

AUT Report

Product Model: EAP775 Outdoor(US) 1.0

Manufacturer: TP-Link Systems Inc.

Test Date: 2025.12.01

Tested By: Yin shufen *YinShufen*

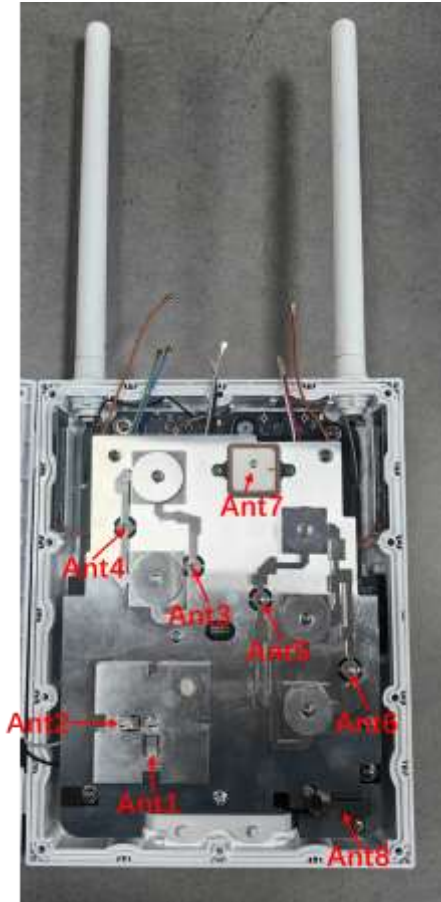
TP-Link Systems Inc.
10 Mauchly, Irvine, CA 92618

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1. Antenna Distribution

EAP775 Outdoor(US) 1.0



2. Electrical Characteristics

Ant1 (2G WiFi ANT)	
Frequency	2400~2500MHz
Impedance	50Ohm
Antenna Type	Microstrip
Antenna Gain	8.15dBi@2400~2500MHz
Radiation pattern	Directional
P/N	3100000813

Ant2 (2G WiFi ANT)	
Frequency	2400~2500MHz
Impedance	50Ohm
Antenna Type	Microstrip
Antenna Gain	8.11dBi@2400~2500MHz
Radiation pattern	Directional
P/N	3100000813

Ant3 (5G WiFi ANT)	
Frequency	5150~5895MHz
Impedance	50Ohm
Antenna Type	Microstrip
Antenna Gain	10.12dBi@5150~5250MHz 10.12dBi@5250~5350MHz 9.33dBi@5470~5725MHz 9.33dBi@5725~5895MHz
Radiation pattern	Directional
P/N	3100000813

Ant4 (5G WiFi ANT)	
Frequency	5150~5895MHz
Impedance	50Ohm
Antenna Type	Microstrip
Antenna Gain	10.41dBi@5150~5250MHz 10.41dBi@5250~5350MHz 9.48dBi@5470~5725MHz 9.48dBi@5725~5895MHz
Radiation pattern	Directional
P/N	3100000813

Ant5 (6G WiFi ANT)	
Frequency	5925~7125MHz
Impedance	50Ohm
Antenna Type	Microstrip
Antenna Gain	10.40dBi@5925~6425MHz 11.26dBi@6425~6525MHz 11.26dBi@6525~6875MHz 11.49dBi@6875~7125MHz
Radiation pattern	Directional
P/N	3100000813

Ant6 (6G WiFi ANT)	
Frequency	5925~7125MHz
Impedance	50Ohm
Antenna Type	Microstrip
Antenna Gain	10.70dBi@5925~6425MHz 11.20dBi@6425~6525MHz 11.20dBi@6525~6875MHz 11.55dBi@6875~7125MHz
Radiation pattern	Directional
P/N	3100000813

Ant7 (GPS ANT)	
Frequency	1575.42 ± 1.023MHz
Impedance	50Ohm
Antenna Type	Microstrip
Antenna Gain	3.46dBi@1575.42 ± 1.023MHz
Radiation pattern	Directional
P/N	3100000813

Ant8 (BLE ANT)	
Frequency	2400~2500 MHz
Impedance	50Ohm
Antenna Type	PIFA
Antenna Gain	2.02dBi@2400~2500MHz
Radiation pattern	Omni-Directional
P/N	3100000813

3. Gain and Radiation Pattern

3.1 Measurement Procedure

This measurement experiment adopted an antenna near-field measurement system, and the diagram of the measurement system was shown in Figure 3-1. The excitation signal was generated by the Keysight E5071C (300kHz-20GHz). Under the control of the central computer, the probe rotated in the θ direction, and the EUT rotated in the φ direction with the turntable. The probe sampling frame received and collected signals in the near-field range of the EUT. The software system which was controlled by the central computer completed the processing, output and display of the test data.

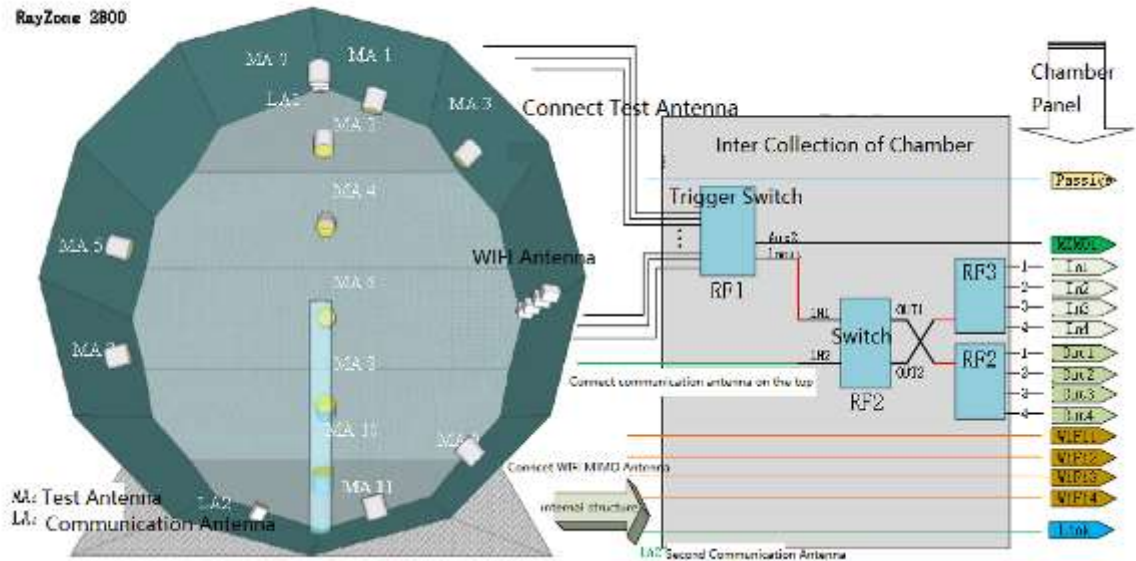


Figure 3-1

The test site was a full anechoic chamber with a size of 3.0m×3.1m×2.97m, which was built by GTS Rayzone2800. All six surfaces of the anechoic chamber were pasted with absorbing materials. And the chamber was calibrated by the authoritative third-party lab every year. The antenna anechoic chamber measurement system adopted a 13-probe multi-probe system. The probe antennas were evenly distributed on the spherical surface surrounding the EUT, and their operating frequency was 600MHz~8.5GHz.

During the measurement, the probe antennas were rotated in the θ direction under the control of the probe holder to sample the near-field data at the θ angle. At the same time, the EUT rotated with the turntable in the φ direction to sample the near field data at the φ angle. The sampling accuracy was 15°. The system diagram was shown in Figure 3-2. From the sampling results, the EUT's near-field test data of θ component, φ component and total component could be obtained.

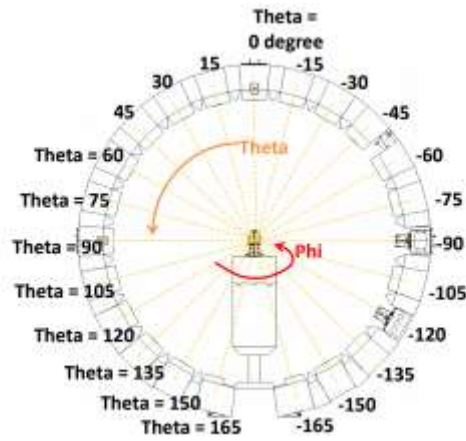


Figure 3-2

Before the measurement, calibrated the vector network analyzer, and then connected the input end of each antenna to the output end of the vector network analyzer, and evenly the antennas to be measured.

Test Equipment listed below:

Equipments	Model	Manufacturer	S/N	Cali. Interval	Cali. Due Date
Chamber	Rayzone2800	GTS(General Test System)	MY5347043 5	12months	2026/09/15
Vector Network Analyzer	E5071C	Keysight	MY46315238	24months	2026/09/13
GTS MaxSign100 Software	V2.1	GTS(General Test System)	/	/	/

3.2 Test Setup

The test setup was shown in Figure 3-3, 3-4:



Figure 3-3

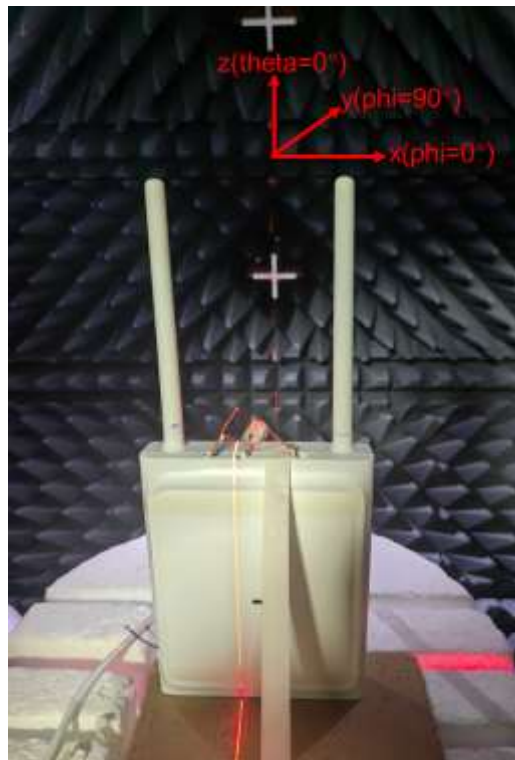
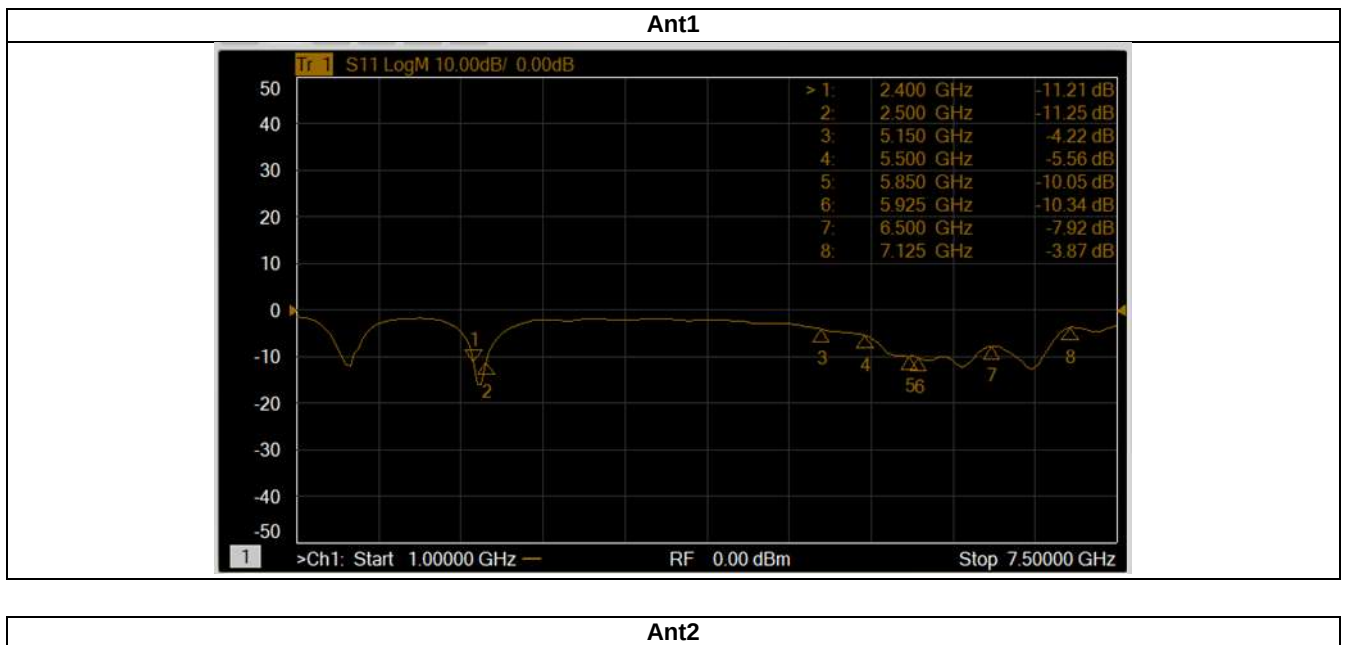
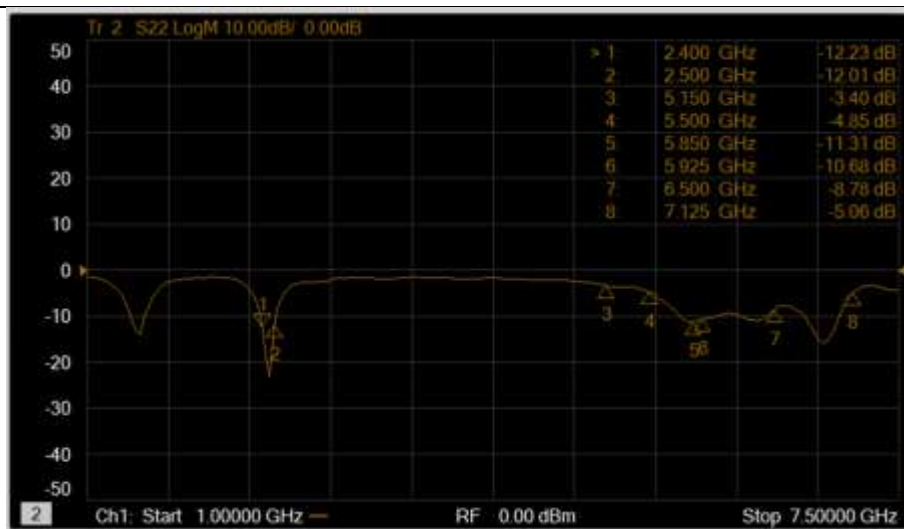


