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### Release Control Record

Issue No.	Description	Date Issued
OTBCMA-WTW-P24070713	Original release	2024.11.13
OTBCMA-WTW-P24070713 R1	Update 2.1 "Note for NSS1"	2024.11.25



## 1 EUT Antenna System Description

### 1.1 Antenna Information

Frequency Range (GHz)	Brand Name	Model Name	Antenna Type	Connector Type	Antenna Position	RF Chain NO.
2.4~2.4835	PSA	RFDPA211500SBLB801	Dipole	R-SMA	Ant.5	0
5.15~5.25						
5.25~5.35						
5.47~5.725						
5.725~5.85						
5.15~5.85	PSA	RFMTA1640-01	PIFA	ipex(MHF)	Ant.7	0

### 1.2 Antenna Location (Configuration and RF Chains)

Please refer to another document - Test Setup and EUT antenna port photo. (Appendix B.)

## 2 Antenna Measurement

### 2.1 Antenna Measurement Chamber

Chamber Type	Chamber Size
Fully Anechoic Chamber	Length: 7.32 m Width: 3.66 m Height: 3.51 m

Type of Equipment	Model Number	Serial Number
ETS Anechoic Chamber (OTA3-HY)	AMS-8500	CT0000411-1132
Multi-Axis Positioning System	ETS 2090-OPTI	00086248

Note: The test was performed in CITA OTA distributed-axes system.

### 2.2 Reference Standard

ANSI 63.10-2013 clause 13  
IEEE std. 149-2021  
KDB 662911 D01

### 2.3 Block diagram of antenna test set-up

In far field chamber, rotation around theta axis corresponds to the elevation angle  $\theta$  and around the phi axis corresponds to the azimuth angle  $\phi$ . When measuring a 3D radiation pattern, the rotation table rotates around the theta from  $0^\circ$  to  $180^\circ$  and the rotation arm revolves around the phi axis between  $0^\circ$  and  $360^\circ$ . The vertical E field actually corresponds to the horizontal polarization and vice versa..

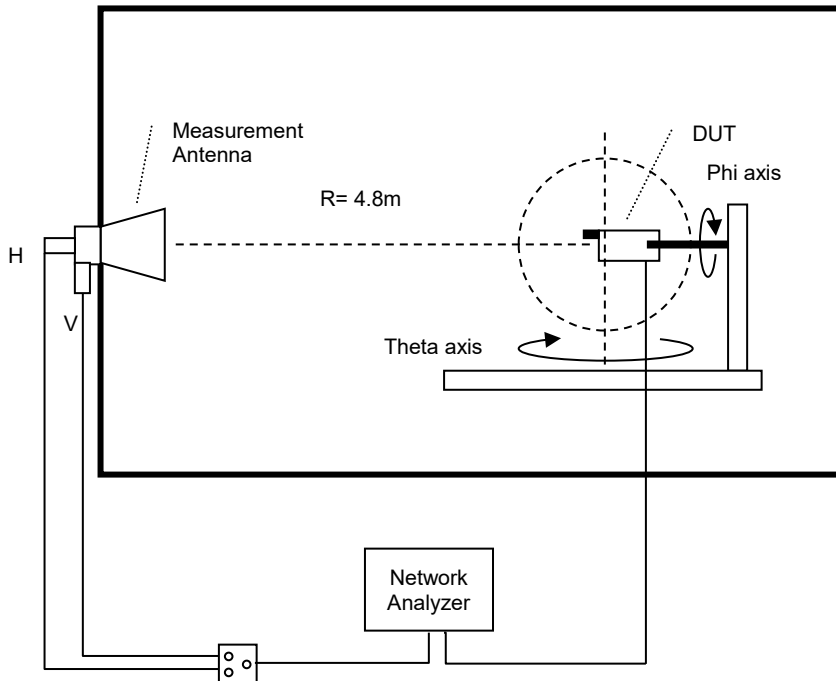


Figure 1. Antenna Pattern Test System.

## 2.4 Block diagram of calibration

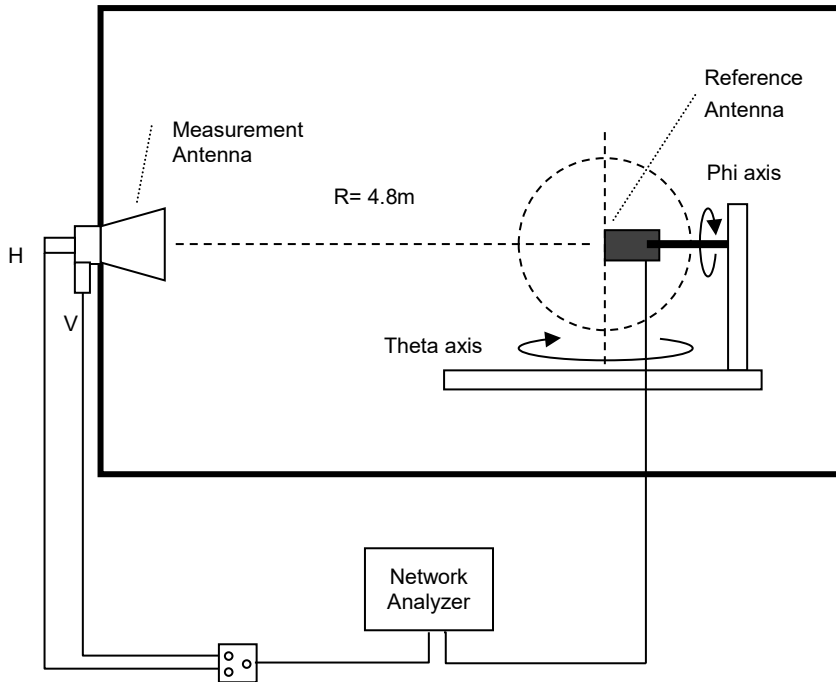
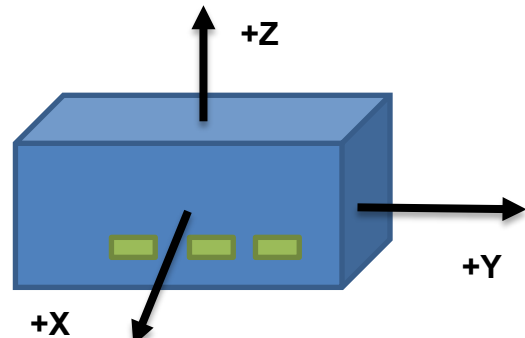


Figure 2. Calibration configuration.

## 2.5 Measurement Setup

<b>Chamber Placement</b>
To minimize the physical volume occupied by the EUT during testing, the center of rotation shall be the three-dimensional geometric center of the EUT and not the antenna
<b>Positioning an Integrated Device Relative to the Chamber Coordinate System</b>
The reference plane for the EUT is defined as the plane on which the base of the EUT sits. This plane will be normal to the phi axis of the chamber.
Before placing the EUT in the chamber, place the integrated device on a level surface and measure the height, width and depth (H, W, D) of the device to determine the center of each (mark with tape if need).
The center of the height, width and depth of the device shall be located at the origin of the chamber coordinate system.


## 2.6 EUT Operation mode

Band	Modulation Mode	CDD mode	Beamforming mode
2.4GHz	802.11b	Nss1	Not Support
	802.11g	Nss1	Not Support
	802.11n(HT20)	Nss1	Nss1 / Nss2
	802.11n(HT40)	Nss1	Nss1 / Nss2
	802.11n(VHT20)	Nss1	Nss1 / Nss2
	802.11n(VHT40)	Nss1	Nss1 / Nss2
	802.11ax(HE20)	Nss1	Nss1 / Nss2
	802.11ax(HE40)	Nss1	Nss1 / Nss2
5GHz	802.11be(EHT20)	Nss1	Nss1 / Nss2
	802.11be(EHT40)	Nss1	Nss1 / Nss2
	802.11a	Nss1	Not Support
	802.11n(HT20)	Nss1	Nss1 / Nss2
	802.11n(HT40)	Nss1	Nss1 / Nss2
	802.11ac(VHT20)	Nss1	Nss1 / Nss2
	802.11ac(VHT40)	Nss1	Nss1 / Nss2
	802.11ac(VHT80)	Nss1	Nss1 / Nss2
	802.11ac(VHT160)	Nss1	Nss1 / Nss2
	802.11ax(HE20)	Nss1	Nss1 / Nss2
	802.11ax(HE40)	Nss1	Nss1 / Nss2
	802.11ax(HE80)	Nss1	Nss1 / Nss2
	802.11ax(HE160)	Nss1	Nss1 / Nss2
	802.11be(EHT20)	Nss1	Nss1 / Nss2
802.11be(EHT40)	Nss1	Nss1 / Nss2	
802.11be(EHT80)	Nss1	Nss1 / Nss2	
802.11be(EHT160)	Nss1	Nss1 / Nss2	

Note: NSS 1 for both 2.4GHz, 5GHz bands is the worst case for final testing.

Band	Modulation Mode	Ant1	Ant2	Ant3	Ant4
2.4GHz	802.11b	TX/RX	TX/RX	-	-
	802.11g	TX/RX	TX/RX	-	-
	802.11n(HT20)	TX/RX	TX/RX	-	-
	802.11n(HT40)	TX/RX	TX/RX	-	-
	802.11n(VHT20)	TX/RX	TX/RX	-	-
	802.11n(VHT40)	TX/RX	TX/RX	-	-
	802.11ax(HE20)	TX/RX	TX/RX	-	-
	802.11ax(HE40)	TX/RX	TX/RX	-	-
	802.11be(EHT20)	TX/RX	TX/RX	-	-
5GHz	802.11be(EHT400)	TX/RX	TX/RX	-	-
	802.11a	TX/RX	TX/RX	-	-
	802.11n(HT20)	TX/RX	TX/RX	-	-
	802.11n(HT40)	TX/RX	TX/RX	-	-
	802.11ac(VHT20)	TX/RX	TX/RX	-	-
	802.11ac(VHT40)	TX/RX	TX/RX	-	-
	802.11ac(VHT80)	TX/RX	TX/RX	-	-
	802.11ac(VHT160)	TX/RX	TX/RX	-	-
	802.11ax(HE20)	TX/RX	TX/RX	-	-
	802.11ax(HE40)	TX/RX	TX/RX	-	-
	802.11ax(HE80)	TX/RX	TX/RX	-	-
	802.11ax(HE160)	TX/RX	TX/RX	-	-
	802.11be(EHT20)	TX/RX	TX/RX	-	-
802.11be(EHT40)	TX/RX	TX/RX	-	-	
802.11be(EHT80)	TX/RX	TX/RX	-	-	
802.11be(EHT160)	TX/RX	TX/RX	-	-	



## 2.7 Test Setup Diagram for EUT

Please refer to another document - Test Setup and EUT antenna port photo. (Appendix B.)

## 2.8 Test Instruments

TYPE OF EQUIPMENT	MODEL NUMBER	SERIAL NUMBER	DATE OF CALIBRATION	DUE DATE OF CALIBRATION	CALIBRATION CYCLE
(OTA3-HY) ETS Anechoic Chamber	AMS-8500	CT0000411-1132	N/A	N/A	N/A
Multi-Axis Positioning System	ETS 2090-OPTI	00086248	N/A	N/A	N/A
Horn Antenna	ETS 3164-08	00157567	N/A	N/A	N/A
Switch Control	Agilent 3499A	MY42005285	N/A	N/A	N/A
Network Analyzer	E5071C	MY46104190	2024/5/30	2025/5/29	12 months
Test Software	ETS-Lindgren EMQuest V1.14 build 31654	1281	N/A	N/A	N/A

Note 1: The test was performed in CITA OTA distributed-axes system.

Note 2: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

## 2.9 Test Procedure

1. The Antenna Gain Test is performed according to The ANSI/IEEE Std 149 12.3.1 Antenna Gain
2. (Small size (< 42cm) Linear Polarization Antennas), using a two-axis support device and one fixed measurement antenna. The EUT is positioned along the required MAPS centerline fixture holder. The EUT is then stepped between 0 and 180 degrees along the theta axis in 15-degree increments. At each theta position, the phi axis is stepped from 0-360 degrees in 15-degree increments. Data is recorded using the Network analyzer for both theta and phi polarizations at each position. Depending on the protocol, an appropriate filter is used in the EMQuest software to process the data. Upon completion of the test, test results (angular dependent EIRP) is calculated at each measurement point and the required value is automatically calculated. This test procedure is repeated for frequency and configuration as required.
3. Repeat step 1 and measures all of antenna gain for each Phi and Theta polarization for all antenna angles.
4. Considering each combination of phi and theta for all angles of each antenna, Directional Gain are calculated according to the FCC KDB662911 D01 d) (i) or e) (ii) formula.
5. Investigate composite antenna gain at all angles by program and determine maximum gain and Phi/Theta position (Direction gain is calculated for each angle then maximum gain is selected.).





## 2.10 Summary Test Result

Tested By	Leo Chen
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### Individual Antenna Maximum Peak Gain:

Frequency Band (MHz)	2450	5200	5300	5600	5785	-	-	-	-
Ant. 1 (Blue) (dBi)	3.89	4.76	5.09	6.15	4.73	-	-	-	-
Polarization	Theta	Theta	Theta	Theta	Theta	-	-	-	-
Axis: Theta(°)	90	75	75	75	75	-	-	-	-
Axis: Phi(°)	285	210	255	240	165	-	-	-	-
Ant. 2 (Orange) (dBi)	4.19	4.48	3.83	3.98	3.93	-	-	-	-
Polarization	Theta	Theta	Theta	Theta	Theta	-	-	-	-
Axis: Theta(°)	75	75	60	75	75	-	-	-	-
Axis: Phi(°)	75	105	300	45	45	-	-	-	-
Ant. 3 (dBi)	-	-	-	-	-	-	-	-	-
Polarization	-	-	-	-	-	-	-	-	-
Axis: Theta(°)	-	-	-	-	-	-	-	-	-
Axis: Phi(°)	-	-	-	-	-	-	-	-	-
Ant. 4 (dBi)	-	-	-	-	-	-	-	-	-
Polarization	-	-	-	-	-	-	-	-	-
Axis: Theta(°)	-	-	-	-	-	-	-	-	-
Axis: Phi(°)	-	-	-	-	-	-	-	-	-

### Maximum Directional Gain (Maximum Direction Angle and Value):

Frequency Band (MHz)	2450	5200	5300	5600	5785	-	-	-	-
Ant. 1 (dBi)	-0.19	4.28	3.67	6.15	4.73	-	-	-	-
Ant. 2 (dBi)	4.19	2.58	2.95	1.32	2.58	-	-	-	-
Ant. 3 (dBi)	-	-	-	-	-	-	-	-	-
Ant. 4 (dBi)	-	-	-	-	-	-	-	-	-
Polarization	Theta	Theta	Theta	Theta	Theta	-	-	-	-
Axis: Theta(°)	75	60	75	75	75	-	-	-	-
Axis: Phi(°)	75	225	60	240	165	-	-	-	-
Correlated Signals DG Calculation $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$									
DG (dBi) [1SS]	5.28	6.48	6.33	7.08	6.73	-	-	-	-

Note:

- ◆ The individual antenna gain and directional gain are by measurement as indicated in above table. For devices transmitter supports MIMO and use same antenna at multiple antenna ports. The direction gain values are follow FCC KDB 662911 D01 into calculation.
- ◆ The applicable limit is subjected to FCC Part 15 regulation and devices transmitter design/specification (i.e., SISO or MIMO etc.). Detail of conformity limit to be described in EUT FCC test reports.

