

Data Sheet

CUSTOMER: ASUS

MODEL NAME: B7402

CUSTOMER P/N: 14008-04680600

ICT P/N: LA9RF341-CS-H

APPROVED	
MANUFACTURER	CUSTOMER
<i>PREPARED BY:</i>	<i>APPROVED BY:</i>
<i>CHECK BY:</i>	
<i>APPROVED BY:</i>	

Description

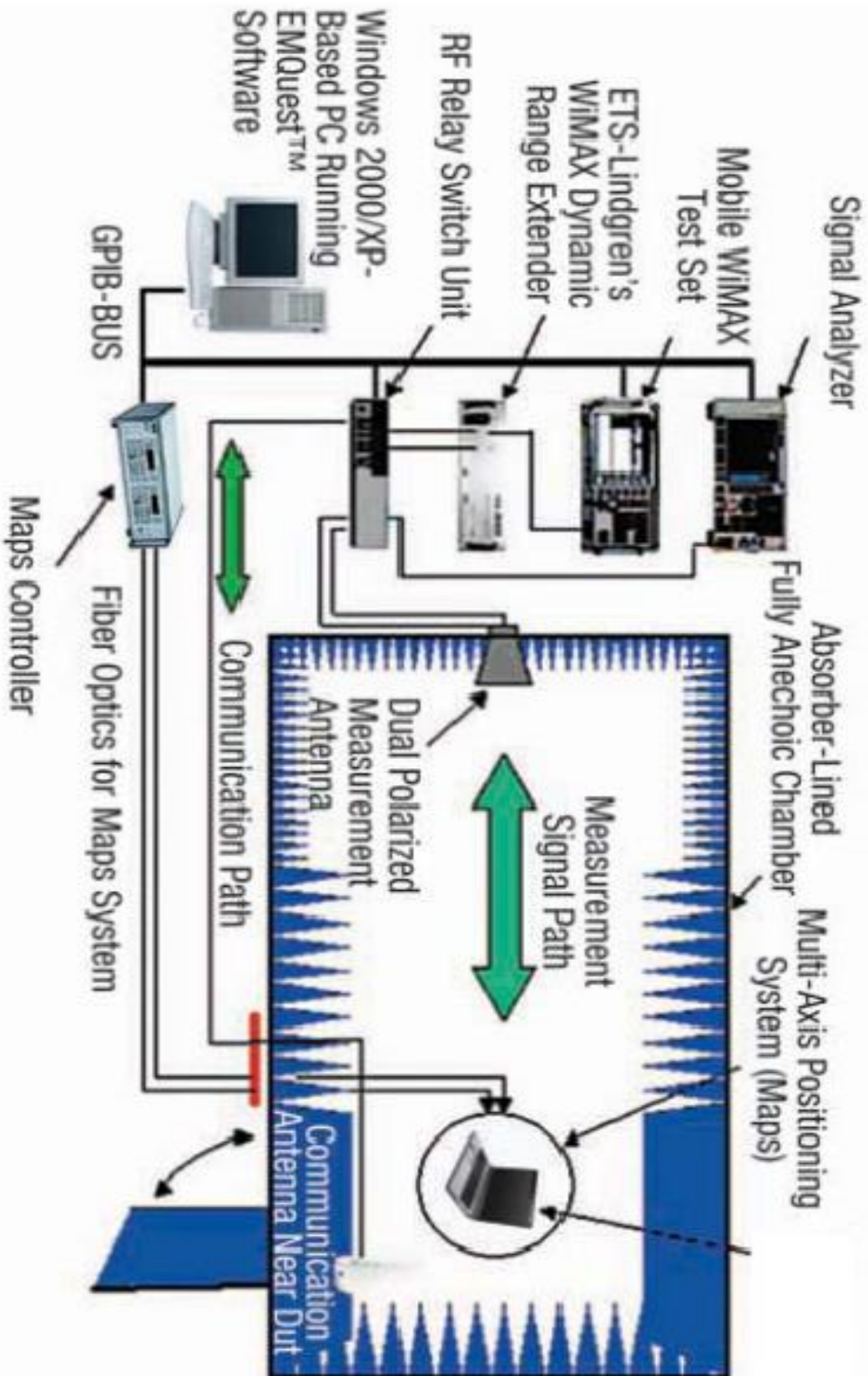
Specifications

ANT2 (M2) Antenna

Antenna Part Number	Manufacturer	Antenna Type	Cable Assembly Part Number and Information	Frequency (MHz)	Cable Loss (dB)	Peak Gain (including cable loss)		
						PEAK GAIN	TX PEAK GAIN	
14008-04680600	LUXSHARE-ICT.	CoupleType FPCB ANTENNA ANT2(M2)	1. Cable P/N: 012-323H-0020 2. Diameter:1.13mm 50 ohm coaxial cable 3. Cable length: 397 mm 4. Connector P/N: IPEX 20565-001R-13	WCDMA I	1920	0.85	1.74	1.74
				Band 1	1950	0.85	1.63	
				NR Band 1	1980	0.86	1.65	
				WCDMA II	1850	0.83	1.82	1.82
				Band 2	1880	0.84	1.77	
				NR Band 2	1910	0.84	1.45	
				Band 3	1710	0.80	1.41	1.99
				NR Band 3	1748	0.81	1.13	
					1785	0.81	1.99	
				WCDMA IV	1710	0.80	1.41	1.84
				Band 4	1733	0.80	1.58	
					1755	0.81	1.84	
				WCDMA V	824			
				Band 5	837			
				NR Band 5	849			
				Band 7	2500	0.97	1.33	1.79
				NR Band 7	2535	0.98	1.79	
					2570	0.99	1.67	
WCDMA VIII	880							
Band 8	898							
NR Band 8	915							
Band 12	698							
	708							
	716							
Band 13	777							