Figure 3-4

3.3 S Parameter Test Data





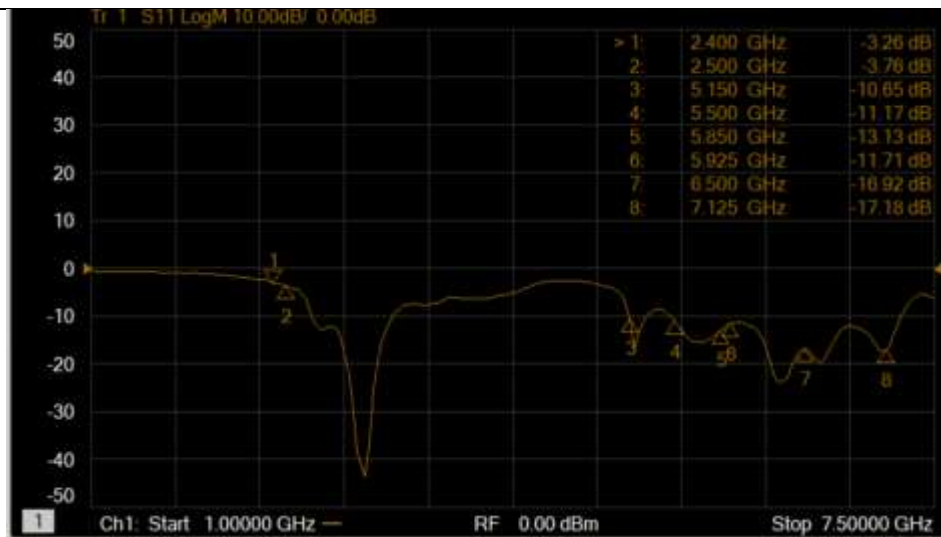
Ant3



Ant4



Ant5



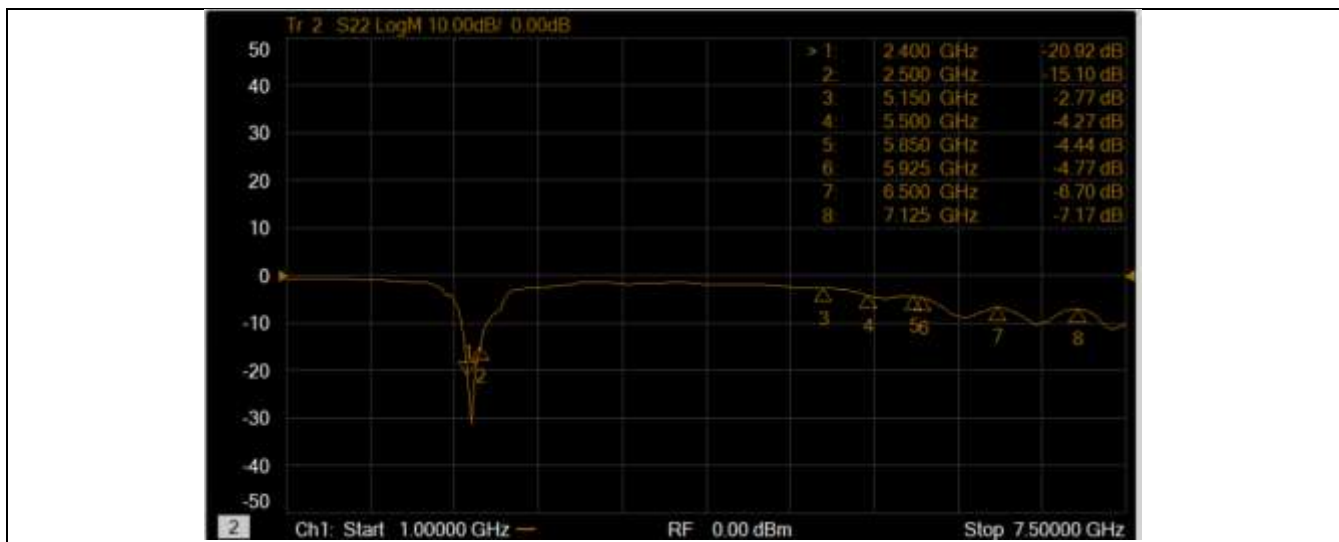
Ant6



Ant7



Ant8



3.4 Antenna Gain

3.4.1 Peak Gain - WiFi Antenna

Frequency	2.45GHz 2400~2500MHz	5.2GHz 5150~5250MHz	5.3GHz 5250~5350MHz	5.6GHz 5470~5725MHz	5.8GHz 5725~5895MHz
Ant1 MaxGain(dBi)	8.15	/	/	/	/
Ant2 MaxGain(dBi)	8.11	/	/	/	/
Ant3 MaxGain(dBi)	/	10.12	10.12	9.33	9.33
Ant4 MaxGain(dBi)	/	10.41	10.41	9.48	9.48
Ant5 MaxGain(dBi)	/	/	/	/	/
Ant6 MaxGain(dBi)	/	/	/	/	/
Ant1 Polarization/ Φ (°) / θ (°)	Theta/270/90	/	/	/	/
Ant2 Polarization/ Φ (°) / θ (°)	Phi/270/90	/	/	/	/
Ant3 Polarization/ Φ (°) / θ (°)	/	Theta/285/90	Theta/285/90	Theta/285/90	Theta/285/90
Ant4 Polarization/ Φ (°) / θ (°)	/	Phi/270/90	Phi/270/90	Phi/270/90	Phi/270/90
Ant5 Polarization/ Φ (°) / θ (°)	/	/	/	/	/
Ant6 Polarization/ Φ (°) / θ (°)	/	/	/	/	/
Max Gain(dBi)	8.15	10.41	10.41	9.48	9.48

Frequency	6.175GHz 5925~6425MHz	6.475GHz 6425~6525MHz	6.725GHz 6525~6875MHz	7.025GHz 6875~7125MHz
Ant1 MaxGain(dBi)	/	/	/	/
Ant2 MaxGain(dBi)	/	/	/	/
Ant3 MaxGain(dBi)	/	/	/	/
Ant4 MaxGain(dBi)	/	/	/	/

Ant5 MaxGain(dBi)	10.40	11.26	11.26	11.49
Ant6 MaxGain(dBi)	10.70	11.20	11.20	11.55
Ant1 Polarization/ Φ (°) / θ (°)	/	/	/	/
Ant2 Polarization/ Φ (°) / θ (°)	/	/	/	/
Ant3 Polarization/ Φ (°) / θ (°)	/	/	/	/
Ant4 Polarization/ Φ (°) / θ (°)	/	/	/	/
Ant5 Polarization/ Φ (°) / θ (°)	Theta/270/90	Theta/270/90	Theta/270/90	Theta/270/90
Ant6 Polarization/ Φ (°) / θ (°)	Phi/270/90	Phi/255/90	Phi/255/90	Phi/255/90
Max Gain(dBi)	10.70	11.26	11.26	11.55

3.4.2 Horizontal plane Gain

3.4.2.1. 5150~5250MHz

θ	>30°
Ant3 MaxGain(dBi)	-5.35
Ant4 MaxGain(dBi)	-5.24
Max Gain(dBi)	-5.24

3.4.2.2. 5925~6425MHz

θ	>30°
Ant5 MaxGain(dBi)	-5.06
Ant6 MaxGain(dBi)	-5.18
Max Gain(dBi)	-5.06

3.4.2.3. 6525~6875MHz

θ	>30°
Ant5 MaxGain(dBi)	-5.81
Ant6 MaxGain(dBi)	-5.07
Max Gain(dBi)	-5.07

3.4.3 Peak Gain - GPS/BLE Antenna

Frequency	1.575GHz 1575.42±1.023MHz	2.45GHz 2400~2500MHz
Ant7 MaxGain(dBi)	3.46	/
Ant8 MaxGain(dBi)	/	2.02
Ant7 Polarization/ Φ (°) / θ (°)	Circular/300/135	/
Ant8 Polarization/ Φ (°) / θ (°)	/	Phi/90/75

