 GPS L2/L5 GLONASS G2 GALILEO E5a/E5b	BT-WIFI: 2400~2482.5MHz		UHF: 450~460MHz
Polarization	RHCP		/		/
Max Gain/Efficiency	≥5dBi	≥5dBi	50%		10~20%
Output Impedance	50Ω				
VSWR	typ≤2, max<3		≤2		typ≤4
Circular polarization axis ratio	≤3dB		/		/
Horizontal range	360°		360°		360°
Phase Center Stability	±2mm		/		/
LNA					

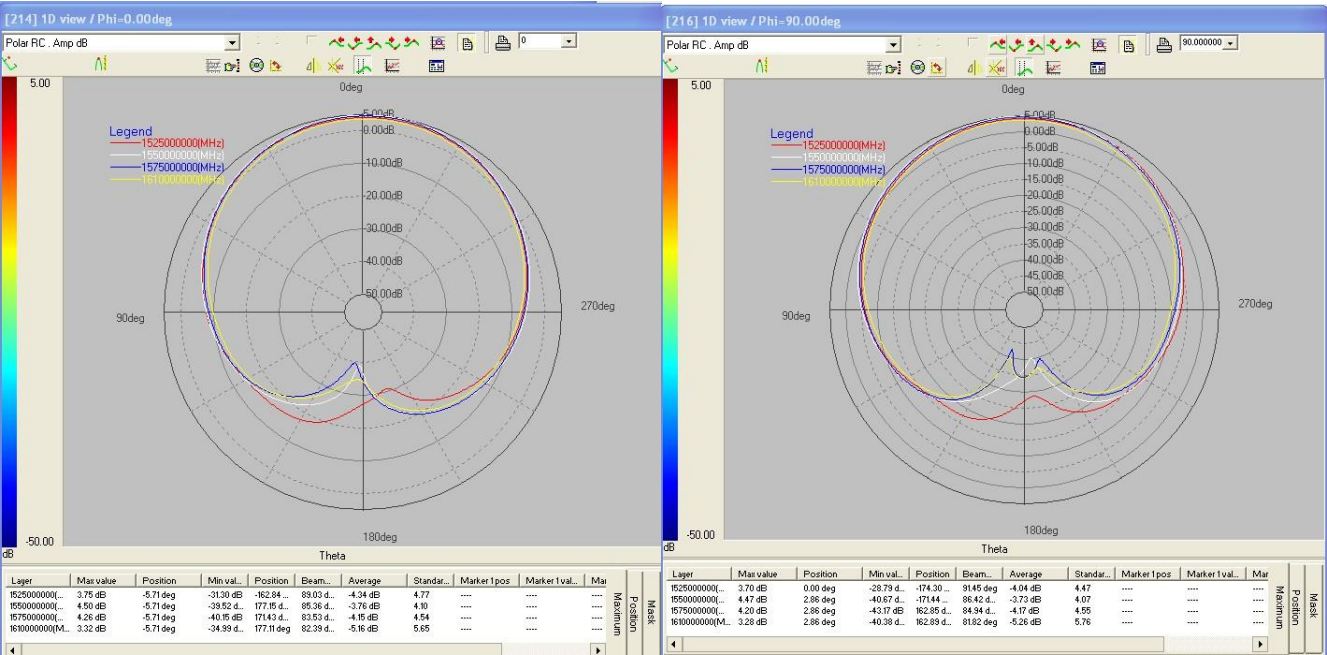
Gain	35±2dB	/	/
Flatness in the band	≤±1dB	/	/
Input voltage	3.3~12V	/	/
Current	≤50mA	/	/
Noise figure	≤ 2dB	/	/
Environment			
Operation temp.	-40°~ +85°C		
Storage temp.	-55°~ +85°C		
Humidity	95% Non-condensing		