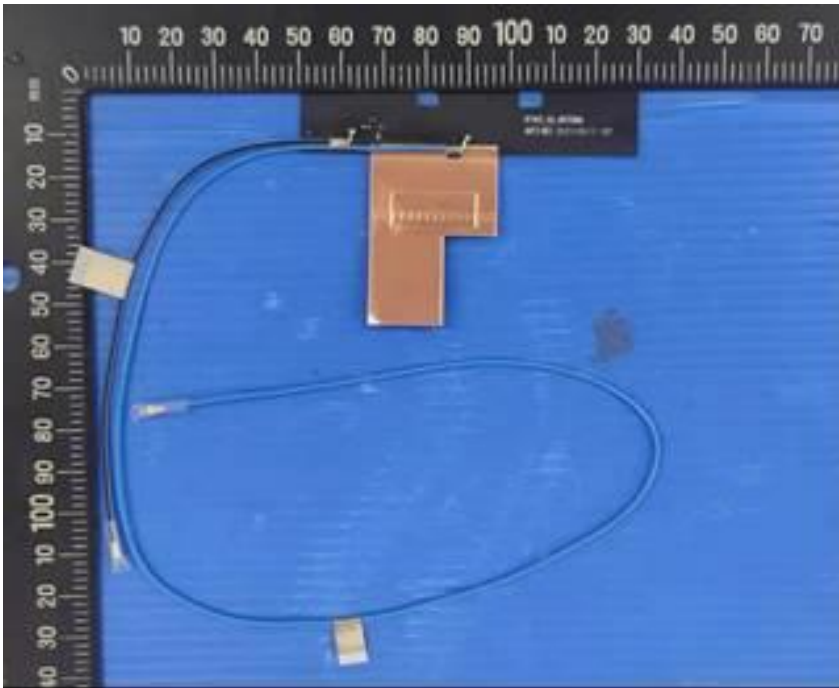
					782				
					787				
					Band 14	788			
					793				
					798				
					Band 17	704			
					710				
					716				
					Band 18	815			
					823				
					830				
					Band 19	830			
					838				
					845				
					Band 20 NR Band 20	832			
					847				
					862				
					Band 25	1850	0.83	1.82	1.82
					1883	0.84	1.65		
					1915	0.84	1.38		
					Band 26	814			
					832				
					849				
					Band 28 NR Band 28	703			
					726				
					748				
					Band 30	2305	0.93	1.71	1.83
					2310	0.93	1.83		
					2315	0.93	1.69		
					Band 34	2010	0.87	1.78	1.78
2018	0.87	1.68							
2025	0.87	1.68							
Band 38 NR Band 38	2570	0.99	1.67	1.88					
2595	0.99	1.39							
2620	1.00	1.88							

Band 39	1880	0.84	1.77	1.77
	1900	0.84	1.65	
	1920	0.85	1.74	
Band 40 NR Band 40	2300	0.93	1.99	1.99
	2350	0.94	1.53	
	2400	0.95	0.00	
Band 41 NR Band 41	2496	0.97	1.40	1.50
	2593	0.99	1.50	
	2690	1.01	1.46	
Band 42	3400	1.16	1.81	1.81
	3500	1.18	1.07	
	3600	1.20	1.67	
Band 43	3600	1.20	1.67	1.67
	3700	1.22	1.61	
	3800	1.23	1.61	
Band 48 NR Band 48	3550	1.19	1.65	1.73
	3625	1.20	1.73	
	3700	1.22	1.61	
Band 66 NR Band 66	1710	0.80	1.41	1.85
	1745	0.81	1.67	
	1780	0.81	1.85	
NR Band 77	3300	1.14	1.87	1.87
	3750	1.22	1.77	
	4200	1.30	1.44	
NR Band 78	3300	1.14	1.87	1.87
	3550	1.19	1.65	
	3800	1.23	1.61	
NR Band 79	4400	1.34	0.93	1.72
	4700	1.38	0.80	
	5000	1.43	1.72	

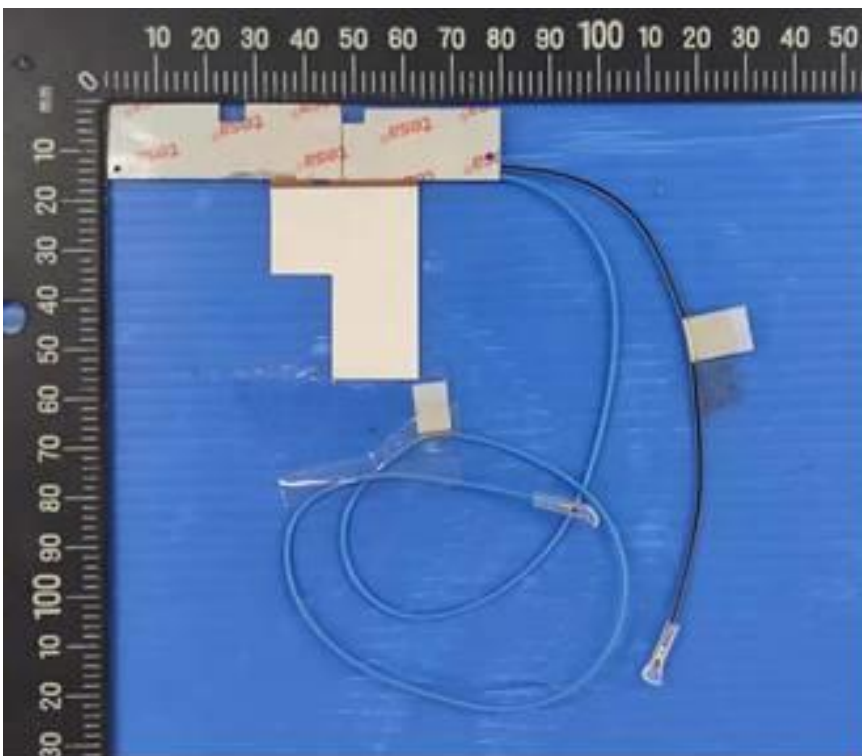


Description

Antenna Picture1:

