Wireless Device Over the Air Performance Data Summary

DATA NO.	:	**OQ410336**
APPLICANT	:	**Nokia Shanghai Bell Co., Ltd.**
MANUFACTURER	:	**Nokia of America Corporation**
BRAND NAME	:	**NOKIA**
MODEL NAME	:	**Beacon 24**
ANTENNA TYPE	:	**PCB Antenna**
DEVICE RECEIVING DATE	:	**Nov. 28, 2023**
TEST DATE(S)	:	**Nov. 28, 2023**

Reviewed by:

Feynman Liu

Feynman Liu / Vice Manager

Approved by:

kevin chu

Kevin Chu / Manager

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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Revision History

DATA NO.	VERSION	DESCRIPTION	ISSUED DATE
OQ410336	1.0	Initial issue of data summary	Jan. 26, 2024

1. Administration Data

1.1 Testing Laboratory

Test Site	Sporton International Inc. (Kunshan)
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL: +86-0512-5790-0158
Chamber	□ OTA01-KS □ OTA02-KS □ OTA03-KS ■ OTA04-KS □ OTA05-KS

■: Indicates the chamber(s) used in this test report.

1.2 Applicant

Company Name	Nokia Shanghai Bell Co., Ltd.
Address	No.388, Ningqiao Rd, Pilot Free Trade Zone, Shanghai, 201206 P.R. China

1.3 Manufacturer

Company Name	Nokia of America Corporation
Address	2301 Sugar Bush Rd. Raleigh, NC 27612

2. Test Equipment List

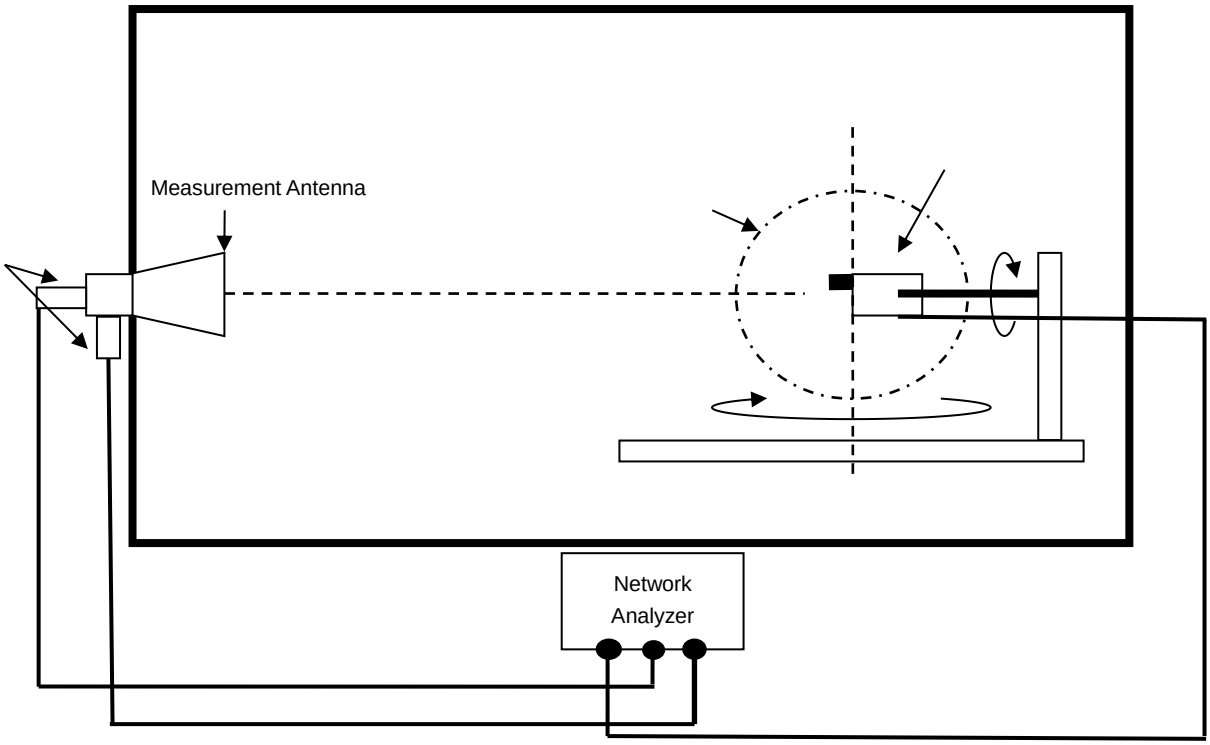
Name	Manufacturer	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
Network Analyzer	Agilent	E5071C	MY46317418	2023/01/05	2024/01/04
Switch Control	ETS-Lindgren	EMCenter	00160100	NCR	NCR
Diagonal Dual Polarized Horn	ETS-Lindgren	3164-08	00099205	NCR	NCR
Multi-Devices Controller	ETS-Lindgren	2090-OPT1	00066604	NCR	NCR
Medium Duty Holder	ETS-Lindgren	2015	N/A	NCR	NCR

Note: Antenna gain was measured in the anechoic chamber (Measurement System: ETS-Lindgren AMS-8500, SW Version: EMQuest 100 V1.08).

3. Test procedure

1. Setup for testing facility:

   Connect all the equipments according to the figure below：



2. Run ETS-Lindgren EMQuestTest software script，Hit Run button to execute measurement.

3. Save Measurement result

4. Summary of WLAN Antenna Gain Test Results

Remark: For detailed raw data please refer to Appendix A.

Summary of Router _Gain Test Results:

Model	Nokia_B24_ Router _Gain 6G-5										
Test / Position	Gain / Free Space										
Frequency (MHz)	5955	6175	6415	6435	6475	6515	6535	6695	6875	6995	7095
Peak Gain	4.43	4.03	3.96	4.39	3.80	3.77	3.81	4.38	3.76	4.99	3.91
Polarization	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta

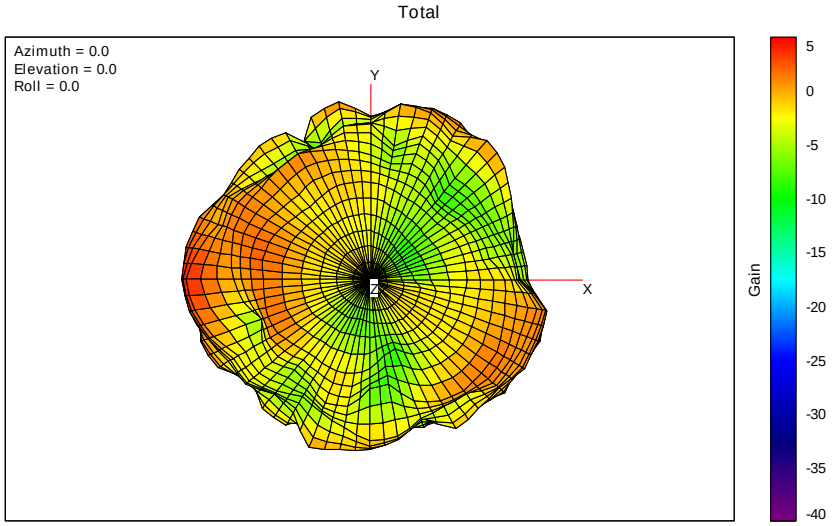
Model	Nokia_B24_ Router _Gain 6G -6										
Test / Position	Gain / Free Space										
Frequency (MHz)	5955	6175	6415	6435	6475	6515	6535	6695	6875	6995	7095
Peak Gain	3.08	2.50	3.20	3.54	2.93	2.81	3.08	3.64	3.44	3.73	4.54
Polarization	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta

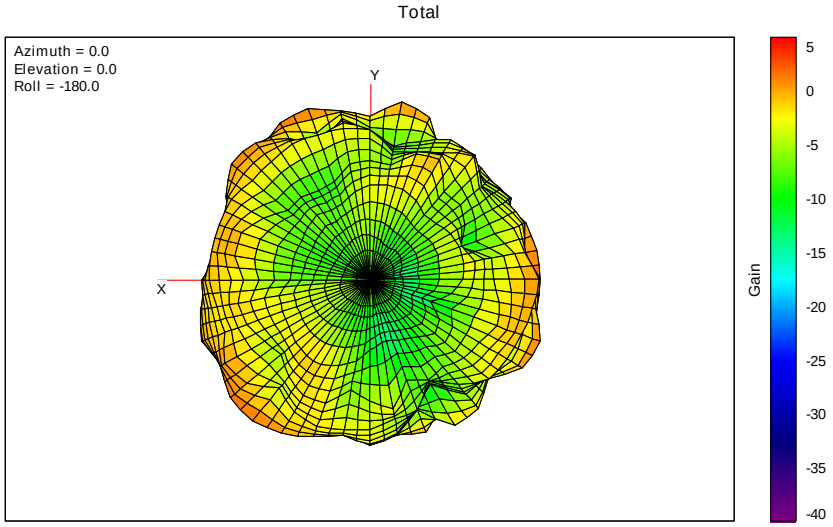
Model	Nokia_B24_ Router _Gain 6G -7										
Test / Position	Gain / Free Space										
Frequency (MHz)	5955	6175	6415	6435	6475	6515	6535	6695	6875	6995	7095
Peak Gain	4.67	4.65	3.85	3.61	4.05	3.44	3.84	3.72	4.38	3.83	3.69
Polarization	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta

Model	Nokia_B24_ Router _Gain 6G -8										
Test / Position	Gain / Fre Space										
Frequency (MHz)	5955	6175	6415	6435	6475	6515	6535	6695	6875	6995	7095
Peak Gain	3.07	3.29	3.43	3.16	3.87	3.47	3.91	3.18	3.85	4.13	5.32
Polarization	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta	Theta

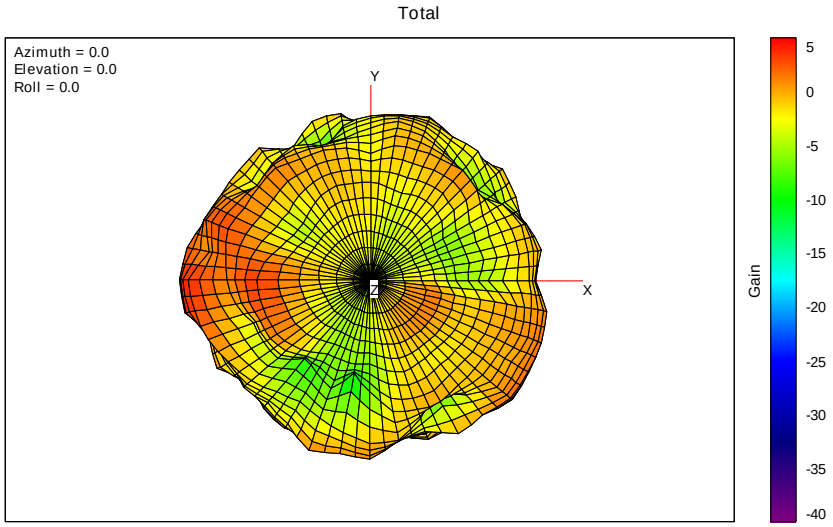
5. FS Pattern

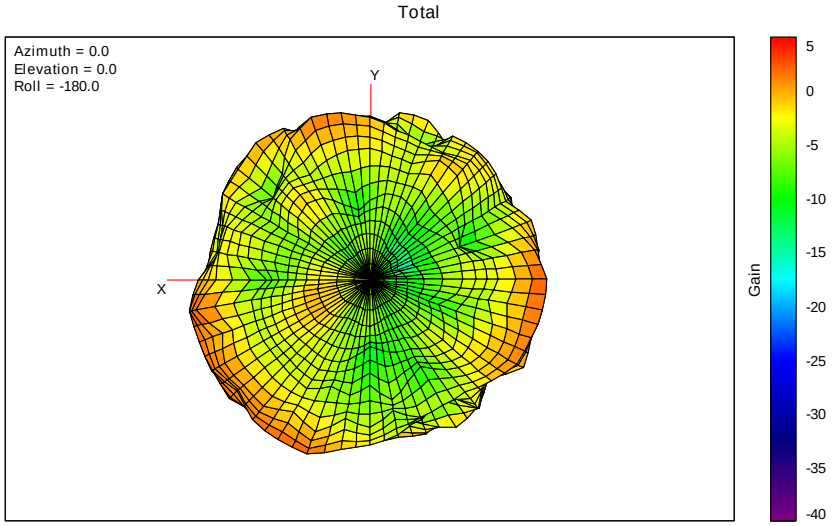
Note: Only the peak gain patterns of each Band were recorded as below:





3D Free Space Router Gain Pattern 6G-5-5955MHz





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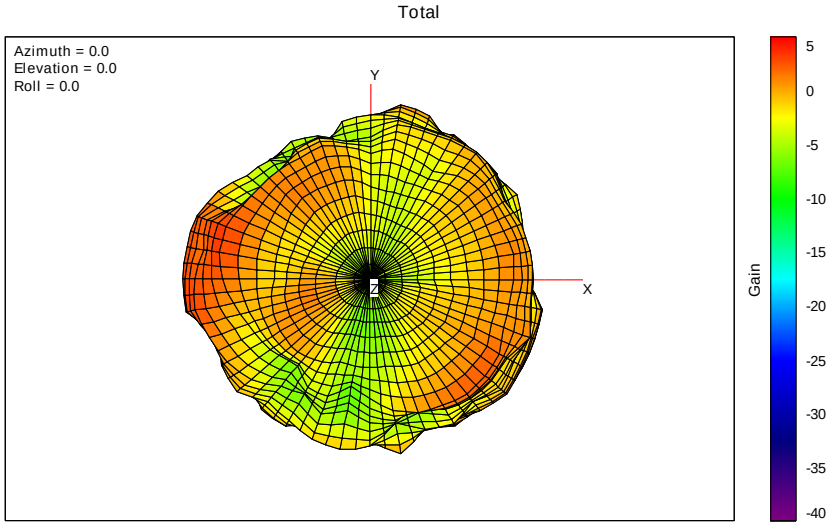

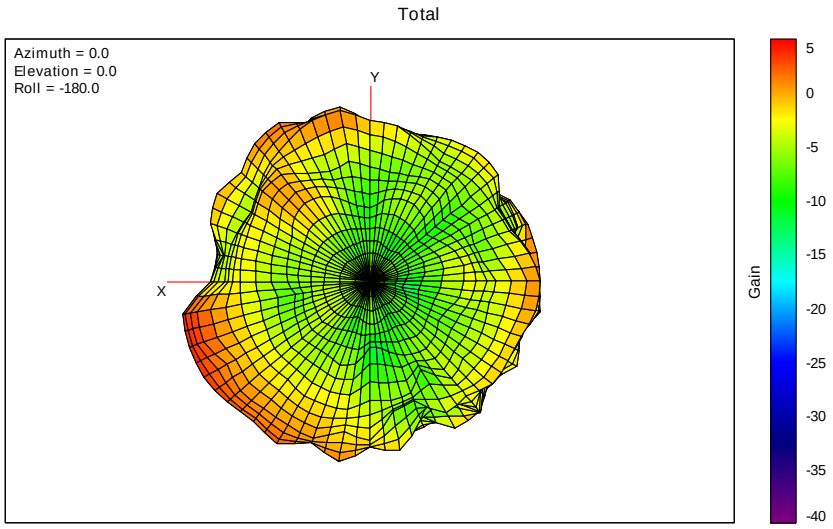

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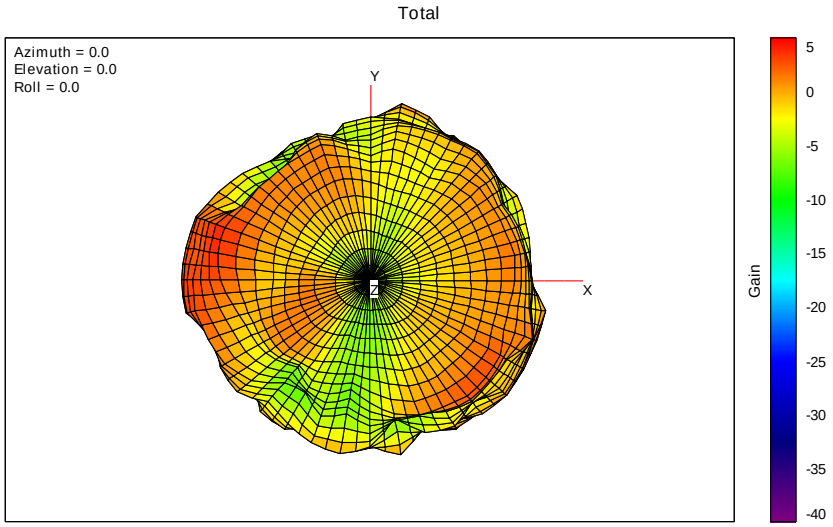

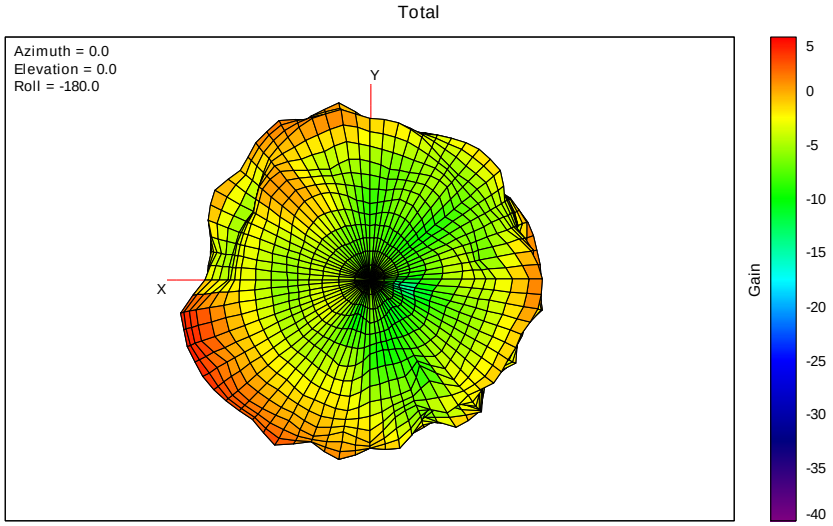

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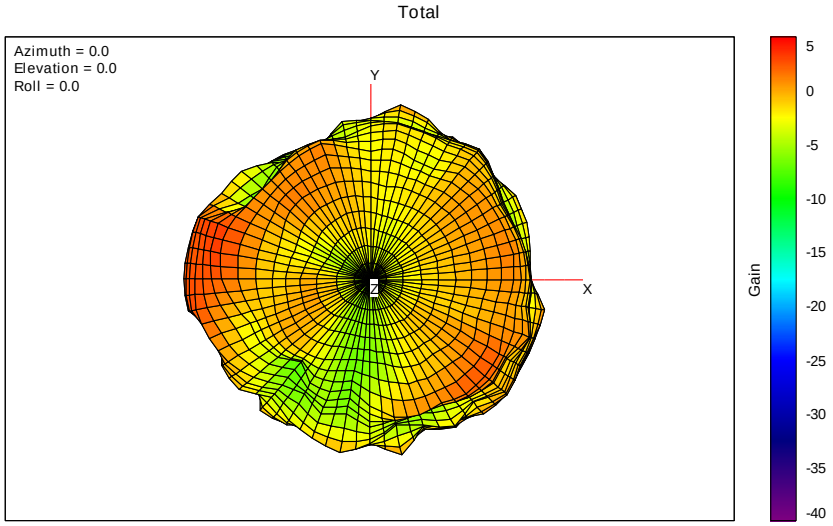

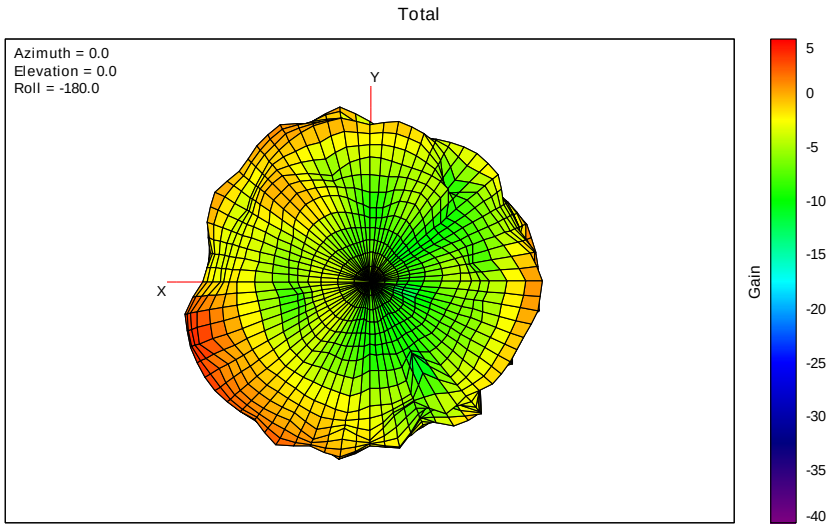

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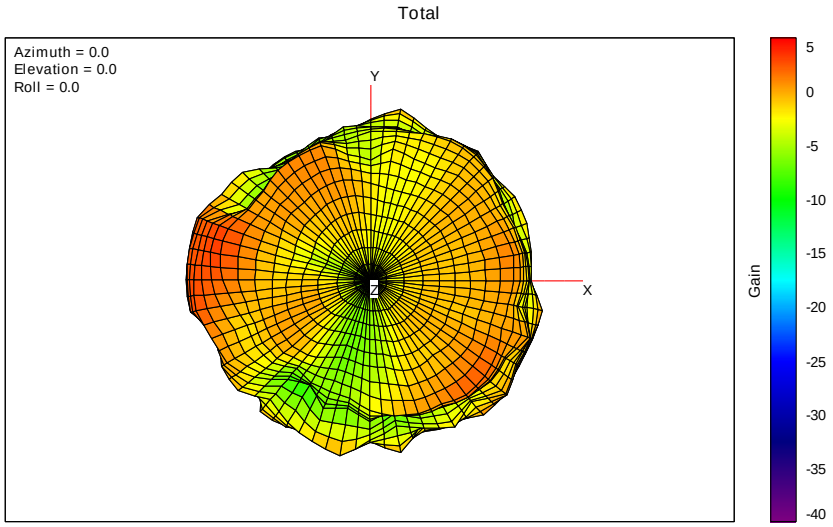

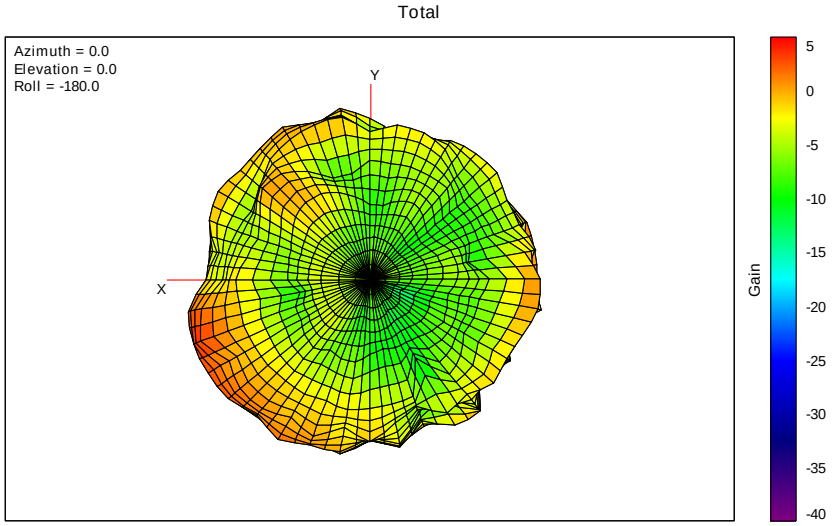

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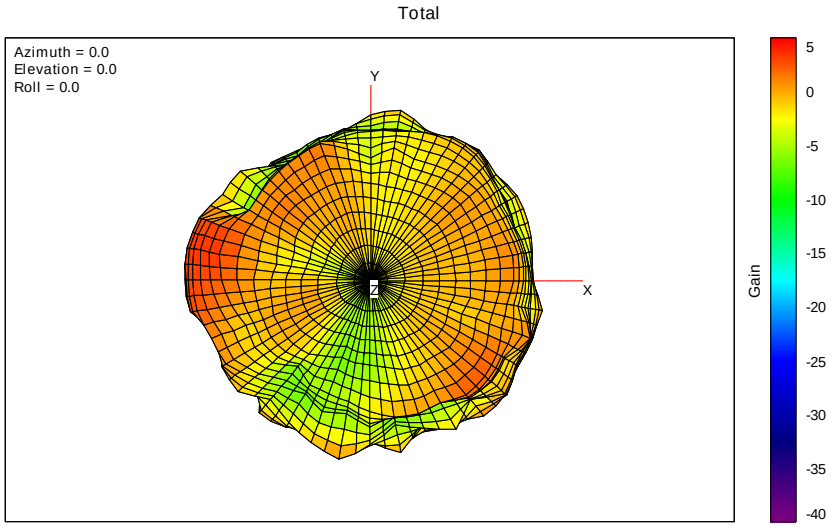