## APPENDIX A – Detail Test Data Information

### A.1 Radiated Directional Gain

Ant.	No.1																								
Freq. (MHz)	2450																								
Polarity	Theta																								
dB	φ (0°)	φ (15°)	φ (30°)	φ (45°)	φ (60°)	φ (75°)	φ (90°)	φ (105°)	φ (120°)	φ (135°)	φ (150°)	φ (165°)	φ (180°)	φ (195°)	φ (210°)	φ (225°)	φ (240°)	φ (255°)	φ (270°)	φ (285°)	φ (300°)	φ (315°)	φ (330°)	φ (345°)	φ (360°)
	θ (0°)	-22.59	-16.56	-11.9	-9.18	-7.72	-6.79	-6.15	-6.5	-7.81	-9.73	-12.8	-17.27	-25.42	-17.17	-11.65	-8.85	-7.14	-6.12	-5.66	-6.18	-7.69	-9.91	-12.91	-19.47
θ (15°)	-13.17	-11.59	-11.56	-11.09	-10.21	-10.55	-11.59	-13.15	-13.97	-11.95	-10.43	-11.14	-13.89	-15.57	-12.34	-9.45	-7.45	-6.01	-5.12	-5.45	-6.67	-9.28	-17.03	-27.79	-13.17
θ (30°)	-4.93	-5.78	-6.57	-4	-2.25	-1.6	-1.72	-1.82	-2.03	-3.81	-4.83	-3.8	-5.11	-6.45	-4.32	-3.16	-2.96	-2.91	-3.47	-4.35	-4.65	-5.96	-14.11	-9.93	-4.93
θ (45°)	-1.19	-4.64	-3.1	-3.07	-4.4	-4.22	-2.84	-2.38	0.16	1.39	-0.73	0.24	-1.61	0.24	1.04	-1.88	-2.55	-2.07	-2.02	-1.93	-3.03	-5.15	-5.47	-4.42	-1.19
θ (60°)	-0.09	-1.83	0.55	-0.78	-3.93	-3.84	-0.95	0.97	-1.5	0.28	1.09	0.19	0.06	2.53	2.62	-0.66	0.71	1.53	1.02	-0.38	-1.34	-2.8	-3.56	-3.7	-0.09
θ (75°)	-1	0.01	0.95	0.98	0.94	-0.19	-0.96	1.04	0.16	-2.87	-0.42	-3.18	1.15	2.69	2.48	1.37	0.88	1.93	3.41	2.47	0.5	-3.26	-3.26	-3.85	-1
θ (90°)	-5.53	-2.89	-1.44	-0.38	0.79	-0.73	-4.67	-7.19	-3.01	-7.32	-1.94	-6.86	1.24	0.82	2.04	2.22	0.15	1.23	3.67	[3.89]	3.05	-2.25	-2.21	-4.29	-5.53
θ (105°)	-6.67	-5.63	-2.29	-3.1	-3.59	-4.97	-7.72	-8	-7.3	-2.39	-1.19	-3.42	0.36	-0.23	0.03	0.38	0.09	1.21	2.3	3.37	1.78	-6.77	-1.13	-7.06	-6.67
θ (120°)	-4.62	-13.26	-3.72	-3.52	-4.99	-5.12	-4.13	-2.42	-4.56	-2.29	-1.55	-1.26	0.08	-2.71	-1.07	-1.28	-0.03	0.72	0.83	0.3	-2.88	-9.07	-1.84	-9.23	-4.62
θ (135°)	-5.14	-11.45	-9.16	-4.68	-3.72	-6.27	-12.01	-6.9	-5.19	-5.15	-4.17	-1.54	-2.24	-3.95	-1.75	-2.33	-3.1	-3.52	-4.76	-7.99	-12.22	-5.7	-5.21	-8.52	-5.14
θ (150°)	-7.28	-7.64	-11.95	-32.92	-16.06	-18.13	-18.53	-10.79	-10.58	-15.13	-10.1	-6.91	-5.86	-4.92	-3.88	-3.79	-4.89	-6.55	-7.53	-8.79	-12.4	-12.87	-9.57	-8.61	-7.28
θ (165°)	-18.45	-17.75	-18.53	-18.22	-15.41	-12.75	-11.62	-11.57	-12.2	-13.06	-14.69	-17.09	-16.06	-13.68	-12.81	-12.71	-13.6	-17.84	-22.89	-17.21	-13.85	-13.12	-14.04	-16.2	-18.45
θ (180°)	-13.46	-12.99	-13.35	-13.68	-13.01	-12.51	-12.57	-13.84	-16.33	-19.8	-21.69	-17.7	-14.46	-13.27	-13.3	-14.03	-15.17	-15.85	-15.42	-17.17	-20.81	-21.56	-18.84	-15.75	-13.46
Polarity	Phi																								
dB	φ (0°)	φ (15°)	φ (30°)	φ (45°)	φ (60°)	φ (75°)	φ (90°)	φ (105°)	φ (120°)	φ (135°)	φ (150°)	φ (165°)	φ (180°)	φ (195°)	φ (210°)	φ (225°)	φ (240°)	φ (255°)	φ (270°)	φ (285°)	φ (300°)	φ (315°)	φ (330°)	φ (345°)	φ (360°)
	θ (0°)	-6.38	-7.08	-8.54	-10.77	-13.76	-18.66	-22.74	-15.35	-11.73	-9.05	-7.23	-6.41	-6.35	-7.02	-8.18	-9.87	-13.24	-21.26	-20.73	-14.71	-11.24	-8.36	-6.63	-6.07
θ (15°)	-8.91	-15.98	-21.82	-18.65	-18.45	-19.94	-23.72	-27.1	-21.91	-15.51	-10.58	-7.66	-6.4	-6.23	-6.77	-7.95	-10.68	-15.18	-21.51	-22.11	-11.19	-6.56	-5.1	-5.4	-8.91
θ (30°)	-14.02	-14.14	-9.59	-9.1	-10.17	-9.87	-10.83	-13.69	-18.23	-23.56	-13.96	-8.84	-7.06	-6.81	-6.76	-7.28	-9.68	-14.71	-17.9	-22.93	-21.89	-10.49	-6.63	-7.1	-14.02
θ (45°)	-11.46	-7.24	-10.97	-13.87	-8.54	-5.13	-5.7	-10.52	-16.4	-17.34	-12.52	-9.59	-7.58	-6.9	-8.16	-11.21	-15.65	-18.56	-18.54	-20.92	-19.36	-10.33	-7.9	-11.47	-11.46
θ (60°)	-10.59	-8.25	-14.17	-16.91	-12.17	-7.14	-7.33	-13.21	-28.67	-18.46	-9.54	-10.7	-5.73	-7.81	-11.18	-13.6	-13.55	-13.84	-22.89	-26.24	-22.86	-9.25	-7.86	-9.36	-10.59
θ (75°)	-9.18	-9.4	-14.15	-16.95	-15.25	-7.35	-7.14	-11.31	-10.89	-26.25	-9.04	-13.79	-5.23	-10.65	-12.28	-16.21	-15.15	-15.24	-22.97	-20.06	-22.19	-8.12	-7.64	-7.66	-9.18
θ (90°)	-7.87	-7.75	-11.73	-6.55	-9.84	-11.35	-6.19	-10.89	-11.5	-12.34	-8.79	-18.37	-6.38	-10.29	-12.27	-15.21	-12.74	-12.24	-14.73	-18.34	-18.09	-12.1	-6.66	-6.82	-7.87
θ (105°)	-7.17	-11.13	-6.39	[-4.19]	-8.33	-8.43	-4.56	-8.76	-16.85	-12.23	-9.61	-23.84	-8.39	-9.95	-11.51	-14.17	-10.78	-9.72	-13.98	-25.47	-32.52	-8.4	-6.83	-8.68	-7.17
θ (120°)	-5.78	-11.03	-9.75	-5.45	-6.43	-8.63	-5.03	-4.61	-9.44	-12.45	-11.67	-15.56	-22.7	-12.57	-8.77	-9.46	-9.5	-7.66	-11.65	-28.94	-19.7	-8.09	-6.47	-13.86	-5.78
θ (135°)	-7.17	-14.74	-10.88	-8.01	-8.75	-7.25	-6.24	-7.72	-12.92	-15.2	-12.98	-15.48	-22.13	-14.67	-9.28	-9.02	-11.88	-13.67	-16.97	-15.31	-10.3	-7.74	-12.88	-17.57	-7.17
θ (150°)	-10.03	-11.47	-15.51	-14.39	-13.21	-11.39	-10.37	-11.72	-16.66	-23.25	-21.52	-28.02	-24.77	-14.63	-10.82	-10.56	-12.12	-13.05	-14.33	-16.91	-17.6	-17.91	-33.54	-14.09	-10.03
θ (165°)	-15.22	-21.96	-16.2	-12.65	-12.25	-12.36	-13.76	-16.55	-17.85	-18.16	-19.48	-21.66	-20.15	-14.96	-11.08	-9.65	-10.02	-10.8	-12.27	-16.36	-23.93	-17.69	-13.33	-12.27	-15.22
θ (180°)	-12.73	-13.7	-15.82	-18.35	-19.75	-17.51	-14.87	-14.92	-15.6	-14.76	-13.66	-13.56	-14.62	-15.92	-17	-20.42	-21.43	-16.07	-14	-13.43	-12.69	-12.18	-12.16	-12.31	-12.73



BUREAU  
VERITAS

Ant.	No.1																										
Freq (MHz)	5200																										
Polarity	Theta																										
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ		
		(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)		
dB	φ (0°)	-10.97	-11.1	-12.17	-14.02	-15.8	-17.55	-16.6	-14	-12.3	-10.31	-9.41	-9.3	-9.19	-9.42	-10.33	-11.94	-15.09	-17.59	-16.94	-15.69	-12.85	-12.11	-11.62	-11.04	-10.97	
θ (0°)		-10.97	-11.1	-12.17	-14.02	-15.8	-17.55	-16.6	-14	-12.3	-10.31	-9.41	-9.3	-9.19	-9.42	-10.33	-11.94	-15.09	-17.59	-16.94	-15.69	-12.85	-12.11	-11.62	-11.04	-10.97	
θ (15°)		-5.54	-10.05	-10.32	-7.01	-5.09	-5.41	-7.49	-13.71	-15.39	-13.25	-14.49	-14.44	-7.66	-6.66	-6.42	-4.93	-3.57	-3.53	-3.59	-5.11	-6.67	-11.67	-12.58	-6.74	-5.54	
θ (30°)		-3.78	-4.26	-3.05	-3.49	-8.9	-7.79	-5.3	-3.07	-2.52	-3.72	-3.08	-3.61	-5.96	-1.82	-1.86	-0.59	-2.63	-9.44	-11.52	-6.68	-3.51	-4.92	-4.64	-4.1	-3.78	
θ (45°)		-3.25	-3.79	-7.27	-0.25	0.42	0.92	-0.79	-0.88	-2.33	-1.14	1.9	-0.84	1.24	0.33	0.88	2.71	-3.28	-5.59	-8.29	-1.92	0.48	-1.79	-3.23	-6.11	-3.25	
θ (60°)		-1.17	0.69	-0.24	0.03	4.23	1.84	-2.56	-0.49	0.4	1.35	-0.57	0.62	0.92	0.89	2.95	4.28	-2	0.6	1.01	0.69	1.92	1.31	-1.39	-3.4	-1.17	
θ (75°)		-0.82	0.41	-5.47	-5.48	3.06	-1.72	-13.75	-4.42	2.1	1.6	0.95	0.75	-1.7	-6.28	[4.76]	2.68	1.92	4.72	2.42	0.94	1.58	-1.88	-4.31	-1.36	-0.82	
θ (90°)		-3.77	-5.45	-3.99	-1.69	-1.19	-2.85	-7.02	-1.83	-0.75	-0.72	-2.58	1.64	2	-6.68	0.38	-0.15	0.58	4.67	-2.17	-1.46	2.53	-1.69	-1.97	-3.41	-3.77	
θ (105°)		-5.37	-6.76	-10.74	-2.21	-2.32	-5.79	-6.35	-7.94	-2.2	-2.49	-2.66	0.85	0.14	-0.25	0.76	-1.31	0.08	-0.11	-0.18	0.16	0.31	-1.38	-0.54	-3.29	-5.37	
θ (120°)		-5.34	-8.4	-3.93	-7.93	-3.9	-2.09	-12.09	-3.16	-2.74	-2.15	-2.93	-4.22	-2.62	-3.91	-0.86	-0.24	-0.07	-0.63	-0.66	-1.56	0.01	0.17	-2.45	-2.49	-5.34	
θ (135°)		-8.7	-8.7	-12.07	-7.53	-41.35	-11.74	-6.09	-5.95	-1.31	-0.79	-3.53	-1.5	-0.18	-2.05	-2.45	-0.28	-3.03	-5.14	-4.37	-2.54	-2.43	-4.73	-4.91	-5.52	-8.7	
θ (150°)		-7.21	-15.09	-15.19	-10.22	-10.31	-16.76	-11.65	-7.88	-7.06	-6.38	-6.29	-7.91	-7.18	-4.1	-3.56	-4.94	-6.61	-6.71	-6.37	-6.99	-7.91	-10.52	-10.18	-7.74	-7.21	
θ (165°)		-13.19	-14.46	-13.52	-20.47	-28.86	-17.73	-15.88	-17.46	-19.83	-34.17	-19.95	-16.52	-17.41	-14.48	-14.29	-14.57	-17.15	-17.01	-16.18	-20.52	-18.26	-16.23	-15.81	-14.07	-13.19	
θ (180°)		-13.93	-14.44	-14.62	-14.7	-15.15	-15.68	-15.73	-15.76	-15.15	-14.31	-13.23	-13.4	-14.14	-12.2	-11.95	-11.05	-12.1	-11.87	-14.59	-16.1	-15.44	-16.27	-16.32	-14.74	-13.93	
Polarity	Phi																										
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
		(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)		
dB	φ (0°)	-18.66	-16	-13.52	-11.23	-10.28	-10.02	-9.73	-9.86	-10.87	-12.25	-11.25	-13.86	-16.15	-19.09	-16.21	-14.28	-12.04	-10.95	-10.5	-10.6	-11.68	-13.33	-15.09	-18.16	-22.13	-18.66
θ (0°)		-18.66	-16	-13.52	-11.23	-10.28	-10.02	-9.73	-9.86	-10.87	-12.25	-11.25	-13.86	-16.15	-19.09	-16.21	-14.28	-12.04	-10.95	-10.5	-10.6	-11.68	-13.33	-15.09	-18.16	-22.13	-18.66
θ (15°)		-15.93	-13.05	-14.65	-11.85	-10.16	-11.8	-10.96	-11.28	-12.46	-15.64	-34.43	-15.79	-16.99	-25.12	-14.63	-12.49	-13.32	-14.01	-22.26	-21.32	-15.84	-10.23	-9.74	-13.34	-15.93	
θ (30°)		-16.46	-17.74	-8.75	-12.11	-17.08	-9.57	-6.26	-7.3	-11.44	-16.69	-13.73	-8.93	-9.86	-22.63	-17.76	-14.07	-9.6	-13.68	-18.07	-28.43	-20.76	-10.69	-7.13	-11.78	-16.46	
θ (45°)		-27.08	-15.07	-6.99	-15.73	-13.22	-7.75	-18.16	-16.81	-11.98	-13.75	-10.84	-12.24	-6.88	-8.88	-17.14	-27.63	-20.45	-15.45	-26.9	-24	-29.01	-15.82	-16.42	-27.44	-27.08	
θ (60°)		-11.4	-6.44	-9.6	-8.59	-11.2	-20.93	-11.79	-12.46	-17.87	-7.75	-17.5	-16.56	-15.17	-19.74	-7.93	-7.03	-13.31	-18.41	-20.21	-18.34	-13.12	-10.38	-20.49	-21.72	-11.4	
θ (75°)		-16.68	-14.77	-10.59	-12.88	-17.54	-13.75	-11.52	-8.42	-16.99	-17.2	-11.92	-12.32	-15	-13.63	-6.28	-5.45	-13.68	-18.37	-19.09	-14.86	-21.48	-16.84	-18.44	-22.05	-16.68	
θ (90°)		-17.91	-14.81	-17.46	-9.57	-10.86	-20.91	-12.59	-12.19	-20.82	-17.61	-11.52	-17.08	-27.82	-18.32	-15.43	-9.84	-9.29	-18.74	-14.18	-22.7	-11.4	-10.79	-10.48	-10.9	-17.91	
θ (105°)		-20.6	-13.51	-12.18	-14.08	-13.56	-19.12	-25.52	-13.57	-17.39	-8.72	-7.45	-12.16	-19.27	-16.97	-11.35	-14.21	-17.84	-15.1	-15.59	-22.77	-9.16	-10.48	-12.75	-17.12	-20.6	
θ (120°)		-24.34	-7.66	-17	-9.81	-7	-9.77	-7.91	-14.2	-12.43	-5.84	-8.01	-14.72	-15.41	-17.89	-14.65	-10.51	-10.15	-23.59	-12.79	-21.77	-13.68	-17.65	-21.99	-25.47	-24.34	
θ (135°)		-13.33	-13.17	-12.83	-8.21	-21.4	-5.71	-11.6	-15.81	-8.89	-8.34	-20.04	-17.27	-14.68	-14.85	-40.01	-8.68	-21.48	-15.83	-25.32	-18.9	-18.09	-14.76	-21.15	-14.71	-13.33	
θ (150°)		-9.2	[-4.86]	-10.97	-21.42	-16.26	-15.48	-10.86	-12.16	-14.04	-8.12	-14.23	-21.17	-18.85	-22.53	-13.57	-15.31	-14.86	-16.94	-19.38	-24.83	-13.97	-23.55	-8	-9.34	-9.2	
θ (165°)		-8.15	-9.29	-12.76	-11.82	-11.79	-14.97	-24.45	-21.56	-16.88	-19.69	-16.72	-15.44	-15.37	-17.22	-30.06	-20.55	-15.57	-12.85	-14.22	-10.99	-9.8	-8.79	-14.03	-17.81	-8.15	
θ (180°)		-14.17	-15.51	-16.68	-15	-17.38	-14.83	-14.55	-12.9	-12.3	-13.55	-13.96	-12.89	-12.39	-11.8	-12.82	-15.38	-15.37	-15.57	-13.42	-13.73	-11.56	-11.3	-10.78	-11.66	-14.17	

t.	No.1																								
Freq. (MHz)	5300																								
Polarity	Theta																								
	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
dB	(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
θ (0°)	-12.31	-13.11	-14.57	-15.27	-16.81	-17.04	-16.19	-14.09	-12.75	-11.31	-11.28	-10.6	-10.59	-11.25	-12.2	-12.97	-12.89	-14.63	-14.78	-13.24	-12.83	-11.14	-11.94	-12.16	-12.31
θ (15°)	-6.21	-9.47	-14.05	-9.53	-8.07	-7.96	-11.04	-15.83	-15.87	-14.6	-22.53	-8.43	-6.52	-6.91	-5.22	-3.75	-3.37	-2.45	-2.47	-3.08	-4.74	-7.61	-12.52	-10.7	-6.21
θ (30°)	-2.6	-5.16	-3.65	-2.06	-4.44	-5.53	-3.81	-2.52	-2.79	-3.89	-4.61	-3.85	-10.91	-0.68	-2.73	-0.32	-3.07	-6.28	-7.39	-7.04	-4	-2.73	-4.24	-3.37	-2.6
θ (45°)	-4.08	-3.37	-8.14	-1.33	-0.08	-0.16	-1.92	-0.71	-3.65	-0.41	1.62	-1.23	-2.01	-0.71	0.31	1.51	-2.76	-1.8	-3.55	-3.95	0.49	-2.07	-2.33	-5.08	-4.08
θ (60°)	-2.06	-0.12	-0.01	0.46	3.97	2.4	-2.25	-1.22	0.6	0.4	-2.86	-0.31	1.07	-1.21	1.4	3.34	-0.85	0.8	1.82	-0.11	-0.49	1.22	-0.63	-1.88	-2.06
θ (75°)	-1.32	-1.3	-4.05	-4.65	3.67	-2.7	-17.03	-2.98	1.49	0.85	-2.52	0.17	-1.97	-2.06	3.91	1.02	2.71	[5.09]	0.99	-0.62	2.39	-1.67	-1.96	-0.31	-1.32
θ (90°)	-3.44	-4.28	-5.14	-0.7	-0.84	-3.57	-5.23	-1.22	-0.53	0.31	-3.5	0.97	1.91	-3.56	2.09	1.31	0.76	4.27	-4.99	-3.84	1.57	-0.06	-1.66	-2.69	-3.44
θ (105°)	-7.84	-6.64	-8.91	-2.18	-2.18	-5.38	-6.52	-5.79	-2.18	-3.11	-1.72	-0.16	-0.46	-0.39	0.66	-1.74	0.19	-0.92	-1.09	-0.51	-1.46	-3.49	-1.43	-4.05	-7.84
θ (120°)	-5.84	-10.53	-3.66	-7.81	-3.6	-1.97	-11.62	-2.94	-3.27	-3.11	-2.76	-4.18	-5.41	-3.49	-0.67	-0.4	-0.58	-0.85	0.4	-1.4	-0.84	0.37	-2.78	-1.57	-5.84
θ (135°)	-8.01	-8.15	-9.86	-8.12	-21.86	-11.41	-7.86	-5.54	-1.47	-0.81	-4	-0.68	0.15	-3.07	-2.07	-0.48	-1.96	-5.63	-5.38	-2.8	-1.87	-4.34	-5.44	-8.17	-8.01
θ (150°)	-6.38	-13.34	-15.45	-13	-12.5	-16.62	-8.74	-6.17	-8.44	-6.36	-5.37	-6.98	-5.51	-4.17	-3.48	-5.22	-7.2	-8.39	-7.14	-7	-8.35	-11.64	-11.1	-9.75	-6.38
θ (165°)	-14.48	-16.73	-13.09	-14.78	-27.07	-23.1	-18.28	-18.53	-22.32	-23.55	-16.47	-13.99	-12.83	-12.21	-13.44	-15.27	-13.73	-12.81	-12.48	-16.43	-23.66	-22.39	-17.67	-13.82	-14.48
θ (180°)	-18.21	-17.28	-19.22	-20.32	-22.37	-22.67	-28.51	-28.58	-21.38	-16.73	-15.71	-14.24	-14.35	-16.01	-15.63	-15.55	-16.44	-18.51	-20.92	-22.33	-20.52	-19.88	-16.86	-17.07	-18.21
Polarity	Phi																								
	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
dB	(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
θ (0°)	-16.5	-14.31	-12.85	-11.79	-10.98	-10.71	-10.96	-11.28	-12.38	-14.44	-14.73	-15.54	-14.42	-13.39	-12.16	-12.44	-11.91	-12.49	-12.47	-14.88	-15.87	-20.12	-21.76	-20.13	-16.5
θ (15°)	-15.43	-22.93	-30.26	-13.51	-12.29	-11.21	-14.48	-17.15	-17.96	-22.77	-22.7	-15.68	-27.21	-14.37	-10.7	-11.04	-10.21	-11.46	-15.53	-31.41	-15.77	-11.56	-10.37	-12.35	-15.43
θ (30°)	-23.42	-34.49	-11.46	-14.52	-18.16	-8.28	-6.5	-8.96	-13.45	-22.18	-15.25	-8.87	-14.53	-21.85	-13.31	-10.63	-9.6	-14.72	-23.33	-25.61	-17.51	-12.06	-7.88	-12.35	-23.42
θ (45°)	-26.35	-18.19	-7.47	-17.06	-14.21	-8.17	-21.19	-15.63	-11.38	-21.79	-8.33	-13.3	-10.15	-9.22	-18.22	-18.76	-30.87	-19.64	-17.79	-20.96	-24.19	-13.31	-13.33	-24.81	-26.35
θ (60°)	-15.99	-6.3	-7.16	-8.18	-10.04	-23.79	-9.38	-10.66	-20.42	-9.12	-17.26	-16.22	-16.88	-20.09	-10.75	-9.05	-12.74	-16.62	-16.73	-24.62	-11.32	-11.03	-18.03	-27.97	-15.99
θ (75°)	-17.76	-18.63	-11.51	-13.01	-19.45	-16.6	-10.8	-9.07	-14.84	-15.09	-12.94	-10.94	-14.46	-16.37	-7.82	-6.47	-10.59	-19.35	-16.66	-19.71	-23.24	-18.43	-15.46	-16.83	-17.76
θ (90°)	-15.25	-15.51	-22.36	-8.86	-9.04	-21.83	-11.01	-14.3	-17.94	-20.35	-13.58	-20.52	-16.27	-21.89	-20.15	-11.36	-9.41	-34.67	-20.34	-30.66	-12.45	-10.58	-9.5	-7.67	-15.25
θ (105°)	-25.54	-12.01	-12.65	-13.57	-14.25	-18.41	-17.81	-12.82	-18.74	-8.83	-8.03	-11.66	-33.65	-11.64	-8.44	-17.27	-20.66	-18.77	-20.62	-17.51	-10.89	-11.08	-13.85	-20.63	-25.54
θ (120°)	-20.04	-7.4	-16.49	-9.47	-8.79	-11.41	-8.5	-12.53	-13.14	[-5.90]	-8.68	-18.44	-15.31	-20.21	-15.83	-11.94	-10.89	-18.7	-15.08	-16.87	-18.52	-17.51	-18.22	-23.67	-20.04
θ (135°)	-10.38	-13.5	-12.58	-9.83	-16.72	-6.28	-11.31	-12.54	-8.16	-8.37	-23.7	-14.03	-19.89	-14.12	-22.14	-12.83	-17.21	-15.81	-23.88	-15.59	-15.01	-38.58	-16.68	-12.69	-10.38
θ (150°)	-13.71	-6.07	-11.67	-16.68	-16.63	-13.42	-11.35	-12.85	-10.85	-7.01	-18.26	-20.88	-14.18	-15.95	-11.56	-17.49	-15.37	-14.83	-17.82	-20.55	-11.01	-12.5	-10.59	-9.53	-13.71
θ (165°)	-9.33	-8.88	-14.53	-12.57	-10.96	-12.16	-20.12	-28.29	-21.3	-17.36	-13.58	-12.99	-16.15	-21.95	-33.27	-14.02	-15.62	-15.11	-19.01	-16.49	-12.84	-9.46	-11.1	-28.1	-9.33
θ (180°)	-22.62	-20.68	-15.99	-15.86	-16.54	-17.63	-15.6	-14.1	-14.08	-14.7	-17.3	-21.01	-18.21	-16.41	-15.91	-16.6	-15.81	-16.2	-14.98	-16.07	-14.96	-14.45	-14.57	-16.84	-22.62