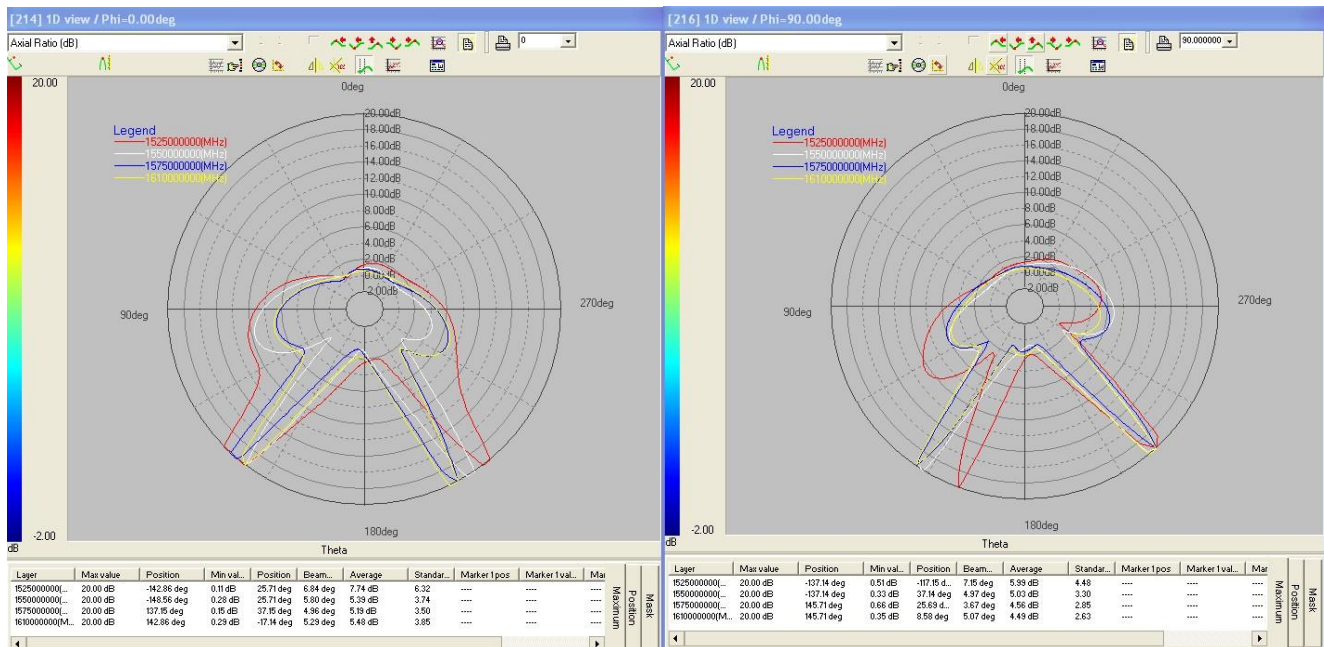
3. Dimension



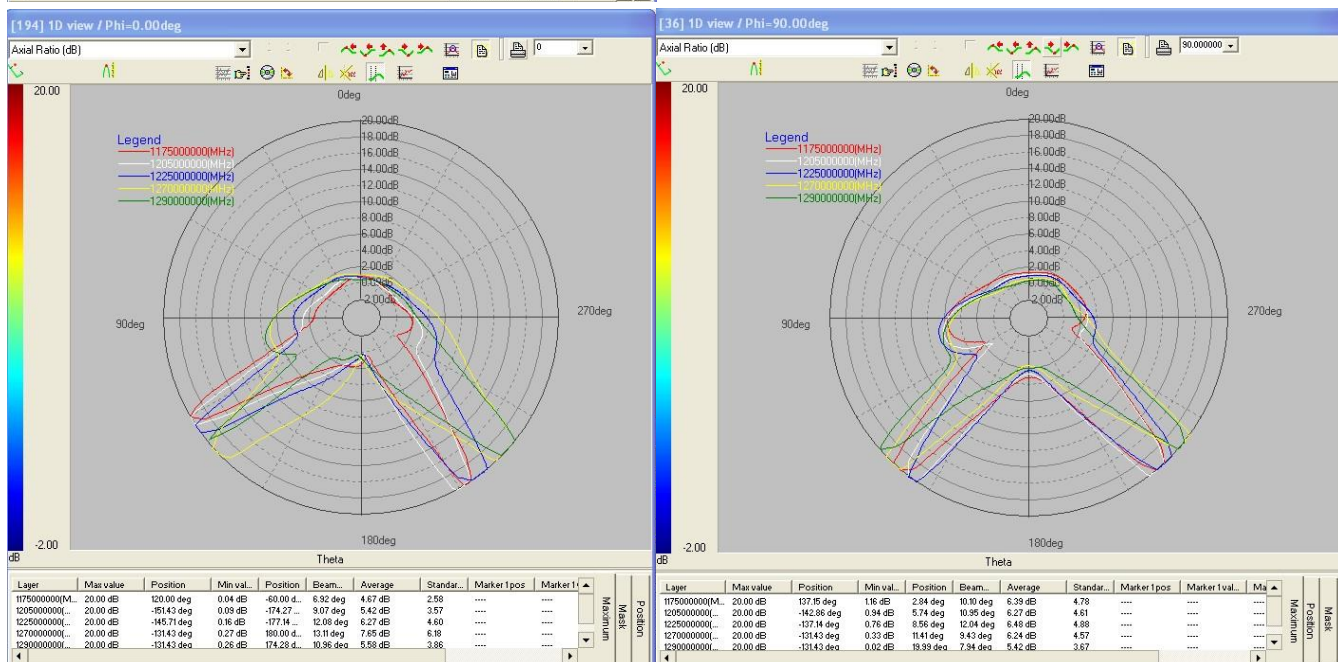