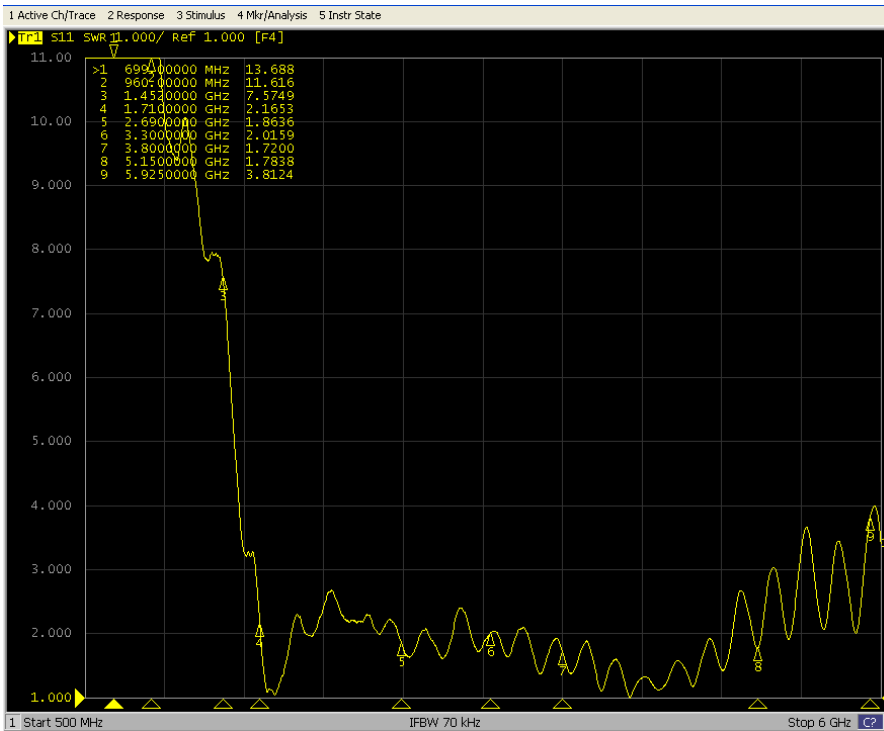


Antenna Picture2

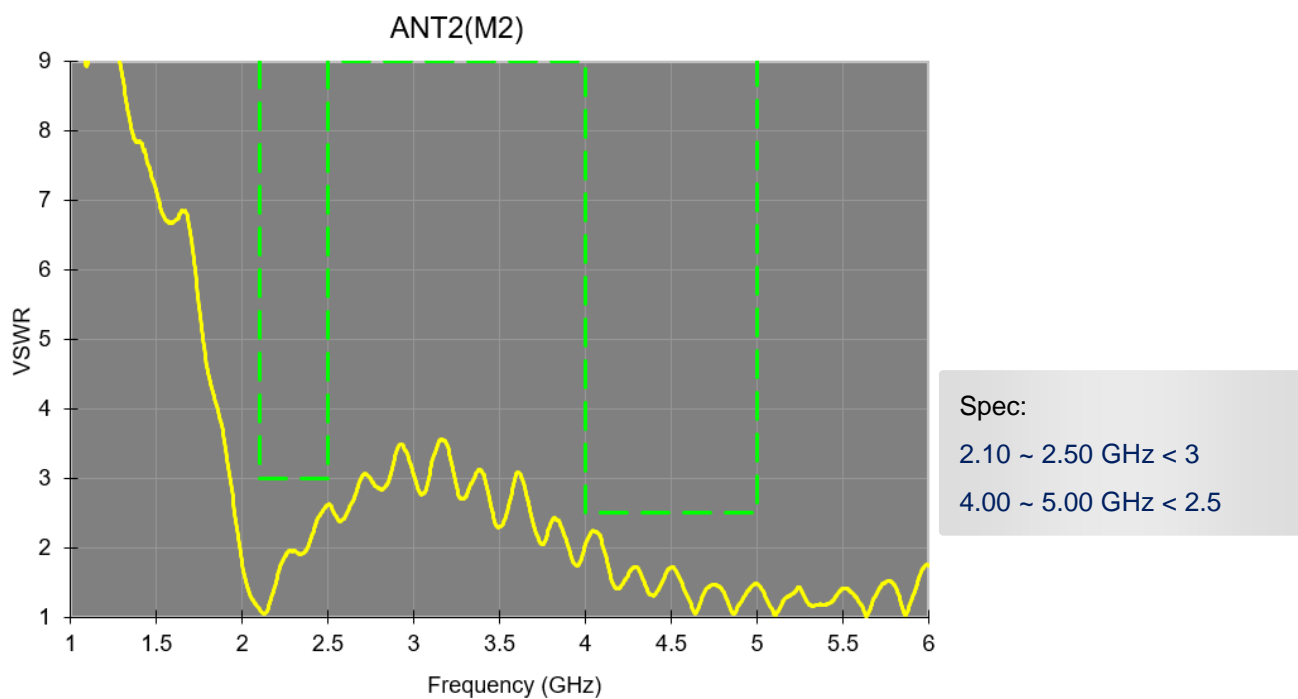


Performance Data

1. VSWR

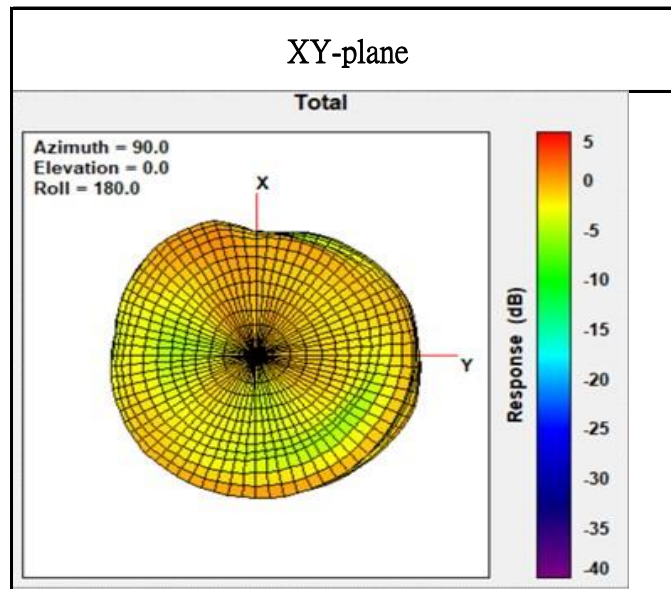


2. SPEC



Radiation characteristic in 1920MHz ~ 1980MHz (WCDMA I ,Band 1, NR Band 1)

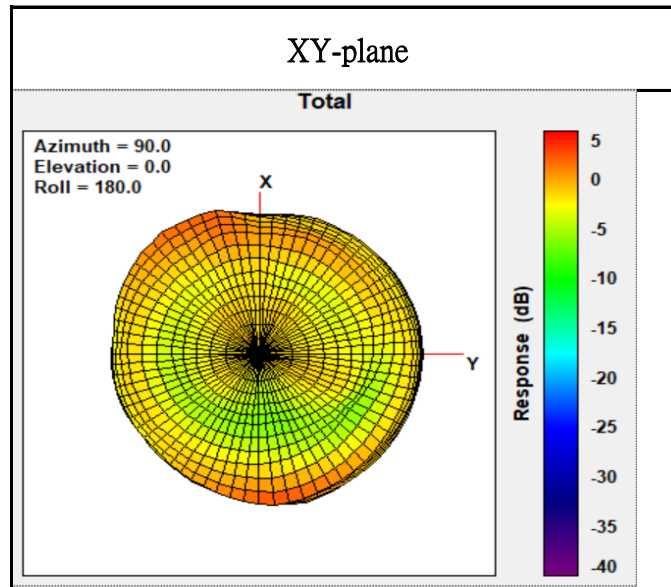
Antenna: 1920MHz



Center Frequency	1920 MHz
Three-dimensional (dBi) peak	1.74

Radiation characteristic in 1850MHz ~ 1910MHz (WCDMA II ,Band 2 ,NR Band 2)