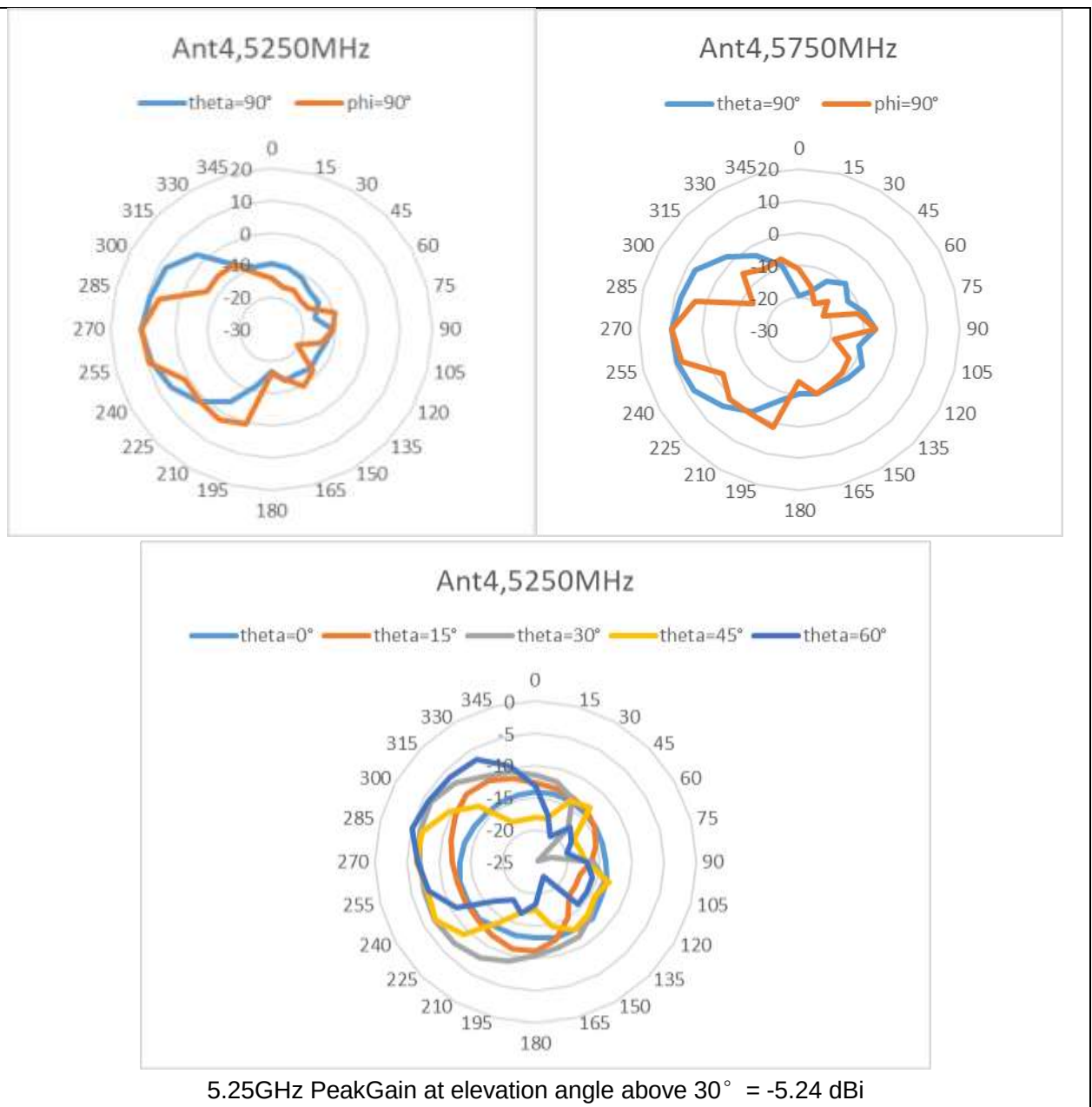
Max Gain(dBi)	3.46	2.02
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3.5 Antenna Radiation Pattern



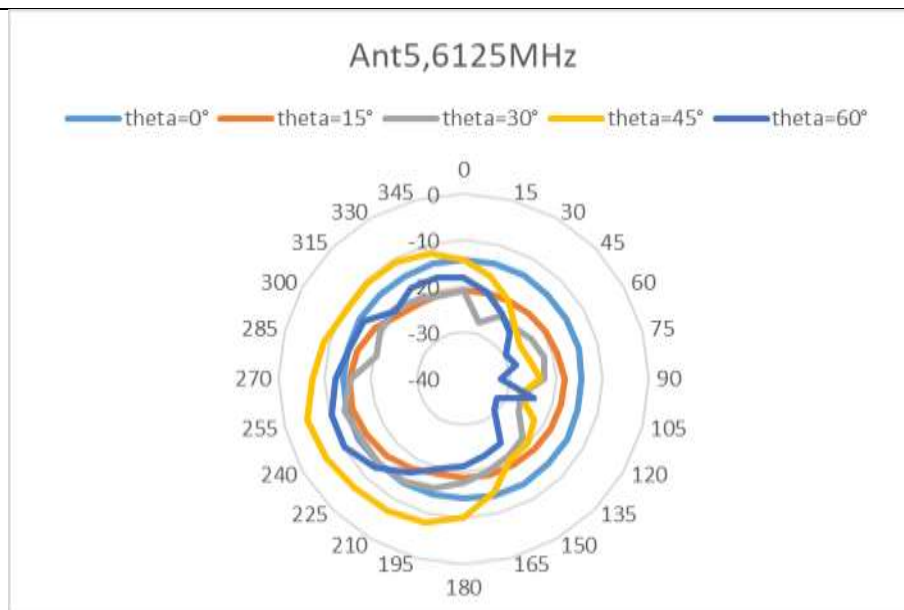


Ant4

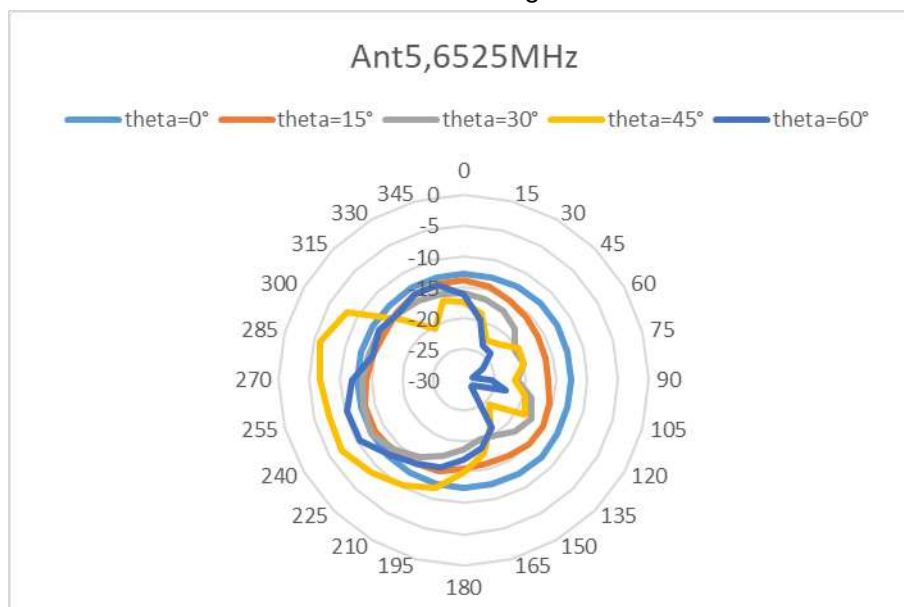


Ant5



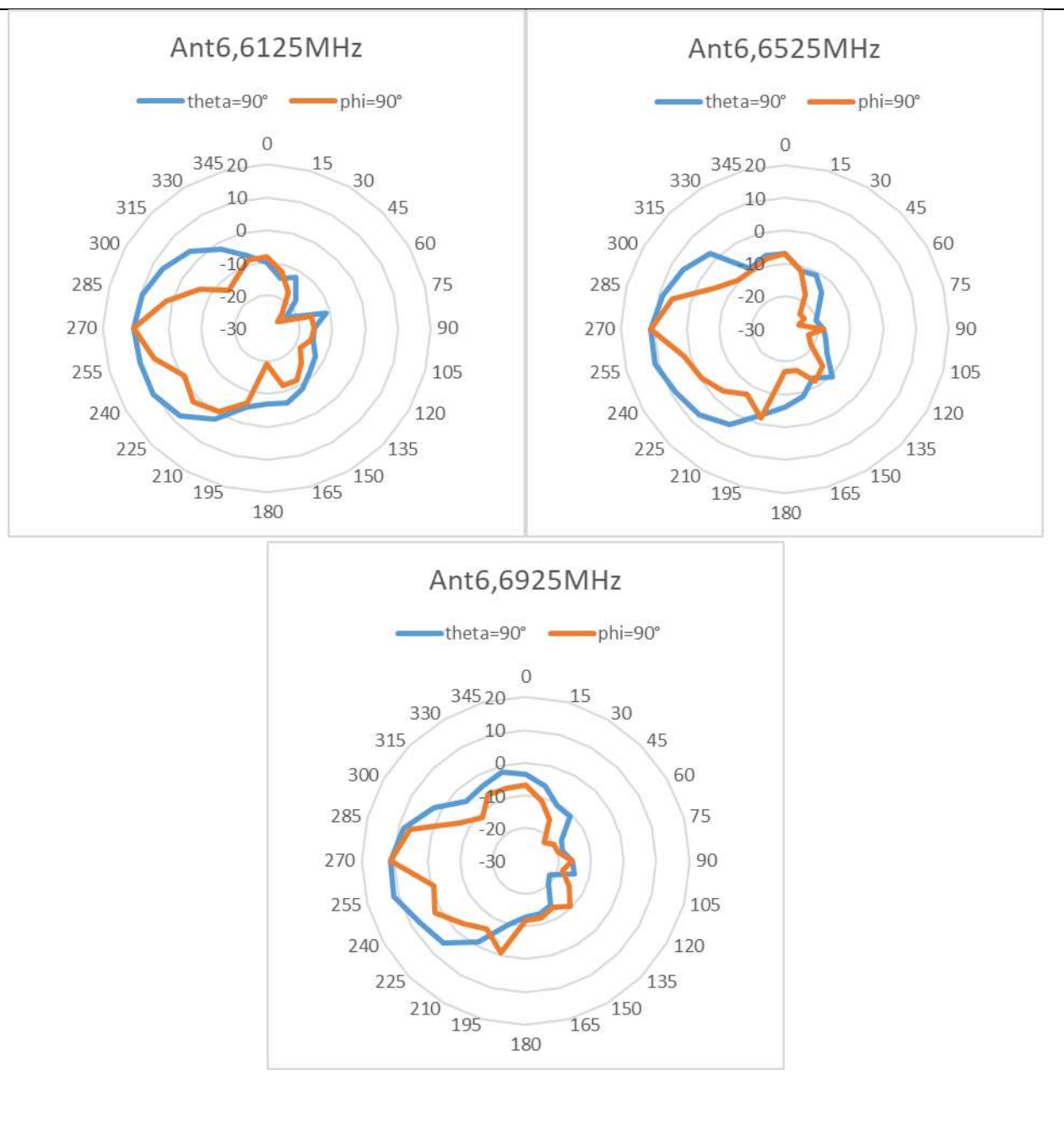


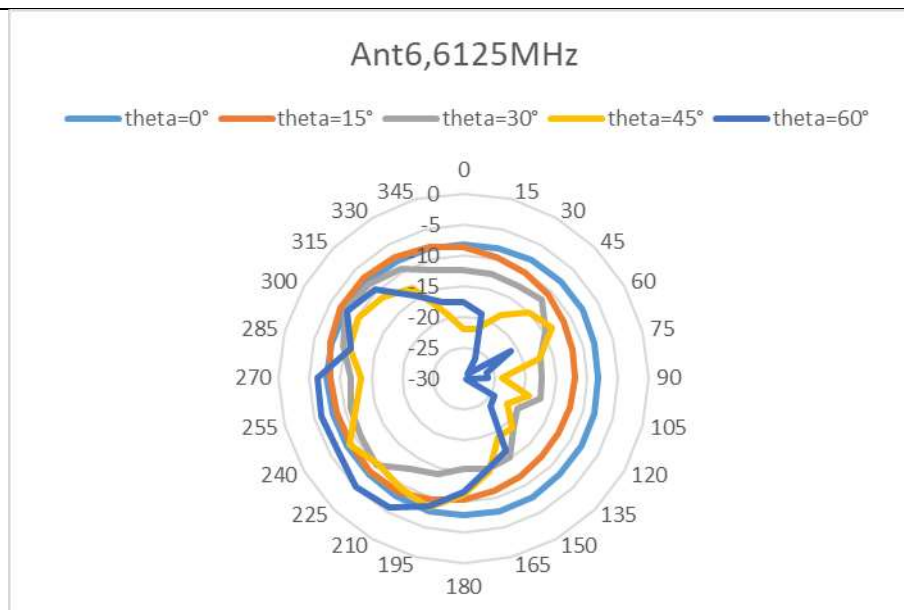
6.125GHz PeakGain at elevation angle above 30° = -5.06 dBi