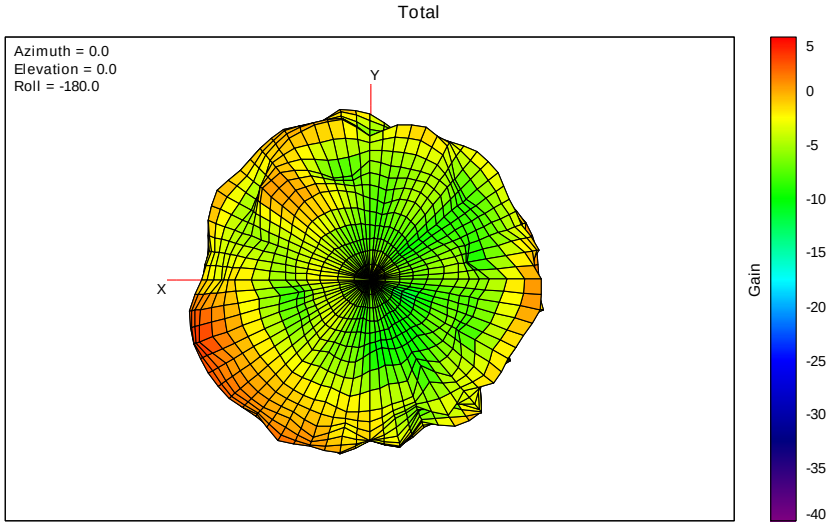

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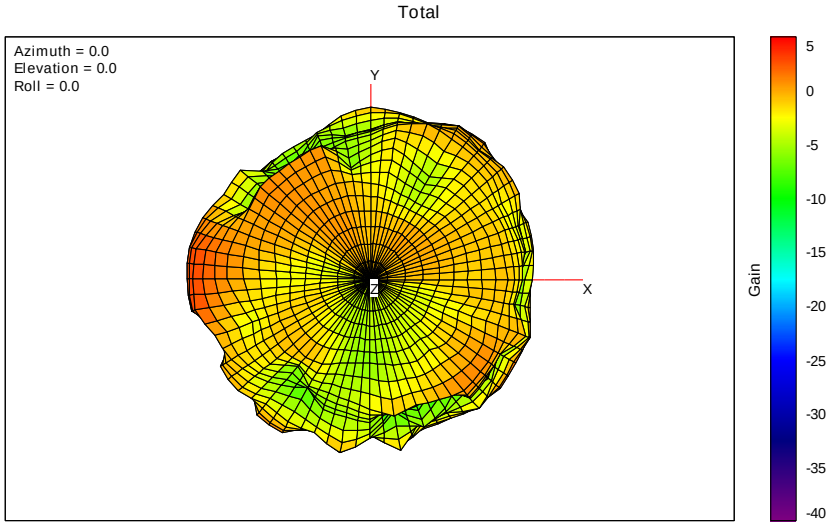

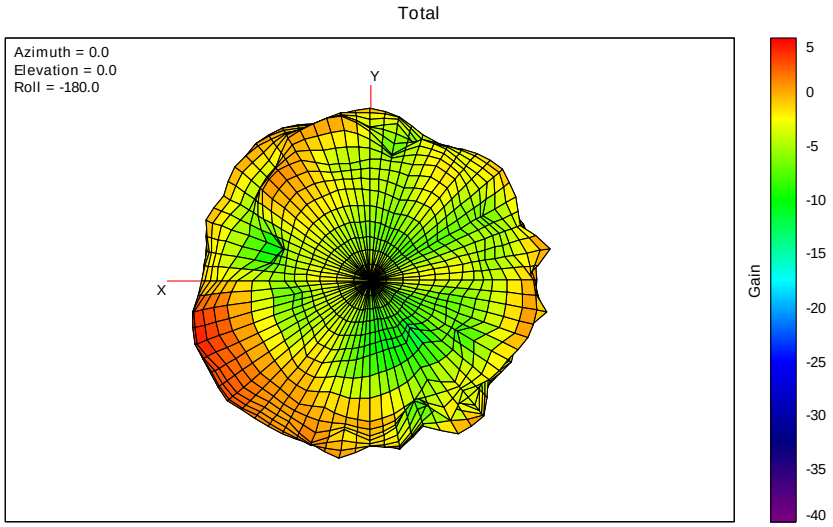

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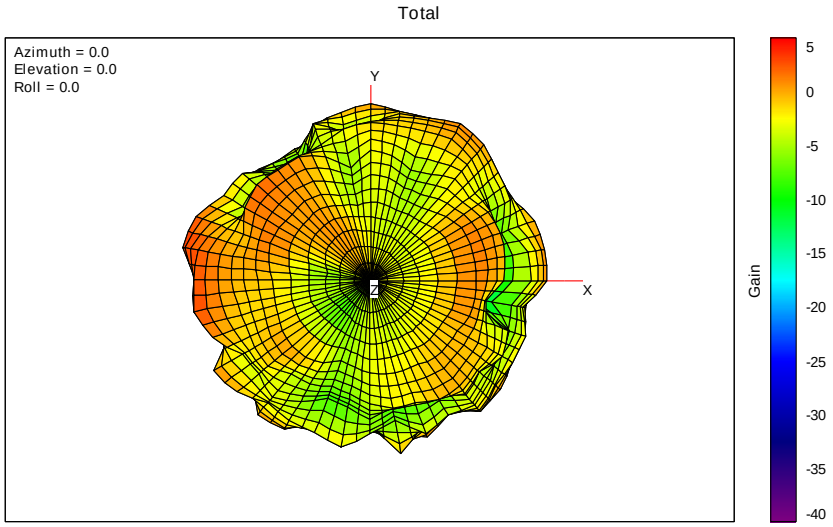

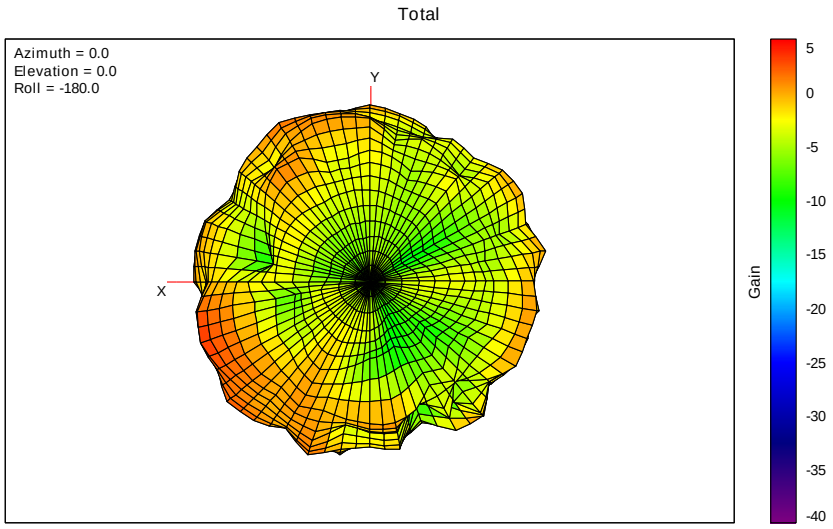

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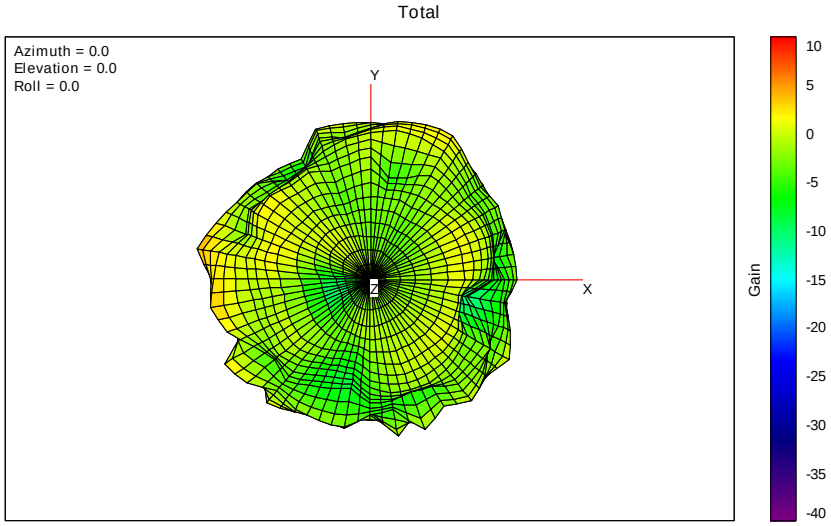

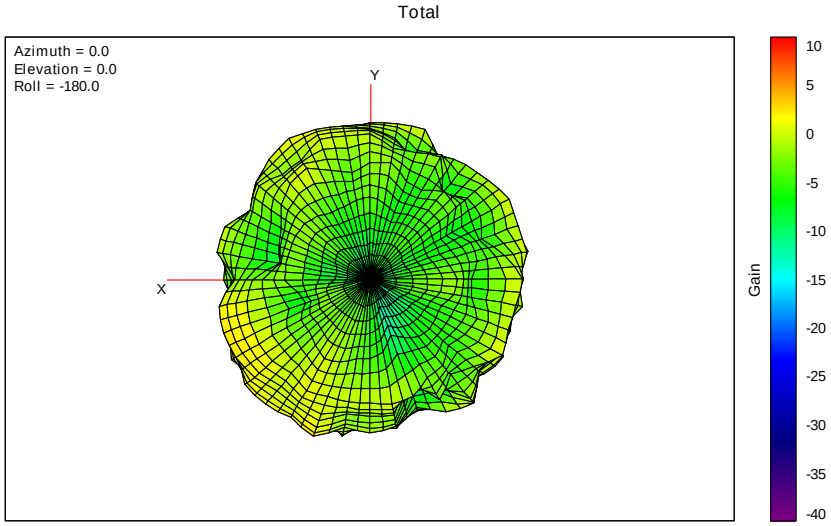

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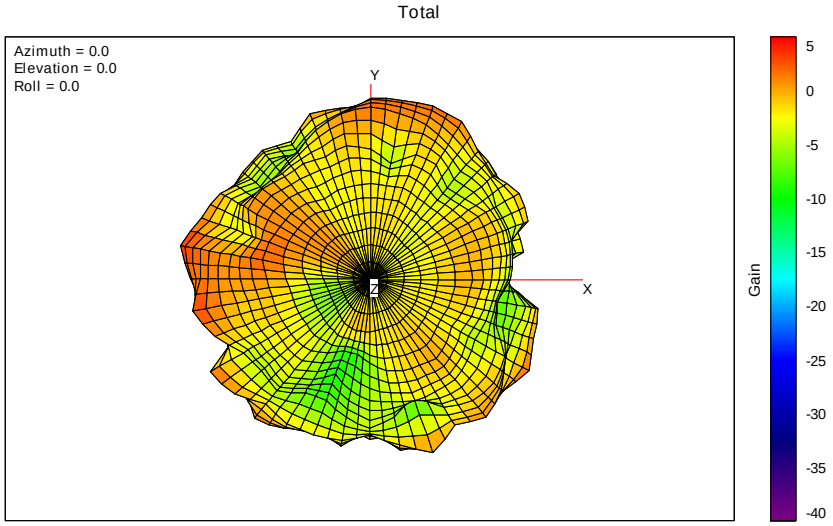

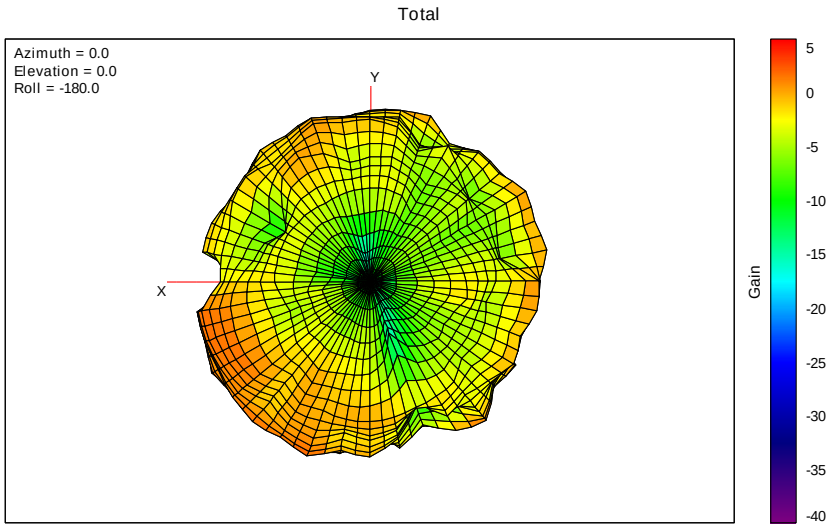

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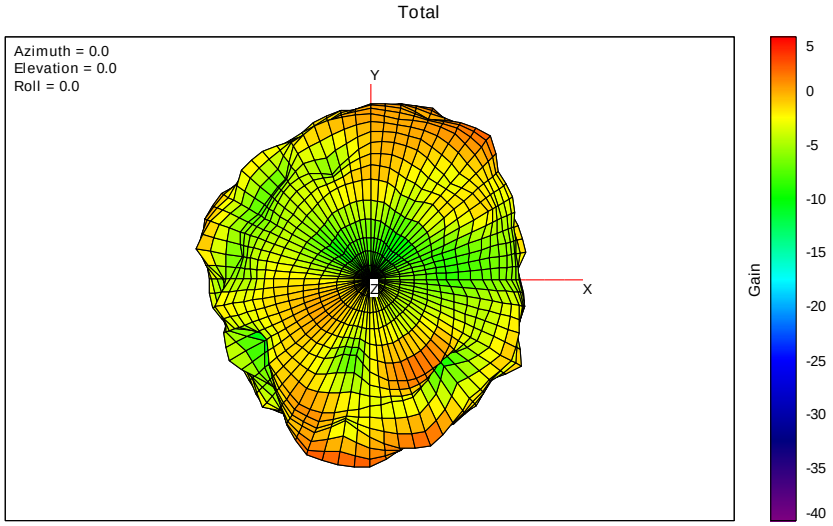

