



ANTENNA DATASHEET

AOT PN: ANT-LX7200-AL02

REVISION HISTORY

REV.	Description	Date
1.0	First release	March.12/2025

Want to see the latest information? Please contact us via sales@aot-corp.com

└ AOT Wireless Technology Co., Limited ┘

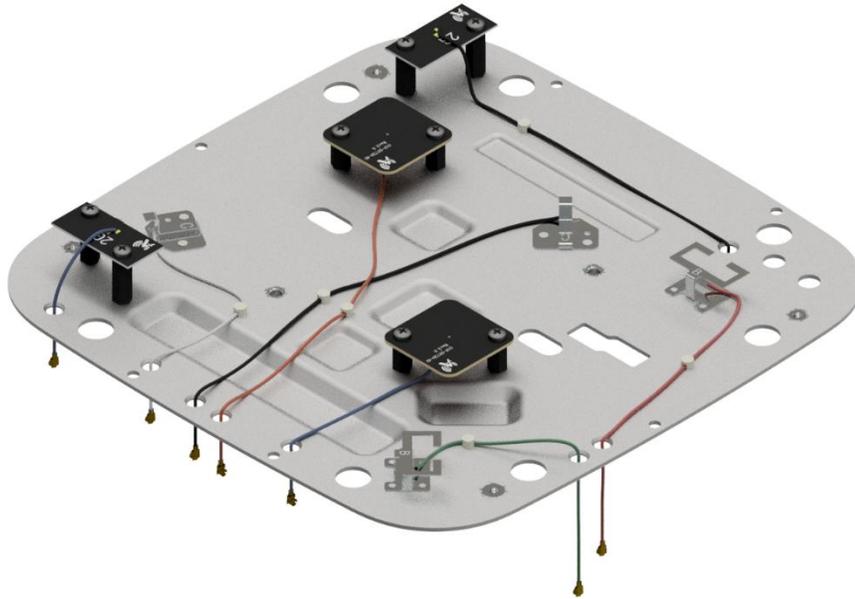


ANT-LX7200-AL02 Antenna

Based on AOT's patented technology, the Model ANT-LX7200-AL02 Antenna features provides a high performance, external antenna solution. The antenna supports IEEE 802.11 a/b/g/n/ac/ax wireless standards and is intended for access points. The solution is suitable for low-cost, high-performance antenna applications.