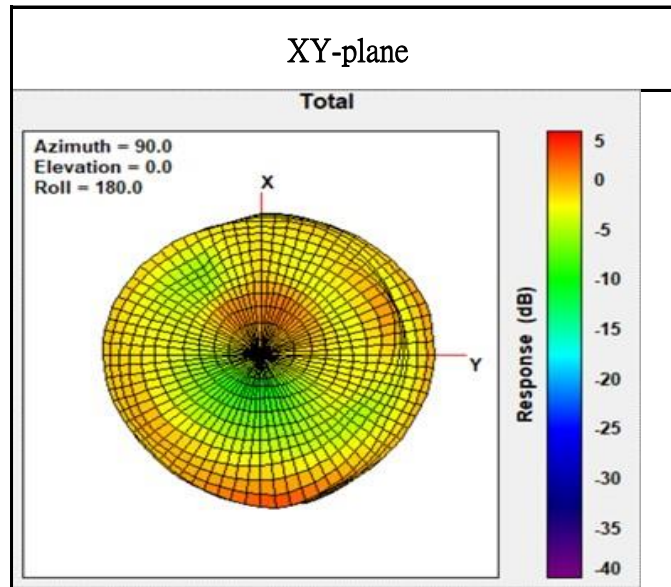
Antenna: 1850MHz



Center Frequency	1850 MHz
Three-dimensional (dBi) peak	1.82

Radiation characteristic in 1710MHz ~ 1785MHz (Band 3 ,NR Band 3)

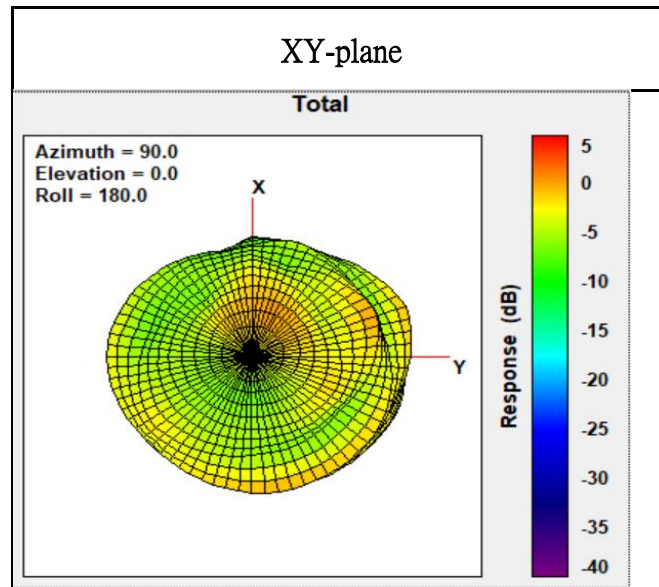
Antenna: 1785MHz



Center Frequency	1785 MHz
Three-dimensional (dBi) peak	1.99

Radiation characteristic in 1710MHz ~ 1755MHz (WCDMA IV ,Band 4)

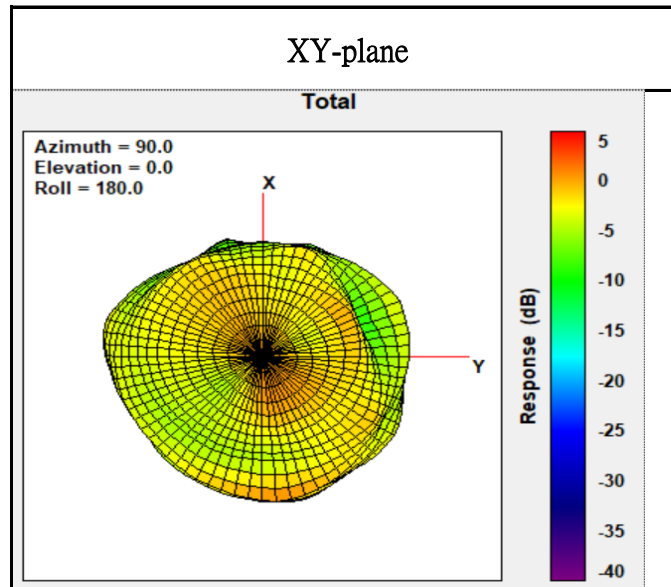
Antenna: 1755MHz



Center Frequency	1755 MHz
Three-dimensional (dBi) peak	1.84

Radiation characteristic in 2500MHz ~ 2570MHz (Band 7 ,NR Band 7)

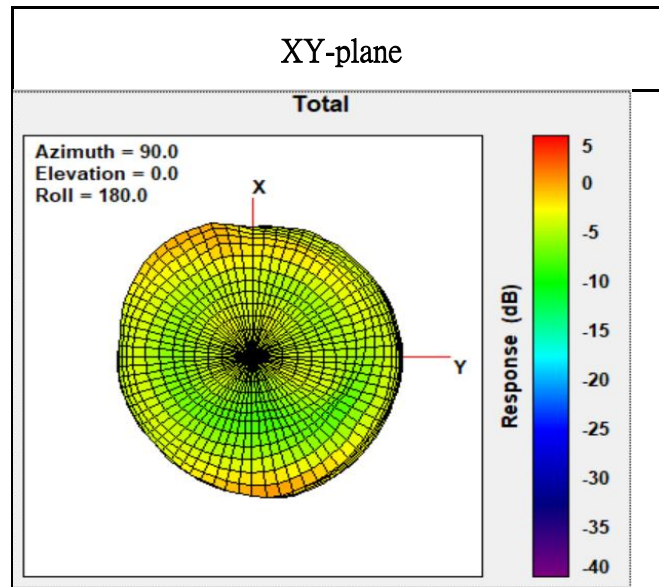
Antenna: 2535MHz



Center Frequency	2535 MHz
Three-dimensional (dBi) peak	1.79

Radiation characteristic in 1850MHz ~ 1915MHz (Band 25)

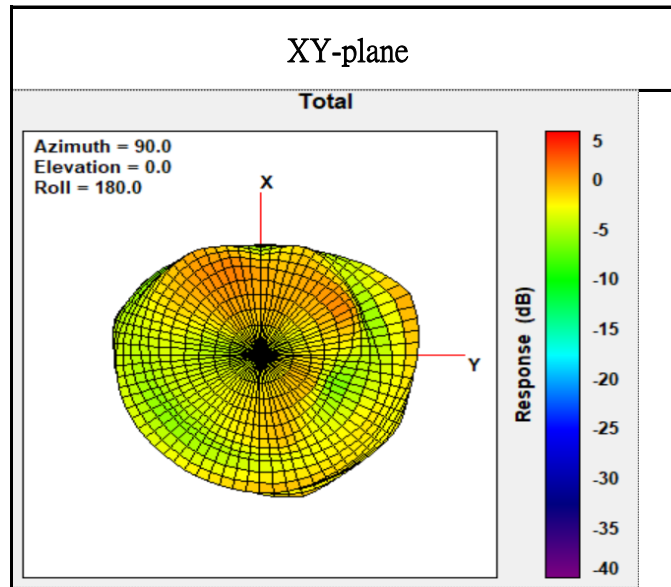
Antenna: 1850MHz



Center Frequency	1850 MHz
Three-dimensional (dBi) peak	1.82

Radiation characteristic in 2305MHz ~ 2315MHz (Band 30)