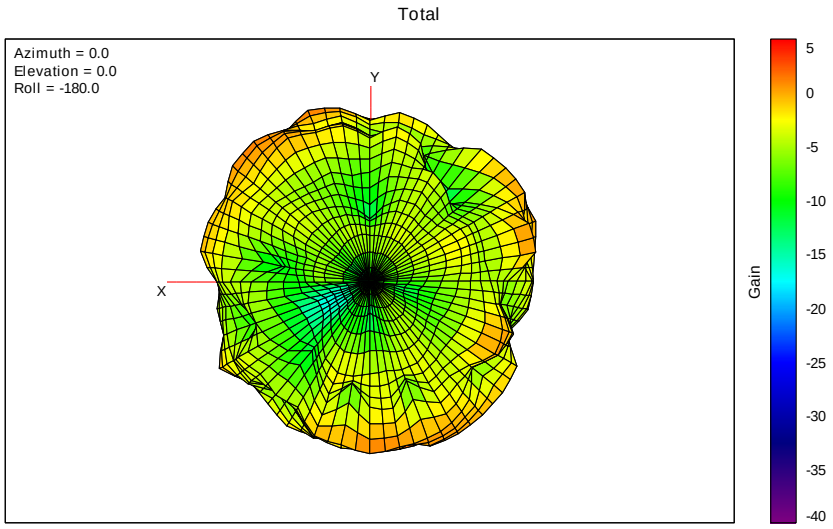

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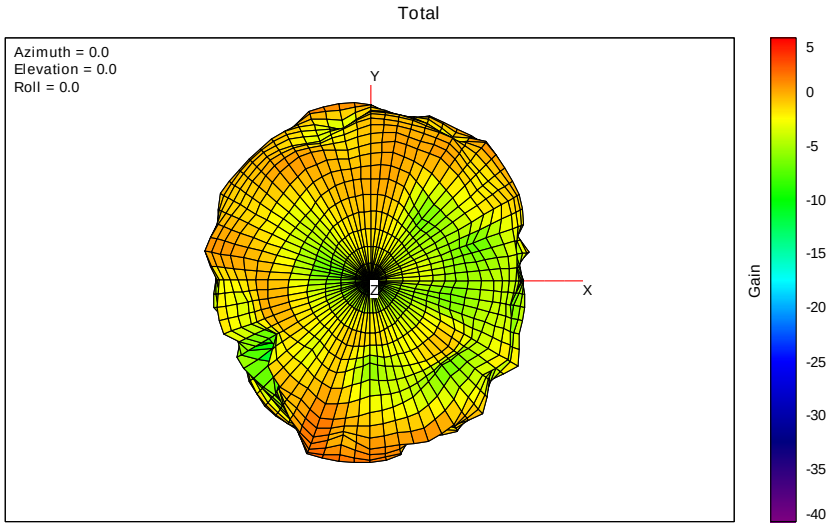

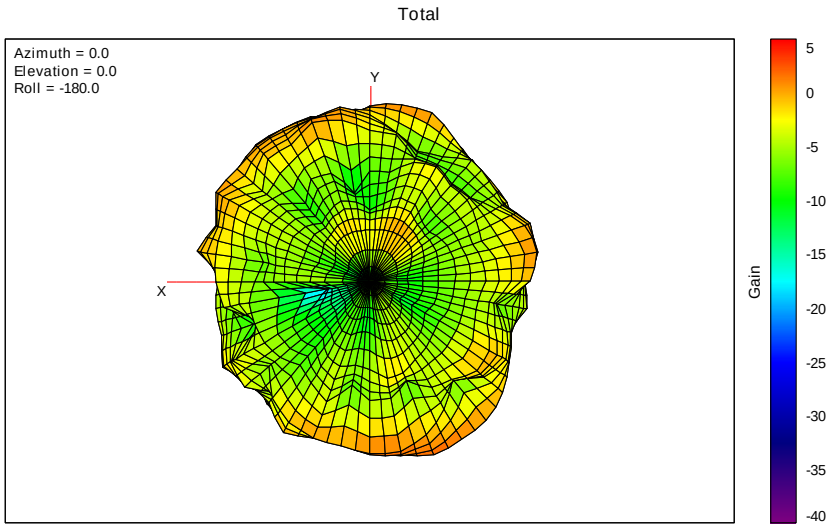

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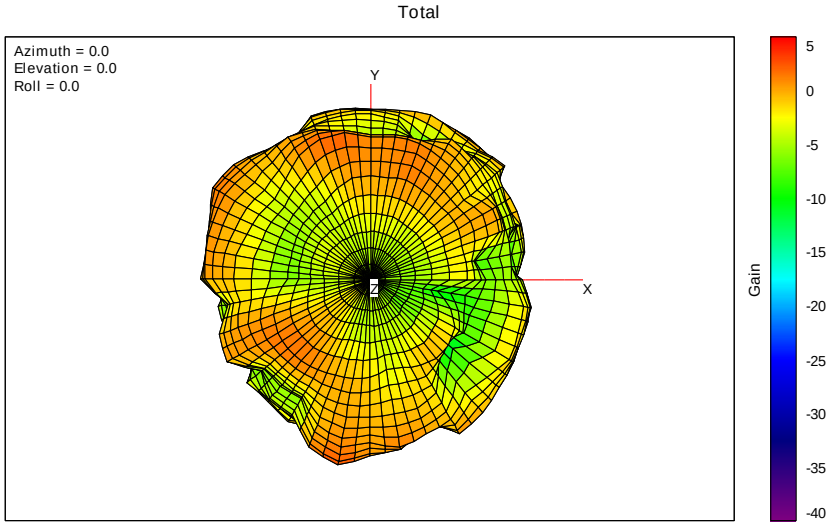

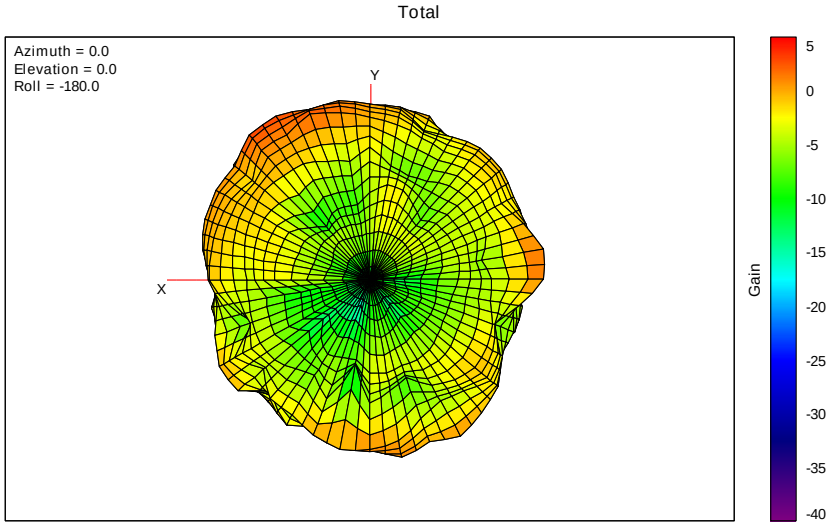

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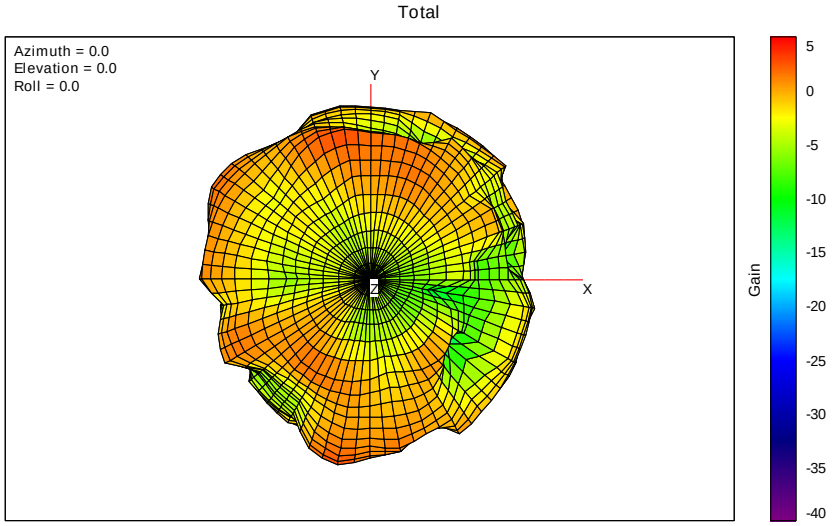

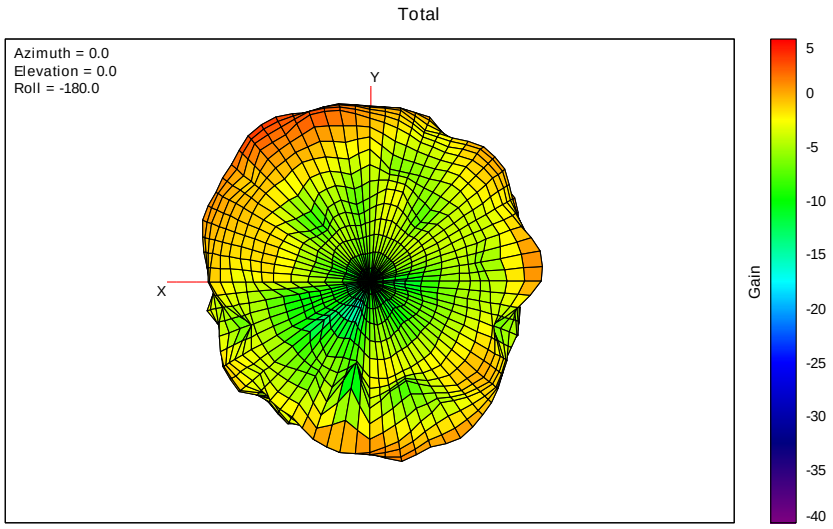

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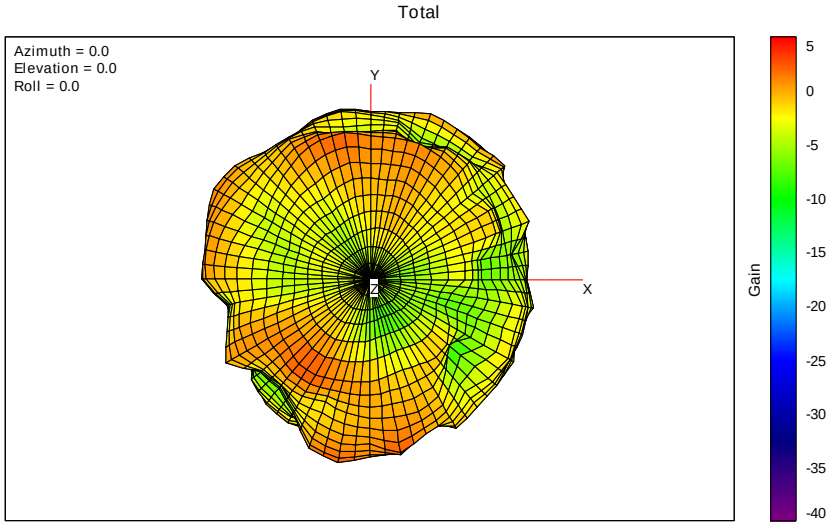

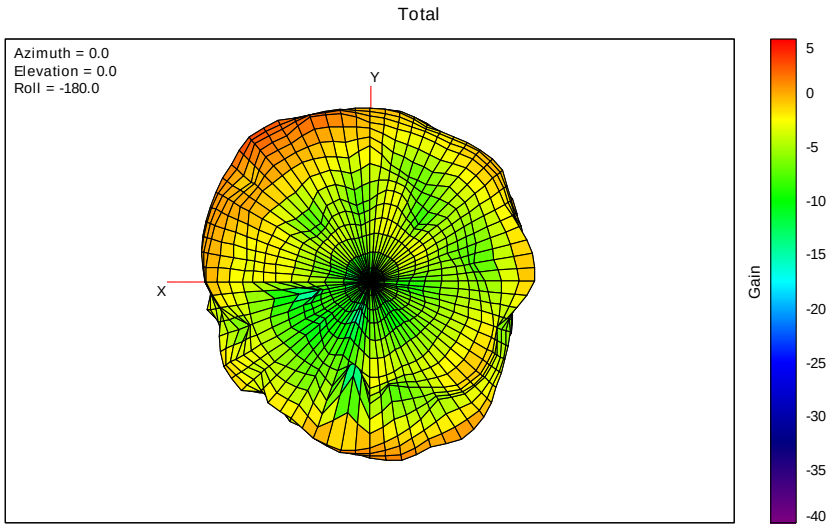

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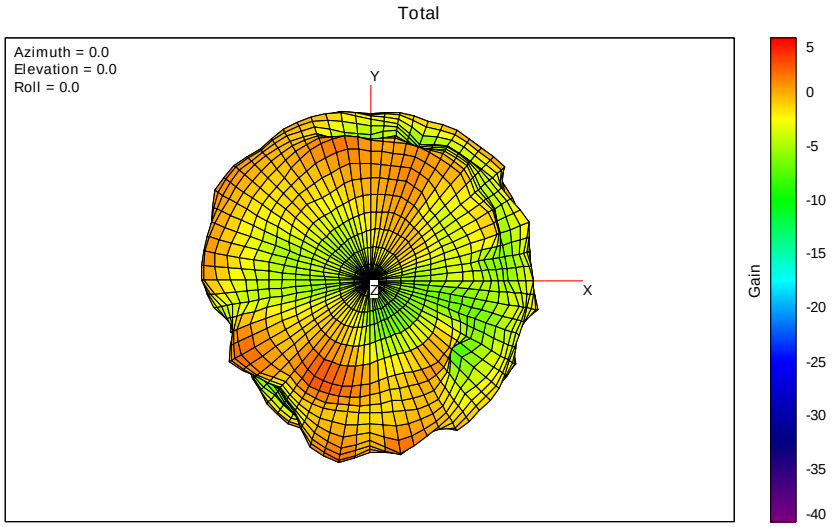