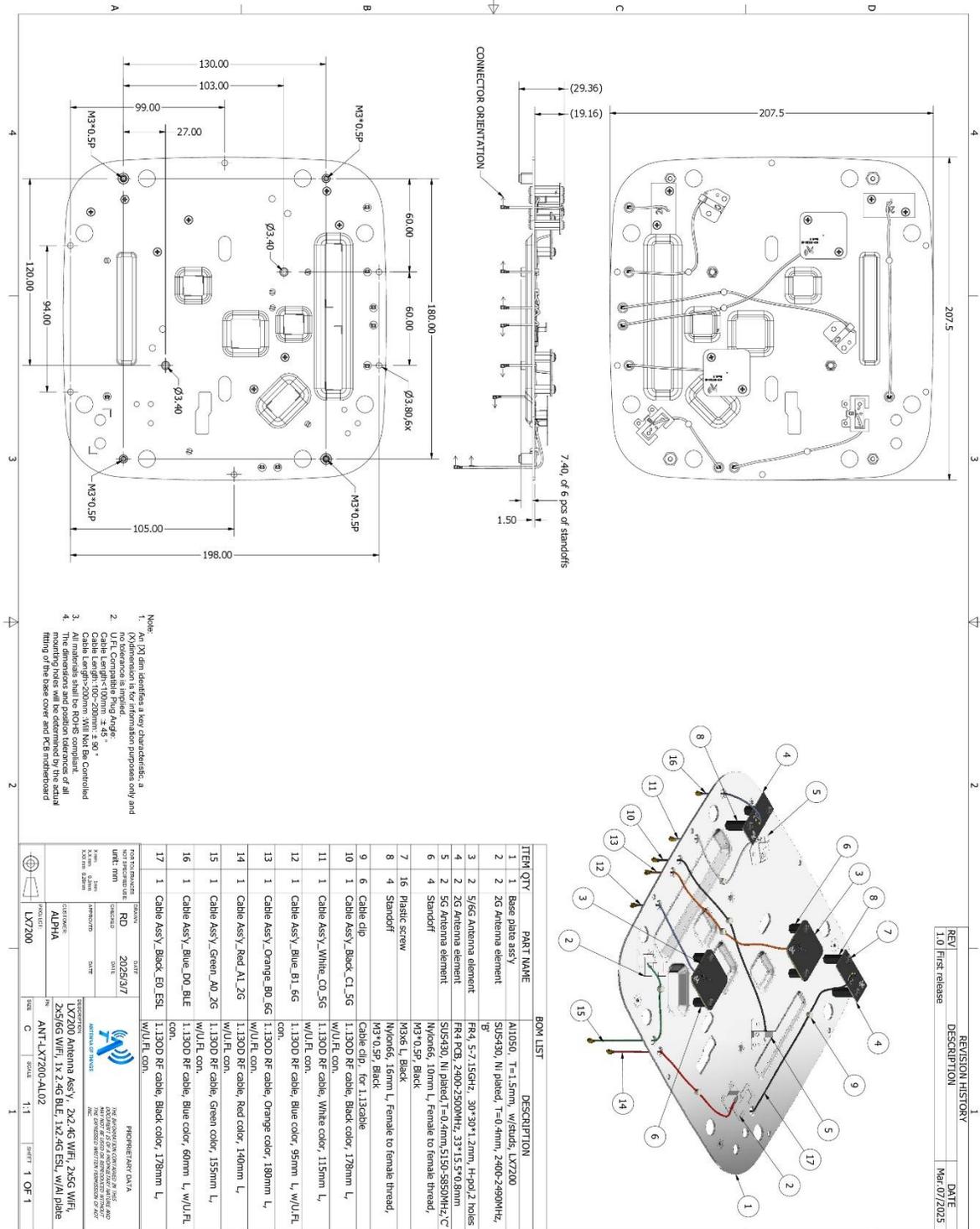
Features Overview

- Covering 2400-2490/5150-5850/5925-7125MHz frequency
- Off-board, Cable-fed
- Low Cost, High performance
- RoHS compliant.





Assembly Drawing



- Note:
1. An 'X' dim identifies a key characteristic. a (X)dimension is for information purposes only and U/FI Compatible Plug Angle.
 2. Cable Length: 100mm ± 4.6
 3. Cable Length: 200mm: Will Not Be Committed
 4. All dimensions and position tolerances of all fitting of the base cover and PCB intercard

ITEM QTY	PART NAME	DESCRIPTION
1	Base plate Assy	AL1050, T=1.5mm, w/stds, LVZ700
2	2G Antenna element	SUS430, Ni plated, T=0.4mm, 240-249MHz, 1P
3	5/6G Antenna element	FR4, 5.7-15GHz, 30*30*1.2mm, H-poi-2 holes
4	2G Antenna element	FR4 PCB, 240-250MHz, 33*15.5*0.5mm
5	5G Antenna element	SUS430, Ni plated, T=0.4mm, 5150-5850MHz, C
6	Standoff	Nylo66, 10mm, L, Female to female thread, M3*0.5P, Black
7	16 Plastic screw	M3x5, L, Black
8	Standoff	Nylo66, 16mm, L, Female to female thread, M3*0.5P, Black
9	Cable clip	Cable clip, for 1.13cable
10	Cable Assy_Black_CI_5G	1.130D RF cable, Black color, 178mm L, w/U/FL con.
11	Cable Assy_White_CO_5G	1.130D RF cable, White color, 115mm L, w/U/FL con.
12	Cable Assy_Blue_BI_6G	1.130D RF cable, Blue color, 95mm L, w/U/FL con.
13	Cable Assy_Orange_BO_6G	1.130D RF cable, Orange color, 180mm L, w/U/FL con.
14	Cable Assy_Red_AI_2G	1.130D RF cable, Red color, 140mm L, w/U/FL con.
15	Cable Assy_Green_AO_2G	1.130D RF cable, Green color, 155mm L, w/U/FL con.
16	Cable Assy_Blue_DO_BLE	1.130D RF cable, Blue color, 60mm L, w/U/FL con.
17	Cable Assy_Black_EO_ESL	1.130D RF cable, Black color, 178mm L, w/U/FL con.