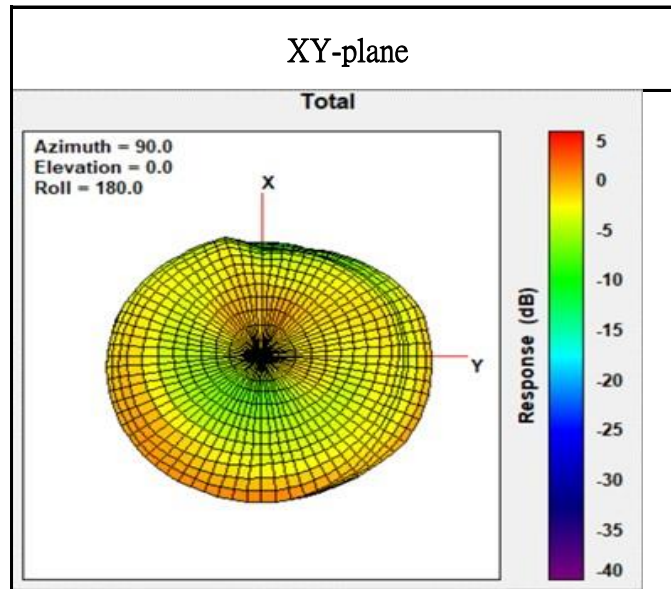
Antenna: 2310MHz



Center Frequency	2310 MHz
Three-dimensional (dBi) peak	1.83

Radiation characteristic in 2010MHz ~ 2025MHz (Band 34)

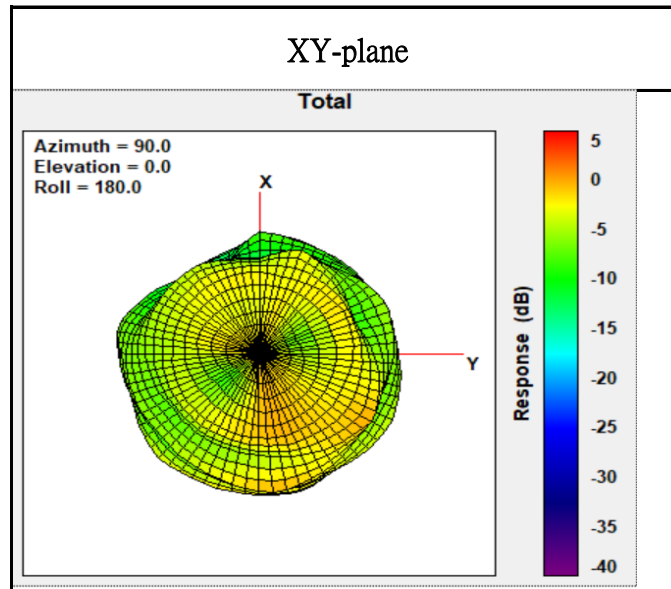
Antenna: 2010MHz



Center Frequency	2010 MHz
Three-dimensional (dBi) peak	1.78

Radiation characteristic in 2570MHz ~ 2620MHz (Band 38, NR Band 38)

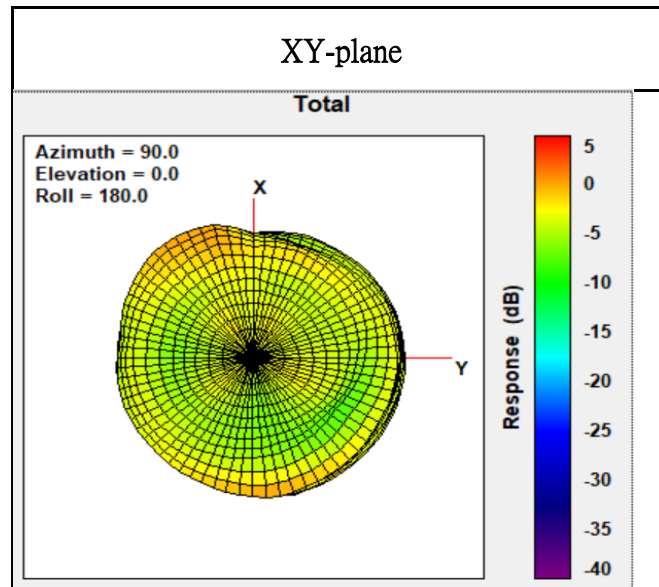
Antenna: 2620MHz



Center Frequency	2620 MHz
Three-dimensional (dBi) peak	1.88

Radiation characteristic in 1880MHz ~ 1920MHz (Band 39)

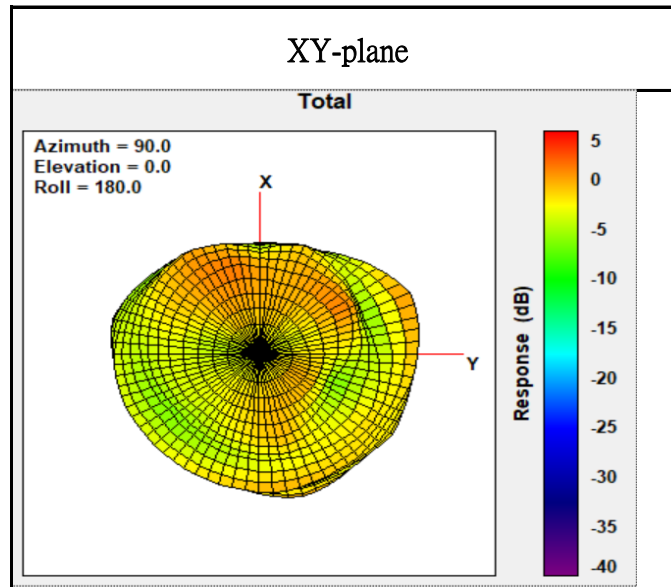
Antenna: 1880MHz



Center Frequency	1880 MHz
Three-dimensional (dBi) peak	1.77

Radiation characteristic in 2300MHz ~ 2350MHz (Band 40, NR Band 40)

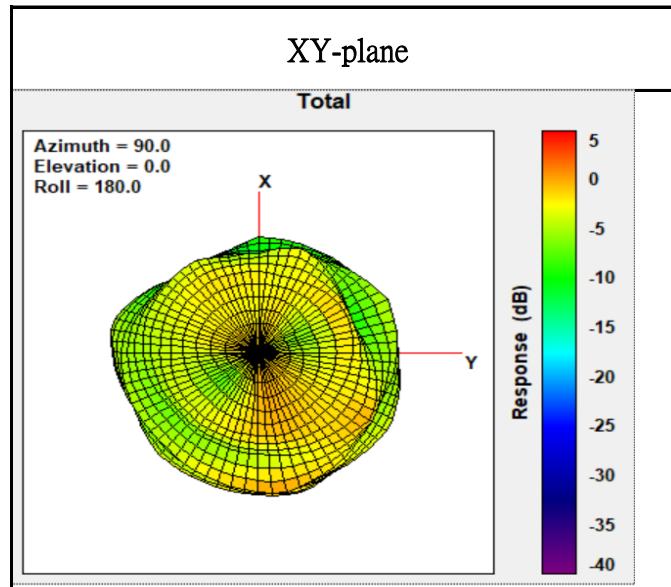
Antenna: 2300MHz



Center Frequency	2300 MHz
Three-dimensional (dBi) peak	1.99

Radiation characteristic in 2496MHz ~ 2690MHz (Band 41, NR Band 41)