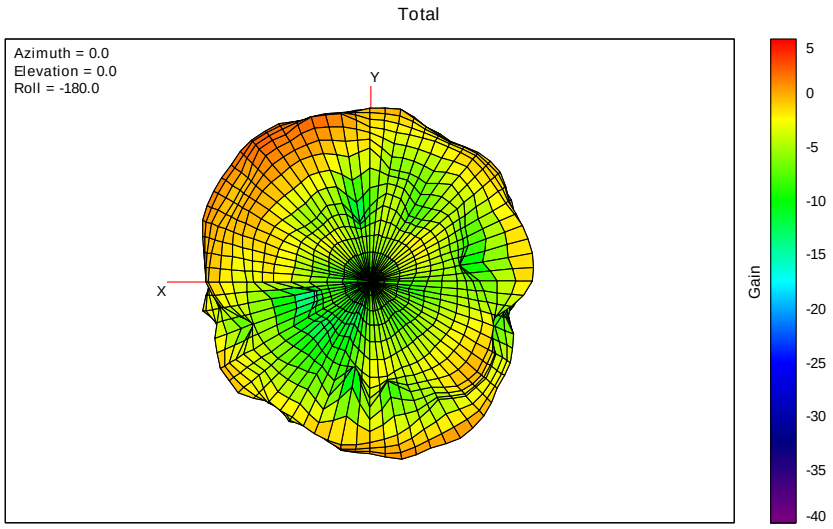

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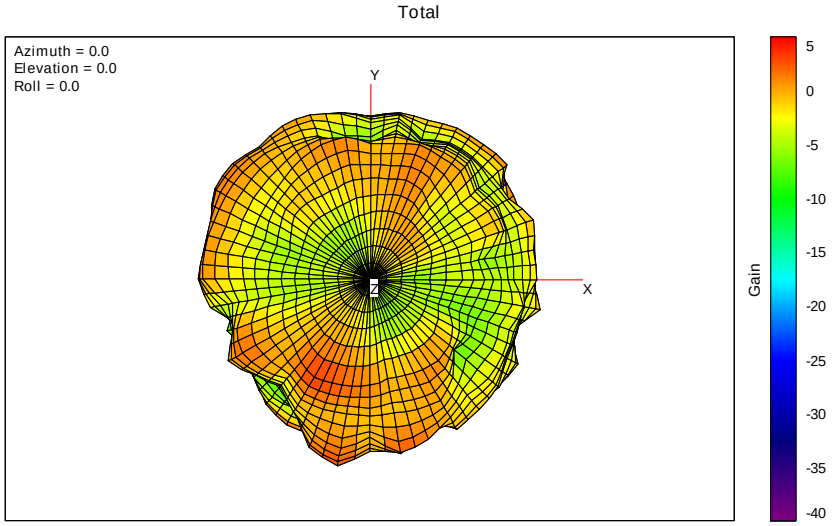

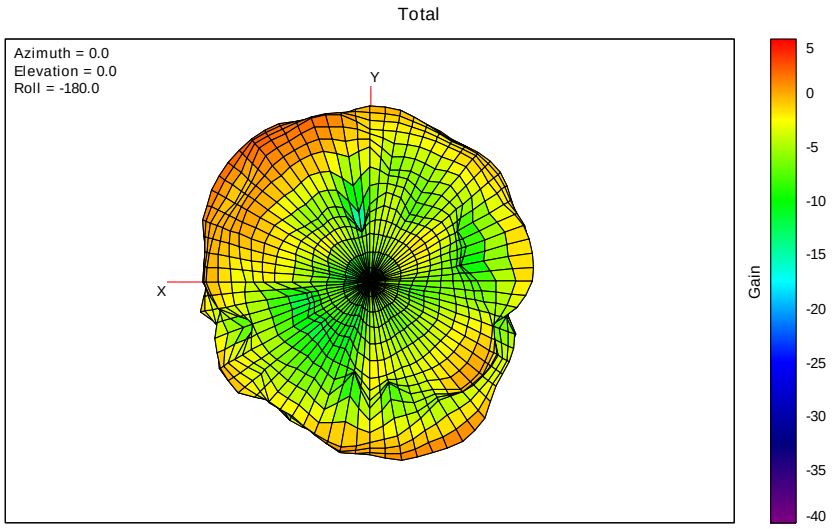

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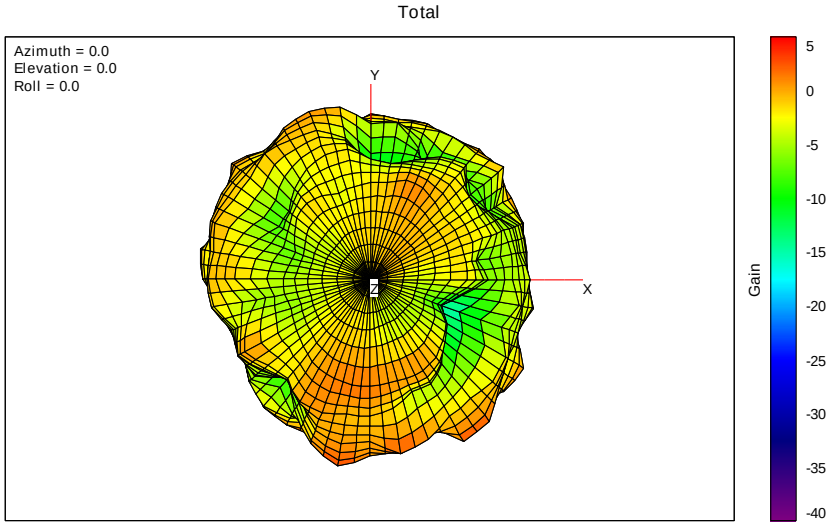

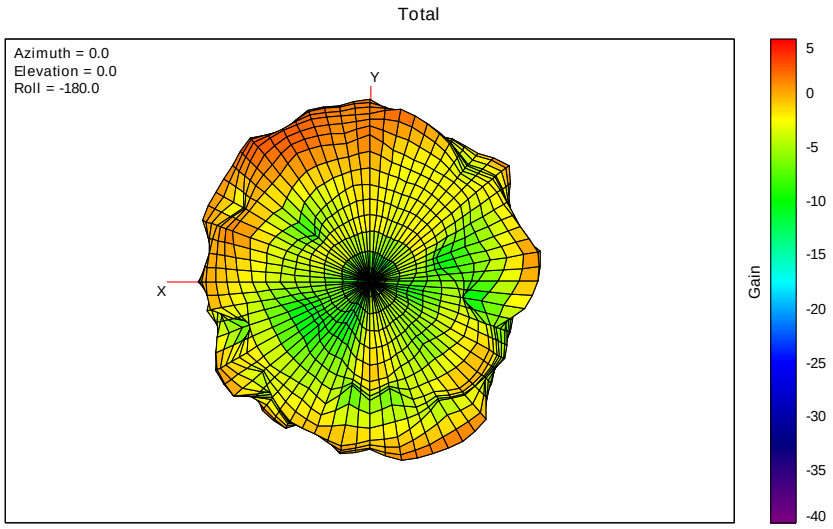

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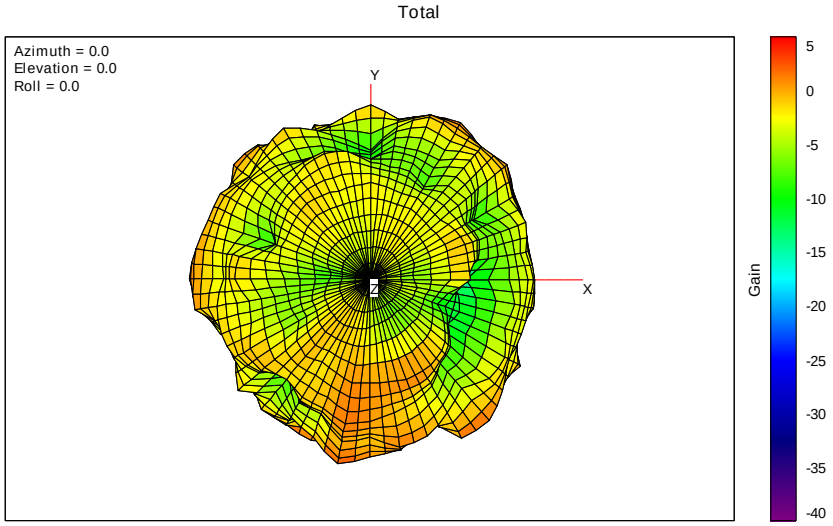

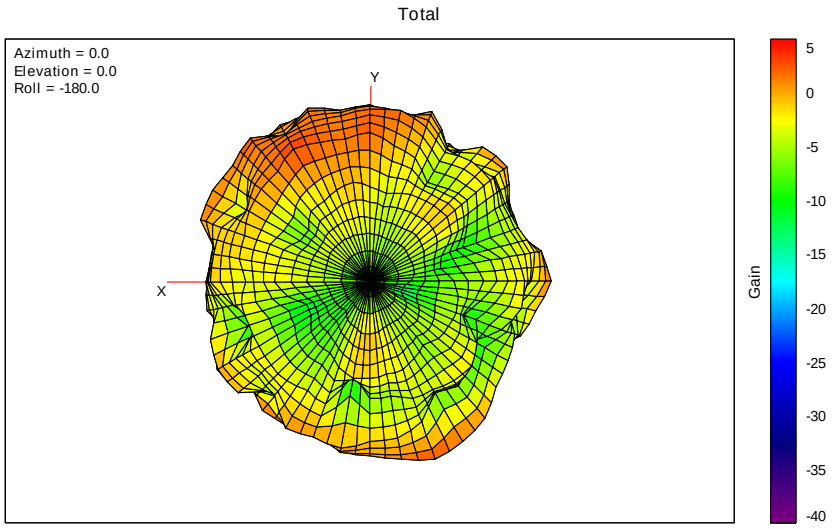

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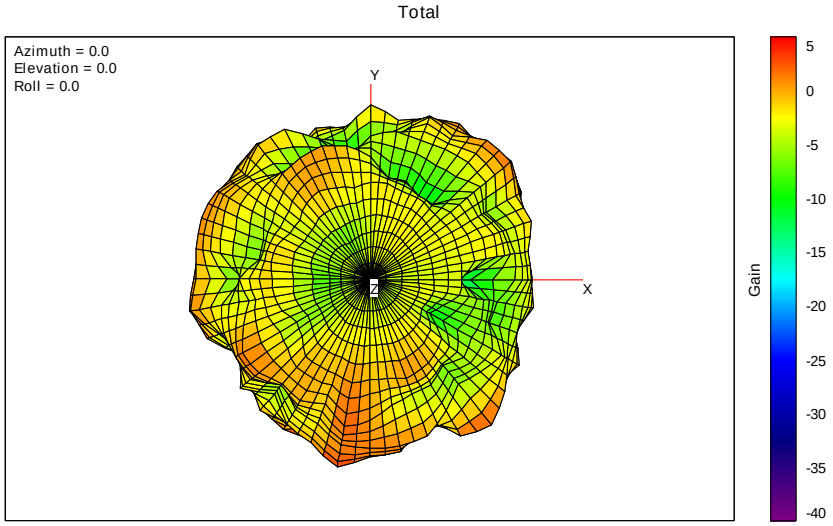

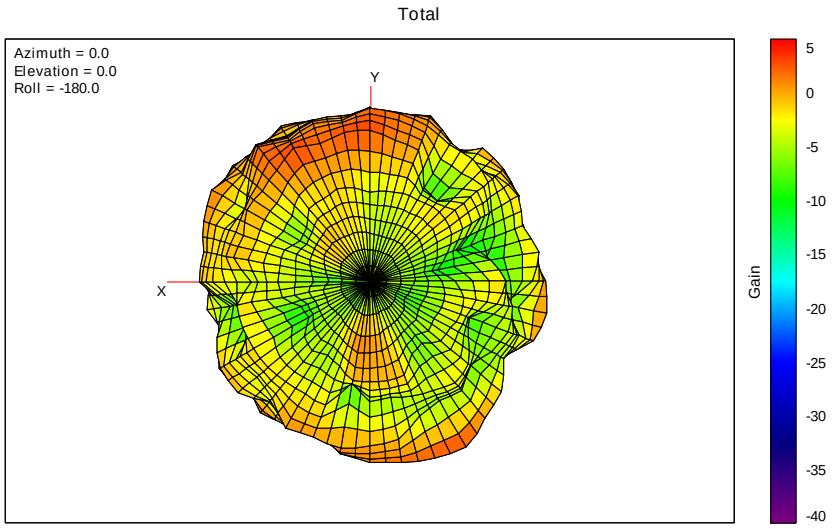

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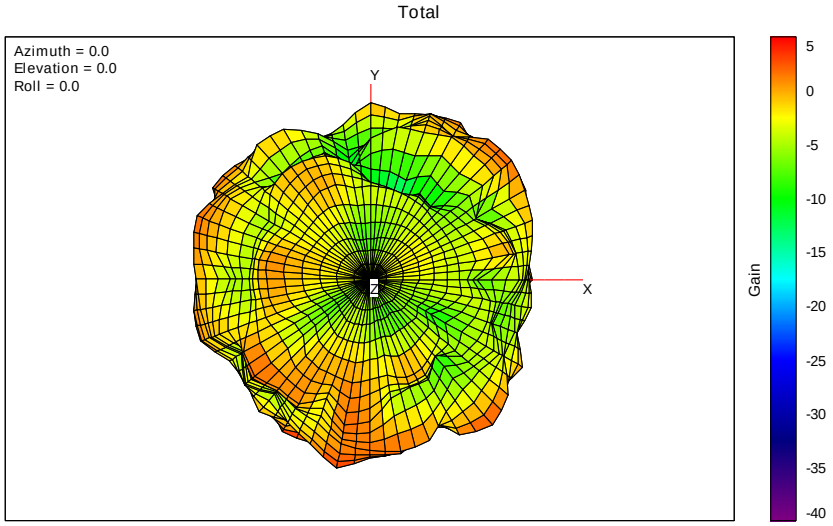