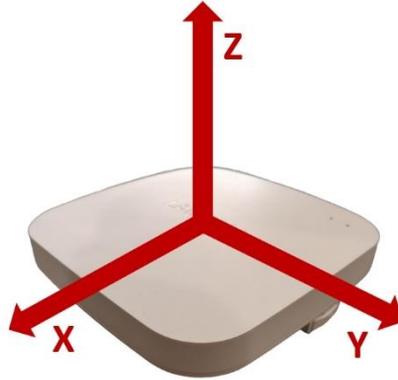
Specifications and Interface

Wireless Standard	IEEE 802.11 a/b/g/n/ac/ax
Frequency Bands	2400-2490MHz/5150-5850/5925-7125MHz
Peak Realized Gain	4.8dBi@2.4GHz/6.1dBi@5GHz/6.7dBi@6GHz
Realized Efficiency	>62%@2.4GHz/>60%@5GHz/>63%@6GHz
VSWR	<1.8@2.4GHz/<1.7@5GHz/<1.8@6GHz
Polarization	Linear Polarization
Radiation Pattern	Omni-directional
Feed Impedance	50Ω
Power Handling	30dBm
Antenna Structure	PCB/Metal stamping Antenna
Feeding Description	Cable Feeding
Antenna Dimensions	207.5x 207.5 x 29.36(mm)
Weight	183.4 g
Temperature Range	Operating temperature: -40° C to +85° C (-40° F to +185° F) Storage temperature: -40° C to +85° C (-40° F to +185° F)

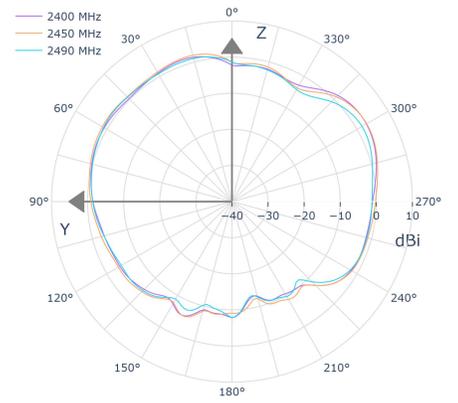
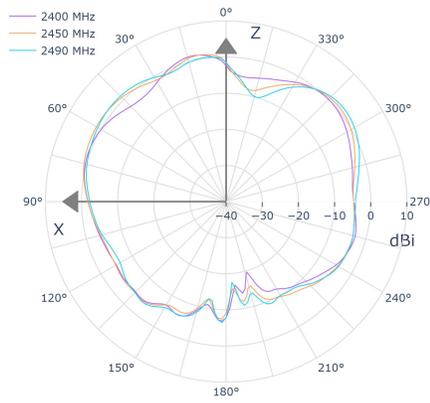
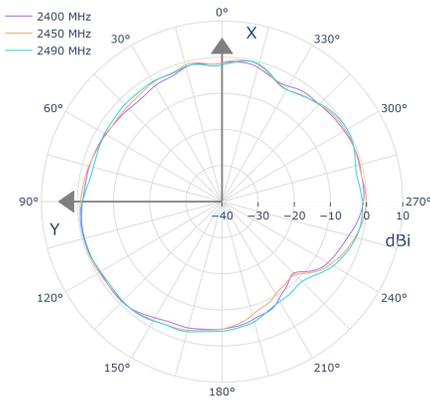