Ant.	No. 1																								
Freq. (MHz)	5600																								
Polarity	Theta																								
dB	$\phi$ (0°)	$\phi$ (15°)	$\phi$ (30°)	$\phi$ (45°)	$\phi$ (60°)	$\phi$ (75°)	$\phi$ (90°)	$\phi$ (105°)	$\phi$ (120°)	$\phi$ (135°)	$\phi$ (150°)	$\phi$ (165°)	$\phi$ (180°)	$\phi$ (195°)	$\phi$ (210°)	$\phi$ (225°)	$\phi$ (240°)	$\phi$ (255°)	$\phi$ (270°)	$\phi$ (285°)	$\phi$ (300°)	$\phi$ (315°)	$\phi$ (330°)	$\phi$ (345°)	$\phi$ (360°)
$\theta$ (0°)	-11.55	-11.41	-11.61	-11.04	-12.43	-14.71	-17.42	-31.53	-30.78	-19.58	-14.84	-12.21	-11.99	-11.78	-11.54	-11.9	-12.4	-15.39	-17.09	-24.88	-31.46	-18.87	-16.34	-13.68	-11.55
$\theta$ (15°)	-8.32	-6.96	-7.12	-8.68	-12.57	-15.82	-14.93	-12.19	-9.51	-9.68	-8.5	-9.75	-14.47	-8.53	-6.33	-6.47	-6.92	-7.37	-6.08	-4.23	-3.87	-5.7	-7.08	-7.01	-8.32
$\theta$ (30°)	-1.54	-1.91	-2.05	-0.36	0.85	0.24	-0.57	-0.19	-0.71	-1.37	-5.02	-5.48	-2.34	-4.69	-0.97	-0.11	-0.3	-1.69	-3.04	-3.22	-2.57	-2.72	-3.19	-1.4	-1.54
$\theta$ (45°)	-2.22	-1.32	-3.18	-2.97	-0.17	-1.5	-3.1	-2.28	-0.14	0.47	-0.85	-1.05	-0.64	-3.27	-0.06	-0.77	0.65	0.88	1.49	0.25	-0.9	-0.74	-1.69	-1.67	-2.22
$\theta$ (60°)	-4.32	-2.41	-2.54	0.05	3.36	2.07	-1.41	0.55	0.85	-0.76	-3.63	-1.12	0.41	-3.04	1.13	-0.4	-0.3	2.04	-0.36	-0.96	-1.28	-5.04	-1.58	-2.66	-4.32
$\theta$ (75°)	-4.29	-4.52	-1.67	-0.03	2.96	-5.85	-8.13	-0.63	0.92	-2.2	-2.82	2.1	0.4	-0.16	0.91	-3.86	[6.15]	0.41	-2.4	-0.5	0.97	0.13	-1.11	-1.45	-4.29
$\theta$ (90°)	-10.39	-6.02	-2.18	-1.9	-2.13	-5.68	-5.23	-2.69	-0.72	-1.28	-1.43	2.91	2.11	-0.54	0.48	-4.63	2.73	2.55	-1.08	-3.25	0.74	-2.03	-6.93	-2	-10.39
$\theta$ (105°)	-8.16	-5.2	-6.06	-6.94	-2.07	-6.26	-5.12	-8.44	-4.45	-7.69	-2.48	-0.25	-0.2	-2.16	-2.22	-3.54	-1.98	-0.46	-10.23	-3.41	-3.3	-3.93	-4.62	-3.17	-8.16
$\theta$ (120°)	-7.23	-6.31	-2.44	-8.42	-3.51	-4.94	-14.29	-6.9	-4.6	-5.71	-4.32	-5.02	-3.88	-5.46	-4.9	-2.19	-1.07	-1.75	-2.09	-0.97	-3.1	-3.64	-5.64	-3.63	-7.23
$\theta$ (135°)	-6.85	-9.35	-12.89	-7.45	-22.09	-11.04	-12.55	-4.96	-3.61	-4.15	-2.31	-2.84	-6.48	-5	-3.66	-3.73	-4.99	-5.98	-6.59	-6.68	-5.48	-9.51	-9.98	-7.35	-6.85
$\theta$ (150°)	-6.84	-11.67	-14.16	-11.93	-17.52	-27.98	-12.17	-12.64	-15.52	-9.86	-10.42	-10.12	-8.13	-7.74	-7.75	-7.84	-11.28	-10.2	-14.87	-18.96	-15.04	-12.86	-9.11	-13.83	-6.84
$\theta$ (165°)	-12.05	-12.69	-14.86	-17.43	-36.15	-21.12	-20.18	-27.41	-25.6	-17.44	-15.13	-12.88	-13.19	-13.07	-13.49	-13.85	-17.61	-23.26	-23.58	-20.85	-27.26	-20.8	-17.03	-16.74	-12.05
$\theta$ (180°)	-20.54	-20.76	-23.92	-22.72	-25.96	-26.5	-27.48	-27.29	-27.71	-24.87	-23.08	-20.25	-19.75	-20.96	-21.71	-24.91	-25.54	-38.71	-34.98	-28.22	-29.98	-25.34	-25.84	-23.62	-20.54
Polarity	Phi																								
dB	$\phi$ (0°)	$\phi$ (15°)	$\phi$ (30°)	$\phi$ (45°)	$\phi$ (60°)	$\phi$ (75°)	$\phi$ (90°)	$\phi$ (105°)	$\phi$ (120°)	$\phi$ (135°)	$\phi$ (150°)	$\phi$ (165°)	$\phi$ (180°)	$\phi$ (195°)	$\phi$ (210°)	$\phi$ (225°)	$\phi$ (240°)	$\phi$ (255°)	$\phi$ (270°)	$\phi$ (285°)	$\phi$ (300°)	$\phi$ (315°)	$\phi$ (330°)	$\phi$ (345°)	$\phi$ (360°)
$\theta$ (0°)	-20.72	-22.84	-23.39	-17.7	-14.37	-12.22	-10.16	-10.51	-10.51	-11.79	-12.82	-16.08	-19.07	-22.35	-20.12	-16.75	-14.36	-12.57	-11.49	-10.99	-11.02	-10.61	-12	-14.39	-20.72
$\theta$ (15°)	-16.85	-16.23	-23.53	-21.59	-18.63	-20.47	-22.88	-15.6	-14.65	-17.86	-15.76	-25	-13.84	-10.37	-14.02	-16.91	-14.97	-15.46	-12.56	-10.04	-8.7	-10.9	-18.16	-33.28	-16.85
$\theta$ (30°)	-16.43	-19.46	-14.43	-11.12	-24.55	-10.52	-10.75	-11.17	-18	-20.12	-12.87	-14.51	-23.1	-10.96	-13.21	-10.59	-11.33	-14.89	-14.95	-10.22	-9.99	-11.33	-10.92	-23.5	-16.43
$\theta$ (45°)	-17.61	-16.17	-21.03	-17.23	-17.57	-9.96	-19.7	-16.29	-17.17	-12.66	-7.19	-13.72	-11.92	-14.35	-15.27	-26.73	-16.49	-16.82	-14.63	-11.38	-12.42	-13.68	-12.85	-11.26	-17.61
$\theta$ (60°)	-13.92	[-7.02]	-7.32	-9.1	-13.64	-17.85	-11.68	-9.17	-17.02	-9.2	-23.6	-12.02	-15.06	-17.11	-35.26	-22.53	-14.85	-11.46	-13.64	-20.94	-17.96	-16.28	-21.9	-13.08	-13.92
$\theta$ (75°)	-16.96	-19.28	-19.83	-15.58	-19.8	-16.38	-22.77	-10.53	-26.44	-13.9	-22.82	-11.93	-14.9	-16.65	-22.44	-19.49	-12.78	-12.67	-15.11	-11.51	-12.62	-18.34	-12.96	-17.94	-16.96
$\theta$ (90°)	-26.56	-14.45	-18.89	-14.8	-11.5	-19.42	-11.59	-13.75	-22.8	-23.13	-18.89	-18.13	-13.49	-13.66	-17.42	-20.84	-14.24	-17.4	-19.59	-17.15	-20.5	-18.17	-14.28	-18.65	-26.56
$\theta$ (105°)	-23.34	-21.2	-12.26	-15.6	-16.89	-18.49	-16.52	-19.25	-21.61	-13.43	-13.95	-14.98	-19.64	-16.47	-12.87	-14.92	-19.47	-15.72	-16.44	-30.69	-12.61	-13.56	-13.96	-21.39	-23.34
$\theta$ (120°)	-13.23	-10.81	-24.36	-15.65	-12.05	-12.03	-13	-25.36	-14.1	-9.08	-11.84	-14.42	-11.84	-13.79	-13.37	-30.17	-11.15	-26.63	-35.58	-15.13	-12.3	-10.78	-12.63	-14.93	-13.23
$\theta$ (135°)	-14.44	-27.91	-18.66	-15.69	-12.52	-8.77	-15.47	-10.77	-14.52	-16.83	-7.24	-10.26	-13.32	-23.54	-15.08	-21.18	-24.57	-21.04	-24.74	-20.31	-18.61	-14.69	-20.65	-14.47	-14.44
$\theta$ (150°)	-15.4	-10.19	-10.91	-17.54	-15.97	-13.55	-11.5	-25.98	-12.55	-16.82	-14.8	-12.18	-11.32	-16.2	-27.19	-12.59	-12.12	-13.61	-16.24	-13.23	-14.29	-15.58	-25.06	-11.16	-15.4
$\theta$ (165°)	-19.87	-10.39	-12.55	-20.01	-16.42	-20.12	-24.78	-24.86	-19.22	-17.61	-15.62	-19.46	-19.95	-16.99	-17.82	-16.98	-16.92	-19.03	-18.16	-25.47	-30.18	-21.45	-12.31	-12.73	-19.87
$\theta$ (180°)	-22.08	-19.42	-16.45	-14.75	-17.88	-17.66	-18.19	-17.36	-16.78	-15.35	-16.66	-20.14	-25.72	-34.59	-25.59	-24.9	-20.51	-20.67	-17.69	-21.6	-19.87	-22.02	-25.59	-33.64	-22.08



Ant.	No.1																									
Freq (MHz)	5785																									
Polarity	Theta																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB																										
θ (0°)		-16.61	-14.86	-14.87	-14.02	-13.91	-14.09	-15.35	-16.04	-19.04	-19.96	-18.76	-15.96	-14.07	-13.25	-11.92	-12.11	-12.02	-15.26	-15.68	-19.59	-23.27	-20.57	-19.84	-18.03	-16.61
θ (15°)		-7.74	-7.91	-7.4	-7.69	-9.3	-10.22	-8.62	-8.48	-9.02	-10.28	-12.02	-17.76	-9.03	-6.69	-6.95	-7.43	-7.56	-7.61	-7.35	-6.82	-5.88	-6.61	-7.98	-8.15	-7.74
θ (30°)		-0.68	-0.54	-2.03	-0.89	-0.07	0.61	-0.11	-0.44	-1.93	-2.74	-2.07	-4.39	-1.98	-2.66	-0.61	-0.76	-1.38	-0.27	-0.93	-2.08	-1.26	-3.78	-2.16	-3.45	-0.68
θ (45°)		-2.16	-1.47	-2.25	-2.56	-0.07	-1.16	-1.47	-1.61	-0.12	1.34	-1.27	-0.49	-0.46	-2.74	-0.07	1.27	0.16	0.2	1.31	0.93	-0.55	-0.98	-1.85	-1.09	-2.16
θ (60°)		-3.89	-3.13	-2.64	0.17	2.1	0.49	-0.68	0.68	0.44	-0.73	-2.88	-0.1	0.46	-3.01	0.7	-0.16	0.87	1.11	-3.87	-3.3	-2.31	-2.54	-3.6	-2.76	-3.89
θ (75°)		-7.7	-7.17	-0.6	0.41	1.72	-5.55	-4.32	-1.01	0.23	-3.73	0.87	[4.73]	1.7	2	0.48	-2.41	4.35	0.83	0.38	1.66	1.6	-0.68	-4.38	-1.52	-7.7
θ (90°)		-7.64	-7.31	-2.5	-3.14	-2.66	-6.89	-7.38	-5.12	-2.94	-3.4	-0.19	2.62	1.13	0.01	1.67	-6.58	0.93	1.6	-3.01	-3.61	-0.17	-1.85	-8.13	-4.23	-7.64
θ (105°)		-8.87	-9.7	-8.73	-10.98	-3.13	-7.12	-8.96	-11.13	-6.43	-7.07	-4.85	-2.14	-1.24	-4.19	-3.64	-7.34	-2.67	-4.56	-10.02	-5.04	-3.65	-6.64	-7.43	-5.12	-8.87
θ (120°)		-7.88	-6.66	-3.14	-8.43	-6.99	-6.77	-15.52	-6.81	-6.32	-8.27	-5.17	-8.88	-5.12	-6.78	-5.55	-2.95	-2.37	-5.01	-3.16	-2.03	-5.56	-7.47	-7.63	-5.02	-7.88
θ (135°)		-9.22	-10.89	-20.31	-12.14	-16.45	-11	-19.23	-6.84	-7.36	-6.6	-2.96	-5.02	-12.84	-10.36	-7.54	-10.12	-9.46	-5.96	-6.22	-8.29	-8.95	-7.95	-12.25	-9.96	-9.22
θ (150°)		-10.24	-9.48	-31.38	-15.21	-13.53	-20.15	-15.86	-17.06	-20.81	-12.91	-14.6	-13.51	-10.64	-12.37	-8.94	-10.97	-15.5	-8.4	-9.52	-17.96	-16.47	-14.97	-20.2	-10.91	-10.24
θ (165°)		-27.4	-15.79	-9.99	-10.7	-14.68	-16.86	-19.6	-21.09	-15.2	-12.53	-11.75	-11.31	-11.27	-11.61	-11.79	-12.18	-14.82	-17.46	-18.47	-26.77	-27.1	-20.6	-24.37	-25.59	-27.4
θ (180°)		-15.99	-14.89	-15.58	-17.88	-20.26	-20.78	-22.35	-24.68	-28.35	-28.04	-24.25	-19.61	-17.93	-17.9	-17.06	-18.17	-17.81	-21.84	-22.13	-25.04	-25.78	-47.08	-28.47	-22.41	-15.99
Polarity	Phi																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB																										
θ (0°)		-14.74	-15.43	-16.47	-16.69	-17.87	-16.74	-15.4	-14.01	-12.5	-12.61	-12.65	-14.08	-15.85	-20.19	-30.56	-29.65	-19.48	-15.57	-13.93	-11.61	-11.95	-11.39	-11.97	-12.8	-14.74
θ (15°)		-13.95	-13.16	-14.36	-17.73	-17.83	-18.83	-18.05	-14.34	-14.08	-12.22	-11.23	-25.65	-13.73	-15.64	-20.91	-15.05	-12.64	-13.32	-10.93	-8.37	[-7.45]	-8.29	-13.48	-26.33	-13.95
θ (30°)		-18.09	-23.11	-13.09	-10.63	-20.07	-12.02	-12.9	-16.75	-25.37	-20.93	-12.29	-18.55	-13.99	-16.68	-15.5	-10.41	-12.98	-15.7	-12.91	-10.35	-8.56	-10.38	-12.91	-20.06	-18.09
θ (45°)		-24.55	-20.3	-31.17	-9.69	-13.73	-10.51	-18.9	-14.55	-27.47	-9.3	-9.74	-12.35	-14.98	-18.85	-13.08	-24.04	-20.05	-22.84	-10.6	-8.41	-11.89	-14.89	-19.38	-16.38	-24.55
θ (60°)		-12.51	-8.62	-9.47	-13.49	-23.02	-22.94	-13.76	-14	-13.19	-12.45	-15.93	-17.36	-14.47	-13.35	-14.38	-25.81	-10.75	-15.32	-24.66	-25.56	-13.94	-21.81	-16.59	-18.26	-12.51
θ (75°)		-13.37	-18.19	-18	-31.73	-37.88	-13.24	-23.87	-13.5	-19.09	-19.48	-11.12	-17.93	-16.47	-13.55	-12.07	-16.6	-18.46	-12.75	-20.43	-16.42	-10.55	-13.82	-15.8	-25.02	-13.37
θ (90°)		-26.35	-16.08	-17.39	-21.36	-15.49	-19.71	-14.72	-16.18	-23.56	-25.81	-18.97	-12.95	-14.17	-14.62	-13.77	-11.78	-15.54	-19.7	-22.12	-13.01	-12.91	-16.18	-22.6	-28.75	-26.35
θ (105°)		-19.12	-23.04	-21.09	-14.22	-13.9	-17.7	-18.12	-17.39	-25.85	-21.29	-22.43	-20.15	-17.98	-13.01	-13.38	-15.39	-15.67	-21.2	-19.15	-19.4	-9.88	-10.16	-12.41	-15.38	-19.12
θ (120°)		-14.49	-9.94	-26.27	-20.44	-14.25	-15.65	-15.49	-26.41	-14.4	-7.75	-14.04	-13.44	-14.54	-12.86	-9.98	-17.18	-15.22	-18.97	-24.24	-20.18	-16.65	-12.8	-18.92	-9.3	-14.49
θ (135°)		-16.61	-15.31	-20.04	-15.94	-11.5	-12.32	-20.7	-11.12	-19.51	-16.68	-8.61	-11.45	-14.76	-16.78	-13.82	-16.31	-15.55	-22.91	-23.01	-31.28	-20.52	-18.3	-23.34	-13.48	-16.61
θ (150°)		-9.03	-11.47	-14.53	-17.62	-16.35	-13.95	-11.41	-19.75	-23.25	-19.31	-24.56	-15.34	-19.93	-23.25	-21.38	-16.44	-19.66	-21.04	-27.52	-30.63	-20.05	-11.36	-18.04	-10.83	-9.03
θ (165°)		-14.96	-16.91	-16.76	-17.95	-20.02	-20.85	-18.47	-14.24	-13.04	-11.02	-11.73	-16.76	-20.53	-21.93	-20.13	-23.98	-22.9	-19.47	-13.85	-17.37	-19.91	-23.78	-11.25	-8.79	-14.96
θ (180°)		-25.64	-26.86	-24.42	-22.05	-20.54	-21.22	-18.3	-16.02	-14.12	-12.39	-13.35	-14.92	-16.9	-21.15	-23.49	-25.61	-18.75	-17.79	-16.39	-15.94	-15.52	-15.79	-18.69	-22.26	-25.64