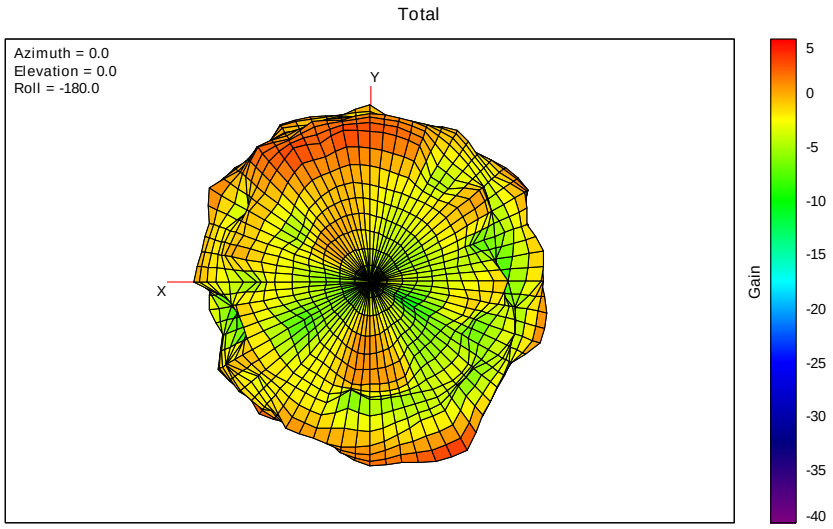

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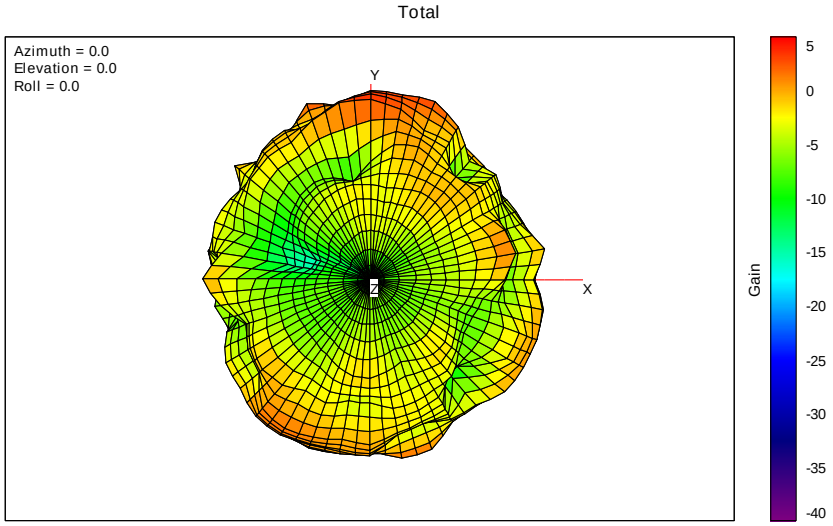

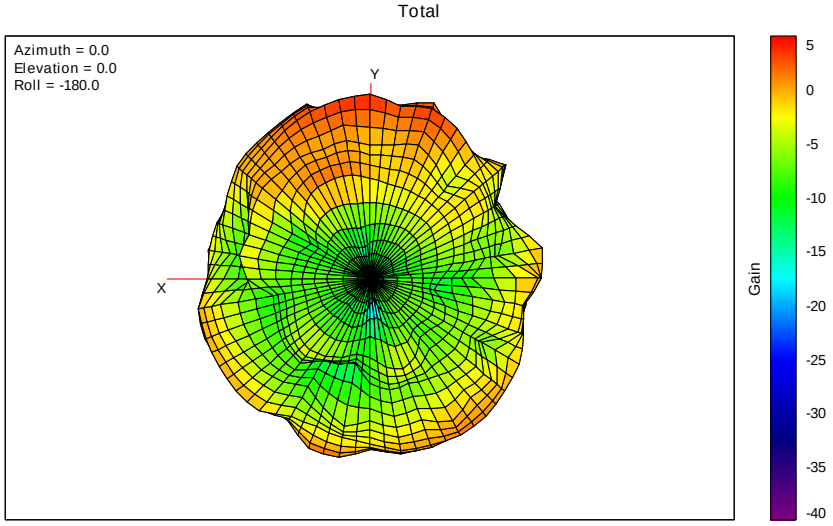

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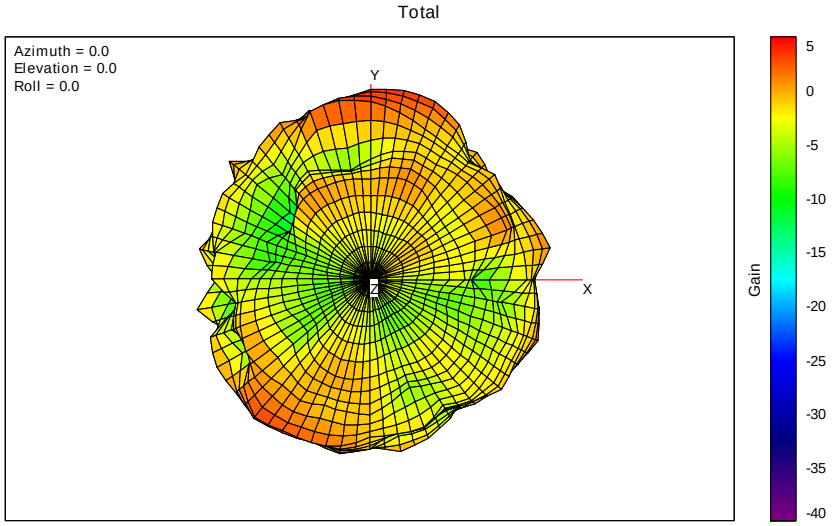
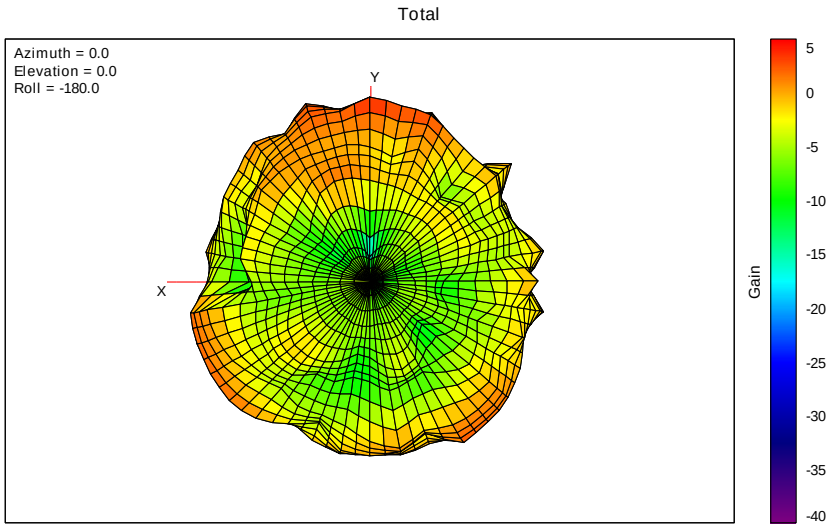
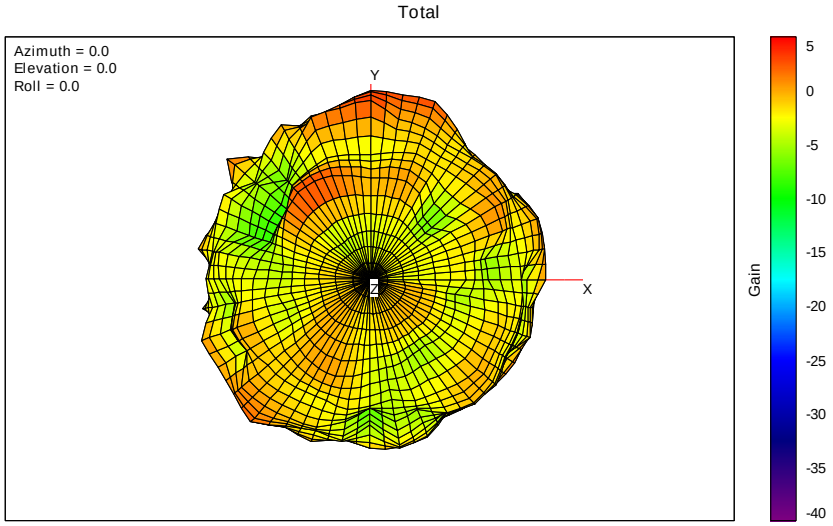
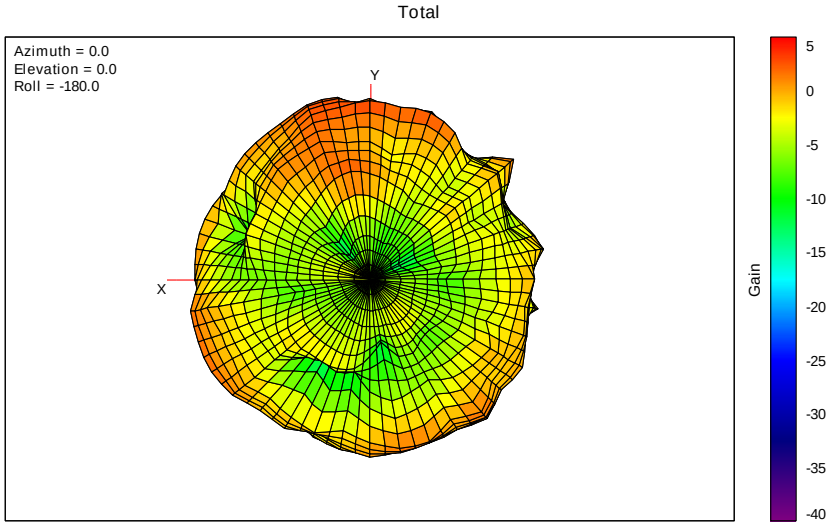


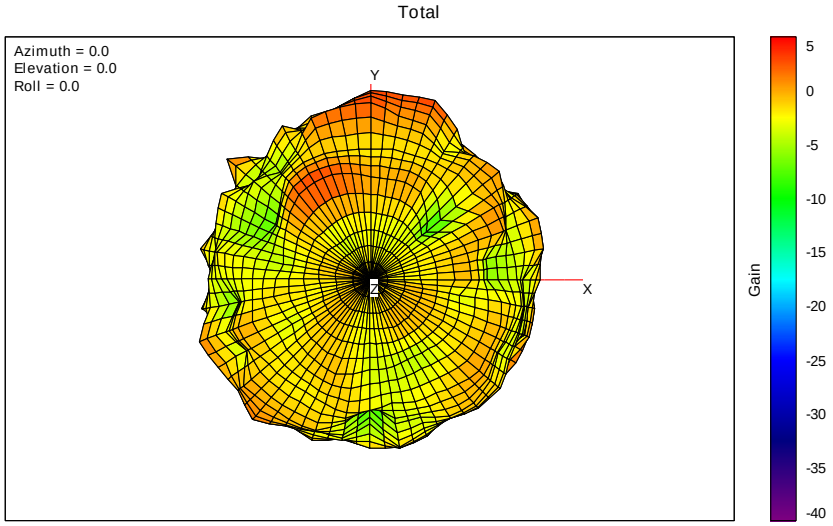


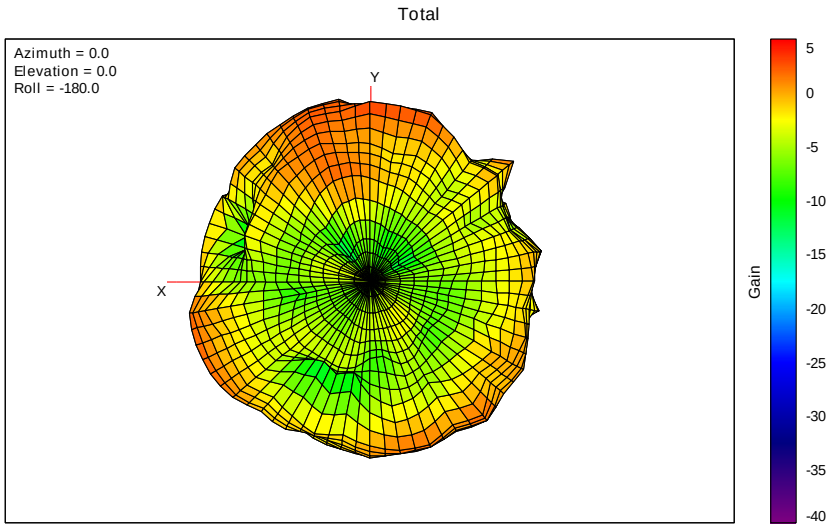
3D Free Space Router Gain Pattern 6G-7-6175MHz