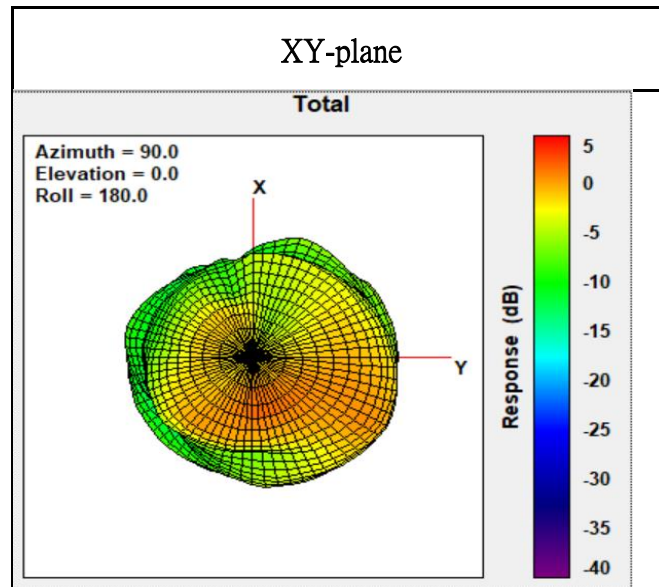
Antenna: 2593MHz



Center Frequency	2593 MHz
Three-dimensional (dBi) peak	1.50

Radiation characteristic in 3400MHz ~ 3600MHz (Band 42)

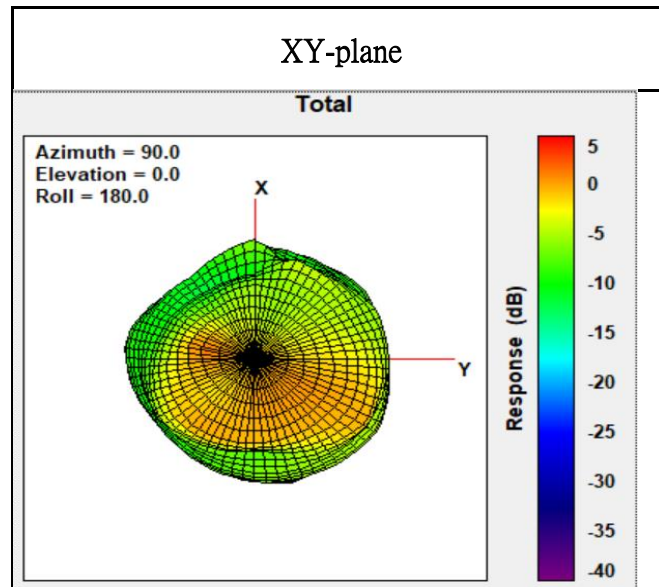
Antenna: 3400MHz



Center Frequency	3400 MHz
Three-dimensional (dBi) peak	1.81

Radiation characteristic in 3600MHz ~ 3800MHz (Band 43)

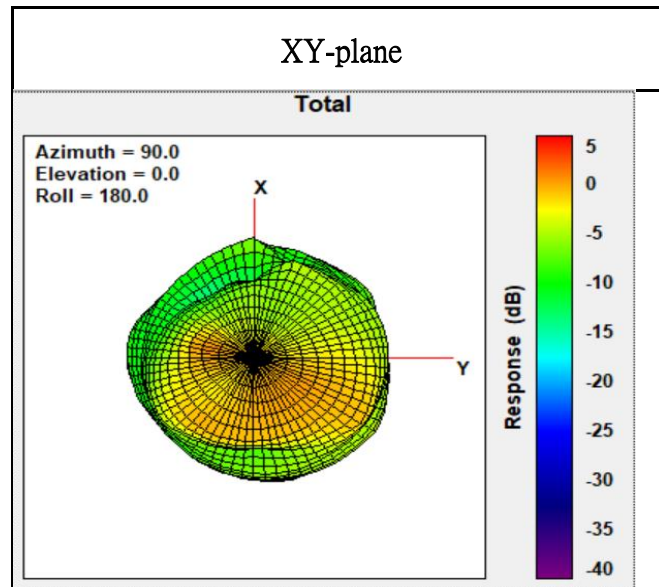
Antenna: 3600MHz



Center Frequency	3600 MHz
Three-dimensional (dBi) peak	1.67

Radiation characteristic in 3550MHz ~ 3700MHz (Band 48, NR Band 48)

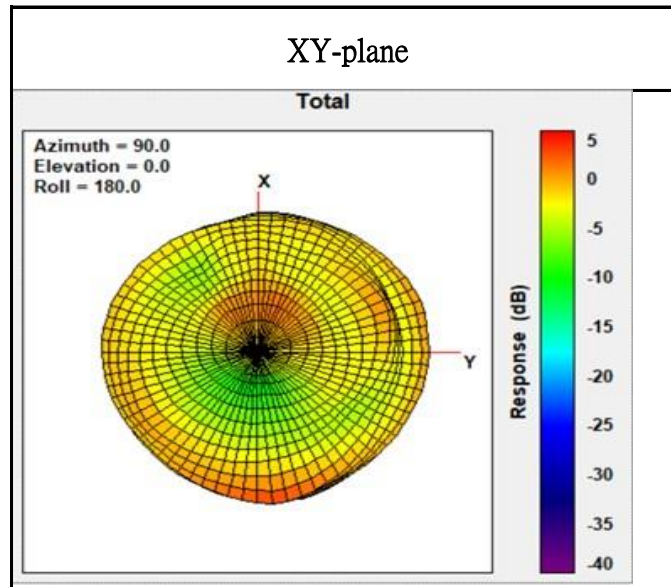
Antenna: 3625MHz



Center Frequency	3625 MHz
Three-dimensional (dBi) peak	1.73

Radiation characteristic in 1710MHz ~ 1780MHz (Band 66, NR Band 66)