BUREAU  
VERITAS

Ant.	No.2																									
Freq. (MHz)	2450																									
Polarity	Theta																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB																										
θ (0°)		-18.7	-20.56	-18.49	-14.97	-11.8	-10.15	-9.32	-8.9	-9.18	-10.47	-13	-14.97	-15.12	-13.37	-10.83	-9.05	-8.49	-7.81	-7.68	-8.09	-8.47	-9.8	-12.25	-14.4	-18.7
θ (15°)		-10.57	-12.2	-8.14	-6.23	-4.76	-4.12	-4.26	-5.31	-7.6	-11.78	-20.62	-15.99	-11.11	-8.2	-7.53	-7.89	-8.3	-8.72	-9.28	-9.76	-10.44	-9.93	-9.58	-8.58	-10.57
θ (30°)		-4.08	-6.59	-5.67	-2.26	-0.73	-0.47	-1.09	-2.22	-3.94	-6.25	-8.02	-8.45	-7.08	-3.19	-1.73	-2.01	-2.5	-1.88	-1.17	-1.24	-2.45	-5.02	-6.63	-4.08	-4.08
θ (45°)		-4.13	-5.75	-0.68	0.58	0.2	-0.62	-1.73	-2.39	-2.16	-2.56	-3.17	-2.53	-2.34	-0.55	-0.06	-1.79	-2.1	-0.76	-1.12	-1.97	-1.66	-2.1	-6.62	-5.4	-4.13
θ (60°)		-3.91	-5.35	-3.13	-1.71	1.14	2.74	1.85	-1.38	-2.45	-0.51	-1.22	0.75	-0.3	-0.47	-0.44	-3.77	-0.76	0.12	-0.81	-1.21	-1	0.41	0.02	-3.94	-3.91
θ (75°)		-1.63	-2.28	-2.01	-1.11	3.05	[4.19]	3.35	0.27	-0.61	0.51	-1.61	2.1	-1.74	-2.55	-4.11	-3.27	-0.93	-1.46	0.18	1.39	1.22	0.45	0.64	-1.86	-1.63
θ (90°)		-2.8	-2.23	-1.39	-0.63	2.52	3.55	3.88	2.89	1.2	0.21	-3.56	0.46	-0.94	-7.44	-4.97	-8.29	-7.23	-9.3	-4.44	-1.08	0.05	-2.04	-2.83	-7.4	-2.8
θ (105°)		-6.57	-4.76	-6.95	0.39	2.51	2.46	2.63	2.26	0.52	-1.86	-2.71	-3.8	-4.01	-5.79	-3.75	-17.15	-14.93	-10.12	-9.25	-5.98	-4.38	-4.6	-6.36	-16.29	-6.57
θ (120°)		-8.99	-7.19	-5.94	-8.99	-1.76	-0.49	-0.32	-0.58	-1.87	-3.22	-4.11	-7.69	-2.28	-6.29	-3.33	-11.62	-7.04	-3.91	-2.69	-1.95	-2.31	-2.62	-5.16	-11.31	-8.99
θ (135°)		-7.64	-6.55	-5.63	-8.56	-8.21	-8.04	-8.07	-7.12	-6.06	-6.04	-5.84	-4.31	-6.05	-5.24	-2.19	-5.4	-14.17	-6.72	-2.82	-2.53	-5.12	-8.02	-7.81	-6.18	-7.64
θ (150°)		-9.51	-12.41	-14.76	-11.7	-8.43	-6.92	-6.9	-8.06	-8.72	-6.72	-4.7	-5.01	-8.42	-8.58	-4.77	-3.38	-4.05	-6.92	-11.94	-16.27	-15.87	-10.88	-7.96	-7.3	-9.51
θ (165°)		-10.45	-7.47	-5.6	-4.89	-5.04	-6.04	-8.35	-12.11	-15.97	-14.64	-11.79	-11.81	-14.58	-14.25	-9.45	-6.76	-5.57	-5.4	-6.07	-7.77	-10.38	-13.48	-15.41	-15.19	-10.45
θ (180°)		-24.46	-27.95	-20.69	-17.14	-15.29	-13.39	-12.9	-13.24	-12.78	-13.32	-16.02	-20.22	-28.12	-25.75	-18.31	-13.77	-11.07	-9.84	-9.86	-9.98	-10.16	-11.14	-13.56	-16.68	-24.46
Polarity	Phi																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB																										
θ (0°)		-11.15	-10.21	-10.12	-11.05	-12.82	-15.19	-18.08	-16.54	-13.67	-11.96	-10.6	-8.07	-8.1	-8.62	-9.99	-11.53	-13.6	-14.71	-15.81	-15.41	-12.02	-9.9	-9.29	-8.85	-11.15
θ (15°)		-15.22	-11.2	-12.78	-13.04	-15.22	-18.53	-14.47	-9.78	-7.59	-6.79	-6.07	-6.58	-9.21	-13.93	-21.54	-24.26	-18.87	-17.47	-18.3	-20.69	-22.86	-24.04	-27.22	-11.67	-15.22
θ (30°)		-17.71	-10.22	-7.5	-8.56	-13.21	-23.9	-16.52	-11.17	-8.32	-7.28	-6.15	-5.51	-6.4	-10.57	-21.84	-14.42	-12.52	-14.21	-17.47	-17.31	-15.18	-15.47	-15.19	-17.75	-17.71
θ (45°)		-12.8	-7.12	-6.02	-9.99	-20.66	-21.2	-12.59	-9.66	-7.97	-5.77	-5.28	-6.37	-7.4	-11.45	-11.7	-8.51	-12.03	-17.35	-13.43	-18.21	-18.49	-14.08	-10.48	-10.18	-12.8
θ (60°)		-8.09	-10.79	-6.44	-9.97	-16.34	-39.01	-14.12	-9.58	-9.51	-10.49	-10.96	-8.57	-7.17	-7.92	-12.44	-10.14	-15.22	-13.59	-8.81	-12.68	-19.44	-18.85	-12.63	-10.39	-8.09
θ (75°)		-7.86	-9.84	-7.68	-13.05	-14.06	-24.39	-13.92	-8.35	-8.33	-11.37	-12.41	-10.55	-9.09	-6.7	-14.43	-8.78	-17.49	-9.03	-8.88	-19.15	-8.91	-16.29	-11.88	-9.26	-7.86
θ (90°)		-9.43	-11.84	-9.56	-11.29	-9.83	-16.1	-22.73	-10.9	-7.66	-9.02	-8.66	-7.64	-9.16	-7.22	-13.92	-9.76	-15.71	-6.69	-6.48	-14.31	-5.48	-6.67	-9.37	-8.14	-9.43
θ (105°)		-9.4	-9.11	-11.54	-12.22	-10.97	-16.81	-22.47	-10.09	-7.87	-11.35	-7.16	-6.14	-12.56	-10.54	-24.81	-17.01	-10.17	-3.86	-8.02	-12.37	[-3.07]	-4	-13.17	-8.29	-9.4
θ (120°)		-13.1	-9.21	-6.54	-17.4	-17.38	-19.05	-24.79	-12.43	-10.24	-17.01	-8.9	-10.85	-11.88	-12.94	-28.82	-31.49	-9.51	-4.45	-7.24	-16.21	-5.22	-5.6	-19.28	-6.94	-13.1
θ (135°)		-17.06	-14.06	-9.51	-13.36	-33.89	-22.28	-20.01	-17.53	-20.27	-10.67	-8.32	-17.27	-10.1	-10.91	-23.98	-20.07	-8.58	-5.8	-8.92	-14.52	-8.25	-6.97	-7.06	-7.27	-17.06
θ (150°)		-17.9	-12.58	-11.1	-12.77	-17.34	-19.35	-16.7	-15.5	-12.63	-9.24	-9.08	-15.63	-23.23	-17.46	-25.15	-29.07	-17.98	-11.79	-9.73	-9.95	-7.87	-6.32	-7.48	-13.12	-17.9
θ (165°)		-11.68	-8.8	-8.9	-11.59	-18.36	-17.59	-10.34	-7.36	-6.33	-6.33	-7.59	-11.03	-16.79	-23.04	-23.2	-18.32	-14.58	-12.06	-9.56	-8.19	-8.9	-11.49	-17.59	-37.23	-11.68
θ (180°)		-11.27	-11.02	-11.11	-12.11	-13.54	-14.77	-18.24	-25.1	-27.82	-20.52	-15.11	-12.77	-11.3	-10.29	-9.97	-10.68	-12.97	-17.39	-24.11	-26.13	-17.26	-13.4	-12.25	-11.94	-11.27



BUREAU  
VERITAS

Ant.	No.2																									
Freq. (MHz)	5200																									
Polarity	Theta																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB	φ (0°)	-11.45	-12.88	-17.08	-27.84	-27.23	-16.25	-12.26	-10.36	-8.15	-7.92	-7.41	-7.4	-8.12	-13.9	-21.01	-28	-20.93	-14.42	-12.64	-11.05	-10.4	-10.19	-10.1	-11.77	-11.45
	θ (0°)	-4.44	-6.69	-8.49	-5.89	-5.01	-4.45	-3.47	-4.18	-4.78	-5.04	-2.79	-3.19	-7.03	-14.38	-13.38	-14.72	-12.24	-9.01	-8.58	-9.21	-9.06	-7.08	-5.13	-3.19	-4.44
	θ (15°)	-4.11	-5.67	-2.05	-1.95	-5.54	-4.06	-2.64	-3.1	-3.19	-4.43	-2.92	-5.31	-5.65	-1.78	-4.64	-3.96	-5.29	-6.12	-7.19	-8.29	-6.88	-3.34	-2.77	-2.95	-4.11
	θ (30°)	-2.32	-0.42	1.99	-0.47	-1.21	-1.79	-0.54	0.09	-3	-3.4	-3.3	-5.56	-1.25	-0.39	-1.89	-2.97	0.21	-3.69	-0.84	-0.31	-0.46	-3.75	-2.8	-2.13	-2.32
	θ (45°)	0.56	-2.05	-0.1	1.97	-0.07	-6.29	-3.45	3.51	1.27	-7.32	0.15	-5.9	-2.67	-2.16	-4.23	2.58	1.81	0.75	-1.62	3.93	4.25	1.36	1.32	-1.03	0.56
	θ (60°)	0.84	0.89	-0.65	2.04	2.16	-0.25	0.77	[4.48]	1.41	-3.2	2.31	-0.09	1.63	0.85	-5	1.14	1.18	-4.45	-5.5	2.34	-0.81	-1.17	-0.37	0.11	0.84
	θ (75°)	-3.22	-1.51	-0.11	2.08	0.83	-3.5	-0.5	2.93	0.89	-4.04	1.22	2.26	0.36	1.2	-5.5	-5.81	-6.33	-2.48	-9.43	-1.39	-0.04	-2.13	-0.53	-1.04	-3.22
	θ (90°)	-1.27	-1.23	-2.23	1.34	-0.87	-1.98	-2.13	0.06	-1.28	-3.16	-4.36	-2.07	-0.82	-2.99	-7.22	-6.41	-3.89	-5	-9.12	-2.71	-0.84	-8.38	-3.85	-2.34	-1.27
	θ (105°)	-2.46	-1.79	-4.04	-1.18	0.46	-1.6	-2.83	-1.31	-0.47	-0.54	-3	-6.23	-2.66	-6.67	-5.2	-3.51	-4.5	-3.93	-44.36	-1.74	-4.19	-4.1	-2.07	-4.58	-2.46
	θ (120°)	-3.35	-4.59	-7.2	-4.03	-1.72	-2.02	-4.37	-2.6	-1.64	-1.97	-3.96	-7.51	-3.78	-4.25	-2.03	-3.78	-4.11	-9.13	-16.78	-13.64	-6.65	-4.1	-6.82	-4.34	-3.35
	θ (135°)	-4.07	-6.16	-3.57	-7.61	-7.88	-14.85	-12.94	-17.81	-13.4	-5.53	-5.99	-2.18	-4.63	-8.45	-7.65	-8.09	-10.35	-13.09	-26.23	-15.59	-12.72	-9.52	-8.02	-14.72	-4.07
	θ (150°)	-10.68	-9.31	-8.96	-9.83	-14.92	-25.77	-19.12	-14.64	-13.4	-15.06	-17.87	-11.94	-10.24	-14.16	-26.06	-18.68	-21.32	-20.04	-17.73	-16.56	-15.48	-15.43	-13.55	-12.29	-10.68
	θ (165°)	-16.25	-15.38	-15.07	-14.79	-15.59	-16.01	-18.94	-20.96	-27.54	-30.9	-28.7	-20.69	-17.56	-16.49	-16.28	-17.32	-18.87	-21.44	-21.41	-23.88	-22.06	-20.07	-17.89	-16.67	-16.25
Polarity	Phi																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB	φ (0°)	-13.16	-10.75	-9.26	-8.52	-8.04	-8.33	-8.63	-10.66	-13.27	-16.09	-17.91	-16.07	-11.81	-11.43	-9.25	-8.66	-8.81	-9.3	-11.21	-13.11	-16.99	-26.25	-29.8	-19.32	-13.16
	θ (15°)	-22	-15.98	-13.92	-12.07	-9.9	-8.66	-10.25	-13.45	-20.1	-17.5	-17.03	-24.27	-20.24	-17.94	-21.1	-28.65	-24.92	-16.7	-11.6	-10.25	-11.08	-11.48	-16.54	-23.4	-22
	θ (30°)	-38.03	-16.99	-14.27	-11.34	-11.86	-8.61	-9.09	-13.99	-18.91	-19.78	-18.09	-13.48	-12.63	-22.41	-18.09	-13.43	-10.88	-11.43	-17.76	-11.03	-7.39	-9.25	-14.65	-8.52	-38.03
	θ (45°)	-13.92	-17.42	-7.39	-18.45	-16.96	-21.51	-15.14	-16.39	-12.4	-13.83	-16.4	-12.1	-17.43	-14.88	-14.78	-9.51	-7.94	-11.76	-21.23	-18.33	-15.82	-13.76	-12.11	-24.41	-13.92
	θ (60°)	-12.84	-18.21	-13.26	-11.1	-9.45	-16.75	-12.27	-11.48	-25	-11.17	-14.92	-21.3	-15.67	-13.29	-10.03	-17.49	-9.74	-10.55	-10.05	-9.38	-19.8	-20.58	-22.74	-16.07	-12.84
	θ (75°)	-16.67	-23.87	-13.28	-15.43	-11.2	-14.26	-9.72	-30.51	-25.69	-12.03	-14.13	-44.84	-20.42	-12.5	-6.94	-11.17	-14.38	-14.46	-12.38	-11.1	-6.48	-12.83	-13.81	-11.1	-16.67
	θ (90°)	-16.24	-20.7	-20.17	-18.2	-25.41	-27	-22.31	-17.54	-19.03	-16.06	-12.7	-15.34	-14.39	-20.47	-7.84	-16.77	-17.4	-11.3	-12.07	-23.25	-14.02	-5.91	-15.06	-11.84	-16.24
	θ (105°)	-13.65	-10.01	-11.41	-19.89	-23.73	-27.22	-15.04	-11.45	-15.69	-10.83	-16.13	-16.36	-16.3	-10.26	-13.43	-11.44	-13.99	-11.59	-15.82	-20.01	-8.46	-9.77	-18.5	-19.55	-13.65
	θ (120°)	-12.73	-14.18	-18.53	-17.3	-25.51	-13.8	-15.59	-19.21	-20.01	-13.55	-17.48	-16.97	-24.48	-28.44	-10.18	-11.18	-12.57	-13.91	[-4.97]	-10.53	-5.1	-9.87	-22.78	-12.02	-12.73
	θ (135°)	-12.38	-14.29	-17.74	-13.51	-24.85	-12.45	-17.25	-16.43	-15.52	-15.73	-12.12	-17.13	-11.27	-8.95	-25	-14.74	-9.6	-28.94	-8.41	-13.73	-12.66	-16.32	-16.95	-13.71	-12.38
	θ (150°)	-17.69	-12.32	-13.45	-17.82	-13.47	-16.17	-22.49	-15.21	-20.61	-19.18	-19.46	-12.85	-10.79	-7.51	-9.87	-19.75	-25.83	-15.44	-16.06	-19.37	-18.24	-14.76	-20.02	-12.23	-17.69
	θ (165°)	-8.81	-10.04	-11.88	-12.06	-10.86	-10.73	-13.55	-24.69	-16.84	-12.36	-11.89	-20.71	-18.02	-12.01	-13.84	-14.68	-11.12	-11.71	-16.51	-24.35	-17.13	-12.53	-11.89	-13.73	-8.81
	θ (180°)	-19.31	-19.04	-22.37	-25.5	-22.1	-18.41	-18.47	-14.51	-15.86	-12.96	-12.47	-12.71	-15.02	-17.03	-17.38	-18.06	-17.02	-17.13	-16.34	-15.51	-14.67	-15.62	-16.57	-18.14	-19.31