Radiation Patterns

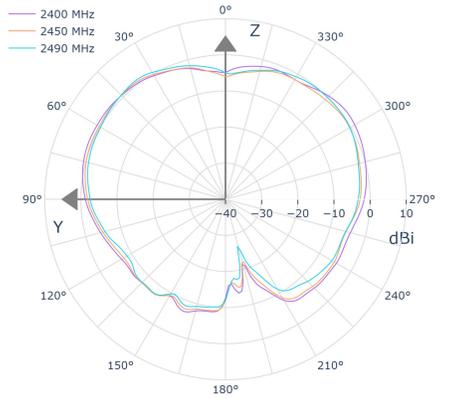
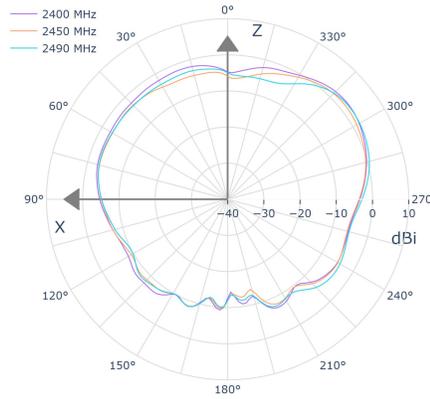
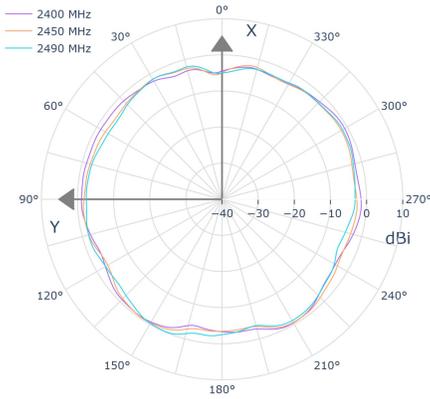
Radiation patterns were taken with the antenna in testing Chamber



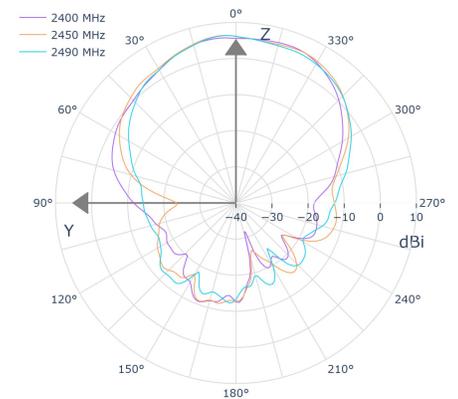
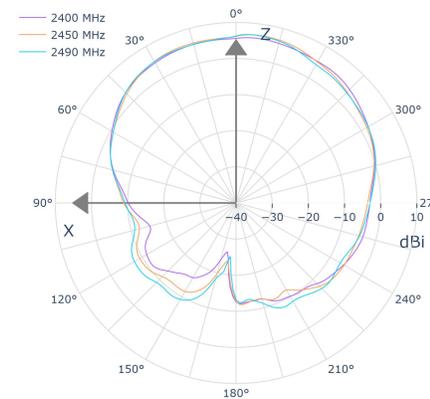
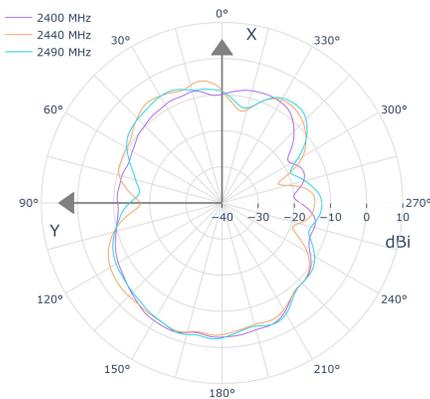
Antenna integrated in customer's housing for radiation pattern