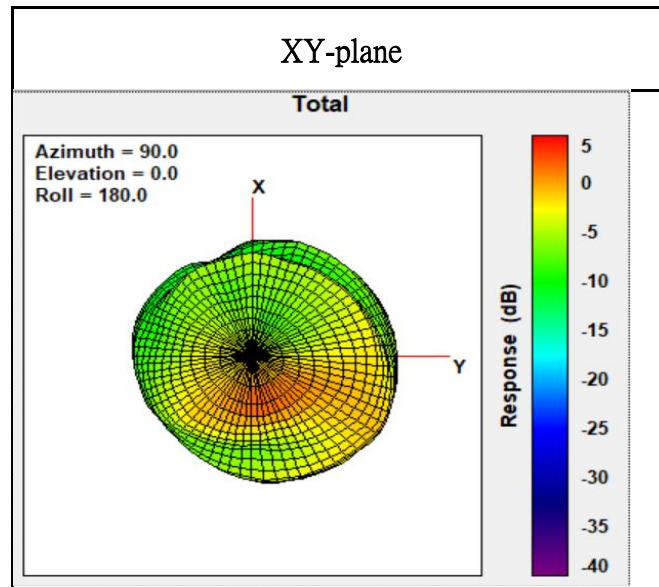
Antenna: 1780MHz



Center Frequency	1780 MHz
Three-dimensional (dBi) peak	1.85

Radiation characteristic in 3300MHz ~ 4200MHz (NR Band 77)

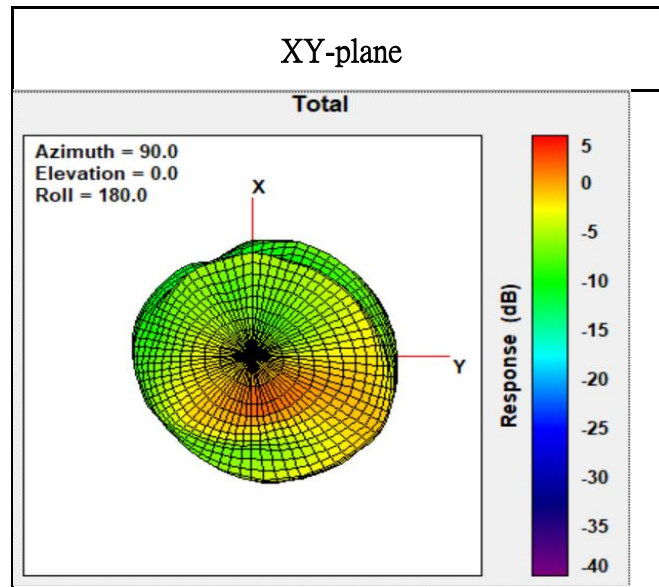
Antenna: 3300MHz



Center Frequency	3300 MHz
Three-dimensional (dBi) peak	1.87

Radiation characteristic in 3300MHz ~ 3800MHz (NR Band 78)

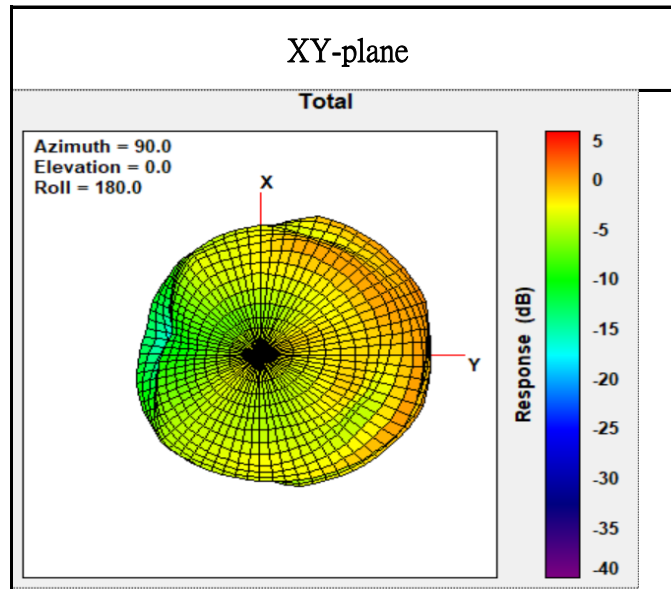
Antenna: 3300MHz



Center Frequency	3300 MHz
Three-dimensional (dBi) peak	1.87

Radiation characteristic in 4400MHz ~ 5000MHz (NR Band 79)

Antenna: 5000MHz



Center Frequency	5000 MHz
Three-dimensional (dBi) peak	1.72

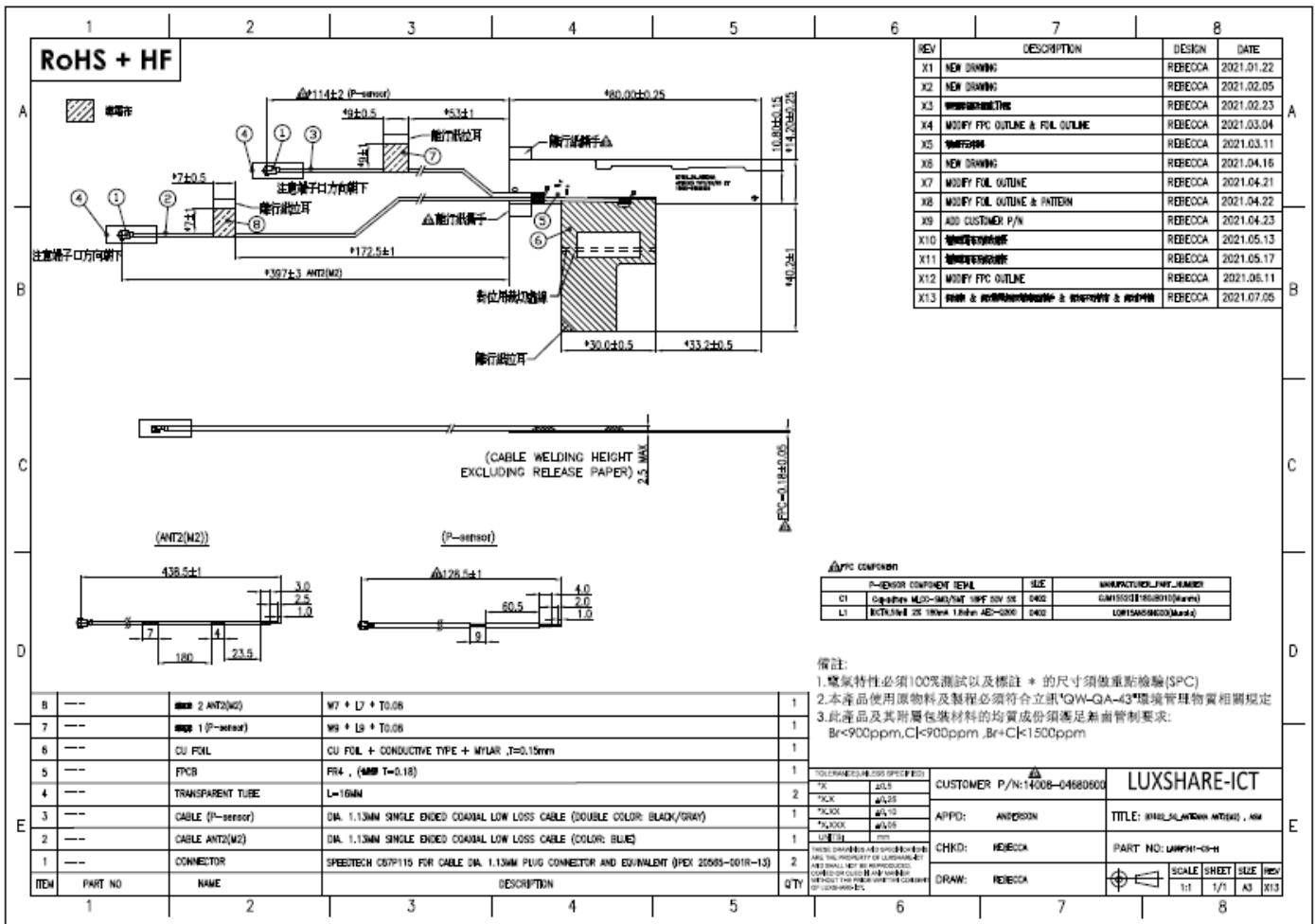
Open Mode Gain Table (dBi)

