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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.

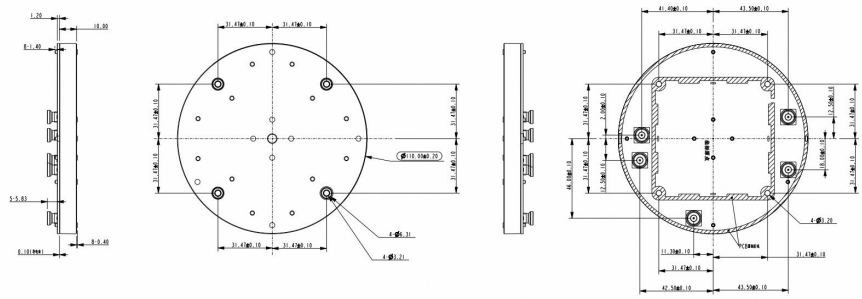
4). Great electromagnetic compatibility, easy for integration.

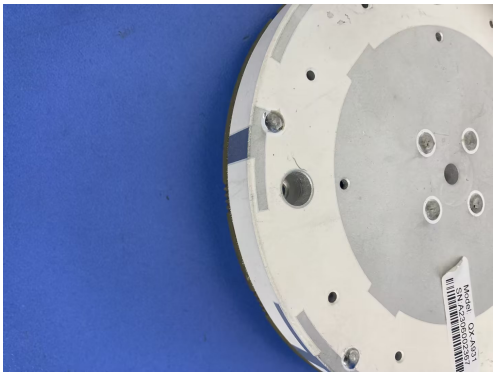
2. QX-A931 Performance

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		

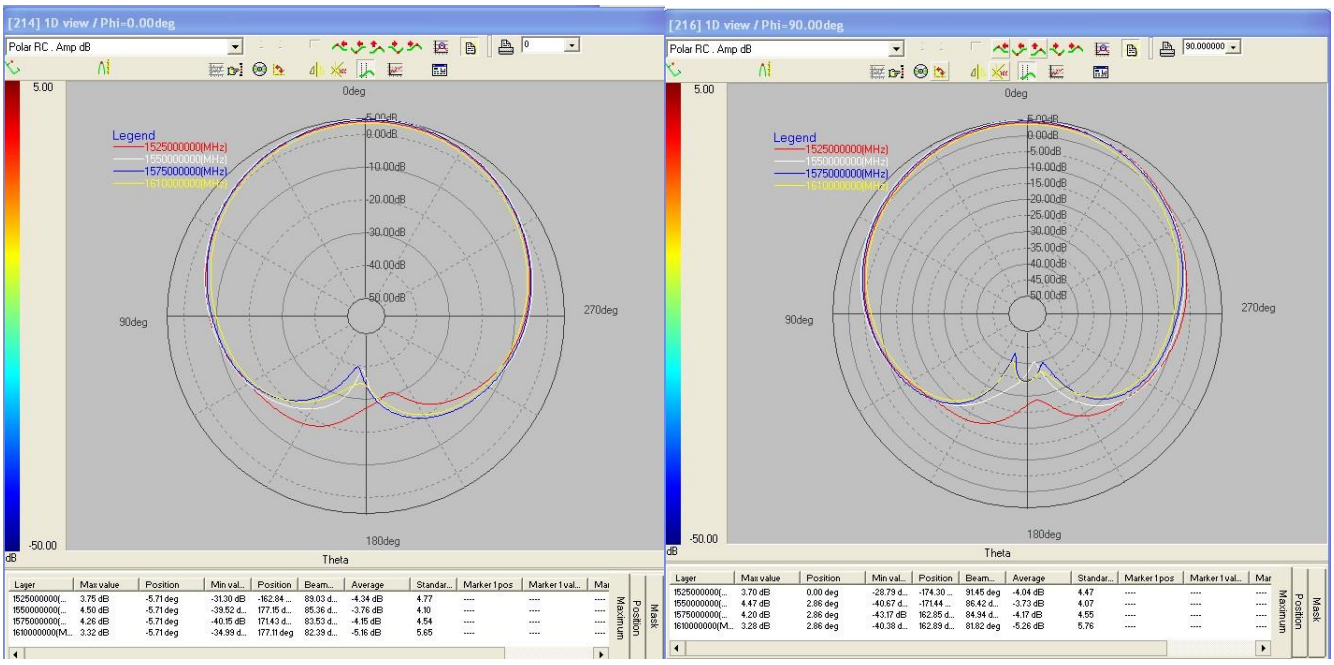
3. Dimension

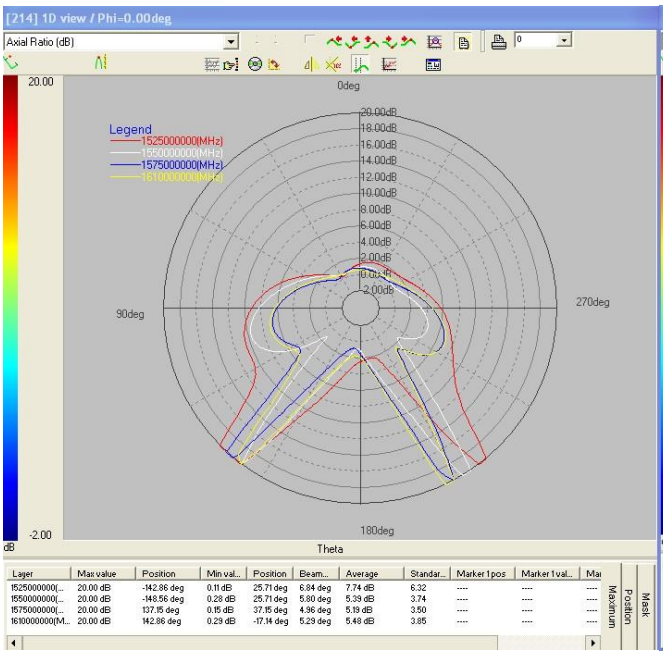