BUREAU  
VERITAS

Ant.	No.2																									
Freq. (MHz)	5300																									
Polarity	Theta																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB	φ	-12.06	-14	-16.58	-19.82	-21.68	-18.45	-13.89	-11.88	-10.42	-9.2	-9	-7.31	-8.82	-12.98	-18.24	-27.52	-24.57	-19.87	-15.75	-14.6	-12.33	-12.32	-12.24	-12.79	-12.06
θ	(0°)	-5.67	-8.41	-6.88	-6.61	-6.26	-4.82	-4.38	-3.73	-5.24	-6.25	-4.36	-3.41	-5.61	-8.84	-10.5	-11.55	-13.77	-11.14	-10.39	-10.51	-8.51	-6.9	-5.58	-4.82	-5.67
θ	(15°)	-7.47	-4.22	-2.77	-2.04	-5.46	-2.27	-2.31	-2.88	-3.21	-3.59	-5.08	-4.1	-7.7	-4.6	-5.43	-5.12	-5.66	-7.14	-8.04	-8.21	-5.26	-3.36	-3.55	-5.03	-7.47
θ	(30°)	-2.58	-0.26	1.53	-2.13	-1.67	-1.69	-0.05	-2.14	-4.72	-5.28	-4.92	-10.85	-3.2	-0.89	-1.04	-5.07	-0.04	-6.57	-1.98	-1.08	-2.52	-3.62	-3.07	-2.08	-2.58
θ	(45°)	0.46	-0.94	-2.13	1.01	-1.37	-5.42	-3.45	2.69	-1.24	-8.96	-0.65	-7.13	-2.66	-0.22	-6.72	1.48	1.19	0.88	-1.12	3.35	[3.83]	0.73	0.59	-2.54	0.46
θ	(60°)	1.29	-1.13	-0.74	2.14	2.95	0.78	0.43	2.72	-0.82	-4.65	3.13	0.84	3.15	0.38	-5.13	1	1.15	-3.26	-10.25	2.19	-0.24	-0.61	-0.51	-0.62	1.29
θ	(75°)	-3.26	-2.75	-0.44	2.15	0.28	-1.65	-1.05	1.37	0.14	-3.38	2.13	2.62	1.84	0.89	-4.9	-5.39	-5.87	-1.85	-9.41	-2.32	0.12	-1.81	-2.46	-2.92	-3.26
θ	(90°)	-2.13	-2.53	-1.73	0.7	-0.22	-1.29	-1.98	-1.29	-0.94	-2.42	-4.95	-2.14	-2.05	-2.16	-8.25	-10.48	-4.63	-5.47	-8.58	-2.97	-1.18	-7.56	-4.61	-2.57	-2.13
θ	(105°)	-3.92	-2.19	-3.37	-1.38	0.59	-3.23	-3	-1.21	-1.72	-1.66	-2.47	-4.2	-2.07	-5.35	-5.27	-5.36	-4.53	-3.42	-22.38	-2.1	-5.66	-3.28	-2.18	-3.18	-3.92
θ	(120°)	-4.79	-3.88	-7.1	-3.82	-2.67	-3.01	-5.25	-3.55	-1.6	-2.91	-3.54	-10.78	-4.36	-4.5	-3.37	-4.61	-4.97	-11.18	-19.31	-18.45	-7.33	-7.77	-4.8	-4.75	-4.79
θ	(135°)	-3.24	-4.95	-3.69	-6.09	-8.12	-13.19	-11.63	-11.82	-15.55	-7.83	-6.98	-3.33	-3.62	-8.99	-6.56	-7.38	-12.5	-16.34	-25.88	-16.69	-12.61	-7.34	-8.97	-9.8	-3.24
θ	(150°)	-10.01	-8.97	-9.77	-14.35	-36.89	-20.31	-13.92	-15.92	-14.82	-17.19	-26.14	-14.63	-9.88	-9.98	-17.9	-25.08	-17.09	-15.91	-14.61	-12.73	-11.21	-10.92	-11.75	-12.77	-10.01
θ	(165°)	-13.95	-13.9	-15.23	-15.43	-15.44	-16.44	-18.25	-20.84	-21.06	-21.52	-18.11	-16.16	-16.56	-15.58	-16.05	-18	-22.31	-28.51	-22.26	-19.12	-16.21	-14.97	-13.63	-14.43	-13.95
Polarity	Phi																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
dB	φ	-15.1	-12.98	-11.94	-10.33	-9.79	-10.23	-11.26	-13.08	-16.94	-21.19	-28.38	-21.77	-15.75	-15.32	-12.23	-11.23	-10.79	-12.09	-12.51	-15.95	-20.68	-26.55	-28.28	-24.52	-15.1
θ	(0°)	-28.72	-15.63	-14.24	-12.44	-11.05	-11.16	-11.61	-16.28	-16.84	-12.12	-14.05	-15.38	-17.32	-18.19	-22.96	-21.9	-18.78	-17.09	-13.09	-11.48	-11.39	-14.28	-39.73	-20.99	-28.72
θ	(15°)	-24.62	-18.36	-14.16	-10.33	-10.07	-9.82	-9.25	-13.55	-24.84	-18.14	-13.42	-13.43	-10.29	-13.88	-21.93	-12.39	-11.11	-11.71	-17.57	-16.58	-9.69	-10.81	-15.45	-13.81	-24.62
θ	(30°)	-16.28	-16.48	-9.19	-26.99	-22.92	-14.2	-19.16	-14.11	-12.23	-14.82	-16.6	-12.53	-12.46	-19.6	-21.9	-11.05	-7.36	-9.44	-19.71	-23.31	-17.13	-19.24	-12.5	-18.17	-16.28
θ	(45°)	-18	-19.85	-14.42	-12.29	-10.76	-21.82	-18.68	-13.78	-28.85	-14.74	-12.77	-20.04	-15.77	-12.18	-8.3	-15.11	-7.96	-9.31	-11.78	-11.12	-15.87	-22.13	-18.18	-16.76	-18
θ	(60°)	-15.6	-18.16	-18.93	-17.22	-12.21	-13.84	-11.83	-21.75	-19.37	-13.16	-10.51	-19.39	-26.39	-14.97	-9.1	-14.79	-16.68	-13.64	-14.81	-11.76	-8.45	-13.43	-12.46	-10.21	-15.6
θ	(75°)	-15.16	-19.13	-29.16	-21.6	-33.13	-22.34	-23.21	-18.79	-16.28	-22	-9.23	-18.5	-17.51	-21.68	-8.61	-17.72	-17.53	-13.05	-10.99	-24.55	-11.96	-7.8	-19.16	-11.7	-15.16
θ	(90°)	-11.3	-10.49	-11.96	-25.17	-26.02	-21.18	-17.86	-16.11	-16.13	-14.31	-21.18	-22.73	-13.69	-8.7	-12.83	-15.03	-19.24	-10	-12.92	-24.63	-8.02	-8.18	-26.01	-19.8	-11.3
θ	(105°)	-9.83	-14.65	-17.14	-16.65	-26.13	-15.39	-19.86	-28.4	-22.32	-13.43	-15.24	-11.45	-17.52	-16.45	-8.1	-8.73	-13.73	-13.71	[-4.76]	-12.71	-5.24	-14.63	-20.19	-9.41	-9.83
θ	(120°)	-19.58	-15.47	-15.05	-12.65	-18.52	-9.84	-15.32	-16.27	-17.16	-16.83	-10.76	-16.42	-10.5	-7.42	-15.22	-11.02	-7.44	-22.29	-8.5	-14.16	-13.94	-16.65	-16.3	-15.31	-19.58
θ	(135°)	-11.89	-10.81	-17.37	-20.51	-14.61	-17.38	-18.21	-14.39	-17.37	-15.9	-23.65	-21.09	-14.3	-10.14	-10.47	-25.19	-18.37	-18.8	-20.12	-20.82	-18.06	-12.24	-12.88	-8.68	-11.89
θ	(150°)	-7	-7.56	-9.38	-11.83	-9.71	-10	-11.32	-18.96	-15.19	-12.92	-12.61	-22.54	-26.57	-19.03	-16.58	-12.28	-9.18	-10.11	-13.73	-23.92	-17.15	-11.45	-11.53	-11.04	-7
θ	(165°)	-15.44	-14.81	-15.37	-16.1	-17.87	-14.28	-14.74	-13.72	-14.26	-11.74	-11.72	-12.13	-12.37	-13.07	-14.64	-14.21	-13.39	-14.07	-14.24	-14.91	-15.73	-17.27	-22.2	-21.4	-15.44

Ant.	No.2																								
Freq. (MHz)	5600																								
Polarity	Theta																								
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
dB	φ (0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
θ (0°)	-12.47	-14.23	-16.55	-18.68	-17.63	-14.11	-12.45	-10.44	-11.64	-10.4	-11.68	-8.58	-11.17	-15.12	-18.44	-20.26	-22.4	-18.46	-14.64	-13.05	-12.09	-11.45	-12.17	-13.49	-12.47
θ (15°)	-8.43	-7.14	-9.97	-11.04	-8.66	-8.39	-6.81	-5.63	-5.64	-9.05	-15.61	-7.13	-6	-11.34	-7.6	-5.61	-7.96	-12.12	-14.68	-10.93	-7.82	-6.58	-6.25	-7.97	-8.43
θ (30°)	-3.68	-0.59	-3.58	-3.98	-1.65	-1.9	-0.63	-0.31	-0.2	-0.54	-2.74	-4.5	-5.57	-5.42	-1.49	-2.85	-3.02	-3.71	-2.04	-1.65	-2.37	-4.58	-3.74	-2.35	-3.68
θ (45°)	-1.84	-0.02	-1.62	-1.58	-1.34	-0.7	0.31	0.98	-1.66	-0.93	-3.72	-3.26	-6.54	-4.78	-0.32	-2.14	-1.24	-3.34	-4.1	-2.39	-3.55	-1.57	-1.19	-0.66	-1.84
θ (60°)	0.66	0.67	0.1	0.4	0.19	-0.49	-2.47	-0.85	2.6	-2.55	-0.89	-0.49	-1.07	-1.47	-5.68	-5.34	0.62	2.64	-0.89	0.95	3.76	0.2	-0.78	-1.99	0.66
θ (75°)	0.29	-1.17	-0.26	[3.98]	2.86	-3.05	0.46	2.45	0.69	-3.18	2.72	1.79	3.46	2.92	-3.01	-0.67	1.32	-0.64	-8.65	1.04	1.15	1.85	-2.83	-1.66	0.29
θ (90°)	-2.89	-2.26	-1.92	-0.55	1.8	-2.72	-1.58	0.72	-3.96	-4.22	2.07	0.28	2.89	2.19	-2.4	-5.88	-14.36	-1.62	-11.59	-3.12	0.23	-2.98	-1.92	-1.93	-2.89
θ (105°)	-5.78	-9.17	-1.3	-2.01	-1.33	-2.97	-2.02	-0.38	-4.28	-3.51	-2.37	-0.67	-2.22	-2.07	-5.25	-7.25	-4.88	-6.73	-7.56	-2.87	-3.8	-4.72	-5.5	-7.11	-5.78
θ (120°)	-2.62	-3.75	-3.19	-2.08	-2.55	-5.8	-3.76	-4.42	-4.07	-3.88	-3.96	-3.92	-2.95	-8.41	-6.87	-9.98	-9.07	-5.83	-17.25	-4.55	-4.51	-6.12	-3.06	-2.3	-2.62
θ (135°)	-9.69	-6.86	-6.28	-4.46	-3.19	-5	-6.18	-3.78	-4.06	-5.75	-6.48	-7.64	-6.4	-3.07	-6.38	-5.31	-3.82	-11.22	-12.58	-28.14	-13.27	-9.56	-7.49	-5.22	-9.69
θ (150°)	-7.24	-9.01	-10.03	-10.15	-15.49	-12.7	-14.2	-11.1	-9.92	-12.74	-5.94	-10.32	-5.8	-12.02	-10.28	-4.7	-12.03	-20.29	-17.16	-28.13	-20.74	-11.75	-9.8	-5.98	-7.24
θ (165°)	-12.73	-15.15	-26.29	-23	-18.93	-19.58	-25.39	-18.79	-14.21	-10.57	-12.53	-15.81	-14.01	-11.78	-12.54	-15.93	-21.27	-21.55	-19.06	-19.27	-17.37	-14.86	-12.28	-11.09	-12.73
θ (180°)	-21.8	-21.29	-20	-19.27	-21.9	-20.32	-25.52	-24.85	-38.86	-38.66	-23.83	-21.55	-18.57	-18.67	-19.71	-20.08	-20.68	-20.52	-22.16	-24.8	-31.55	-53.8	-31.29	-25.24	-21.8
Polarity	Phi																								
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ
dB	φ (0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
θ (0°)	-12.82	-11.25	-9.98	-9.67	-9.99	-10.98	-12.24	-15.71	-17.51	-16.72	-17.85	-11.93	-11.69	-13.91	-12.43	-12.53	-12.45	-12.16	-13.9	-17.14	-21.06	-22.38	-16.99	-14.64	-12.82
θ (15°)	-21.42	-17.21	-12.72	-11.3	-11.93	-17.75	-18.84	-13.68	-10.76	[-7.09]	-7.88	-11.03	-10.31	-13.02	-23.84	-18.22	-16.27	-16.42	-9.98	-8.32	-10.18	-12.75	-12	-15.75	-21.42
θ (30°)	-11.09	-34.5	-7.99	-15.34	-26.27	-26.01	-13.76	-10.41	-13.39	-12.71	-14.23	-18.54	-44.41	-22.09	-17.94	-10.8	-9.74	-10.64	-12.67	-21.92	-7.86	-11.84	-17.55	-15.54	-11.09
θ (45°)	-18.28	-12.68	-24.51	-17.99	-20.19	-9.41	-10.65	-16.14	-13.64	-20.52	-15.81	-10.48	-20.2	-12.4	-17.53	-14.02	-23.33	-12.69	-14.49	-19.91	-10.49	-15.46	-21.31	-24.08	-18.28
θ (60°)	-15.48	-24.23	-22.4	-14.1	-15.79	-19.3	-21.41	-33.27	-15.15	-21.87	-26.05	-11.93	-14.31	-11.57	-7.99	-8.74	-12.87	-11.13	-14.16	-15.81	-15.92	-17.46	-14.59	-20.04	-15.48
θ (75°)	-17.97	-21.1	-21.81	-10.95	-16.47	-24.29	-25.79	-18.97	-19.72	-21.43	-10.33	-12.23	-17.31	-17.01	-29.04	-15.08	-12.68	-20.41	-19.87	-16.28	-13.14	-10.7	-20.67	-18.6	-17.97
θ (90°)	-17.22	-23.16	-22.67	-16.42	-19	-26.72	-15.18	-17.53	-20.98	-18.29	-13.43	-14.15	-13.4	-11.44	-12.73	-24.55	-16.8	-14.99	-7.66	-27.91	-16.94	-8.61	-18.56	-12.25	-17.22
θ (105°)	-25.68	-11.33	-16.95	-24.76	-17.79	-16.36	-15.46	-24.88	-27	-15.62	-12.85	-19	-41.07	-24.32	-17.82	-18.92	-25.66	-16.46	-17.98	-22.55	-14.8	-8.96	-22.03	-26.92	-25.68
θ (120°)	-18.57	-11.74	-16.73	-15.56	-22.29	-17.14	-19.74	-18.65	-19.39	-13.22	-9.96	-11.88	-14.78	-15.01	-13.32	-12.09	-16.42	-21	-9.31	-13.12	-11.92	-10.81	-33.65	-18.91	-18.57
θ (135°)	-13.99	-25.9	-15.7	-12.75	-11.99	-11.81	-15.86	-31.24	-15.98	-15.4	-8.45	-11.82	-9.06	-9.27	-16.51	-15.45	-9.03	-19.5	-11.79	-9.94	-12.71	-18.61	-21.37	-13.81	-13.99
θ (150°)	-20.07	-14.22	-15.42	-12.02	-16.21	-17.61	-17.28	-28.13	-19.75	-18	-15.08	-16.07	-9.36	-13.93	-8.81	-18.79	-14.45	-25.3	-15.32	-17.66	-26.63	-18.32	-11.41	-18.33	-20.07
θ (165°)	-11.56	-9.77	-10.57	-13.54	-12.38	-13.85	-13.42	-13.67	-15.72	-16.48	-23.46	-15.25	-13.87	-17.6	-15.66	-19.82	-25.06	-23.12	-22.63	-19.38	-18.06	-15.17	-13.78	-11.76	-11.56
θ (180°)	-30.29	-32.06	-40.07	-29.35	-26.93	-21.87	-17.48	-18.01	-14.68	-14.78	-14.88	-20.02	-26.83	-25.68	-19.55	-17.17	-18.98	-21.89	-20.39	-21.76	-19.62	-20.59	-20.58	-21.81	-30.29



BUREAU VERITAS

Ant.	No.2																								
Freq. (MHz)	5785																								
Polarity	Theta																								
dB	$\phi$ (0°)	$\phi$ (15°)	$\phi$ (30°)	$\phi$ (45°)	$\phi$ (60°)	$\phi$ (75°)	$\phi$ (90°)	$\phi$ (105°)	$\phi$ (120°)	$\phi$ (135°)	$\phi$ (150°)	$\phi$ (165°)	$\phi$ (180°)	$\phi$ (195°)	$\phi$ (210°)	$\phi$ (225°)	$\phi$ (240°)	$\phi$ (255°)	$\phi$ (270°)	$\phi$ (285°)	$\phi$ (300°)	$\phi$ (315°)	$\phi$ (330°)	$\phi$ (345°)	$\phi$ (360°)
$\theta$ (0°)	-15.21	-19.16	-22.94	-21.16	-18.3	-14.32	-13.2	-11.6	-13.17	-14.49	-15.38	-14.4	-15.12	-16.99	-19.48	-22.81	-21.93	-18.17	-15.69	-14.23	-15.55	-13.98	-15.89	-14.41	-15.21
$\theta$ (15°)	-8.45	-9.08	-8.04	-7.95	-11.02	-10.56	-7.17	-6.04	-4.35	-3.54	-6.3	-12.89	-8.92	-8.68	-13.75	-11.93	-8.45	-8.29	-7.49	-5.92	-5.84	-6.44	-6.98	-8.25	-8.45
$\theta$ (30°)	-1.07	-0.99	-0.23	0.11	0.2	0.22	1.69	0.91	-0.81	-0.76	-0.82	-2.47	-4.12	-4.74	-0.79	-1.93	-1.14	-3.17	-2.58	-1.99	-2.24	-1.7	-1.16	-1.27	-1.07
$\theta$ (45°)	-1.15	-0.01	-0.81	-1.61	-0.81	-2.23	0.17	2.7	0.92	-2.51	-2.49	-3.5	-3.03	-2.11	-0.81	-1.47	-0.49	-1.28	-1.12	0.29	-0.93	-1.34	-1.17	-1.66	-1.15
$\theta$ (60°)	0.83	0.33	0.55	0.01	1.6	-2.58	-0.9	0.54	3.16	-5.37	-0.99	-1.02	0.21	-0.99	-3.57	-5.05	-1.45	2.53	-0.8	0.5	3.25	0.91	0.7	-1.24	0.83
$\theta$ (75°)	0.11	-0.03	0.59	[3.93]	2.85	-0.97	0.52	1.51	0.88	-1.26	2.67	2.58	3.34	3.23	-3.18	-2.5	0.86	-1.33	-6.05	-0.49	1.89	1.91	-1.9	-1.47	0.11
$\theta$ (90°)	-2.31	-1.74	-3.45	0.54	1.12	-3.35	-0.71	0.02	-3.31	-2.6	1.52	-0.67	1.85	1.75	-0.96	-5.79	-10.1	-3.05	-14.03	-4.94	-0.71	-3.4	-1.35	-2.63	-2.31
$\theta$ (105°)	-8.11	-10.17	-1.17	-1.46	-1.35	-6.27	-4.98	-1.43	-8.75	-5.81	-2.65	-2.24	-1.04	-2.81	-6.38	-7.9	-7.19	-6.35	-9.38	-3.44	-5.27	-6.35	-11.59	-12.13	-8.11
$\theta$ (120°)	-3.99	-7.76	-6.18	-4.59	-5.98	-4.98	-5	-6.36	-6.23	-4.74	-4.74	-5.5	-5.83	-8.55	-8.88	-15.82	-11.97	-9.52	-20.81	-5.37	-7.07	-8.25	-4.57	-5.56	-3.99
$\theta$ (135°)	-12.3	-9.19	-6.73	-5.58	-5.11	-10.89	-7.6	-3	-3.83	-6.67	-5.93	-9.25	-8.24	-6.12	-9.86	-6.29	-5.23	-10.84	-12.86	-32.53	-11.85	-10	-7.82	-6.7	-12.3
$\theta$ (150°)	-13.04	-10.02	-10.61	-17.04	-14.29	-13.64	-11.56	-10.21	-12.52	-17.76	-15.52	-19.58	-15.56	-16.3	-27.48	-10.54	-12.97	-25.03	-14.97	-19.6	-18.23	-13.32	-12.2	-7.26	-13.04
$\theta$ (165°)	-23.05	-27.7	-18.55	-16.93	-20.81	-21.72	-16.4	-14.41	-10.91	-9.74	-11.29	-15.13	-22.79	-15.37	-13.95	-14.26	-16.43	-31.3	-21.34	-16.18	-13.85	-11.38	-9.97	-11.24	-23.05
$\theta$ (180°)	-21.73	-22.5	-22.26	-21.71	-23.2	-28.47	-27.86	-23.51	-30.27	-40.39	-19.65	-17.98	-18.29	-17.67	-20.78	-20.72	-25.56	-23.34	-26.78	-25.79	-25.81	-23.26	-22.76	-22.32	-21.73
Polarity	Phi																								
dB	$\phi$ (0°)	$\phi$ (15°)	$\phi$ (30°)	$\phi$ (45°)	$\phi$ (60°)	$\phi$ (75°)	$\phi$ (90°)	$\phi$ (105°)	$\phi$ (120°)	$\phi$ (135°)	$\phi$ (150°)	$\phi$ (165°)	$\phi$ (180°)	$\phi$ (195°)	$\phi$ (210°)	$\phi$ (225°)	$\phi$ (240°)	$\phi$ (255°)	$\phi$ (270°)	$\phi$ (285°)	$\phi$ (300°)	$\phi$ (315°)	$\phi$ (330°)	$\phi$ (345°)	$\phi$ (360°)
$\theta$ (0°)	-12.32	-10.72	-10.85	-10.81	-12.2	-13.5	-17.49	-20.83	-24.8	-24.97	-19.43	-16.84	-14.74	-15.95	-14.11	-15.19	-15.27	-16.01	-15.95	-16.5	-16.3	-15.41	-14.03	-12.98	-12.32
$\theta$ (15°)	-22.94	-12.23	-8.68	-11.99	-17.83	-27.37	-27.34	-18.21	-12.72	-10.21	-8.38	-13.55	-15.81	-13.67	-16.96	-14.53	-15.35	-14.19	-10.85	-10.47	-12.87	-12.31	-9.03	-13.61	-22.94
$\theta$ (30°)	-16.22	-12.11	-10.08	-16.15	-12.63	-19.91	-14.99	-9.47	-12.85	-15.24	-16.48	-12.75	-20.25	-29.86	-16.81	-11.96	-10.2	-9.39	-10.6	-20.04	-8.78	-16.41	-17.47	-13.06	-16.22
$\theta$ (45°)	-14.77	-26.28	-22.42	-13.71	-19.75	-9.74	-10.09	-20.63	-18.28	-14.94	-16.47	-12.01	-20.68	-10.8	-12.58	-9.88	-13.4	-15.7	-20.05	-19.79	-9.62	-17.88	-15.42	-21.61	-14.77
$\theta$ (60°)	-19.92	-16.05	-15.93	-16.74	-18.72	-13.03	-15.59	-23.03	-29.85	-17.54	-13.76	-14.63	-20.85	-12.14	-15.4	-6.92	-16.39	-18.52	-14.64	-11.66	-24.72	-17.35	-17.25	-25.33	-19.92
$\theta$ (75°)	-24.35	-12.25	-12.12	-9.19	-14.54	-17.57	-24.41	-19.98	-18.19	-21.49	-10.94	-12.64	-12.35	-17.26	-14.35	-15.53	-12.62	-18.24	-16.49	-15.76	-17.22	-12.48	-21.8	-15.89	-24.35
$\theta$ (90°)	-21.95	-15.12	-14.32	-13.67	-15.25	-25.39	-19.97	-22.91	-23.35	-16.54	-13.68	-12	-20.83	-13.2	-11.79	-19.56	-23.66	-14.49	-10.82	-16.25	-10.56	-8.24	-13.6	-27.57	-21.95
$\theta$ (105°)	-19.98	-13.65	-14.13	-20.23	-18.05	-24.8	-23.75	-29.54	-23.48	-10.68	-11.67	-22.7	-20.82	-17.72	-10.59	-16.7	-21.54	-21	-16.64	-21.22	-24.06	-12.13	-17.82	-18.99	-19.98
$\theta$ (120°)	-17.27	-12.08	-15.74	-14.29	-21.65	-17.5	-23.72	-16.99	-16.82	-11.89	-8.97	-12.13	-16.94	-16.72	-20.76	-12.02	-26.95	-16.94	-9.06	-15.26	-8.59	-14.19	-17.51	-13.6	-17.27
$\theta$ (135°)	-25.93	-14.65	-11.62	-11.38	-11.96	-16.88	-18.37	-20.95	-22.33	-23.89	-9.49	-7.59	-9.53	-14.69	-14.46	-14.45	-9.77	-25.08	-12.51	-12.66	-15.79	-20.8	-22.59	-20.87	-25.93
$\theta$ (150°)	-15.42	-9.44	-13.83	-17.51	-19.57	-17.03	-16.46	-20.08	-52.22	-14.58	-49.57	-9.12	-11.5	-13.01	[-6.40]	-27.79	-12.78	-20.91	-17.72	-22.77	-19.13	-23.98	-10.86	-11.15	-15.42
$\theta$ (165°)	-8.66	-7.66	-9.92	-12.16	-12.59	-16.21	-15.11	-16.78	-14.8	-15.74	-17.23	-19.6	-14.02	-16.25	-20.63	-16.68	-29.39	-22.05	-16.12	-21.65	-19.47	-14.43	-10.17	-9.86	-8.66
$\theta$ (180°)	-29.32	-27.73	-27.99	-23.64	-20.66	-17.88	-17.34	-18.12	-17.56	-16.25	-15.1	-22.05	-34.42	-20.64	-16.04	-15.08	-17.63	-19.95	-18.91	-19.86	-20.41	-23	-24.19	-27.7	-29.32