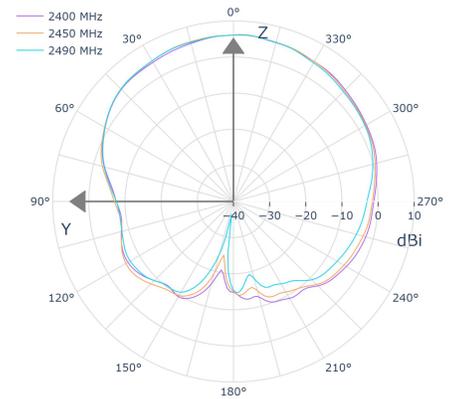
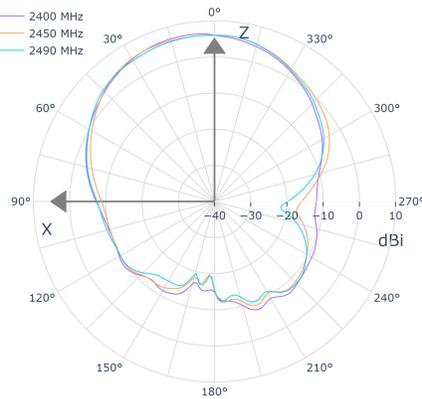
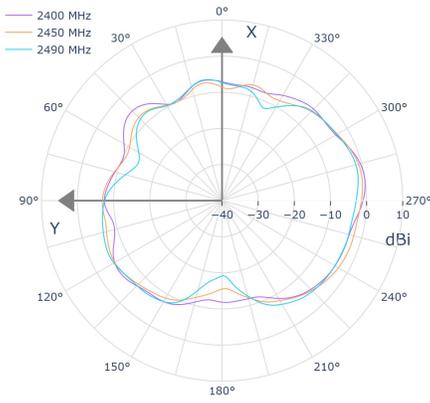
Model ANT-LX7200-AL02 Antenna Radiation Patterns at A1@2G4



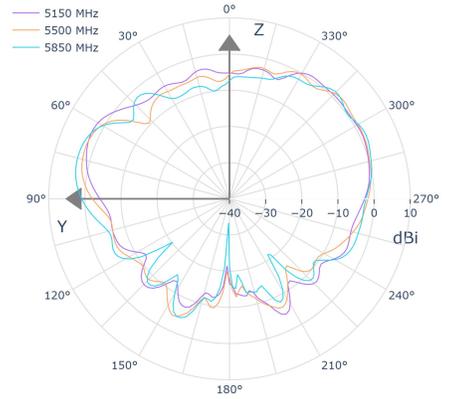
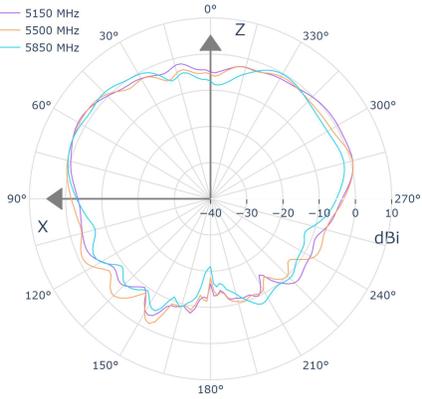
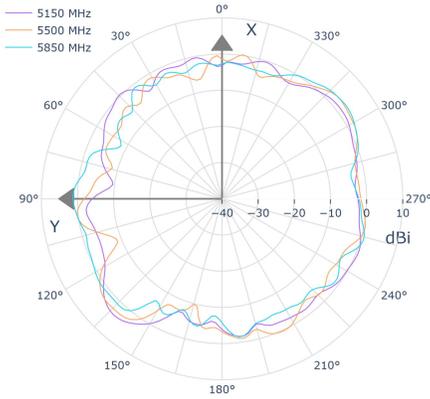
Model ANT-LX7200-AL02 Antenna Radiation Patterns at A2@2G4