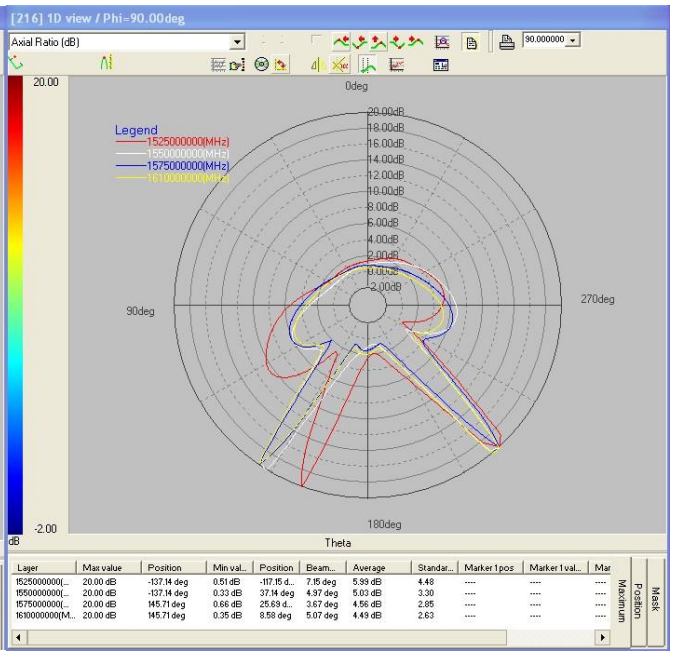


4. Antenna orientation diagram and Axial Ratio

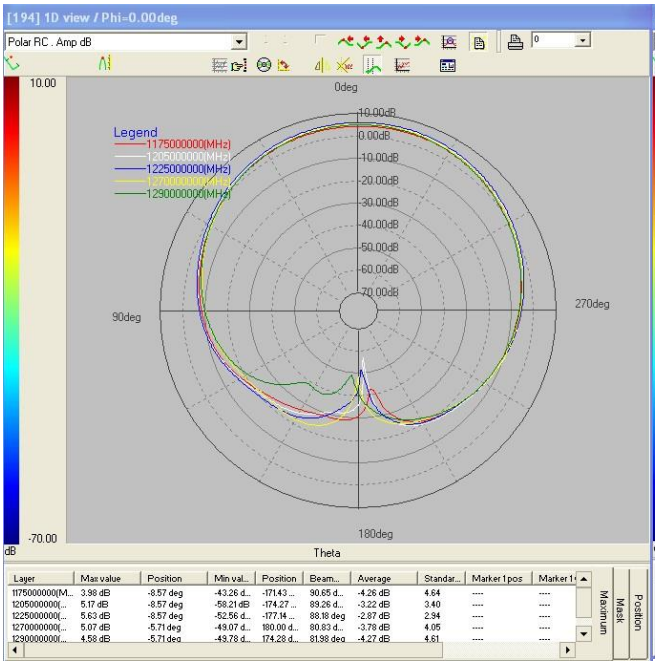
4.1 L1 Frequency

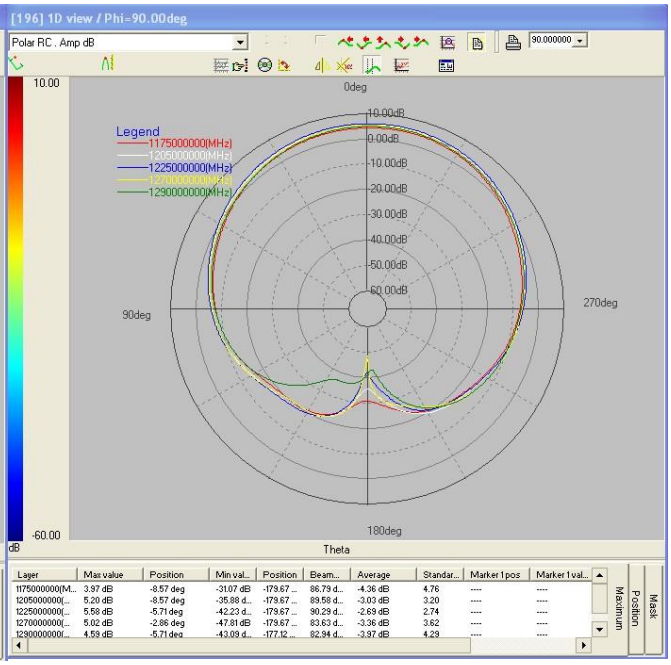