	3D Peak Gain	3D Gain	Cable Loss
Frequency (MHZ)	Total (dBi)	Efficiency [%]	Loss (dBi)
1920	1.74	55.60	0.85
1950	1.63	53.06	0.85
1980	1.65	53.36	0.86
1850	1.82	62.95	0.83
1880	1.77	63.52	0.84
1910	1.45	59.18	0.84
1710	1.41	51.24	0.80
1748	1.13	58.39	0.81
1785	1.99	63.95	0.81
1710	1.41	51.24	0.80
1733	1.58	56.57	0.80
1755	1.84	61.67	0.81
2500	1.33	44.33	0.97
2535	1.79	44.43	0.98
2570	1.67	42.37	0.99
1850	1.82	62.95	0.83
1883	1.65	63.11	0.84
1915	1.38	57.66	0.84

2305	1.71	45.41	0.93
2310	1.83	44.71	0.93
2315	1.69	43.42	0.93
2010	1.78	54.10	0.87
2018	1.68	53.91	0.87
2025	1.68	54.93	0.87
2570	1.67	42.37	0.99
2595	1.39	38.53	0.99
2620	1.88	35.83	1.00
1880	1.77	63.52	0.84
1900	1.65	60.80	0.84
1920	1.74	55.60	0.85
2300	1.99	46.76	0.93
2350	1.53	37.95	0.94
2400	0.00	37.76	0.95
2496	1.40	44.49	0.97
2593	1.50	39.19	0.99
2690	1.46	40.60	1.01
3400	1.81	55.40	1.16
3500	1.07	47.27	1.18
3600	1.67	42.95	1.20
3600	1.67	42.95	1.20

3700	1.61	44.03	1.22
3800	1.61	44.72	1.23
3550	1.65	41.12	1.19
3625	1.73	41.02	1.20
3700	1.61	44.03	1.22
1710	1.41	51.24	0.80
1745	1.67	57.86	0.81
1780	1.85	63.64	0.81
3300	1.87	48.49	1.14
3750	1.77	42.51	1.22
4200	1.44	49.94	1.30
3300	1.87	48.49	1.14
3550	1.65	41.12	1.19
3800	1.61	44.72	1.23
4400	0.93	45.67	1.34
4700	0.80	38.96	1.38
5000	1.72	45.90	1.43

Assembly Drawing



REV	DESCRIPTION	DESIGN	DATE
X1	NEW DRAWING	REBECCA	2021.01.22
X2	NEW DRAWING	REBECCA	2021.02.05
X3	MODIFY FPC	REBECCA	2021.02.23
X4	MODIFY FPC OUTLINE & FOL OUTLINE	REBECCA	2021.03.04
X5	MODIFY FPC	REBECCA	2021.03.11
X6	NEW DRAWING	REBECCA	2021.04.16
X7	MODIFY FOL OUTLINE	REBECCA	2021.04.21
X8	MODIFY FOL OUTLINE & PATTERN	REBECCA	2021.04.22
X9	ADD CUSTOMER P/N	REBECCA	2021.04.23
X10	MODIFY FPC	REBECCA	2021.05.12
X11	MODIFY FPC	REBECCA	2021.05.17
X12	MODIFY FPC OUTLINE	REBECCA	2021.06.11
X13	REVISE & REWORK	REBECCA	2021.07.06

P-Sensor Component			
P-Sensor Component	REV	DATE	
Q1	Capacitor MLC-0603/04T 100F 50V 05E	0402	04/15/2018 (04/15/2018)
L1	Inductor MLZ 2016W 100nH AB-0200	0402	04/15/2018 (04/15/2018)

- 備註:
1. 電氣特性必須100%測試以及標註 + 的尺寸須做重點檢驗 (SPC)
 2. 本產品使用原物料及製程必須符合立訊"QW-QA-43"環境管理物質相關規定
 3. 此產品及其附屬包裝材料的均質成份須滿足無鹵管制要求:
Br<900ppm, Cl<900ppm, B<1500ppm

TOLERANCES UNLESS SPECIFIED:		CUSTOMER P/N: 14008-04680600	LUXSHARE-ICT
FRACTION	DECIMAL	APPRO: ANDRSON	TITLE: INTELLEKTUAL ANTENNA ANTENNA, NEW
FRACTION	DECIMAL	CHKD: REBECCA	PART NO: L4008H-03-H
FRACTION	DECIMAL	DRAW: REBECCA	SCALE: 1:1
FRACTION	DECIMAL		SHEET: 1/1
FRACTION	DECIMAL		SIZE: A3
FRACTION	DECIMAL		REV: X13

ITEM	PART NO	NAME	DESCRIPTION	QTY
8	---	阻容 2 ANT2(M2)	W7 * L7 * T0.08	1
7	---	阻容 1 (P-sensor)	W9 * L9 * T0.08	1
6	---	CU FSL	CU FOL + CONDUCTIVE TYPE + MYLAR, J=0.15mm	1
5	---	FPCB	FR4, (4層 T=0.18)	1
4	---	TRANSPARENT TUBE	L=16MM	2
3	---	CABLE (P-sensor)	DIA. 1.13MM SINGLE ENDED COAXIAL LOW LOSS CABLE (DOUBLE COLOR: BLACK/GRAY)	1
2	---	CABLE ANT2(M2)	DIA. 1.13MM SINGLE ENDED COAXIAL LOW LOSS CABLE (COLOR: BLUE)	1
1	---	CONNECTOR	SPEEDECH C07P15 FOR CABLE DIA. 1.13MM PLUG CONNECTOR AND EQUIVALENT (PEX 2005-001R-13)	2