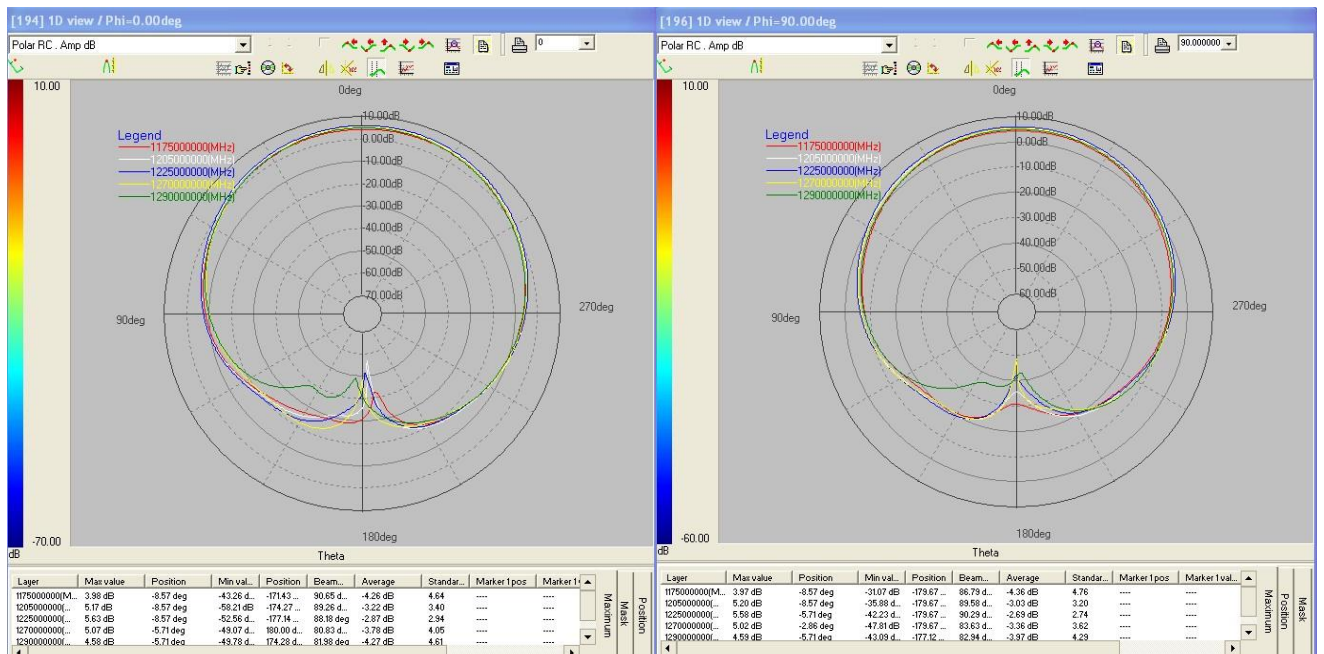
4. Antenna orientation diagram and Axial Ratio