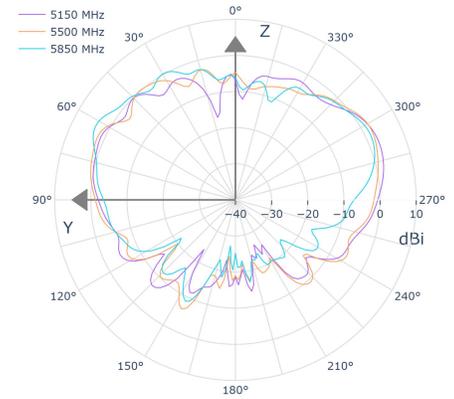
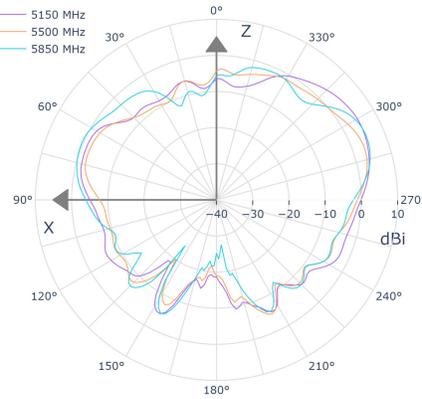
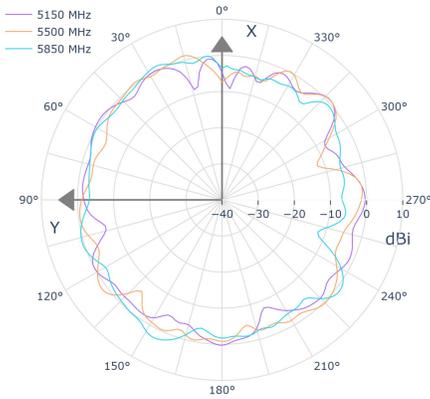
Model ANT-LX7200-AL02 Antenna Radiation Patterns at A3@ESL



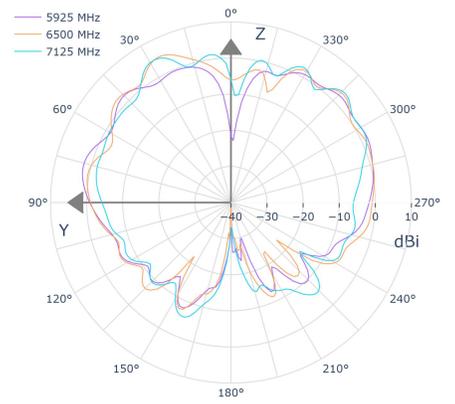
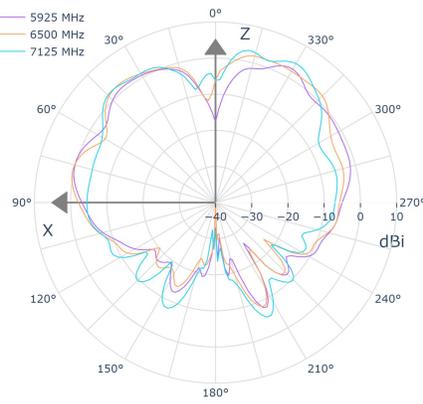
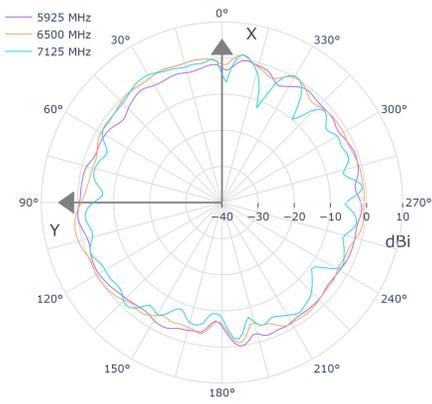
Model ANT-LX7200-AL02 Antenna Radiation Patterns at A4@BLE