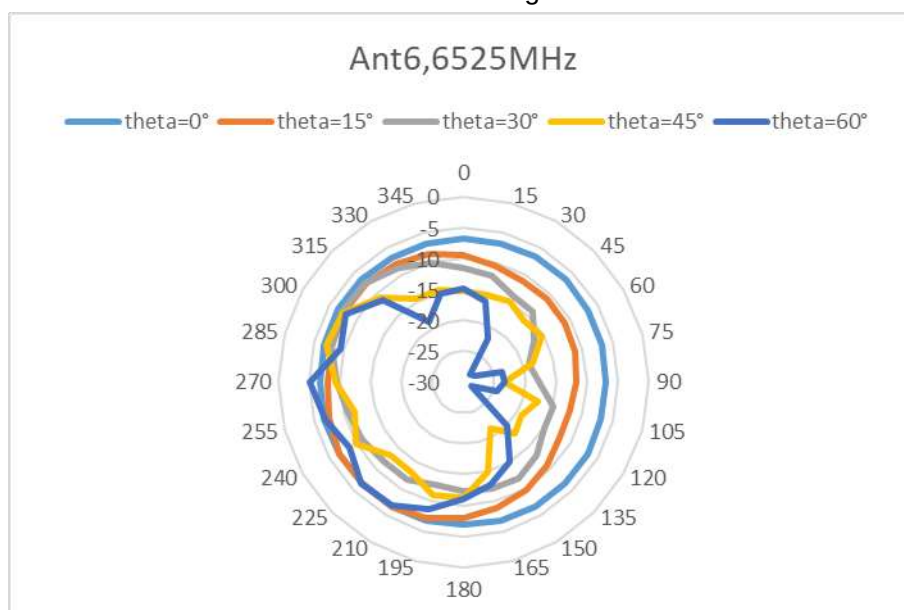
6.525GHz PeakGain at elevation angle above 30° = -5.81 dBi

Ant6



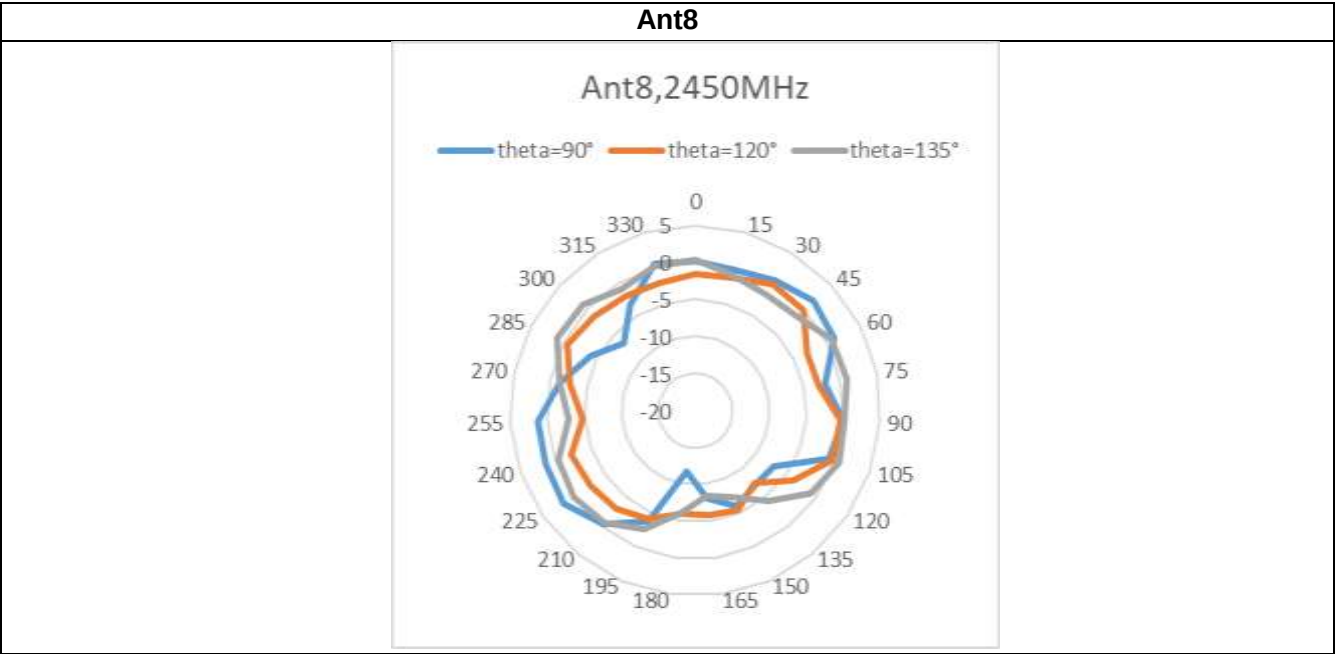
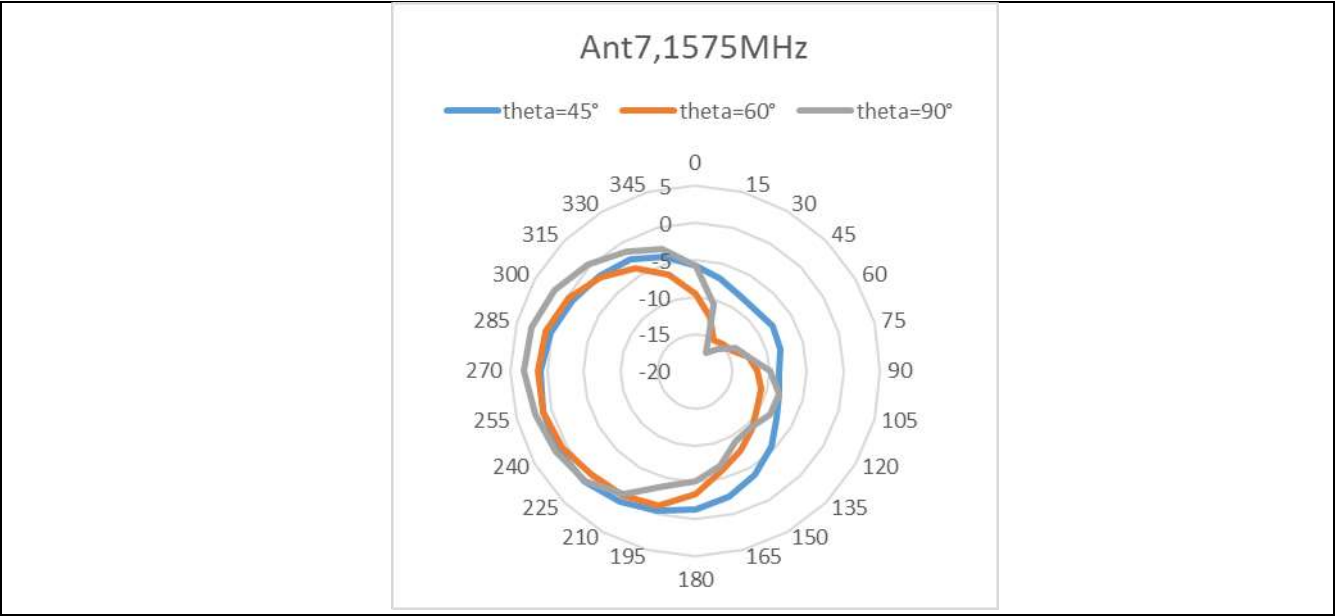


6.125GHz PeakGain at elevation angle above 30° = -5.18 dBi



6.525GHz PeakGain at elevation angle above 30° = -5.07 dBi

Ant7



4. Test Pattern

Ant1													
Freq	2450												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-11.53	-16.37	-9.25	-9.73	-9.21	-9.9	-10.98	-7.8	-5.49	-4.46	-6.46	-7.52	-10.59
15	-11.62	-23.47	-11.51	-13.18	-17.1	-14.06	-9.25	-6.12	-6.56	-6.58	-7.82	-4.01	-10.59
30	-11.25	-20.85	-11.65	-11.08	-12.25	-9.69	-8.94	-7.35	-7.64	-9.48	-6.77	-2.52	-10.59
45	-11.32	-15.5	-11.21	-9.12	-9.1	-9.52	-15.14	-10.91	-10.91	-11.16	-7.47	-2.71	-10.59
60	-11.55	-12.78	-11.38	-7.83	-9.99	-10.48	-13.74	-7.34	-7.47	-5.36	-5.93	-3.31	-10.59
75	-11.34	-11.5	-11.7	-8.15	-13.69	-9.87	-9.32	-6.12	-6.52	-6.27	-5.3	-3.82	-10.59
90	-11.47	-10.72	-11.79	-10.6	-11.52	-7.88	-10.16	-6.71	-7.54	-8.92	-6.43	-4.27	-10.59
105	-11.75	-10.56	-12.99	-11.96	-9.56	-8.5	-12.44	-7.44	-8.47	-9.56	-7.84	-4.28	-10.59
120	-11.42	-10.85	-14.2	-9.8	-9.26	-9.26	-17.55	-9.64	-8.65	-7.07	-8.88	-4.67	-10.59
135	-11.73	-11.59	-11.99	-6.98	-7.8	-10.39	-9.6	-12.43	-9.11	-8.02	-6.92	-6.71	-10.59

150	-12.32	-12.98	-10.32	-6.89	-9.41	-10.43	-7.67	-10.81	-11.43	-14.33	-6.95	-10.59	-10.59
165	-12.13	-12.97	-10.72	-8.14	-11.29	-6.19	-4.78	-8	-10.74	-7.66	-10.42	-9.27	-10.59
180	-12.07	-11.57	-10.22	-9.29	-7.26	-6.13	-4.06	-3.92	-6.22	-9.39	-8.35	-4.8	-10.59
195	-12.15	-9.59	-8.02	-6.62	-6.5	-2.5	-3.22	-2.87	-2.16	-3.35	-5	-3.01	-10.59
210	-11.81	-8.42	-6.6	-3.83	-4.22	0.77	1.01	0.46	-0.24	-1.59	-5.8	-3.55	-10.59
225	-12.05	-7.87	-6.22	-2.34	-0.97	2.63	3.83	4.21	3.01	-2.64	-6.82	-5.79	-10.59
240	-12.37	-7.62	-5.96	-1.03	1.91	5.02	6.34	6.47	4.96	-0.39	-4.49	-8.01	-10.59
255	-12.25	-7.76	-6.31	-0.57	2.83	6.08	7.92	7.68	5.5	-0.03	-3.76	-9.05	-10.59
270	-12.14	-8.12	-7.69	-0.98	2.49	6.06	8.15	7.75	4.07	-1.23	-4.63	-8.78	-10.59
285	-12.02	-8.31	-9.05	-2.49	1.07	5.19	7.11	6.76	3.34	1.21	-4.87	-7.04	-10.59
300	-11.63	-8.65	-9.46	-5.57	-0.22	3.37	4.94	5.6	2.54	-0.13	-6.72	-5.74	-10.59
315	-11.61	-9.15	-8.3	-7.71	-1.55	1.33	3.25	2.94	-0.02	-2.39	-10.88	-6.05	-10.59
330	-11.59	-10.35	-7.14	-6.58	-3.45	-0.68	-0.63	0.35	-2.85	-3.04	-7.44	-7.93	-10.59
345	-11.43	-12.46	-7.21	-6.42	-4.17	-4.17	-4.71	-4.32	-5.76	-4.56	-3.78	-10	-10.59