### Directional Gain@1SS:

1SS																										
Freq. (MHz)	2450																									
Polarity	Theta																									
dB	$\phi$ (0°)	$\phi$ (15°)	$\phi$ (30°)	$\phi$ (45°)	$\phi$ (60°)	$\phi$ (75°)	$\phi$ (90°)	$\phi$ (105°)	$\phi$ (120°)	$\phi$ (135°)	$\phi$ (150°)	$\phi$ (165°)	$\phi$ (180°)	$\phi$ (195°)	$\phi$ (210°)	$\phi$ (225°)	$\phi$ (240°)	$\phi$ (255°)	$\phi$ (270°)	$\phi$ (285°)	$\phi$ (300°)	$\phi$ (315°)	$\phi$ (330°)	$\phi$ (345°)	$\phi$ (360°)	
$\theta$ (0°)	-17.42	-15.32	-11.57	-8.59	-6.51	-5.3	-4.58	-4.61	-11.52	-11.56	-7.08	-9.89	-13.03	-15.81	-12.05	-8.22	-5.94	-4.78	-3.91	-3.6	-4.07	-5.06	-6.84	-9.56	-13.56	-17.42
$\theta$ (15°)	-8.76	-8.88	-6.67	-5.31	-4.05	-3.74	-4.16	-5.36	-7.2	-8.85	-11.1	-10.22	-9.38	-8.12	-6.6	-5.62	-4.85	-4.25	-3.94	-4.33	-5.34	-6.59	-9.52	-10.69	-8.76	
$\theta$ (30°)	-1.48	-3.17	-3.1	-0.08	1.55	1.99	1.61	0.99	0.08	-1.93	-3.27	-2.81	-3.03	-1.66	0.08	0.44	0.28	0.63	0.77	0.35	-0.47	-2.47	-6.58	-3.51	-1.48	
$\theta$ (45°)	0.47	-2.17	1.2	1.96	1.21	0.78	0.74	0.63	2.09	2.65	1.15	1.98	1.04	2.86	3.52	1.18	0.69	1.62	1.45	1.06	0.69	-0.48	-3.02	-1.89	0.47	
$\theta$ (60°)	1.22	-0.4	1.91	1.78	1.98	3.07	3.57	2.88	1.05	2.9	3.02	3.48	2.89	4.17	4.23	0.93	3.02	3.86	3.16	2.23	1.84	1.96	1.42	-0.81	1.22	
$\theta$ (75°)	1.7	1.95	2.61	3.01	5.07	[5.28]	4.47	3.67	2.79	1.99	2.02	2.87	2.83	3.47	2.81	2.37	3.03	3.41	4.95	4.96	3.88	1.8	1.92	0.21	1.7	
$\theta$ (90°)	-1.05	0.46	1.6	2.51	4.71	4.68	3.63	2.25	2.36	0.25	0.3	0.56	3.23	0.65	2.23	1.48	0.23	0.48	3.54	4.77	4.69	0.87	0.5	-2.7	-1.05	
$\theta$ (105°)	-3.61	-2.17	-1.3	1.83	3	2.53	1.92	1.57	0.47	0.89	1.09	-0.6	1.46	0.44	1.35	-1.55	-1.5	0.28	1.33	2.91	2.25	-2.61	-0.35	-7.49	-3.61	
$\theta$ (120°)	-3.52	-6.69	-1.75	-2.82	-0.22	0.51	0.99	1.56	-0.1	0.27	0.27	-0.88	1.99	-1.31	0.88	-1.98	0.16	1.72	2.26	2.26	0.42	-2.25	-0.33	-7.2	-3.52	
$\theta$ (135°)	-3.29	-5.65	-4.21	-3.39	-2.67	-4.1	-6.81	-4	-2.6	-2.57	-1.95	0.2	-0.93	-1.56	1.04	-0.72	-3.97	-1.96	-0.73	-1.83	-4.95	-3.77	-3.4	-4.26	-3.29	
$\theta$ (150°)	-5.31	-6.69	-10.23	-13.99	-8.42	-7.82	-7.89	-6.31	-6.59	-6.93	-3.98	-2.9	-4.04	-3.55	-1.3	-0.57	-1.45	-3.72	-6.45	-8.74	-10.95	-8.81	-5.72	-4.92	-5.31	
$\theta$ (165°)	-10.55	-8.16	-6.84	-6.21	-5.75	-5.75	-6.82	-8.83	-10.87	-10.8	-10.11	-11.04	-12.28	-10.95	-7.96	-6.22	-5.68	-6.55	-7.91	-8.26	-8.93	-10.29	-11.69	-12.67	-10.55	
$\theta$ (180°)	-14.31	-14.57	-13.26	-12.23	-11.07	-9.93	-9.72	-10.52	-11.36	-12.96	-15.39	-15.86	-15.83	-14.43	-12.44	-10.89	-9.87	-9.32	-9.19	-9.84	-10.94	-11.86	-12.79	-13.19	-14.31	
Polarity	Phi																									
dB	$\phi$ (0°)	$\phi$ (15°)	$\phi$ (30°)	$\phi$ (45°)	$\phi$ (60°)	$\phi$ (75°)	$\phi$ (90°)	$\phi$ (105°)	$\phi$ (120°)	$\phi$ (135°)	$\phi$ (150°)	$\phi$ (165°)	$\phi$ (180°)	$\phi$ (195°)	$\phi$ (210°)	$\phi$ (225°)	$\phi$ (240°)	$\phi$ (255°)	$\phi$ (270°)	$\phi$ (285°)	$\phi$ (300°)	$\phi$ (315°)	$\phi$ (330°)	$\phi$ (345°)	$\phi$ (360°)	
$\theta$ (0°)	-5.43	-5.49	-6.28	-7.9	-10.27	-13.74	-17.09	-12.91	-9.64	-7.37	-5.74	-4.19	-4.17	-4.77	-6.03	-7.65	-10.41	-14.37	-14.92	-12.04	-8.61	-6.09	-4.85	-4.34	-5.43	
$\theta$ (15°)	-8.49	-10.25	-13.16	-12.39	-13.68	-16.2	-14.91	-11.68	-9.07	-7.09	-5.03	-4.09	-4.68	-6.24	-8.32	-9.72	-10.83	-13.24	-16.75	-18.36	-12.19	-8.48	-7.46	-4.97	-8.49	
$\theta$ (30°)	-12.66	-8.95	-5.47	-5.82	-8.55	-11.31	-10.21	-9.33	-8.92	-9.05	-6.19	-4.01	-3.71	-5.48	-8.36	-7.13	-7.97	-11.45	-14.67	-16.66	-14.89	-9.62	-6.89	-7.88	-12.66	
$\theta$ (45°)	-9.09	-4.17	-5.14	-8.7	-9.63	-6.87	-5.47	-7.07	-8.19	-6.75	-5.16	-4.82	-4.48	-5.87	-6.74	-6.75	-10.64	-14.92	-12.6	-16.45	-15.9	-8.99	-6.08	-7.79	-9.09	
$\theta$ (60°)	-6.24	-6.42	-6.46	-9.75	-11	-9.93	-7.07	-8.2	-11.61	-10.58	-7.21	-6.56	-3.41	-4.85	-8.78	-8.69	-11.33	-10.7	-10.25	-14.04	-17.97	-9.78	-6.91	-6.85	-6.24	
$\theta$ (75°)	-5.48	-6.61	-7.32	-11.77	-11.62	-9.22	-6.87	-6.69	-6.51	-12.94	-7.55	-9.01	-3.94	-5.44	-10.28	-8.71	-13.23	-8.58	-10.33	-16.58	-10.22	-8.27	-6.49	-5.41	-5.48	
$\theta$ (90°)	-5.6	-6.55	-7.57	-5.59	-6.82	-10.39	-7.99	-7.88	-6.36	-7.51	-5.71	-8.43	-4.65	-5.61	-10.05	-9.05	-11.09	-6.02	-6.65	-13.08	-6.66	-5.96	-4.9	-4.44	-5.6	
$\theta$ (105°)	-5.2	-7.05	-5.58	-4.3	-6.54	-8.64	-6.53	-6.39	-8.24	-8.77	-5.29	-8.09	-7.22	-7.23	-12.82	-12.46	-7.46	-3.29	-7.49	-13.64	-5.79	-2.91	-6.42	-5.47	-5.2	
$\theta$ (120°)	-5.68	-7.06	-4.99	-6.5	-7.27	-9.35	-7.19	-4.66	-6.82	-11.42	-7.16	-9.88	-12.69	-9.74	-10.96	-11.81	-6.49	[-2.90]	-6.16	-17.42	-6.73	-3.75	-7.69	-6.72	-5.68	
$\theta$ (135°)	-7.77	-11.38	-7.16	-7.27	-11.29	-8.84	-7.63	-8.3	-12.83	-9.63	-7.33	-13.32	-11.17	-9.58	-10.82	-9.88	-7.06	-5.86	-9.03	-11.9	-6.2	-4.34	-6.48	-7.96	-7.77	
$\theta$ (150°)	-10.09	-9	-10.02	-10.53	-12.02	-11.48	-9.96	-10.4	-11.4	-10.67	-10.23	-16.77	-20.96	-12.92	-12.3	-12.6	-11.55	-9.39	-8.72	-9.74	-8.43	-7.3	-10.07	-10.58	-10.09	
$\theta$ (165°)	-10.26	-10.08	-8.79	-9.09	-11.77	-11.58	-8.87	-7.78	-7.3	-7.36	-8.63	-11.8	-15.3	-15.08	-12.17	-9.94	-8.99	-8.4	-7.8	-8.34	-10.49	-11.04	-12.19	-14.8	-10.26	
$\theta$ (180°)	-8.96	-9.25	-10.14	-11.67	-13.09	-13.02	-13.38	-15.59	-16.71	-14.16	-11.34	-10.15	-9.79	-9.65	-9.78	-11.24	-13.2	-13.69	-14.65	-14.63	-11.67	-9.76	-9.19	-9.11	-8.96	

1SS																										
Freq (MHz)	5200																									
Polarity	Theta																									
	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
dB	(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)	
θ (0°)	-8.2	-8.93	-11.27	-15.42	-16.75	-13.87	-11.15	-8.98	-6.97	-6.02	-5.34	-5.29	-5.63	-8.36	-11.11	-13.68	-14.52	-12.85	-11.52	-10.05	-8.53	-8.09	-7.82	-8.39	-8.2	
θ (15°)	-1.96	-5.2	-6.35	-3.42	-2.04	-1.91	-2.24	-4.69	-5.55	-5.2	-3.79	-4.1	-4.33	-6.68	-6.21	-5.5	-3.86	-2.83	-2.72	-3.91	-4.77	-6.06	-5.07	-1.77	-1.96	
θ (30°)	-0.93	-1.93	0.47	0.32	-4.05	-2.72	-0.86	-0.07	0.16	-1.06	0.01	-1.41	-2.79	1.21	-0.13	0.9	-0.85	-4.61	-6.08	-4.44	-2.02	-1.08	-0.64	-0.5	-0.93	
θ (45°)	0.24	1.07	1.55	2.65	2.65	2.68	2.35	2.63	0.35	0.81	2.69	0.13	3.09	2.99	2.62	3.34	1.65	-1.58	-0.78	1.93	3.03	0.3	0	-0.88	0.24	
θ (60°)	2.75	2.44	2.84	4.06	5.35	1.7	0.02	4.75	3.86	1.06	2.81	0.97	2.32	2.51	3.09	[6.48]	3.12	3.69	2.8	5.47	6.17	4.35	3.08	0.88	2.75	
θ (75°)	3.06	3.66	0.28	2.08	5.63	2.06	-0.74	4.13	4.77	2.54	4.67	3.35	3.13	1.01	4.19	4.95	4.57	4.3	2.34	4.68	3.48	1.49	0.89	2.42	3.06	
θ (90°)	-0.48	-0.25	1.18	3.41	2.89	-0.16	-0.15	3.88	3.12	0.79	2.54	4.97	4.23	1.13	0.94	0.48	0.81	4.82	-2.05	1.59	4.35	1.1	1.79	0.87	-0.48	
θ (105°)	-0.07	-0.55	-2.47	2.76	1.45	-0.67	-0.98	-0.04	1.28	0.19	-0.46	2.52	2.68	1.5	0.67	-0.48	1.33	0.79	-0.54	1.85	2.76	-1.18	0.97	0.21	-0.07	
θ (120°)	-0.77	-1.47	-0.97	-0.9	1.56	1.17	-3.27	0.82	1.48	1.7	0.05	-2.16	0.37	-2.17	0.25	1.29	1	0.89	-3.61	1.36	1.17	1.31	0.75	-0.46	-0.77	
θ (135°)	-2.61	-3.39	-6.29	-2.59	-4.64	-2.58	-2.18	-1.1	1.54	1.65	-0.73	-0.98	1.22	-0.07	0.77	1.16	-0.54	-3.9	-5.51	-3.42	-1.28	-1.4	-2.8	-1.9	-2.61	
θ (150°)	-2.49	-6.51	-4.56	-5.81	-6	-12.74	-9.26	-8.49	-6.65	-2.93	-3.13	-1.57	-2.8	-3	-2.36	-3.36	-5.27	-6.32	-8.54	-7.26	-6.98	-7	-6.02	-7.54	-2.49	
θ (165°)	-8.83	-8.5	-7.93	-10.6	-16.34	-17.84	-14.34	-12.93	-13.02	-17.16	-15.84	-10.92	-10.09	-11.31	-15.31	-13.37	-15.98	-15.38	-13.91	-15.31	-13.75	-12.81	-11.6	-10.12	-8.83	
θ (180°)	-12	-11.89	-11.83	-11.73	-12.36	-12.83	-14.18	-14.97	-16.29	-16.12	-14.89	-13.29	-12.67	-11.07	-10.84	-10.62	-11.83	-12.39	-14.34	-16.14	-15.12	-14.95	-14.06	-12.64	-12	
Polarity	Phi																									
dB	φ (0°)	φ (15°)	φ (30°)	φ (45°)	φ (60°)	φ (75°)	φ (90°)	φ (105°)	φ (120°)	φ (135°)	φ (150°)	φ (165°)	φ (180°)	φ (195°)	φ (210°)	φ (225°)	φ (240°)	φ (255°)	φ (270°)	φ (285°)	φ (300°)	φ (315°)	φ (330°)	φ (345°)	φ (360°)	
θ (0°)	-12.47	-9.97	-8.12	-6.76	-6.08	-6.12	-6.15	-7.24	-8.98	-10.95	-12.64	-13.1	-11.7	-10.48	-8.4	-7.18	-6.8	-6.87	-7.89	-9.36	-11.96	-15.98	-19.15	-17.6	-12.47	
θ (15°)	-15.43	-11.38	-11.27	-8.95	-7.02	-7.08	-7.59	-9.29	-12.46	-13.51	-18.94	-16.02	-15.45	-17.8	-14.27	-14.24	-14.3	-12.24	-12.38	-11.12	-10.13	-7.82	-9.48	-13.98	-15.43	
θ (30°)	-18.77	-14.35	-8.07	-8.71	-11.07	-6.07	-4.55	-7.01	-11.39	-15.09	-12.63	-7.9	-8.12	-19.51	-14.91	-10.73	-7.21	-9.47	-14.9	-12.94	-8.71	-6.93	-7.09	-6.99	-18.77	
θ (45°)	-15.2	-13.16	-4.18	-13.97	-11.88	-9.14	-13.51	-13.59	-9.18	-10.78	-10.17	-9.16	-7.63	-8.36	-12.87	-11.5	-9.1	-10.4	-20.6	-17.7	-17.11	-11.72	-10.99	-22.78	-15.2	
θ (60°)	-9.08	-7.46	-8.23	-6.74	-7.27	-15.58	-9.02	-8.95	-17.71	-6.28	-13.1	-15.6	-12.41	-12.92	-5.91	-7.76	-8.33	-10.61	-10.71	-9.74	-12.82	-11.05	-18.53	-15.43	-9.08	
θ (75°)	-13.66	-15.17	-8.82	-11.05	-10.79	-10.99	-7.56	-10.77	-17.28	-11.23	-9.94	-15.13	-14.28	-10.04	[-3.59]	-4.84	-11.01	-13.19	-12.09	-9.77	-8.07	-11.6	-12.81	-11.94	-13.66	
θ (90°)	-14.02	-14.25	-15.7	-9.84	-12.38	-20.42	-13.15	-11.45	-16.87	-13.79	-9.08	-13.16	-15.72	-16.32	-7.82	-9.62	-9.42	-11.24	-10.05	-19.96	-9.6	-5	-9.46	-8.35	-14.02	
θ (105°)	-13.44	-8.57	-8.78	-13.5	-14.22	-19.25	-15.78	-9.44	-13.49	-6.7	-7.74	-11	-14.65	-9.97	-9.32	-9.7	-12.69	-10.16	-12.69	-18.27	-5.79	-7.11	-12.15	-15.24	-13.44	
θ (120°)	-13.71	-7.31	-14.72	-9.76	-9.04	-8.54	-7.92	-13.34	-12.41	-5.86	-8.5	-12.76	-15.8	-18.64	-9.12	-7.83	-8.27	-14.46	-5.02	-11.44	-5.36	-9.91	-19.37	-13.36	-13.71	
θ (135°)	-9.83	-10.7	-11.93	-7.45	-19.94	-5.43	-10.96	-13.1	-8.58	-8.26	-12.2	-14.19	-9.8	-8.4	-26.59	-8.18	-10.64	-17.11	-10.26	-12.93	-11.95	-12.49	-15.79	-11.19	-9.83	
θ (150°)	-9.44	-4.8	-9.11	-16.42	-11.74	-12.81	-11.85	-10.54	-13.71	-8.99	-13.45	-13.04	-10.91	-9.1	-8.51	-14.24	-15.71	-13.15	-14.55	-18.67	-12.83	-15.08	-9.07	-7.66	-9.44	
θ (165°)	-5.46	-6.65	-9.3	-8.93	-8.3	-9.58	-14.38	-19.97	-13.85	-12.26	-10.96	-14.67	-13.58	-11.22	-15.6	-14.12	-10.05	-9.25	-12.28	-12.31	-9.7	-7.45	-9.88	-12.52	-5.46	
θ (180°)	-13.35	-14.09	-16.06	-15.74	-16.41	-13.43	-13.28	-10.66	-10.89	-10.24	-10.17	-9.79	-10.6	-11.02	-11.79	-13.61	-13.15	-13.3	-11.75	-11.56	-9.97	-10.18	-10.19	-11.3	-13.35	