4.1 L1 Frequency

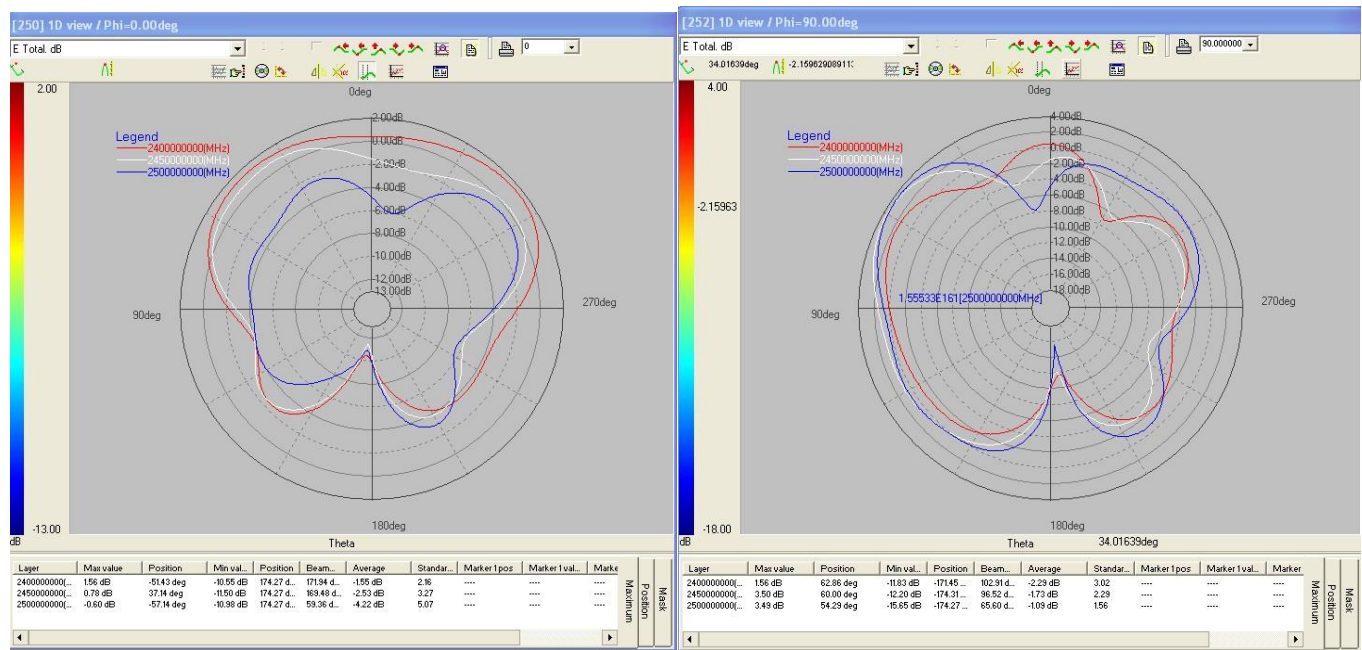




4.2 L2 Frequency



4.3 BT/WIFI



5. Antenna Efficiency

5.1 GNSS Antenna

Frequency (MHz)	Efficiency	RHCP Gain (dBi)
1160	40%	3.134469
1165	43%	3.410471
1170	45%	3.700392
1175	49%	4.039441
1180	53%	4.368795
1185	56%	4.587912
1190	58%	4.781476
1195	60%	4.927579
1200	62%	5.027958
1205	65%	5.255068
1210	67%	5.406822
1215	70%	5.580892
1220	71%	5.674845
1225	70%	5.655666
1230	69%	5.63626
1235	68%	5.607775
1240	67%	5.595894
1245	67%	5.68955
1250	67%	5.706408
1255	66%	5.649847
1260	65%	5.598963
1265	61%	5.315293
1270	58%	5.078583
1275	55%	4.864292
1280	53%	4.654486
1285	52%	4.65777

1290	52%	4.637341
1520	41%	2.773583
1525	43%	3.105183
1530	45%	3.428458
1535	48%	3.687885
1540	50%	3.917413
1545	52%	4.061545
1550	53%	4.200051
1555	53%	4.186495
1560	53%	4.18374
1565	53%	4.214208
1570	53%	4.32756
1575	54%	4.473828
1580	55%	4.618537
1585	54%	4.649304
1590	54%	4.652438
1595	52%	4.511874
1600	50%	4.344348
1605	49%	4.239414
1610	48%	4.175889
1615	47%	4.1258
1620	46%	4.025725

5.2 BT/WIFI Antenna

Frequency(MHz)	Efficiency	Gain(dBi)
2400	71%	1. 304004
2405	72%	1. 398894
2410	72%	1. 476124
2415	71%	1. 45508
2420	71%	1. 622092
2425	72%	1. 881636
2430	71%	1. 038691
2435	71%	1. 248291
2440	71%	1. 364268
2445	71%	1. 522629
2450	72%	1. 690536
2455	72%	1. 830902
2460	72%	1. 869493
2465	71%	1. 846188
2470	71%	1. 848527
2475	71%	2. 003516
2480	70%	1. 783053
2485	71%	1. 784878
2490	70%	1. 707722
2495	70%	1. 725527
2500	70%	1. 626609