Ant2													
Freq	2450												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-8.6	-9.19	-9.19	-9.79	-17.98	-10.19	-14.42	-9.59	-7.62	-7.56	-5.38	-3.51	-17.3
15	-8.38	-8.96	-9.34	-11.6	-17.65	-11.44	-7.69	-12.16	-7.08	-5.81	-9.69	-4.81	-17.3
30	-8.3	-8.83	-10.47	-11.34	-15.14	-13.67	-6.05	-6.21	-9.54	-6.59	-12.26	-7.92	-17.3
45	-8.32	-8.96	-11.73	-12.24	-23.2	-12.52	-10.91	-10.21	-12.69	-12.91	-10.95	-13.05	-17.3
60	-8.49	-9.2	-13.1	-16.27	-15.74	-12.68	-13.55	-16.87	-16.43	-10.23	-12.31	-17.3	-17.3
75	-8.64	-9.42	-13.24	-21.19	-13.31	-8.5	-6.47	-5.63	-10.41	-9.88	-13.5	-13.67	-17.3
90	-8.55	-9.77	-12.79	-18.56	-14.02	-10.82	-8.36	-7.95	-10.92	-10.55	-17.79	-10.52	-17.3
105	-8.22	-10.16	-13.58	-16.79	-15.54	-9.91	-5.1	-7.65	-9.98	-8.81	-23.01	-9.34	-17.3
120	-7.79	-10.34	-15.25	-14.56	-12.55	-8.82	-5.48	-5.97	-6.58	-7.97	-13.52	-8.8	-17.3
135	-7.66	-10.48	-13.99	-12.26	-10.4	-8.42	-8.23	-5.54	-6.74	-6.7	-11.83	-8.36	-17.3
150	-7.83	-10.11	-10.9	-9.53	-8.75	-8.1	-4.62	-5.12	-6.5	-4.77	-16.27	-7.1	-17.3
165	-8.29	-9.46	-8.47	-6.8	-7.24	-4.4	-3.98	-6.12	-5.32	-5.11	-11.96	-6.34	-17.3
180	-8.48	-8.82	-6.55	-3.62	-3.1	-4.98	-6.54	-8.77	-4.88	-4.59	-7.92	-6.25	-17.3
195	-8.41	-8.14	-4.69	-1.59	-4.59	-6.31	-3.95	-7.12	-4.96	-3.88	-6.43	-6.31	-17.3
210	-8.06	-7.53	-3.4	-1.06	-1.25	-1.27	-2.74	-2.63	-2.94	-1.7	-4.09	-6.64	-17.3
225	-7.92	-7.11	-3.12	0.45	0.69	-0.07	3.06	2.26	0.34	1.73	-1	-6.11	-17.3
240	-7.92	-7.04	-3.49	0.87	1.88	5.7	5.1	6.01	3.43	3.23	0.58	-4.85	-17.3
255	-8.3	-7.24	-4.01	0.21	2.91	6.82	7.9	7.16	4.42	3.38	1.27	-3.45	-17.3
270	-8.53	-7.38	-3.93	-0.54	2.28	7.42	8.11	6.6	4.27	2.96	1.3	-2.07	-17.3
285	-8.57	-7.8	-3.49	-1.11	2.14	6.47	6.11	5.58	3.3	2.22	1.26	-1.19	-17.3
300	-8.61	-8.42	-3.14	-1.87	1.43	3.07	2.13	2.01	1.83	2.23	1.72	-1.1	-17.3
315	-8.63	-9.17	-3.79	-2.37	-1.68	-3.29	-5.6	-4.86	-2.35	0.05	0.69	-1.93	-17.3
330	-8.6	-9.71	-6.2	-3.23	-7.69	-10.48	-8.68	-9.26	-7.41	-3.91	-2.26	-3.15	-17.3
345	-8.65	-9.57	-9.06	-6.65	-14.35	-11.29	-8.51	-8.38	-13.12	-6.81	-3.74	-3.5	-17.3

Ant3													
Freq	5250												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-11.13	-11.09	-13.77	-15.35	-15.2	-5.78	-4.92	-8.23	-10.18	-10.88	-21.39	-8.28	-19.82

15	-11.15	-12.05	-15.42	-17.54	-18.67	-11.16	-10.37	-12	-13.41	-14.73	-15.72	-11.14	-19.82
30	-11.36	-12.37	-15.51	-20.48	-21.34	-14.77	-14.34	-13.6	-21.92	-14.44	-14.86	-12.33	-19.82
45	-11.35	-12.62	-18.37	-16.69	-24.27	-19.55	-20.02	-21.81	-22.56	-21.76	-16.44	-8.72	-19.82
60	-11.09	-13.23	-17.88	-21.61	-23.56	-20.97	-16.38	-16.7	-29.38	-15.02	-18.16	-11.26	-19.82
75	-11.09	-14.2	-17.48	-21.52	-37.06	-24.18	-26.07	-18.3	-16.64	-17.88	-19.11	-15.08	-19.82
90	-11.23	-15.13	-18.27	-19.56	-28.84	-19.53	-24.08	-23.32	-17.95	-17.48	-20.64	-19.82	-19.82
105	-11.3	-14.9	-16.8	-16.97	-22.03	-24.93	-15.52	-17.99	-23.65	-13.74	-18.8	-18.19	-19.82
120	-11.37	-14.4	-15.89	-17.9	-25.44	-23.89	-16.41	-16.44	-25.6	-17.5	-16.87	-16.61	-19.82
135	-11.37	-14.63	-15.35	-17.46	-21.54	-18.34	-9.83	-19.43	-15.89	-15.41	-15.34	-18.6	-19.82
150	-11.11	-14.21	-15.67	-17.13	-22.04	-11.7	-9.17	-18.98	-13.48	-18.7	-13.4	-19.54	-19.82
165	-10.9	-13.67	-16.4	-15.21	-18.42	-8.49	-7.59	-11.93	-11.59	-14.38	-12.49	-15.35	-19.82
180	-10.85	-14.04	-17.59	-12.77	-19.21	-5.71	-4.49	-5.46	-10.43	-9.75	-9.72	-14.44	-19.82
195	-10.84	-14.27	-17.2	-13.18	-23.23	-3.48	-0.17	-1.38	-8.57	-6.9	-8.24	-12.26	-19.82
210	-10.79	-14.7	-16.64	-12.85	-18.28	-0.63	3.33	1.66	-6.55	-5.7	-7.5	-8.42	-19.82
225	-10.77	-15.19	-17.37	-15.45	-14.35	3.36	5.76	4.35	-7.09	-3.18	-5.97	-8.41	-19.82
240	-10.88	-15.05	-16.75	-21.08	-10.45	5.64	7.29	5.76	-10.22	-5.96	-4.1	-9.94	-19.82
255	-10.68	-14.11	-15.57	-23.16	-6.98	6.03	8.02	5.71	-4.34	-9.02	-4.25	-6.13	-19.82
270	-10.76	-12.84	-13.75	-21.17	-5.35	8.35	9.44	6.6	-6.95	-5.94	-8.36	-6.22	-19.82
285	-10.71	-11.4	-10.85	-14.57	-6.05	8.92	10.12	7.58	-3.45	-11.12	-5.83	-7.45	-19.82
300	-10.78	-10.5	-8.78	-11.03	-5.64	8.29	9.89	7.77	-3.29	-9.12	-6.55	-6.05	-19.82
315	-10.76	-9.83	-9.2	-10.5	-5.63	6.05	7.5	4.92	0.65	-12.78	-5.22	-5.47	-19.82
330	-10.86	-9.73	-10.74	-11.83	-8.45	4.34	4.51	0.37	-2.2	-14.91	-7.62	-6.64	-19.82
345	-10.85	-10.1	-12.31	-12.79	-12.14	0.58	0.02	-2.29	-8.11	-7.15	-11.99	-7.33	-19.82

Ant3													
Freq	5750												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-14.02	-11.39	-16.14	-21.41	-16.64	-5.15	-6.47	-9.79	-14.34	-14.5	-10.51	-9.57	-18.12
15	-13.85	-12.14	-16.64	-27.52	-21.48	-8.4	-9.51	-12.08	-18.49	-15.69	-14.73	-9.54	-18.12
30	-13.58	-13.74	-16.36	-23.07	-29.37	-14.25	-12.84	-19.08	-15.89	-18.48	-17.07	-12.11	-18.12
45	-13.64	-15.38	-16.05	-18.68	-27.24	-19.94	-19.04	-24.89	-20.87	-22.46	-11.55	-17.17	-18.12
60	-13.99	-16.28	-19.09	-20.08	-24.04	-23.12	-18.46	-21.05	-21.35	-26.13	-17.85	-18.12	-18.12
75	-14.25	-16.93	-21.32	-20.62	-22.03	-21.6	-22.02	-20.22	-20.03	-21.18	-23.55	-15.38	-18.12
90	-14.31	-17.48	-21.61	-19.52	-26.08	-17.82	-18.78	-19.62	-18.26	-24	-16.42	-15.83	-18.12
105	-14.43	-17.61	-19.53	-21.63	-23.26	-19.8	-18.94	-20.79	-31.71	-22.06	-15.17	-18	-18.12
120	-14.1	-16.58	-16.66	-16.67	-20.46	-19.09	-17.21	-16.63	-31.2	-25.98	-17.34	-14.41	-18.12
135	-13.91	-15	-16.7	-16.09	-22.63	-21.98	-11.45	-17.58	-18.67	-19.76	-16.46	-11.88	-18.12
150	-14.05	-13.56	-16.82	-15.03	-20.45	-15.27	-11.09	-14.31	-17.66	-13.34	-15.2	-10.5	-18.12
165	-14.28	-12.23	-16.19	-12.55	-27.27	-11.03	-8.39	-11.82	-18.43	-10.41	-13.91	-9.03	-18.12
180	-14.53	-11.97	-15.38	-11.51	-25.08	-9.57	-3.18	-7.95	-12.78	-6.75	-10.7	-6.79	-18.12
195	-14.68	-11.95	-14.96	-9.18	-17.01	-4.54	1.26	-4.53	-10.53	-4.11	-8.4	-3.5	-18.12
210	-14.66	-11.54	-18.14	-9.52	-15.61	-0.18	4.09	-1.43	-7.03	-2.05	-5.41	-1.01	-18.12
225	-14.45	-10.77	-18.55	-11.8	-11.55	1.97	6.15	1.3	-5.12	-1.11	-2.09	0.3	-18.12
240	-14.19	-10.39	-14.82	-15.5	-9.09	3.95	7.39	4.33	-0.84	-0.18	1.02	0.4	-18.12
255	-13.94	-10.87	-11.65	-7.71	-7.69	5.19	9.09	7.04	-1.81	-1.6	1.86	0.37	-18.12
270	-14.22	-11.84	-10.93	-5.82	-5.66	6.12	9.07	6.87	-3.88	-0.29	1.81	0.17	-18.12
285	-14.08	-12.46	-12.8	-7.15	-5.87	5.83	9.33	8.05	-2.56	-1.98	1.5	-1.77	-18.12

300	-14.07	-12.24	-11.72	-7.69	-6.22	3.85	7.87	6.57	-3.65	-2.29	-0.63	-4.91	-18.12
315	-14.15	-11.48	-11.04	-9.97	-8.35	1.11	5.16	2.09	-3.77	-9.19	-3.46	-7.41	-18.12
330	-14.12	-11.04	-13.56	-13.82	-10.79	0.94	1.69	-1.55	-7.83	-8.91	-6.11	-7.58	-18.12
345	-13.91	-11.07	-15.89	-21.09	-12.95	-2.01	-2.24	-4.1	-11.59	-7.34	-9.14	-8.5	-18.12

Ant4													
Freq	5250												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-14.12	-12.75	-11.44	-18.08	-13.29	-4.96	-9.62	-6.67	-5.91	-9.99	-9.06	-4.59	-16.16
15	-13.99	-13.09	-12.1	-17.98	-17.41	-8.34	-10.18	-9.16	-10.68	-9.1	-12.19	-5.49	-16.16
30	-14.08	-13.3	-13.53	-14.05	-20.49	-6.7	-11.43	-6.81	-16.72	-9.53	-12.17	-7.82	-16.16
45	-14.14	-13.69	-17.73	-12.95	-17.46	-11.98	-13.43	-9.61	-11.13	-10.89	-12.26	-11.55	-16.16
60	-14.14	-14.37	-24.62	-18.15	-18.63	-13	-13.36	-16.03	-13.6	-18.05	-17.01	-16.13	-16.16
75	-14.16	-15.33	-22.44	-17.72	-19.86	-15.15	-16.19	-12.41	-12.78	-12.54	-11.6	-16.16	-16.16
90	-14.06	-16.25	-15.94	-17.15	-17.01	-9.66	-10.95	-14.03	-20.64	-11.98	-9.63	-13.97	-16.16
105	-13.54	-17.75	-13.79	-13.12	-15.87	-10.31	-12.68	-9.9	-17.09	-15.06	-9.45	-13.65	-16.16
120	-13.33	-17.76	-14.18	-14.34	-15.68	-11.91	-13.66	-20.6	-22.17	-17.31	-13.06	-11.65	-16.16
135	-12.42	-17.64	-12.94	-13.5	-15.71	-16.79	-12.71	-20.26	-25.55	-10.42	-14.93	-13.96	-16.16
150	-12.73	-14.96	-11.52	-12.8	-22.35	-16.29	-14.24	-22.42	-17.42	-11.12	-17.42	-14.4	-16.16
165	-12.86	-12.46	-11.19	-14.65	-21.42	-10.85	-13.65	-16.94	-13.41	-9.18	-13.09	-9.79	-16.16
180	-13.16	-11.15	-10.5	-17.61	-18.36	-8.9	-16.88	-11.53	-10.19	-9.19	-11.2	-6.43	-16.16
195	-13.19	-11.06	-9.11	-17.02	-16.7	-9.81	-11.73	-7.58	-9.11	-9.72	-7.2	-7.38	-16.16
210	-13.26	-11.73	-7.77	-14.19	-18.17	-5.92	-4.11	-4.37	-8.94	-9.09	-4.71	-3.48	-16.16
225	-12.53	-12.33	-7.17	-9.14	-16.36	-1.11	1.92	0.02	-6.4	-6.37	-5.24	-0.81	-16.16
240	-12.83	-12.53	-6.94	-7.03	-10.81	2.29	5.92	3.61	-2.26	1.49	0.55	-1.11	-16.16
255	-12.88	-12.53	-7.11	-7.59	-7.76	4.65	8.74	7.55	0.39	4.07	2.85	-0.61	-16.16
270	-13.21	-12.11	-6.96	-6.46	-6.63	6.28	10.41	9.5	1.04	1.6	2.39	0.51	-16.16
285	-13.6	-11.45	-6.49	-6.76	-5.24	7.07	9.22	9.77	2.91	2.7	4.29	0.5	-16.16
300	-13.99	-10.58	-6.26	-9.48	-5.81	6.11	8.19	7.84	1.57	0.26	2.21	-0.31	-16.16
315	-14.31	-10.01	-7.53	-12.65	-6.31	4.81	2.84	4.57	2.15	-0.02	-0.53	0.1	-16.16
330	-14.29	-10.45	-9.64	-17.89	-6.59	2.05	-6.95	2.54	-0.12	-2.1	-6.23	-1.81	-16.16
345	-14.18	-11.55	-10.4	-18.2	-9.54	-1.43	-9.89	-1.16	-3.74	-5.57	-10.58	-3.78	-16.16