1SS																									
Freq. (MHz)	5300																								
Polarity	Theta																								
dB	φ (0°)	φ (15°)	φ (30°)	φ (45°)	φ (60°)	φ (75°)	φ (90°)	φ (105°)	φ (120°)	φ (135°)	φ (150°)	φ (165°)	φ (180°)	φ (195°)	φ (210°)	φ (225°)	φ (240°)	φ (255°)	φ (270°)	φ (285°)	φ (300°)	φ (315°)	φ (330°)	φ (345°)	φ (360°)
θ (0°)	-9.17	-10.53	-12.51	-14.24	-15.9	-14.71	-11.95	-9.9	-8.5	-7.18	-7.06	-5.79	-6.65	-9.06	-11.69	-14.49	-13.89	-13.85	-12.24	-10.88	-9.57	-8.7	-9.08	-9.46	-9.17
θ (15°)	-2.93	-5.91	-6.73	-4.94	-4.11	-3.24	-4.08	-4.81	-6.01	-6.45	-6.36	-2.55	-3.04	-4.81	-4.45	-3.79	-4.09	-2.74	-2.55	-3.01	-3.41	-4.24	-5.36	-4.26	-2.93
θ (30°)	-1.69	-1.67	-0.19	0.96	-1.92	-0.74	-0.02	0.31	0.01	-0.73	-1.83	-0.96	-6.15	0.59	-0.97	0.62	-1.26	-3.69	-4.7	-4.6	-1.6	-0.03	-0.88	-1.15	-1.69
θ (45°)	-0.29	1.33	0.99	1.29	2.17	2.12	2.08	1.61	-1.16	0.5	1.96	-1.76	0.43	2.21	2.67	1.84	1.72	-0.85	0.28	0.61	2.13	0.2	0.32	-0.44	-0.29
θ (60°)	2.3	2.49	2	3.75	4.71	2.35	0.18	3.96	2.74	-0.07	1.33	-0.06	2.41	2.31	1.27	5.47	3.24	3.85	3.48	4.8	4.95	3.99	3.01	0.81	2.3
θ (75°)	3.09	1.8	0.77	2.4	[6.33]	2.22	-1.49	3.34	3.42	1.54	3.77	3.52	3.97	2.26	3.53	4.02	4.98	4.89	0.08	3.91	4.18	1.89	1.81	2.55	3.09
θ (90°)	-0.34	-0.47	0.53	3.85	2.75	0.45	0.12	3.18	2.82	1.67	2.77	4.84	4.89	1.96	2.29	1.6	1.07	4.75	-3.91	-0.04	3.89	2.12	0.96	0.21	-0.34
θ (105°)	-1.51	-1.33	-1.59	2.39	1.87	-0.09	-0.95	-0.24	1.47	0.25	-0.18	1.92	1.78	0.31	-2.04	1.12	0.11	-1.04	1.36	1.69	-2.28	0.14	-0.27	-1.51	
θ (120°)	-1.82	-2.38	-0.5	-1	1.76	0.43	-3.27	0.98	0.55	0.66	0.4	-1.18	-0.57	-1.36	0.34	0.48	0.68	0.97	-2	1.27	0.09	1.75	0.54	0.67	-1.82
θ (135°)	-3.24	-2.74	-5.36	-2.7	-4.78	-3.22	-3.45	-1.48	1.48	1.21	-0.76	-1.33	1.19	-0.75	0.31	0.71	-0.32	-4.96	-6.8	-4.48	-1.17	-2.88	-2.1	-3.28	-3.24
θ (150°)	-1.66	-5.16	-4.71	-5.86	-7.03	-11.73	-7.06	-5.53	-8.28	-4.05	-3.13	-1.95	-1.5	-3.24	-1.87	-3.22	-6.44	-8.48	-9.2	-7.55	-7.21	-6.22	-6.96	-6.76	-1.66
θ (165°)	-8.95	-9	-8.26	-11.55	-27.65	-18.58	-12.82	-14.12	-14.77	-16.79	-17.01	-11.29	-8.22	-8.01	-12.38	-15.85	-12.24	-11.21	-10.47	-11.37	-12.36	-11.87	-11.2	-10.27	-8.95
θ (180°)	-12.81	-12.42	-13.99	-14.53	-15.22	-16	-18.94	-20.86	-18.21	-15.79	-13.82	-12.14	-12.37	-12.78	-12.83	-13.68	-15.88	-19.13	-18.55	-17.57	-15.09	-14.07	-12.09	-12.64	-12.81
Polarity	-9.17	-10.53	-12.51	-14.24	-15.9	-14.71	-11.95	-9.9	-8.5	-7.18	-7.06	-5.79	-6.65	-9.06	-11.69	-14.49	-13.89	-13.85	-12.24	-10.88	-9.57	-8.7	-9.08	-9.46	-9.17
dB	φ (0°)	φ (15°)	φ (30°)	φ (45°)	φ (60°)	φ (75°)	φ (90°)	φ (105°)	φ (120°)	φ (135°)	φ (150°)	φ (165°)	φ (180°)	φ (195°)	φ (210°)	φ (225°)	φ (240°)	φ (255°)	φ (270°)	φ (285°)	φ (300°)	φ (315°)	φ (330°)	φ (345°)	φ (360°)
θ (0°)	-12.76	-10.61	-9.37	-8.02	-7.35	-7.46	-8.1	-9.12	-11.35	-14.16	-16.1	-15.1	-12.05	-11.29	-9.18	-8.8	-8.32	-9.28	-9.48	-12.39	-14.94	-19.74	-21.41	-19.04	-12.76
θ (15°)	-16.74	-15.52	-15.98	-9.95	-8.64	-8.17	-9.92	-13.69	-14.37	-12.9	-14.33	-12.52	-17.92	-13.06	-11.82	-11.86	-10.47	-10.82	-11.21	-13.66	-10.3	-9.8	-13.09	-12.63	-16.74
θ (30°)	-20.99	-20.11	-9.7	-9.16	-10.2	-6.01	[-4.76]	-7.94	-14.39	-16.92	-11.28	-7.84	-9.14	-13.97	-13.58	-8.46	-7.31	-10.07	-16.97	-16.96	-9.74	-8.4	-7.85	-10.04	-20.99
θ (45°)	-16.92	-14.28	-5.28	-17.67	-14.51	-7.66	-17.11	-11.83	-8.78	-14.61	-8.51	-9.9	-8.22	-9.93	-16.86	-11.07	-9.81	-10.11	-15.69	-19.05	-16.95	-12.77	-9.89	-17.86	-16.92
θ (60°)	-13.93	-7.65	-7.04	-6.98	-7.38	-19.74	-9.83	-9.07	-20.64	-8.47	-11.72	-14.91	-13.3	-12.25	-6.43	-8.55	-7.01	-9.21	-10.9	-12.46	-10.29	-11.91	-15.09	-17.66	-13.93
θ (75°)	-13.6	-15.38	-11.44	-11.85	-12.09	-12.1	-8.29	-10.27	-13.8	-11.06	-8.63	-11.17	-15.51	-12.63	-5.43	-6.66	-10.1	-13.02	-12.68	-11.85	-10.01	-12.56	-10.82	-9.89	-13.6
θ (90°)	-12.19	-14.12	-22.1	-10.07	-11.52	-19.07	-12.11	-13.25	-14.06	-18.13	-8.13	-16.44	-13.86	-18.77	-9.58	-10.96	-9.54	-15.37	-11.45	-24.07	-9.19	-6.07	-10.04	-6.44	-12.19
θ (105°)	-12.77	-8.21	-9.29	-14.55	-15.27	-16.67	-14.82	-11.3	-14.33	-8.13	-9.31	-12.53	-15.87	-7.04	-7.35	-13.07	-16.91	-10.31	-12.93	-17.35	-6.33	-6.5	-14.95	-17.19	-12.77
θ (120°)	-10.5	-7.28	-13.8	-9.33	-10.69	-10.16	-9.43	-14.24	-13.56	-5.86	-8.34	-11.25	-13.33	-15.12	-8.12	-7.18	-9.18	-12.84	-5.46	-11.53	-6.55	-12.94	-16.14	-10.88	-10.5
θ (135°)	-10.8	-11.42	-10.72	-8.12	-14.56	-4.87	-10.08	-11.2	-8.53	-8.6	-12	-12.13	-10.97	-7.13	-15	-8.87	-8.01	-15.45	-10.14	-11.84	-11.45	-18.99	-13.48	-10.89	-10.8
θ (150°)	-9.74	-5.11	-11.05	-15.38	-12.55	-12.17	-11.11	-10.58	-10.5	-7.35	-17.53	-17.97	-11.23	-9.56	-7.99	-17.5	-13.73	-13.58	-15.88	-17.67	-10.83	-9.36	-8.65	-6.08	-9.74
θ (165°)	-5.08	-5.18	-8.57	-9.18	-7.3	-8	-11.64	-19.42	-14.71	-11.85	-10.07	-13.5	-16.87	-17.36	-18.4	-10.1	-8.81	-9.24	-12.96	-16.42	-11.72	-7.39	-8.3	-12.91	-5.08
θ (180°)	-15.3	-14.25	-12.66	-12.97	-14.17	-12.78	-12.15	-10.9	-11.16	-10.08	-11.06	-12.47	-11.8	-11.57	-12.24	-12.31	-11.51	-12.06	-11.59	-12.46	-12.33	-12.74	-14.56	-15.81	-15.3



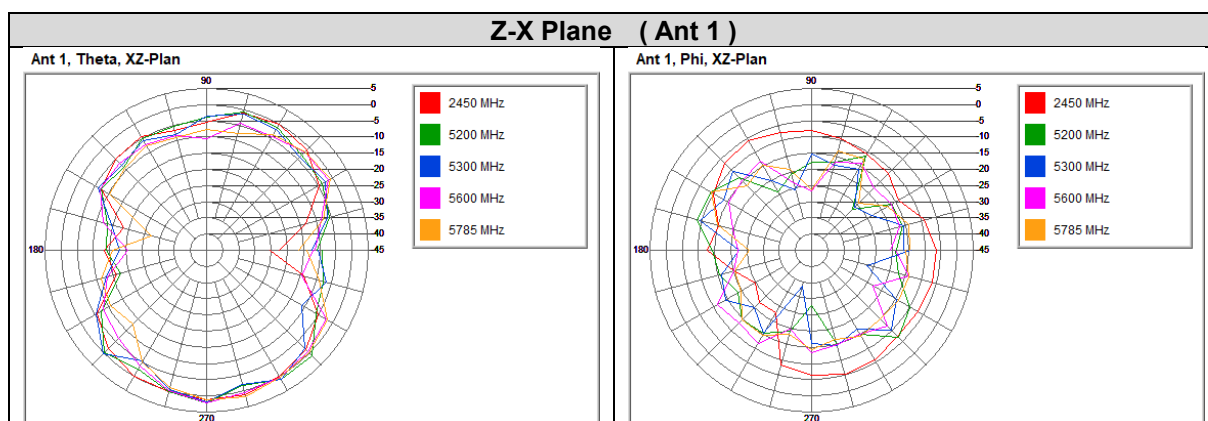
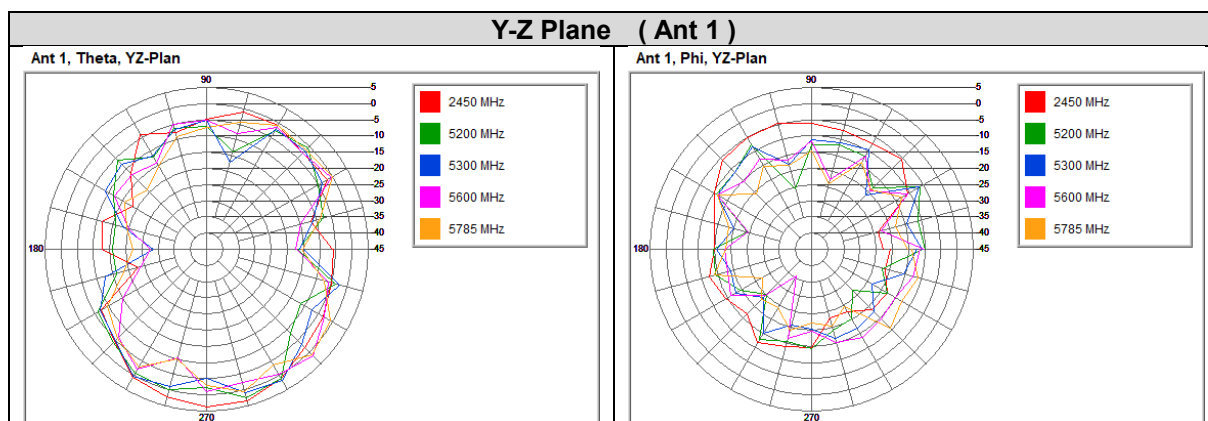
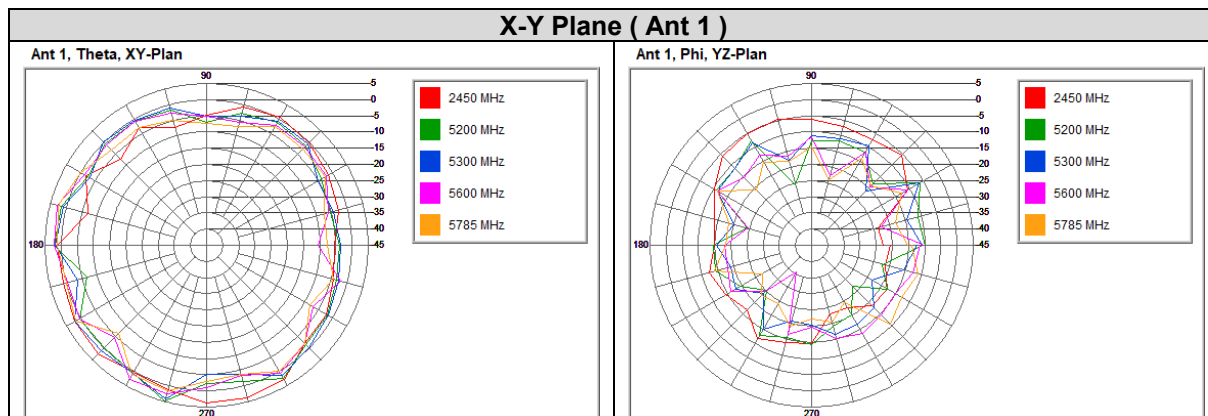
1SS																										
Freq. (MHz)	5600																									
Polarity	Theta																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
θ (0°)	-8.99	-9.7	-10.72	-11.04	-11.64	-11.39	-11.57	-12.72	-13.74	-10.82	-10.11	-7.2	-8.56	-10.28	-11.31	-12.1	-13.02	-13.78	-12.77	-14.08	-14.21	-11.38	-11	-10.57	-8.99	
θ (15°)	-5.36	-4.04	-5.42	-6.77	-7.39	-8.32	-6.94	-5.29	-4.35	-6.35	-8.34	-5.33	-6.23	-6.81	-3.93	-3.02	-4.41	-6.41	-6.35	-3.94	-2.61	-3.12	-3.64	-4.47	-5.36	
θ (30°)	0.47	1.79	0.23	1.03	2.7	2.25	2.41	2.76	2.56	2.07	-0.8	-1.97	-0.8	-2.04	1.78	1.64	1.46	0.37	0.48	0.61	0.54	-0.59	-0.45	1.15	0.47	
θ (45°)	0.98	2.36	0.65	0.76	2.27	1.92	1.78	2.51	2.14	2.81	0.84	0.93	-0.09	-0.98	2.82	1.58	2.77	2.03	2.15	2.04	0.89	1.87	1.57	1.86	0.98	
θ (60°)	1.53	2.28	1.89	3.24	4.93	3.89	1.09	2.89	4.78	1.4	0.86	2.21	2.71	0.79	1.39	0.49	3.18	5.36	2.39	3.06	4.61	0.98	1.84	0.69	1.53	
θ (75°)	1.31	0.33	2.07	5.21	5.92	-1.33	0.2	4.06	3.82	0.33	3.39	4.96	5.07	4.53	2.18	0.89	[7.08]	2.91	-1.96	3.31	4.07	4.04	1.08	1.46	1.31	
θ (90°)	-2.84	-0.93	0.96	1.81	3.07	-1.06	-0.2	2.19	0.82	0.38	3.51	4.7	5.52	3.94	2.17	-2.22	0.86	3.72	-1.82	-0.17	3.5	0.52	-1.06	1.05	-2.84	
θ (105°)	-3.88	-3.95	-0.35	-1.12	1.32	-1.45	-0.42	-0.5	-1.35	-2.34	0.59	2.55	1.86	0.9	-0.59	-2.19	-0.3	-0.03	-5.78	-0.13	-0.54	-1.31	-2.04	-1.91	-3.88	
θ (120°)	-1.61	-1.93	0.2	-1.67	-0.01	-2.35	-4.51	-2.56	-1.32	-1.74	-1.13	-1.44	-0.39	-3.8	-2.82	-2.23	-1.17	-0.54	-3.7	0.43	-0.77	-1.78	-1.24	0.07	-1.61	
θ (135°)	-5.14	-5.01	-5.96	-2.82	-5.27	-4.49	-5.78	-1.34	-0.82	-1.9	-1.14	-1.9	-3.43	-0.97	-1.9	-1.47	-1.38	-5.2	-6.07	-8.99	-5.52	-6.52	-5.64	-3.21	-5.14	
θ (150°)	-4.03	-7.23	-8.84	-7.98	-13.44	-14.33	-10.12	-8.83	-9.27	-8.17	-4.88	-7.21	-3.88	-6.61	-5.91	-3.12	-8.64	-10.85	-12.93	-19.38	-14.42	-9.28	-6.44	-6.04	-4.03	
θ (165°)	-9.37	-10.82	-15.81	-16.77	-20.82	-17.31	-19.39	-19.06	-15.15	-10.33	-10.72	-11.21	-10.58	-9.39	-9.99	-11.82	-16.24	-19.35	-18.02	-17.01	-17.97	-14.32	-11.32	-10.45	-9.37	
θ (180°)	-18.14	-18.01	-18.73	-17.81	-20.68	-19.86	-23.43	-22.97	-28.6	-26.26	-20.44	-17.87	-16.13	-16.73	-17.64	-19.15	-19.76	-22.52	-23.38	-23.33	-27.72	-28.03	-25.13	-21.38	-18.14	
Polarity	Phi																									
		φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	φ	
		(0°)	(15°)	(30°)	(45°)	(60°)	(75°)	(90°)	(105°)	(120°)	(135°)	(150°)	(165°)	(180°)	(195°)	(210°)	(225°)	(240°)	(255°)	(270°)	(285°)	(300°)	(315°)	(330°)	(345°)	(360°)
θ (0°)	-12.89	-12.23	-11.31	-9.78	-8.9	-8.57	-8.13	-9.72	-10.31	-10.9	-11.97	-10.75	-11.61	-14.13	-12.44	-11.38	-10.34	-9.35	-9.6	-10.52	-11.65	-11.63	-11.13	-11.5	-12.89	
θ (15°)	-15.83	-13.7	-13.53	-11.99	-11.64	-15.99	-17.62	-11.58	-9.48	-7.89	-7.95	-12.46	-8.89	-8.58	-14.6	-14.53	-12.59	-12.92	-8.16	-6.13	-6.4	-8.77	-11.53	-17.68	-15.83	
θ (30°)	-10.35	-21.05	-7.62	-9.97	-22.36	-12.18	-9.11	-7.77	-12.38	-12.64	-10.51	-13.28	-25.39	-11.84	-12.25	-7.68	-7.49	-9.5	-10.73	-11.22	-5.85	-8.57	-10.61	-15.63	-10.35	
θ (45°)	-14.93	-11.24	-19.59	-14.59	-15.77	-6.67	-11.04	-13.2	-12.22	-12.72	-7.46	-8.94	-12.1	-10.31	-13.32	-15.22	-16.24	-11.5	-11.55	-11.63	-8.39	-11.51	-13.08	-12.48	-14.93	
θ (60°)	-11.65	-8.91	-8.92	-8.23	-11.64	-15.53	-12.24	-11.65	-13.02	-10.39	-21.73	-8.96	-11.67	-10.9	-10.63	-10.13	-10.79	-8.28	-10.89	-14.99	-13.87	-13.84	-14.49	-12.87	-11.65	
θ (75°)	-14.44	-17.13	-17.75	-9.95	-14.97	-16.45	-21.14	-10.75	-19.44	-13.86	-11.49	-9.07	-13.01	-13.82	-22.12	-14	-9.72	-12.69	-14.16	-10.56	-9.87	-10.7	-12.98	-15.25	-14.44	
θ (90°)	-17.68	-14.75	-17.57	-12.56	-11.45	-19.31	-10.19	-12.43	-18.83	-17.37	-12.73	-12.9	-10.43	-9.47	-11.75	-19.49	-12.42	-13.1	-8.71	-17.95	-15.53	-9.13	-13.15	-11.86	-17.68	
θ (105°)	-21.42	-11.92	-11.28	-16.01	-14.32	-14.35	-12.96	-18.61	-20.88	-11.45	-10.37	-13.75	-21.94	-16.53	-11.99	-13.68	-19.01	-13.07	-14.17	-22.69	-10.63	-7.95	-14.08	-20.71	-21.42	
θ (120°)	-12.49	-8.25	-16.72	-12.59	-12.73	-11.2	-12.72	-18.36	-13.34	-7.9	-7.84	-10.05	-10.18	-11.37	-10.33	-14.08	-10.38	-20.36	-11.91	-11.06	-9.1	-7.78	-14.9	-13.68	-12.49	
θ (135°)	-11.2	-23.84	-14.04	-11.09	-9.24	-7.15	-12.65	-12.99	-12.21	-13.08	[-4.81]	-7.99	-7.92	-10.74	-12.76	-14.84	-10.7	-17.23	-13.04	-10.65	-12.16	-13.42	-17.99	-11.12	-11.2	
θ (150°)	-14.41	-8.96	-9.87	-11.34	-13.08	-12.33	-10.91	-23.98	-12.41	-14.38	-11.93	-10.9	-7.27	-11.98	-10.83	-12.14	-10.2	-14.61	-12.76	-12.16	-15.42	-13.83	-12.78	-11.01	-14.41	
θ (165°)	-11.75	-7.06	-8.49	-13.18	-11.16	-13.42	-14.35	-14.57	-14.28	-14.02	-15.67	-14.09	-13.38	-14.28	-13.66	-15.27	-17.06	-17.83	-17.1	-18.89	-19.15	-14.74	-10	-9.22	-11.75	
θ (180°)	-22.24	-20.61	-18.91	-16.28	-18.27	-16.5	-14.82	-14.67	-12.66	-12.05	-12.71	-17.07	-23.25	-26.03	-19.04	-17.19	-16.7	-18.25	-15.93	-18.67	-16.73	-18.27	-19.72	-22.84	-22.24	