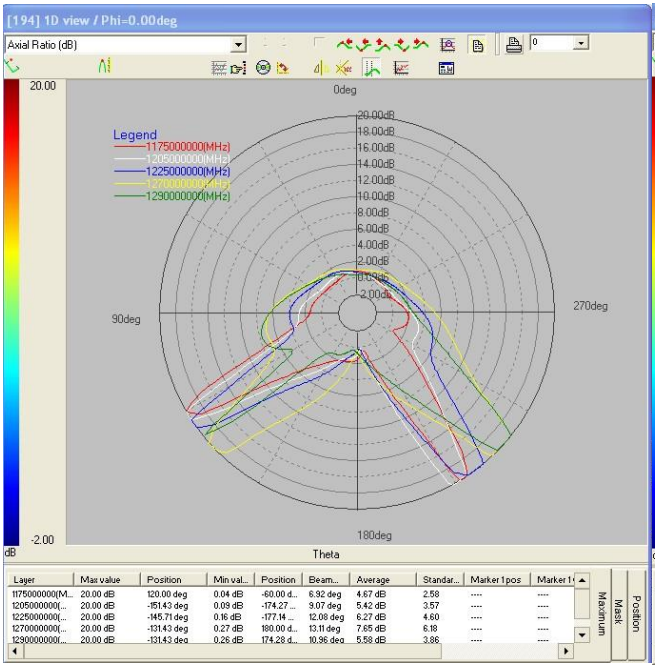


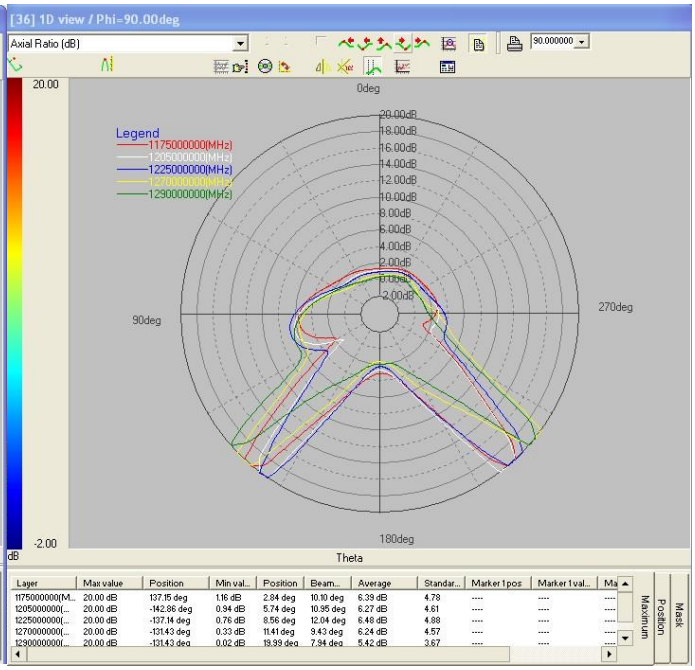


4.2 L2 Frequency

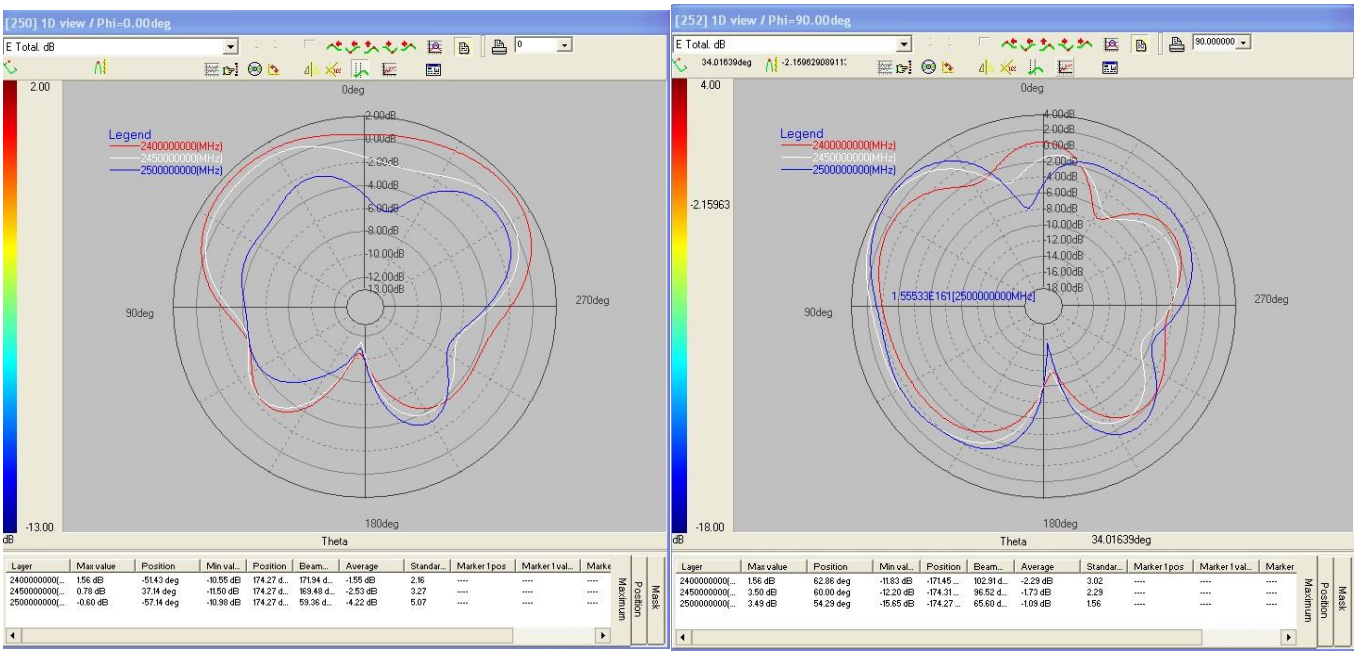








4.3 BT/WIFI



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