Ant4													
Freq	5750												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-11.36	-12.07	-14.74	-15	-16.02	-5.66	-19.6	-5.72	-10.23	-8.07	-4.42	-6.28	-13.93
15	-11.09	-13.25	-15.99	-15.34	-22.46	-8.59	-18.11	-11.36	-9.86	-18.79	-4.81	-8.98	-13.93
30	-10.84	-14.23	-16.35	-15.94	-23.86	-9.51	-12.77	-8.58	-20.51	-10.78	-7.07	-12.05	-13.93
45	-10.71	-15.28	-16.71	-15.33	-19.05	-13.38	-9.51	-8.19	-7.74	-9.37	-11.48	-13.93	-13.93
60	-10.81	-16.32	-17.57	-20.27	-18.15	-7.82	-12.5	-14.18	-9.93	-12.88	-21.65	-12.53	-13.93
75	-11.13	-17.03	-18.37	-24.86	-21.41	-11.55	-8.93	-8.8	-16.93	-12.72	-13.27	-11.96	-13.93
90	-11.21	-16.26	-20.75	-17.55	-21.28	-11.31	-6.29	-18.8	-12.3	-10.93	-10.62	-9.34	-13.93
105	-11.07	-15.56	-18.81	-17.63	-23.44	-7.35	-10.68	-18.17	-12.02	-13.91	-10.96	-6.97	-13.93
120	-10.72	-14.92	-16.68	-15.3	-28.13	-10.03	-7.35	-11.44	-10.67	-11.38	-15.66	-6.77	-13.93
135	-10.2	-15.72	-15.68	-15.27	-26.12	-8.87	-8.55	-17.86	-13.44	-12.57	-13.81	-6.54	-13.93

150	-10.14	-14.75	-14.47	-13.92	-25.05	-7.85	-9.96	-12.28	-11.36	-8.27	-10.29	-8.39	-13.93
165	-10.22	-13.22	-13.9	-10.72	-20.65	-9.51	-9.25	-8.55	-11.67	-8.32	-10.9	-8.25	-13.93
180	-10.59	-12.48	-13.38	-9.84	-16.66	-12.73	-10.16	-11.73	-11.35	-5.97	-6.69	-4.41	-13.93
195	-10.89	-11.74	-13	-9.02	-14.25	-9.99	-7.12	-17.15	-7.99	-3.08	-3.94	-2.99	-13.93
210	-10.92	-11.01	-12.43	-8.57	-14.76	-4.01	-0.53	-6.73	-5.84	-2.59	-3.88	-1.84	-13.93
225	-10.67	-9.95	-10.53	-8.35	-15.17	0.22	3.73	2.47	-3.12	-6.2	-3.62	0.55	-13.93
240	-10.63	-8.69	-9.11	-7.86	-18.5	3.69	7.82	6.66	-1.88	-3.72	-1.33	0.64	-13.93
255	-10.56	-7.78	-7.98	-6.54	-20.9	4.7	9.19	7.2	-0.86	0.37	-0.08	1.06	-13.93
270	-10.72	-7.42	-8.27	-5.4	-13.57	3.66	9.48	7.92	-2.78	0.58	0.23	1.43	-13.93
285	-10.91	-7.73	-9.77	-5.29	-12.97	4.23	8.29	7.42	-2.65	1.16	2.92	0.24	-13.93
300	-11.04	-8.4	-10.6	-6.33	-19.04	3.43	7.27	7.05	-3.5	-2.25	0.71	0.64	-13.93
315	-11.24	-8.88	-10.96	-9.61	-15.01	1.94	2.18	4	-3.13	-8.62	-0.63	0.04	-13.93
330	-11.39	-9.63	-13.16	-13.45	-11.22	-0.15	-3.5	1.45	-3.98	-13.61	-0.96	-1.46	-13.93
345	-11.56	-10.76	-15.13	-15.31	-12.35	-2.92	-9.35	-0.96	-6.64	-8.29	-3.96	-2.75	-13.93

Ant5													
Freq	6125												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-14.37	-20.93	-21.06	-14.35	-18.25	-5.25	0.6	-5.26	-11.15	-11.06	-8.1	-8.76	-11
15	-14.32	-20.81	-27.33	-17.14	-20.63	-8.16	-3.71	-7.5	-12.95	-13.25	-9.46	-9.6	-11
30	-14.15	-20.43	-24.37	-20.51	-23.6	-13.02	-8.15	-9.36	-13	-12.95	-10.53	-9.31	-11
45	-14.33	-19.99	-24.35	-24.17	-25.83	-18.75	-15.27	-17.02	-15.78	-12.96	-10.87	-11	-11
60	-14.26	-19.56	-22.9	-25.8	-29.5	-22.23	-12.82	-16.1	-14.63	-18.42	-17.09	-10.07	-11
75	-14.31	-18.98	-21.79	-25.16	-28.11	-17.71	-13.51	-22.66	-17.35	-18.89	-16.99	-9.06	-11
90	-14.48	-18.19	-22.5	-23.4	-31.93	-22.05	-21.83	-14.43	-13.7	-17.12	-20.11	-10.99	-11
105	-14.42	-18.08	-27.12	-27.28	-24.19	-18.91	-12.58	-20.19	-19.73	-16.86	-21.28	-10.96	-11
120	-14.12	-18.25	-26.3	-22.44	-31.6	-14.56	-13.96	-17.92	-15.78	-13.08	-13.75	-9.85	-11
135	-13.93	-18.23	-21.89	-20.19	-30.72	-12.6	-10.26	-19.3	-13.55	-14.67	-11.14	-9.91	-11
150	-13.79	-18.42	-20.66	-19.82	-24.02	-7.01	-6.54	-13.42	-11.41	-11.02	-11.33	-9.55	-11
165	-13.96	-18.54	-19.3	-14.68	-22.62	-4.01	-0.79	-9.21	-11.67	-7.21	-10.83	-8.72	-11
180	-14.15	-18.73	-17.41	-9.98	-21.08	-0.32	2.2	-8.56	-6.26	-5.87	-8.58	-9.28	-11
195	-14.26	-18.87	-15.48	-7.94	-19.77	3.35	5.2	-4.75	-2.69	-3.18	-6.6	-8.72	-11
210	-14.19	-17.67	-14.34	-7.14	-16.69	5.29	7.24	-3.09	-2.42	-1.85	-6.59	-8.71	-11
225	-14	-16.55	-14.24	-6.62	-12.97	6.59	8.04	-5	-6.85	-3.11	-7.09	-9.17	-11
240	-13.88	-15.87	-14.34	-5.69	-10.33	8.64	8.79	-5.3	-2.61	-2.95	-10.88	-8.14	-11
255	-14	-15.21	-13.42	-5.06	-10.35	8.46	10.02	-2.4	1.7	-0.89	-8.48	-6.73	-11
270	-14.05	-15.27	-15.67	-7.28	-12.32	7.51	10.4	-7.05	1.93	-3.62	-5.95	-5.87	-11
285	-14.17	-16.28	-20.41	-8.88	-14.37	6.53	9	-7.3	-1.64	-7.04	-13.5	-6.33	-11
300	-14.22	-18.07	-19.1	-10.75	-15.15	3.08	6.15	-7.46	-3.02	-4.46	-9.44	-5.96	-11
315	-14.4	-20.39	-18.7	-10.67	-19.22	0.63	4.67	-3.32	-4.46	-7.6	-6.05	-5.01	-11
330	-14.36	-21.12	-20.33	-10.79	-17.3	0.66	5.67	-1.08	-5.64	-6.85	-7.13	-4.85	-11
345	-14.35	-21.15	-21.28	-12.06	-17.41	-1.59	4.22	-2.08	-7.53	-9.27	-7.31	-5.82	-11

Ant5													
Freq	6525												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180

0	-12.81	-13.87	-15.97	-17.4	-16.06	-11.31	-3	-5.73	-17.29	-14.06	-6.34	-2.98	-14.06
15	-12.79	-14.3	-16.5	-18.85	-19.99	-14.72	-6.68	-8.47	-16.81	-13.91	-7.65	-4.4	-14.06
30	-12.65	-15.21	-17.05	-22.7	-23.68	-15.72	-7.76	-10.61	-18.97	-16.7	-10.46	-7.48	-14.06
45	-12.51	-15.77	-18.29	-21.84	-23.82	-19.21	-14.89	-15.39	-21.32	-15	-10.8	-11.06	-14.06
60	-12.43	-16.05	-20.41	-19.66	-26.44	-23.22	-17.81	-18.76	-17.15	-13.27	-14.08	-12.17	-14.06
75	-12.52	-16.35	-19.88	-19.98	-28.61	-19.52	-15.13	-24.02	-17.73	-20.55	-16.87	-12.08	-14.06
90	-12.52	-16.31	-21.38	-21.7	-25.52	-23.92	-19.66	-18.77	-19.56	-17.97	-20.78	-11.91	-14.06
105	-12.56	-15.66	-18.71	-19.8	-23.02	-19.81	-19.94	-20.9	-17.56	-15.24	-21.8	-14.06	-14.06
120	-12.44	-15.1	-17.26	-18.64	-28.29	-18.23	-13.96	-17.77	-17.13	-16.09	-18.02	-13.79	-14.06
135	-12.28	-15.22	-18.16	-24.29	-28.39	-18.01	-10.98	-15.68	-16.67	-12.16	-15.42	-11.24	-14.06
150	-12.34	-15.74	-19.58	-21.5	-21.06	-12.37	-6.41	-11.84	-12.44	-9.06	-12.18	-10.42	-14.06
165	-12.49	-15.95	-20.08	-17.7	-18.63	-8.25	-4.82	-9.92	-13.21	-8.09	-11.2	-10.04	-14.06
180	-12.51	-15.57	-18.78	-15.04	-17.09	-3.34	0.21	-5.43	-10.49	-4.6	-9.06	-8.27	-14.06
195	-12.59	-14.76	-17.31	-11.97	-15.42	-1.13	2.91	-2.9	-8.66	-3.11	-7.19	-7.78	-14.06
210	-12.64	-14.34	-15.65	-10.34	-14.35	0.27	3.5	-1.16	-4.73	-3.08	-7.25	-6.74	-14.06
225	-12.66	-13.8	-14.03	-8.7	-13.02	2.29	5.28	-0.85	-7.49	-6.22	-9.6	-6.48	-14.06
240	-12.67	-13.4	-12.64	-7.11	-10.47	4.83	8.32	0.3	-6.36	-12.53	-10.02	-5.78	-14.06
255	-12.79	-13.39	-13.15	-7.29	-10.41	4.94	9.63	1.61	-2.9	-6.52	-6.9	-6.49	-14.06
270	-12.79	-14.12	-13.48	-6.69	-11.88	4.72	11.26	1.68	-0.78	-7.02	-8.62	-4.09	-14.06
285	-12.82	-14.61	-13.95	-5.81	-14.62	3.11	8.72	0.1	-1.61	-6.45	-8.03	-1.78	-14.06
300	-12.85	-14.97	-14.21	-8.21	-14.01	1.81	7.19	-2.15	-4.49	-5.57	-4.9	-0.97	-14.06
315	-12.91	-14.64	-14.82	-16.14	-14.82	-0.83	4.21	-4.79	-3.19	-6.4	-4.51	-1.19	-14.06
330	-12.76	-13.97	-15.23	-20.57	-13.93	-3.67	2.59	-1.98	-4.36	-8.12	-4.5	-2.47	-14.06
345	-12.82	-13.89	-15.61	-16.82	-14.09	-6.61	0.77	-3.18	-9.91	-10.52	-6.43	-2.9	-14.06