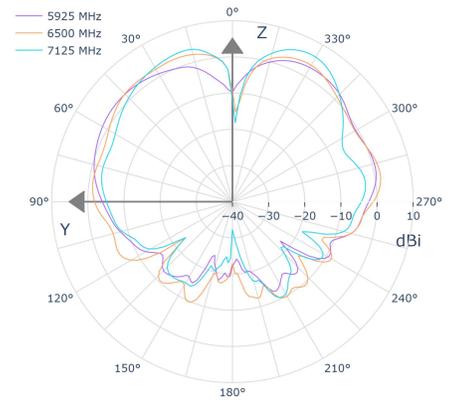
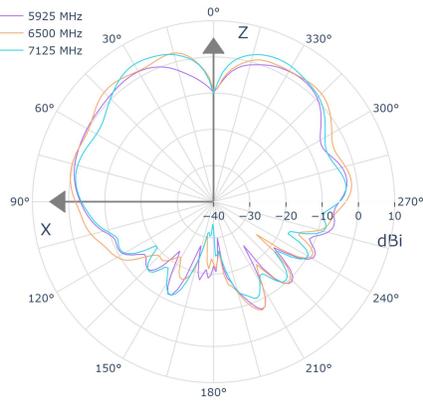
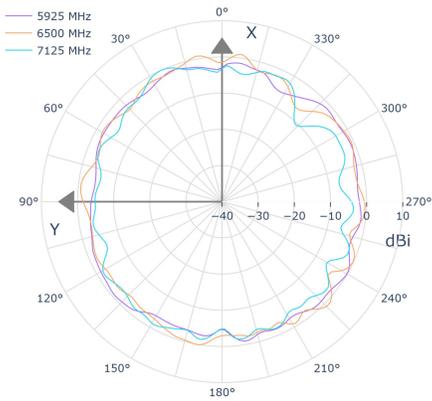
Model ANT-LX7200-AL02 Antenna Radiation Patterns at A5@5G



Model ANT-LX7200-AL02 Antenna Radiation Patterns at A6@5G



Model ANT-LX7200-AL02 Antenna Radiation Patterns at A7@6G



Model ANT-LX7200-AL02 Antenna Radiation Patterns at A8@6G



Realized Efficiency & Peak Realized Gain

Frequency	Efficiency			
(MHz)	A1@2G4	A2@2G4	A3@ESL	A4@BLE
2400	71	67	70	75
2410	72	67	70	76
2420	72	66	68	77
2430	73	66	68	77
2440	74	65	68	77
2450	74	64	69	76
2460	74	62	69	76
2470	74	63	70	75
2480	73	62	69	74
2490	72	62	67	72

Frequency	Peak Gain			
(MHz)	A1@2G4	A2@2G4	A3@ESL	A4@BLE
2400	3.1	4.8	6.1	6.8
2410	3.2	4.8	6.4	7.0
2420	3.2	4.8	6.6	7.0
2430	3.3	4.8	6.9	7.0
2440	3.3	4.8	7.0	6.9
2450	3.3	4.8	7.1	6.8
2460	3.4	4.6	7.1	6.6
2470	3.5	4.6	7.0	6.5
2480	3.5	4.4	7.0	6.4
2490	3.6	4.2	6.9	6.3



Frequency (MHz)	Efficiency	
	A5@5G	A6@5G
5150	70	63
5200	69	61
5300	70	61
5400	71	60
5500	70	61
5600	69	62
5700	69	60
5800	67	61
5850	65	60

Frequency (MHz)	Peak Gain	
	A5@5G	A6@5G
5150	6.1	5.3
5200	5.3	5.4
5300	6.2	5.2
5400	6.0	4.0
5500	5.6	4.7
5600	6.0	4.9
5700	6.0	5.3
5800	6.2	5.4
5850	5.5	5.5



Frequency (MHz)	Efficiency	
	A7@6G	A8@6G
5925	64	65
6000	66	68
6100	68	69
6200	70	70
6300	70	70
6400	71	72
6500	73	72
6600	70	72
6700	66	69
6800	65	70
6900	65	70
7000	66	67
7100	65	68
7125	63	65

Frequency (MHz)	Peak Gain	
	A7@6G	A8@6G
5925	3.6	4.3
6000	3.7	4.4
6100	3.9	4.3
6200	4.0	4.4
6300	4.0	4.7
6400	4.2	5.0
6500	5.0	5.3
6600	5.6	5.8
6700	5.3	5.4
6800	5.1	6.2
6900	5.3	6.5
7000	5.9	6.6
7100	6.5	6.7
7125	6.6	6.7