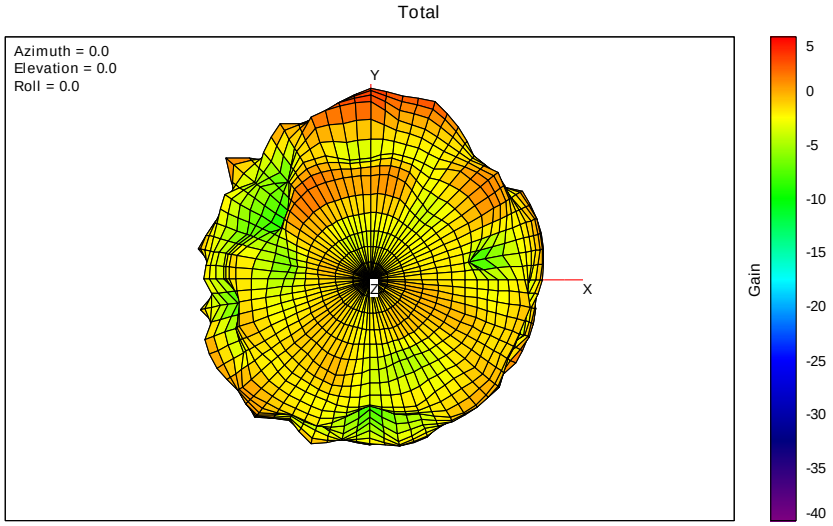


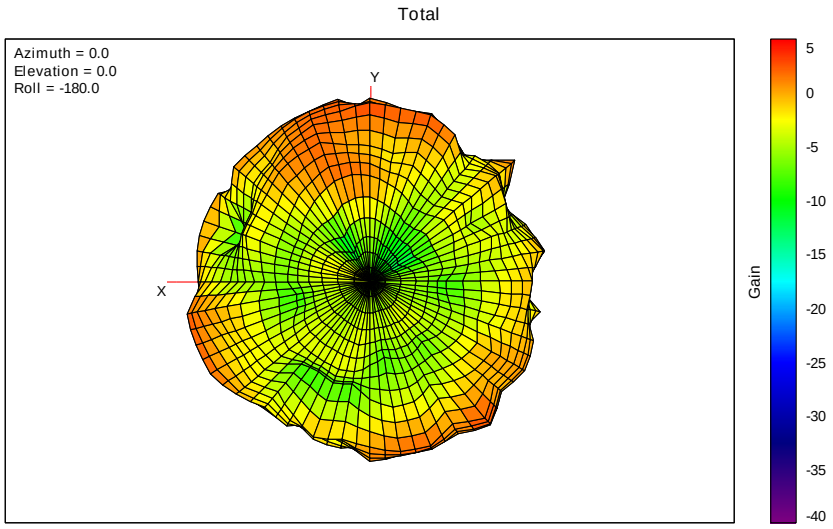
3D Free Space Router Gain Pattern 6G-7-6415MHz



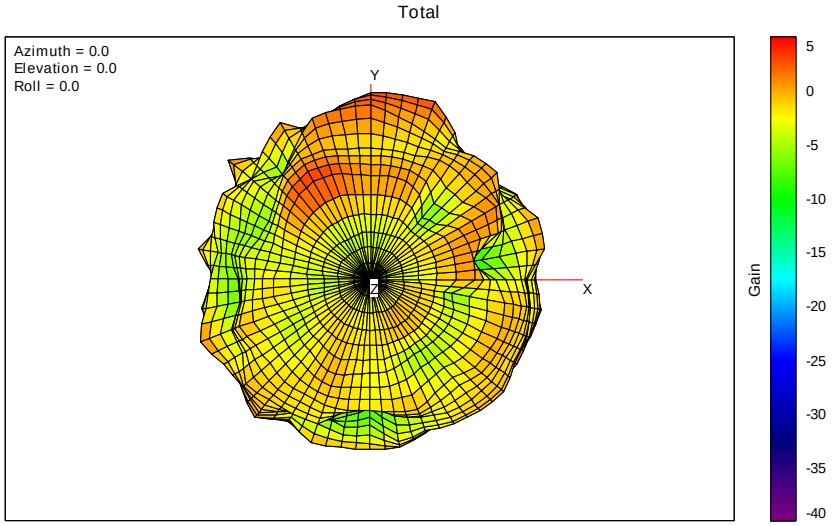


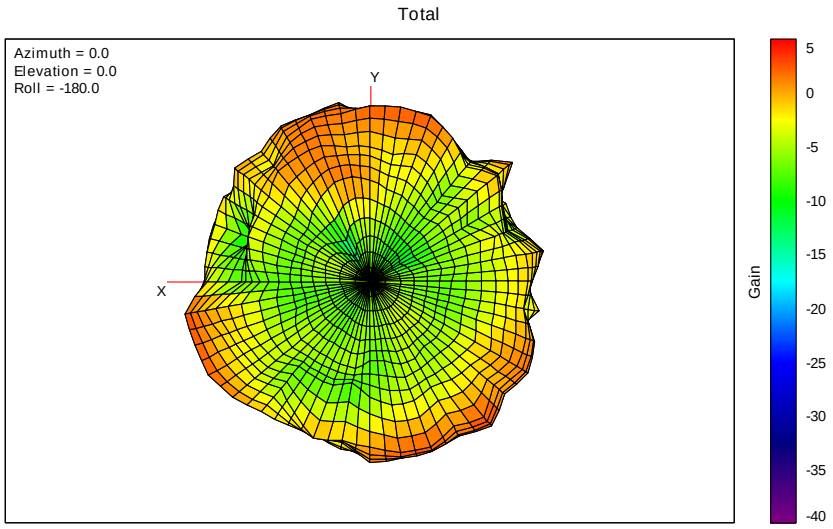
3D Free Space Router Gain Pattern 6G-7-6435MHz



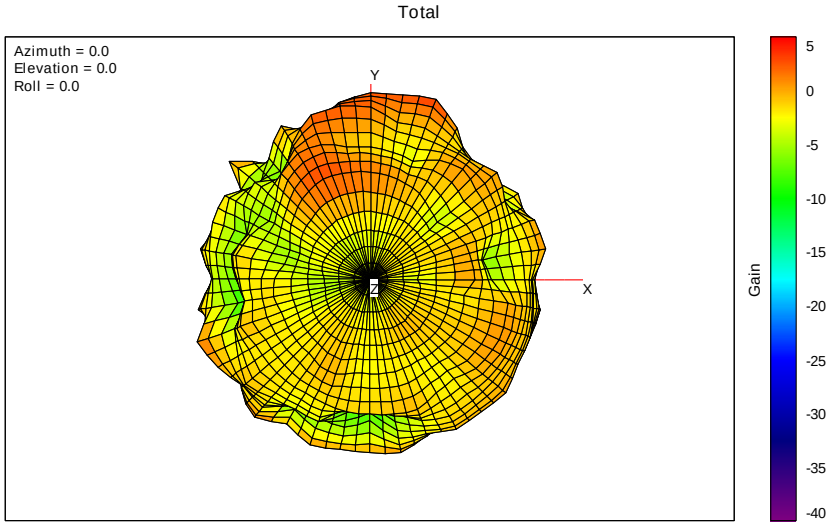


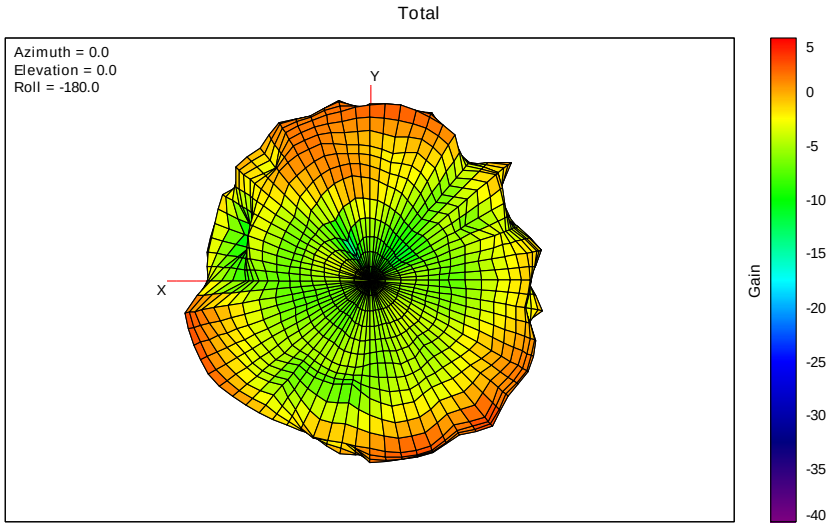
3D Free Space Router Gain Pattern 6G-7-6475MHz



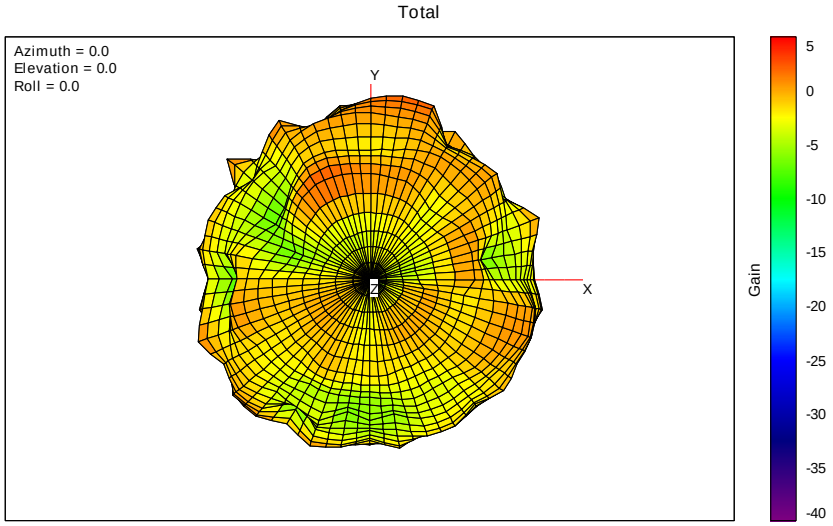


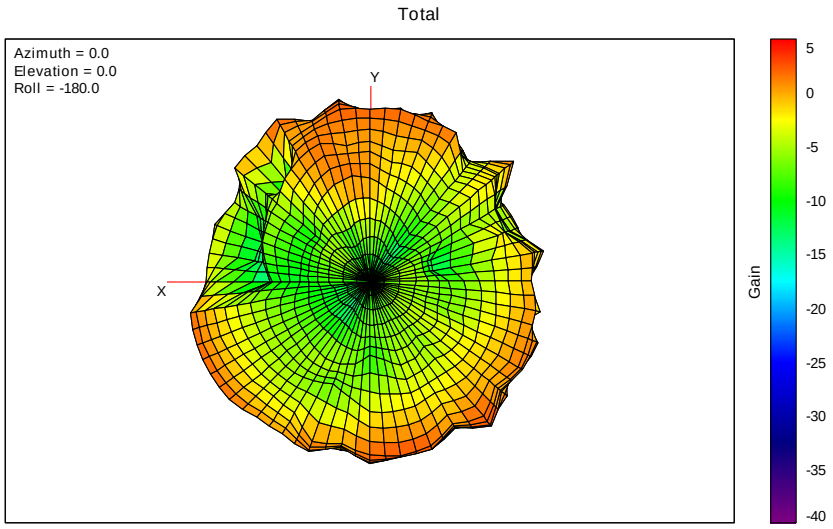
3D Free Space Router Gain Pattern 6G-7-6515MHz