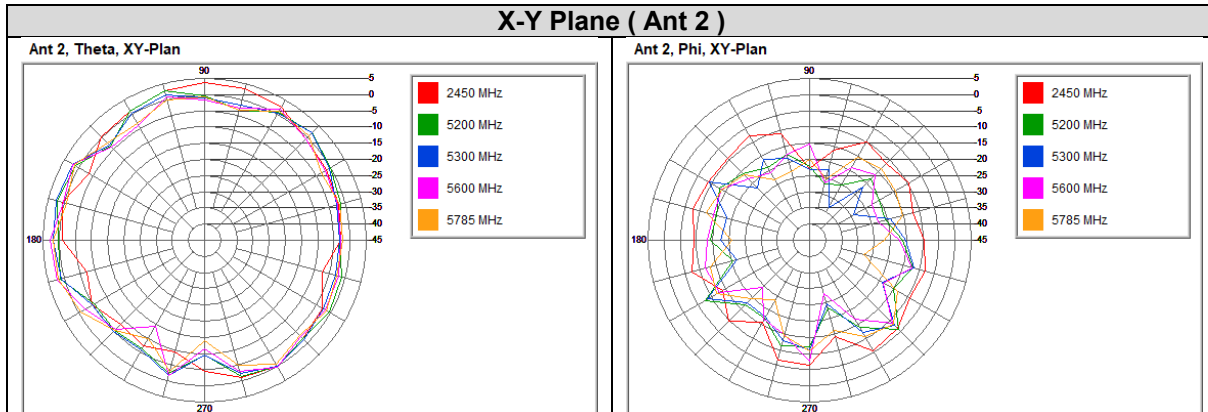
1SS																									
Freq. (MHz)	5785																								
Polarity	Theta																								
dB	φ (0°)	φ (15°)	φ (30°)	φ (45°)	φ (60°)	φ (75°)	φ (90°)	φ (105°)	φ (120°)	φ (135°)	φ (150°)	φ (165°)	φ (180°)	φ (195°)	φ (210°)	φ (225°)	φ (240°)	φ (255°)	φ (270°)	φ (285°)	φ (300°)	φ (315°)	φ (330°)	φ (345°)	φ (360°)
θ (0°)	-12.87	-13.74	-14.99	-13.87	-12.82	-11.19	-11.2	-10.53	-12.61	-13.79	-13.9	-12.13	-11.57	-11.91	-11.89	-12.9	-12.62	-13.58	-12.67	-13.49	-15.57	-13.65	-14.63	-13.02	-12.87
θ (15°)	-5.08	-5.47	-4.7	-4.81	-7.11	-7.38	-4.85	-4.16	-3.36	-3.26	-5.69	-11.98	-5.96	-4.62	-6.69	-6.38	-4.98	-4.93	-4.41	-3.35	-2.85	-3.51	-4.46	-5.19	-5.08
θ (30°)	2.14	2.25	1.93	2.63	3.08	3.43	3.85	3.27	1.66	1.32	1.59	-0.37	0.03	-0.63	2.31	1.68	1.75	1.41	1.29	0.98	1.27	0.33	1.36	0.72	2.14
θ (45°)	1.37	2.3	1.51	0.94	2.58	1.33	2.4	3.82	3.43	2.64	1.15	1.15	1.36	0.59	2.58	3.02	2.85	2.5	3.19	3.63	2.27	1.85	1.51	1.64	1.37
θ (60°)	1.8	1.78	2.11	3.1	4.86	2.1	2.22	3.62	4.92	0.27	1.13	2.46	3.35	1.07	1.84	0.74	2.8	4.86	0.81	1.82	3.92	2.37	1.82	1.04	1.8
θ (75°)	0.07	0.12	3.03	5.36	5.31	0.05	1.44	3.35	3.57	0.6	4.83	[6.73]	5.57	5.65	1.85	0.56	5.79	2.83	0.76	3.66	4.76	3.72	-0.04	1.52	0.07
θ (90°)	-1.56	-1.08	0.05	1.9	2.44	-1.93	-0.41	0.84	-0.11	0.02	3.72	4.14	4.51	3.93	3.46	-3.17	0.07	2.59	-3.87	-1.24	2.57	0.42	-1.08	-0.38	-1.56
θ (105°)	-5.47	-6.92	-1.14	-1.97	0.82	-3.67	-3.73	-1.98	-4.5	-3.41	-0.67	0.82	1.87	-0.46	-1.89	-4.61	-1.63	-2.4	-6.68	-1.19	-1.41	-3.48	-6.25	-4.93	-5.47
θ (120°)	-2.71	-4.18	-1.52	-3.29	-3.46	-2.82	-5.75	-3.57	-3.26	-3.32	-1.94	-4.02	-2.46	-4.61	-4.05	-4.18	-2.9	-3.97	-5.1	-0.53	-3.27	-4.84	-2.96	-2.28	-2.71
θ (135°)	-7.61	-6.99	-8.09	-5.24	-6.04	-7.93	-8.59	-1.7	-2.41	-3.62	-1.31	-3.87	-7.23	-4.97	-5.61	-4.99	-4.08	-5.05	-5.91	-10.78	-7.27	-5.9	-6.75	-5.17	-7.61
θ (150°)	-8.52	-6.74	-12.86	-13.07	-10.89	-13.29	-10.44	-9.97	-12.7	-11.99	-12.04	-13.01	-9.75	-11.1	-10.98	-7.74	-11.13	-10.22	-8.81	-15.73	-14.3	-11.1	-12.3	-5.88	-8.52
θ (165°)	-21.95	-16.84	-10.25	-10.26	-14.2	-15.94	-14.84	-14.11	-9.78	-8.01	-8.51	-10	-12.24	-10.28	-9.79	-10.15	-12.58	-18.86	-16.78	-16.94	-15.15	-11.81	-11.47	-12.73	-21.95
θ (180°)	-15.38	-14.88	-15.28	-16.58	-18.6	-20.79	-21.66	-21.07	-26.25	-29.17	-18.64	-15.75	-15.1	-14.77	-15.71	-16.34	-17.84	-19.55	-21.14	-22.4	-22.78	-25.73	-22.14	-19.35	-15.38
Polarity	Phi																								
dB	φ (0°)	φ (15°)	φ (30°)	φ (45°)	φ (60°)	φ (75°)	φ (90°)	φ (105°)	φ (120°)	φ (135°)	φ (150°)	φ (165°)	φ (180°)	φ (195°)	φ (210°)	φ (225°)	φ (240°)	φ (255°)	φ (270°)	φ (285°)	φ (300°)	φ (315°)	φ (330°)	φ (345°)	φ (360°)
θ (0°)	-10.44	-9.75	-10.2	-10.25	-11.57	-11.96	-13.37	-13.76	-13.62	-13.74	-12.38	-12.34	-12.27	-14.8	-15.9	-16.69	-14.11	-12.78	-11.87	-10.71	-10.85	-10.16	-9.93	-9.88	-10.44
θ (15°)	-14.32	-9.67	-8.05	-11.38	-14.82	-19.08	-18.5	-13.05	-10.36	-8.15	-6.68	-14.63	-11.7	-11.59	-15.7	-11.78	-10.88	-10.73	-7.88	-6.35	-6.73	-7.06	-7.96	-14.81	-14.32
θ (30°)	-14.09	-12.96	-8.44	-9.95	-12.57	-12.09	-10.87	-9.36	-14.02	-14.62	-11.12	-12.16	-13.56	-17.97	-13.12	-8.14	-8.47	-8.97	-8.67	-10.9	[5.66]	-9.87	-11.88	-12.86	-14.09
θ (45°)	-15.34	-19.77	-22.73	-8.46	-13.22	-7.11	-10.41	-14.06	-18.7	-8.66	-9.46	-9.17	-14.36	-10.91	-9.82	-11.34	-13.09	-15.55	-11.09	-9.35	-7.67	-13.25	-14.17	-15.6	-15.34
θ (60°)	-12.44	-8.55	-9.1	-11.95	-17.6	-13.63	-11.62	-14.38	-15.01	-11.62	-11.77	-12.88	-14.08	-9.71	-11.86	-9	-10.11	-13.76	-15.27	-13.07	-14.74	-16.29	-13.9	-18.08	-12.44
θ (75°)	-14.22	-11.71	-11.56	-11.58	-16.98	-12.13	-21.13	-13.14	-15.62	-17.42	-8.02	-11.88	-11.16	-12.2	-10.13	-13.04	-12.05	-12.06	-15.23	-13.07	-10.25	-10.11	-15.28	-16.3	-14.22
θ (90°)	-20.86	-12.58	-12.71	-13.68	-12.36	-19.08	-13.94	-15.9	-20.44	-16.98	-12.92	-9.45	-13.87	-10.87	-9.71	-11.82	-15.67	-13.7	-11.74	-11.47	-8.65	-8.32	-13.97	-25.13	-20.86
θ (105°)	-16.53	-14.12	-13.92	-13.7	-12.72	-17.53	-17.48	-18.48	-21.57	-11.45	-12.47	-18.32	-16.27	-12.04	-8.86	-13.01	-15.11	-18.09	-14.79	-17.25	-11.34	-8.08	-11.69	-13.99	-16.53
θ (120°)	-12.76	-7.93	-16.49	-13.82	-14.17	-13.52	-15.65	-17.47	-12.52	-6.57	-8.13	-9.75	-12.65	-11.57	-10.78	-11.21	-16.23	-14.89	-10.68	-14.37	-8.71	-10.46	-15.18	-8.18	-12.76
θ (135°)	-17.07	-11.96	-11.84	-10.35	-8.72	-11.29	-16.45	-11.7	-17.8	-16.55	-6.03	-6.3	-8.75	-12.66	-11.12	-12.32	-9.18	-20.92	-13.25	-14.71	-14.83	-16.45	-19.95	-13.4	-17.07
θ (150°)	-8.64	-7.39	-11.16	-14.55	-14.8	-12.34	-10.56	-16.9	-25.96	-13.62	-27.1	-8.67	-11.72	-13.69	-7.99	-17.37	-12.55	-17.96	-18.3	-22.83	-16.57	-12.54	-10.72	-7.98	-8.64
θ (165°)	-8.24	-8.1	-9.67	-11.57	-12.52	-15.21	-13.62	-12.41	-10.87	-10.05	-11.04	-15.05	-13.67	-15.62	-17.37	-16.57	-22.54	-17.65	-11.9	-16.24	-16.68	-14.89	-7.68	-6.3	-8.24
θ (180°)	-24.28	-24.27	-23.01	-19.8	-17.59	-16.38	-14.8	-14	-12.66	-11.1	-11.17	-14.76	-18.83	-17.88	-15.98	-15.83	-15.16	-15.79	-14.55	-14.67	-14.62	-15.66	-18	-21.55	-24.28



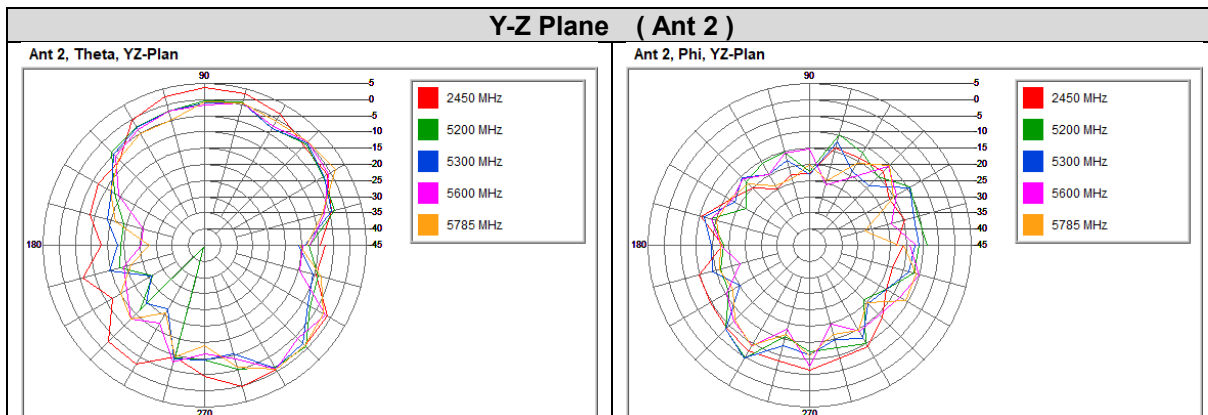
## A.2 Antenna Pattern Test Plots



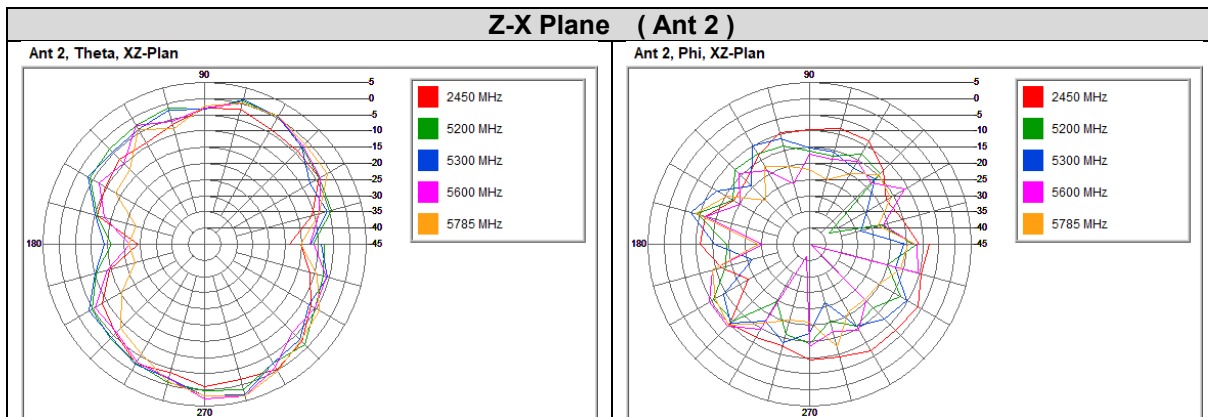
### X-Y Plane ( Ant 2 )



### Y-Z Plane ( Ant 2 )



### Z-X Plane ( Ant 2 )



## **APPENDIX B –Test Setup and EUT antenna port photo**

### **B.1 Antenna Location (Configuration and RF Chains)**

Please refer to the documents “OTBCMA-WTW-P24070713 R1\_Arcadyan\_XC46BE224T-F100-VR\_Antenna measurement Report\_APPENDIX”

### **B.2 Test Setup Diagram for EUT**

Please refer to the documents “OTBCMA-WTW-P24070713 R1\_Arcadyan\_XC46BE224T-F100-VR\_Antenna measurement Report\_APPENDIX”

## APPENDIX C - Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Fax: 886-2-26051924

### **Hsin Chu EMC/RF/Telecom Lab**

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**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

The address and road map of all our labs can be found in our web site also.

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