Ant5													
Freq	6925												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-12.44	-14.95	-15.39	-15.1	-19.66	-8.35	-1.15	-5.31	-11.45	-7.79	-6.52	-2.95	-14.78
15	-12.55	-16.09	-16.86	-15.26	-22.65	-13.83	-4.42	-10.87	-12.27	-8.6	-7.75	-5.02	-14.78
30	-12.41	-16.85	-18.78	-20.08	-23.7	-23.48	-7.13	-11.73	-16.2	-11.85	-10.46	-7.11	-14.78
45	-12.29	-16.62	-18.74	-20.14	-25.46	-17.9	-10.89	-14.19	-18.71	-16.84	-8.98	-11	-14.78
60	-12.2	-16.22	-21.49	-18.82	-27.93	-16.75	-21.45	-14.12	-21.2	-15.5	-9.78	-14.78	-14.78
75	-12.07	-16.59	-20.73	-22.77	-30.84	-21.83	-16.06	-24.3	-13.23	-16.66	-14.83	-12.17	-14.78
90	-12.14	-17.87	-21.08	-21.34	-25.4	-23.57	-13.32	-20.5	-17.3	-12.21	-17.94	-8.9	-14.78
105	-12.09	-19.88	-23.67	-25.41	-32.76	-22.38	-17.66	-19.19	-16.06	-16.18	-13.39	-10.62	-14.78
120	-12.05	-20.93	-25.99	-22.07	-36.2	-26.59	-13.92	-17.42	-20.07	-13.94	-10.19	-12.73	-14.78
135	-11.94	-20.43	-23.99	-20.83	-25.9	-20.83	-8.97	-11.34	-13.16	-14.27	-5.45	-9.27	-14.78
150	-11.86	-19.68	-19.24	-14.94	-22.42	-16.45	-8.29	-10.56	-15.13	-11.06	-6.83	-7.43	-14.78
165	-11.83	-18.98	-15.63	-13.12	-21.48	-12.08	-3.4	-6.7	-11.55	-12.02	-5.78	-6.21	-14.78
180	-11.81	-18.05	-14.29	-11.41	-21.21	-7.07	-0.09	-4.27	-9.02	-10.94	-4.5	-4.5	-14.78
195	-11.77	-17.26	-13.16	-9.76	-21.43	-3.39	1.62	-3.43	-8.84	-9.72	-2.6	-2.13	-14.78
210	-11.86	-16.76	-11.55	-8.5	-18.96	-3.18	0.89	-5.33	-10.58	-10.57	-1.41	-1.29	-14.78
225	-11.83	-16.52	-10.03	-7.77	-15.35	-1.71	3.84	-5.27	-9.08	-11.9	-2.56	-0.77	-14.78
240	-11.86	-15.71	-9.35	-6.36	-11.38	2.39	7.63	0.38	-9.58	-11.1	-5.8	-1.88	-14.78
255	-11.9	-14.33	-9.73	-6.57	-9.58	4.59	9.85	0.9	-3.39	-8.57	-5.02	-3.91	-14.78

270	-12.09	-13.28	-11.59	-8.5	-9.83	6.06	11.49	2.14	-2.18	-5.79	-4.15	-8.65	-14.78
285	-12.2	-12.86	-12.78	-9.55	-10.54	4.23	10.1	3.07	-2.17	-8.66	-3.07	-4.86	-14.78
300	-12.2	-12.83	-12.2	-9.41	-13.72	3.15	8.68	0.71	-6.3	-3.94	-1.46	-2.2	-14.78
315	-12.16	-13.05	-11.45	-12.32	-15.4	-1.03	4.84	-3.72	-6.79	-5.08	-3.1	-1.57	-14.78
330	-12.2	-13.3	-12.01	-14.39	-16.93	-3.61	1.95	-3.43	-5.05	-4.7	-4.6	-2.55	-14.78
345	-12.15	-13.77	-13.22	-14.97	-17.83	-3.99	1.23	-2.76	-8.23	-5.05	-6.86	-1.98	-14.78

Ant6													
Freq	6125												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-8.23	-8.81	-12.52	-22.02	-17.59	-6.51	-9.83	-12.31	-11.01	-3.58	-4.61	-12.87	-19.13
15	-8.11	-9.6	-12.45	-21.83	-19.07	-8.82	-14.1	-11.35	-12.62	-7.71	-5.8	-10.75	-19.13
30	-7.91	-10.26	-12.65	-18.12	-26.37	-13.94	-12.12	-13.2	-18.57	-9.99	-9.35	-10.19	-19.13
45	-7.83	-10.79	-12	-15.04	-29.13	-17.33	-17.6	-16.47	-13.93	-10.76	-9.93	-12.93	-19.13
60	-7.86	-11.42	-14.6	-13.55	-21.21	-16.11	-23.27	-16.32	-14.72	-11.57	-15.84	-16.86	-19.13
75	-8.02	-11.75	-17.05	-17.33	-26.19	-19.64	-11.43	-21.85	-18.56	-19.66	-22.87	-15.06	-19.13
90	-8.17	-11.97	-17.31	-23.83	-26.18	-15.99	-15.44	-16	-18.42	-14.99	-11.83	-11.89	-19.13
105	-8.2	-12.13	-17.09	-19.05	-29.51	-20.8	-15.31	-15.74	-25.74	-18.02	-17.87	-9.16	-19.13
120	-8.05	-12.33	-20.02	-21.88	-24.4	-17.93	-12.81	-14.13	-19.53	-12.67	-12.7	-7.59	-19.13
135	-7.96	-12.17	-18.53	-18.77	-23.76	-12.23	-11.39	-10.84	-12.21	-8.33	-11.74	-8.47	-19.13
150	-7.79	-11.73	-15.2	-18.95	-16.44	-15.78	-8.63	-9.67	-11.72	-6.71	-8.12	-19.13	-19.13
165	-7.77	-11.12	-14.92	-14.32	-14.76	-13.56	-6.37	-3.63	-12.09	-4.17	-6.58	-18.22	-19.13
180	-7.76	-10.39	-15.29	-11.24	-11.68	-9.08	-6.83	-1.4	-6.85	-1.75	-4.23	-12.28	-19.13
195	-7.81	-9.62	-14	-8.33	-8.48	-5.9	-5.05	1.28	-5.41	1.09	-1.85	-8.33	-19.13
210	-8	-8.68	-13	-9.41	-5.91	-4.37	1.82	2.02	-8.92	1.98	-1.98	-9.24	-19.13
225	-8.11	-8.56	-10.08	-10.36	-5.18	-4.1	7.7	3.68	-7.76	2.75	-1.71	-8.36	-19.13
240	-8.07	-8.76	-10.86	-8.66	-6.35	-3.13	10	6.18	-1.49	2.33	-2.83	-6.06	-19.13
255	-7.99	-8.76	-11.1	-11.83	-6.12	-0.91	10.27	4.64	-0.9	2.11	-5.66	-6.91	-19.13
270	-7.82	-8.26	-11.61	-13.42	-6.28	1.9	10.7	5.73	-0.85	1.86	-0.88	-6.51	-19.13
285	-7.72	-7.55	-9.63	-10.74	-11.11	0.83	9.33	4.53	-4.41	-1.27	-3.51	-7.07	-19.13
300	-7.87	-6.98	-7.92	-10.29	-8.19	1.03	6.76	3.24	-11.9	1.05	-6.31	-7.19	-19.13
315	-7.98	-6.97	-8.32	-11.33	-9.75	-3.41	3.14	2.54	-14.22	-0.52	-4.88	-5.64	-19.13
330	-8.15	-7.36	-9.54	-13.11	-14.49	-4	-2.01	-1.22	-7.66	0.33	-4.23	-7.48	-19.13
345	-8.26	-7.93	-11.85	-19.19	-17.21	-3.24	-7.17	-7.03	-7.93	-0.8	-6.28	-11.05	-19.13

Ant6													
Freq	6525												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-6.86	-9.51	-11.53	-15.2	-14.9	-9.82	-6.97	-8	-12.56	-5.68	-8.66	-11.31	-16.86
15	-6.76	-10.57	-12.27	-15.4	-16.6	-14.74	-11.55	-10.86	-13.51	-7.17	-8.87	-13.49	-16.86
30	-6.49	-11.04	-13.94	-15.02	-21.85	-14.57	-11.25	-11.89	-14.7	-10.42	-14.28	-11.99	-16.86
45	-6.56	-11	-13.99	-16.02	-28.36	-12.96	-14.22	-15.2	-13.14	-10.72	-15.87	-11.75	-16.86
60	-6.65	-11.05	-16.7	-15.31	-27.86	-22.83	-18.41	-15.02	-13.59	-15.66	-13.44	-11.79	-16.86
75	-6.77	-11.25	-18.92	-18.35	-23.61	-22.59	-20.02	-20.22	-15.63	-15.95	-14.75	-13.82	-16.86
90	-6.95	-11.72	-17.75	-23.43	-23.34	-25.48	-18.31	-22.69	-20.75	-13.92	-11.51	-16.86	-16.86
105	-6.87	-12.06	-14.84	-17.53	-24.45	-18.23	-17	-22.11	-16.49	-19.1	-9.41	-12.31	-16.86

120	-6.59	-11.91	-14.9	-19.14	-28.64	-18.79	-15.22	-12.53	-15.11	-16.78	-9.57	-9.37	-16.86
135	-6.83	-10.95	-13.19	-18.28	-19.85	-15.59	-9.46	-17.27	-13.74	-10.45	-10.65	-7.01	-16.86
150	-6.75	-9.75	-11.97	-21.24	-15.05	-12.67	-12.74	-9.53	-13.2	-7.78	-13.9	-6.5	-16.86
165	-6.68	-8.83	-12.08	-14.99	-12.67	-12.22	-8.65	-8.76	-8.19	-5.45	-10.55	-7.62	-16.86
180	-6.84	-7.9	-12.36	-11.17	-11.04	-9.1	-5.96	-4.58	-6.89	-3.31	-9.16	-6.48	-16.86
195	-6.71	-7.18	-12.78	-11.13	-8.64	-5.56	-2.9	-1.45	-6.53	-1.24	-7.94	-3.79	-16.86
210	-6.61	-6.73	-11.73	-13.17	-6.83	-1.26	3.8	-0.06	-5.37	-0.27	-7.82	-1.51	-16.86
225	-6.84	-6.68	-11.84	-13.21	-6.58	2.73	7.23	-0.09	-0.34	-1.44	-7.61	-1.12	-16.86
240	-6.81	-6.84	-11.05	-9.88	-8.76	1.96	8.71	1.63	2.09	-0.47	-8.29	-0.42	-16.86
255	-6.68	-7.52	-10.56	-11.72	-6.81	4.53	11.2	2.48	1.78	-1.4	-8.1	-1.25	-16.86
270	-6.75	-7.95	-9.45	-9.23	-5.07	5.71	11.16	2	-0.37	-3.41	-7.04	-1.81	-16.86
285	-6.61	-7.8	-7.85	-7.1	-9.44	3.92	8.75	0.9	-5.44	-15.11	-5.47	-2.44	-16.86
300	-6.51	-7.46	-7.23	-7.48	-8.04	1.84	6.11	1.39	-7.49	-2.75	-7.76	-2.8	-16.86
315	-6.56	-7.56	-7.35	-10.79	-11.41	-2.51	2.36	-1.07	-6.93	-3.1	-9.9	-5.51	-16.86
330	-6.71	-8.06	-8.77	-14.53	-18.79	-3.9	-8.79	-3.55	-6.03	-2.34	-5.26	-7.47	-16.86
345	-6.78	-8.5	-10.01	-14.51	-15.28	-5.75	-6.96	-4.91	-7.78	-3.18	-5.75	-8.14	-16.86

Ant6													
Freq	6925												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-6.37	-8.3	-8.12	-8.64	-13.8	-14.74	-3.52	-6.15	-12.73	-8.01	-6.38	-4.91	-11.77
15	-6.37	-9.47	-8.24	-10.96	-13.13	-13.96	-6.4	-9.24	-16.25	-8.21	-11.08	-4.94	-11.77
30	-6.54	-11.04	-9.15	-11.79	-15.91	-14.66	-10.51	-10.04	-19.6	-9.79	-8.52	-7.02	-11.77
45	-6.69	-12.57	-12.02	-11.09	-19.64	-15.78	-10.93	-12.13	-17.6	-12.61	-11.28	-10.83	-11.77
60	-6.74	-13.37	-17.4	-12.8	-19.86	-15.45	-17.25	-17.71	-13.79	-16.12	-14.85	-10.07	-11.77
75	-6.84	-12.51	-17.84	-15.74	-25.02	-18.13	-18.44	-20.23	-17.46	-17.95	-12.79	-9.64	-11.77
90	-6.73	-11.3	-15.3	-21.91	-20.09	-19.59	-15.75	-18.18	-14.58	-10.59	-13.68	-11.77	-11.77
105	-6.57	-10.32	-14.42	-12.05	-25.35	-15.03	-14.44	-19.38	-16.39	-11.36	-8.55	-8.13	-11.77
120	-6.57	-9.87	-11.46	-14.07	-20.43	-23.07	-21.55	-13.96	-14.04	-14.47	-4.65	-6.5	-11.77
135	-6.94	-9.39	-9.32	-18	-17.06	-18.47	-20.19	-15.35	-13.23	-9.12	-4.44	-3.48	-11.77
150	-7.09	-8.68	-7.77	-26.42	-10.86	-11.6	-14.6	-13.18	-12.49	-6.94	-4.99	-2.48	-11.77
165	-7.22	-7.26	-7	-16.34	-9.11	-9.63	-13.38	-9	-9.43	-7.41	-4.96	-0.89	-11.77
180	-7.14	-5.95	-6.98	-8.8	-9.9	-5.18	-12.74	-3.79	-6.24	-5.34	-2.39	0.12	-11.77
195	-6.99	-5.51	-5.92	-7.54	-9	-3.21	-9.93	-1.3	-2.91	-4.01	-1.5	1.27	-11.77
210	-6.95	-5.62	-5.23	-10.43	-8.48	-5.2	-1.3	-1.97	-1.62	-5.16	-0.33	2.77	-11.77
225	-7	-5.64	-5.73	-15	-6.57	-4.58	5.22	-1.32	-1.4	-4.52	0.05	2.99	-11.77
240	-7.02	-6.03	-7.36	-15.32	-5.44	1.96	7.44	0.99	1.42	-6.15	-1.54	2.75	-11.77
255	-6.92	-6.64	-6.92	-16.1	-8.33	5.33	11.55	-1.41	1.87	-7.32	-4.09	0.7	-11.77
270	-6.74	-7	-6.77	-11.18	-6.64	6.62	11.29	-1.13	1.82	-3.02	-6.21	-1.02	-11.77
285	-6.77	-6.87	-8.32	-5.9	-6.62	1.48	8.62	-1.36	-2.22	-6.46	-5.74	-2.59	-11.77
300	-6.91	-6.52	-8.1	-4.99	-9.72	-10.04	2.39	0.15	-5.75	0.01	-5.11	-3.85	-11.77
315	-6.74	-6.4	-7.62	-12.07	-10.03	-5.72	-4.48	-1.48	-7.67	-6.66	-3.57	-4.98	-11.77
330	-6.67	-6.69	-7.11	-7.14	-10.82	-11.81	-3.78	-3.53	-14.1	-5.08	-5.4	-6.81	-11.77
345	-6.56	-7.36	-7.38	-7.25	-13.07	-15.9	-1.75	-3.78	-13.1	-6.01	-6.58	-6.39	-11.77

Ant7

Freq	1575												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-1.74	-3.31	-4.84	-5.7	-9.52	-7.9	-5.71	-1.85	-1.32	-0.96	-1.79	-2.26	-9.23
15	-1.74	-3.58	-4.98	-7.03	-12.41	-15.15	-10.65	-2.66	-1.95	-1.46	-2.59	-3.48	-9.23
30	-1.86	-3.93	-5.23	-8.13	-15.13	-17.83	-17.24	-5.77	-2.68	-1.65	-3.4	-4.75	-9.23
45	-1.89	-4.31	-5.62	-8.31	-14.79	-20.01	-15.81	-8.86	-5.19	-2.87	-4.53	-6.01	-9.23
60	-1.86	-4.59	-6.05	-7.93	-14.29	-14.23	-13.72	-13.83	-8.99	-4.78	-5.85	-7.27	-9.23
75	-1.83	-4.76	-6.33	-8.14	-12.64	-10.47	-12.64	-22.48	-11.68	-7.93	-7.26	-8.56	-9.23
90	-1.82	-4.86	-6.29	-8.59	-11.53	-10	-9.8	-17.93	-13.88	-10.47	-8.98	-9.23	-9.23
105	-1.83	-4.76	-5.97	-8.34	-10.8	-10.01	-8.21	-17.39	-10.24	-8.89	-10.41	-8.27	-9.23
120	-1.9	-4.54	-5.42	-7.26	-10.35	-10.82	-8.38	-15.74	-9.33	-9.05	-8.96	-6.59	-9.23
135	-1.97	-4.16	-4.49	-5.52	-9.12	-10.96	-9.41	-12.44	-11.84	-9.16	-7.07	-5.88	-9.23
150	-1.99	-3.65	-3.53	-3.77	-7.62	-9.11	-9.16	-8.77	-14.06	-7.89	-7.1	-6.36	-9.23
165	-1.93	-3.08	-2.79	-2.45	-6.09	-6.45	-6.8	-8.96	-9.49	-6.93	-7.72	-6.84	-9.23
180	-1.83	-2.6	-2.28	-1.42	-3.48	-3.74	-5.08	-7.06	-6.61	-6.09	-6.07	-5.99	-9.23
195	-1.8	-2.2	-1.85	-0.46	-1.21	-2.37	-3.89	-3.71	-7.24	-3.84	-3.31	-4.54	-9.23
210	-1.82	-1.94	-1.37	0.4	-0.58	-1.09	-0.94	-2.73	-4.51	-1.49	-1.95	-3.38	-9.23
225	-1.81	-1.81	-1.08	1.08	-0.27	1.3	0.92	-1.34	-2.09	-1.18	-2.21	-2.71	-9.23
240	-1.8	-1.73	-1.12	1.39	0.62	2.69	1.62	0.28	-2.2	-1.95	-2.64	-2.18	-9.23
255	-1.8	-1.73	-1.35	1.32	1.21	3.19	2.38	1.02	-2.21	-0.93	-1.86	-1.61	-9.23
270	-1.75	-1.78	-1.74	0.89	1.24	3.24	3.05	1.42	-0.94	1.06	-0.56	-0.99	-9.23
285	-1.7	-1.91	-2.18	0.11	0.8	2.76	2.86	2.15	0.71	2.56	0.68	-0.44	-9.23
300	-1.78	-2.1	-2.65	-0.87	-0.26	2	1.8	2.35	1.66	3.46	1.57	-0.06	-9.23
315	-1.74	-2.35	-3.2	-1.73	-2	0.76	0.42	1.78	1.43	3.13	1.65	-0.04	-9.23
330	-1.68	-2.58	-3.84	-2.61	-4.02	-0.98	-1.39	0.49	0.8	1.72	0.77	-0.45	-9.23
345	-1.7	-2.87	-4.39	-3.98	-6.46	-3.25	-2.96	-1.37	-0.18	0.28	-0.61	-1.21	-9.23

Ant8													
Freq	2450												
Phi\Theta	0	15	30	45	60	75	90	105	120	135	150	165	180
0	-2.27	-6.43	-3.76	-3.27	-3.98	-1.7	0.19	-0.8	-1.57	0.39	-4.22	-3.04	-5.56
15	-2.13	-6.13	-5.27	-3.52	-3.25	-0.72	-0.26	-1.46	-1.39	-1.04	-4.68	-4.34	-5.56
30	-2.08	-5.05	-6.9	-4.46	-2.23	0.82	0.67	-2.92	-0.1	-1.64	-4.5	-5.37	-5.56
45	-2.02	-3.97	-5.9	-7.21	-3.56	1.85	1.76	-2.28	-0.14	-1.25	-2.4	-5.56	-5.56
60	-1.86	-3.22	-3.66	-6.14	-3.8	-2.6	1.17	-0.99	-3.1	0.78	-0.98	-5.37	-5.56
75	-1.81	-2.81	-2.39	-2.9	-2.23	-1.44	-2.1	-0.63	-3	0.86	-1.03	-4.79	-5.56
90	-1.96	-2.64	-2.81	-2.48	-2.96	2.02	-0.05	0.15	-0.32	0.13	-1.98	-4.07	-5.56
105	-2.01	-2.67	-4.02	-3.26	-2.9	-1.94	-0.79	-3.14	-0.25	0.68	-3.12	-3.48	-5.56
120	-2.11	-2.78	-4.5	-4.1	-2.11	-3.02	-7	-5.64	-3.78	-0.81	-4.98	-2.47	-5.56
135	-2.12	-2.87	-3.95	-6.24	-4.66	-0.38	-7.17	-6.1	-7.34	-4.19	-7.26	-1.89	-5.56
150	-2	-2.81	-3.37	-8.44	-9.61	-0.69	-5.88	-8.02	-5.4	-7.19	-7.18	-2.66	-5.56
165	-1.94	-2.48	-2.88	-9.8	-14.94	-3.51	-8.07	-8.29	-5.81	-8.46	-5.19	-4.42	-5.56
180	-1.92	-1.99	-2.65	-9.95	-9.97	-3.64	-11.7	-6.42	-5.95	-6.08	-4.93	-5.45	-5.56
195	-1.95	-1.71	-2.07	-5.19	-4.49	-1.58	-3.78	-2.72	-3.98	-2.64	-3.59	-5	-5.56
210	-1.99	-1.57	-1.19	-2.47	-2.28	-0.22	-0.33	-0.2	-2.91	-0.45	-1.44	-4.48	-5.56
225	-2.12	-1.76	-0.67	-1.18	-3.46	0.07	1.75	-1.21	-2.58	0.14	-1.18	-4.08	-5.56

240	-2.19	-2.24	-1.02	-1.47	-4.86	-0.24	1.53	-1.55	-2.17	-0.36	-2.92	-3.65	-5.56
255	-2.29	-2.99	-2.52	-2.86	-4.95	-0.91	1.26	-5.3	-4.68	-2.81	-4.32	-3.77	-5.56
270	-2.22	-3.78	-4.93	-3.04	-5.79	-0.69	-1.3	-7.85	-2.61	-1.3	-2.67	-4.08	-5.56
285	-2.06	-4.46	-5.92	-3.26	-8.64	-1.65	-4.06	-4.58	-0.49	1.12	-0.48	-3.74	-5.56
300	-1.95	-5.08	-4.17	-5.85	-8.64	-5.21	-6.67	-5.86	-1.32	0.84	-0.12	-3.03	-5.56
315	-2.01	-5.63	-2.72	-6.75	-10.07	-2.66	-3.22	-7.21	-1.93	-0.85	-1.67	-2.39	-5.56
330	-2.04	-6.09	-2.56	-4.69	-6.09	-2.08	0.68	-3.42	-2.06	0.31	-2.84	-1.81	-5.56
345	-2.15	-6.55	-2.98	-3.93	-5.05	-1.03	0.6	-1.01	-1.4	0.62	-3.06	-1.82	-5.56