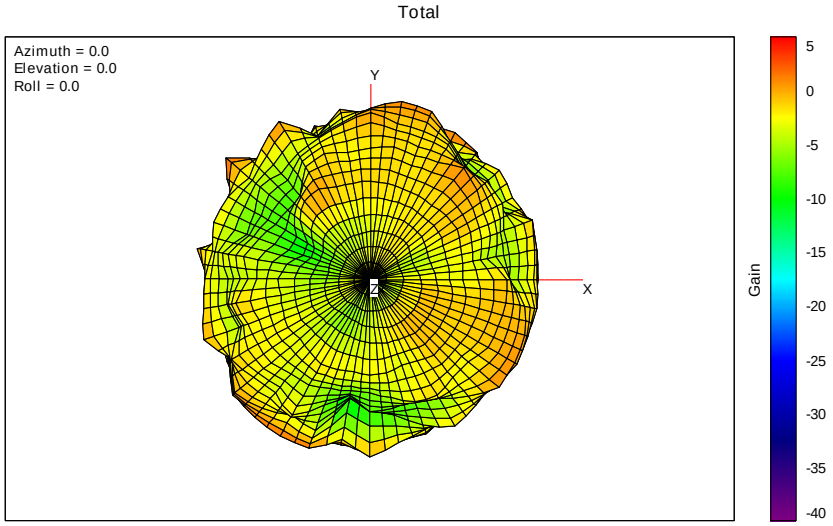


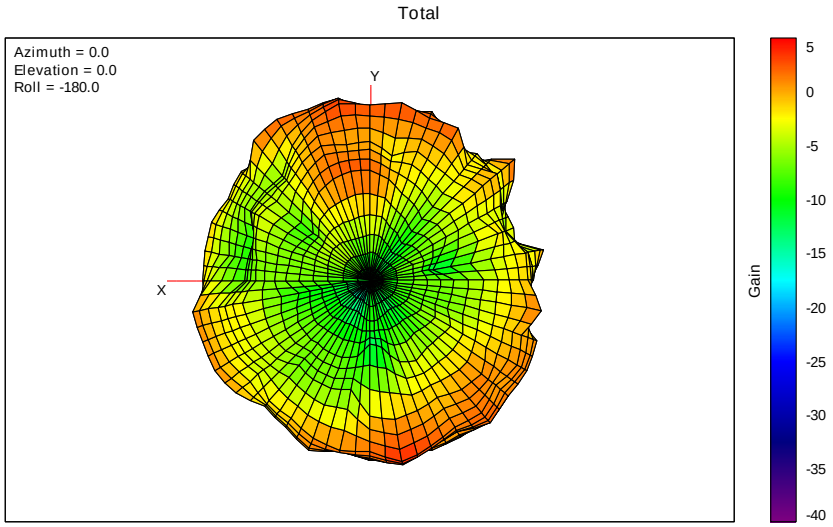
3D Free Space Router Gain Pattern 6G-7-6535MHz



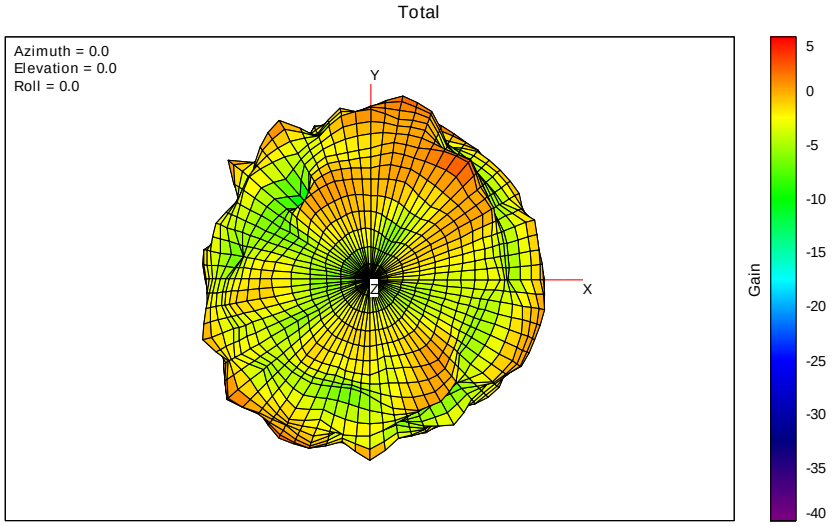


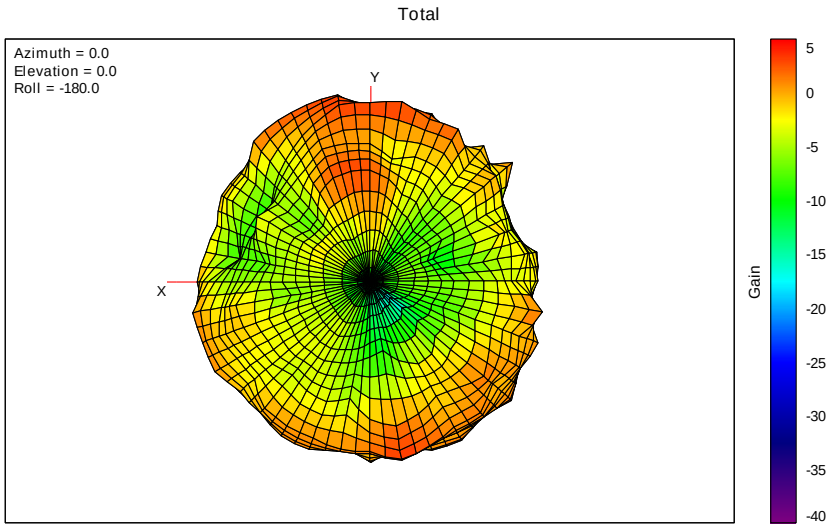
3D Free Space Router Gain Pattern 6G-7-6695MHz



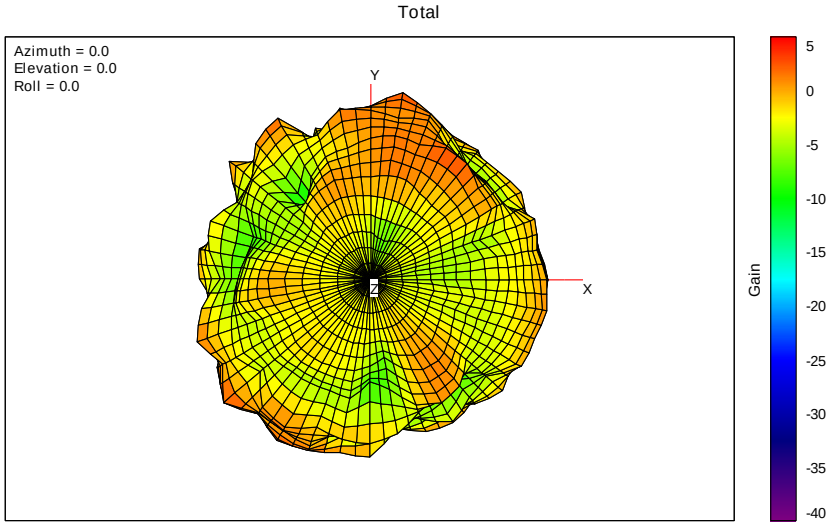


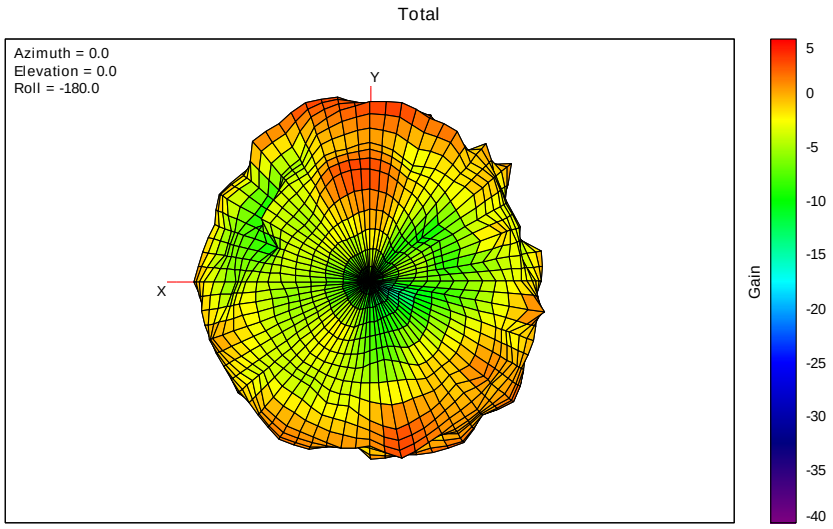
3D Free Space Router Gain Pattern 6G-7-6875MHz



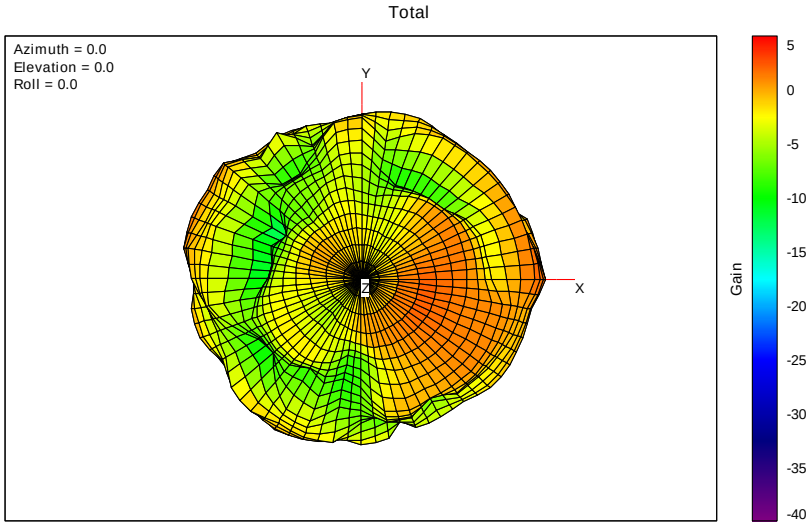


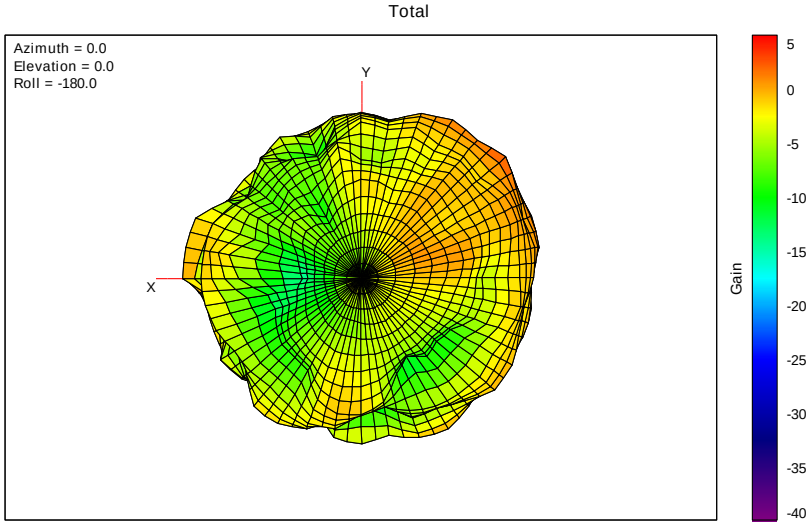
3D Free Space Router Gain Pattern 6G-7-6995MHz





3D Free Space Router Gain Pattern 6G-7-7095MHz





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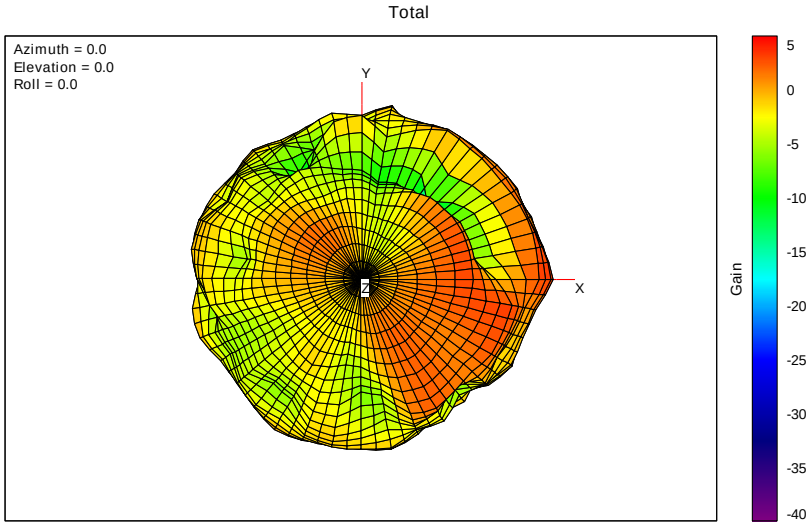

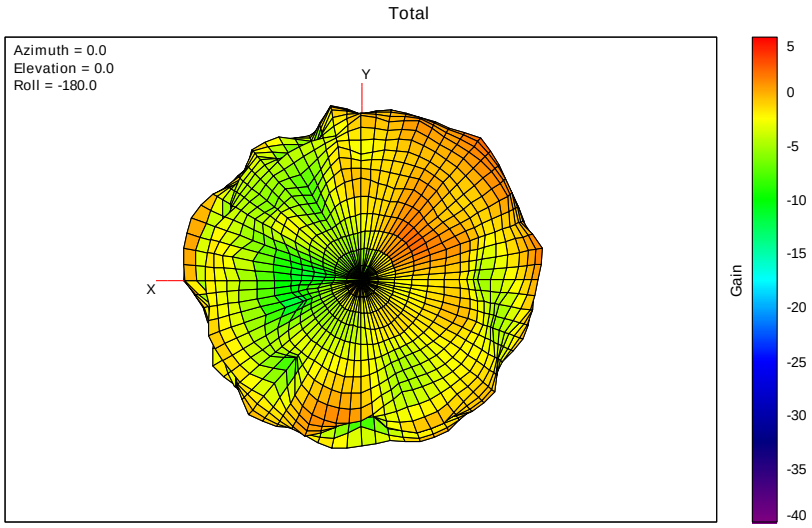

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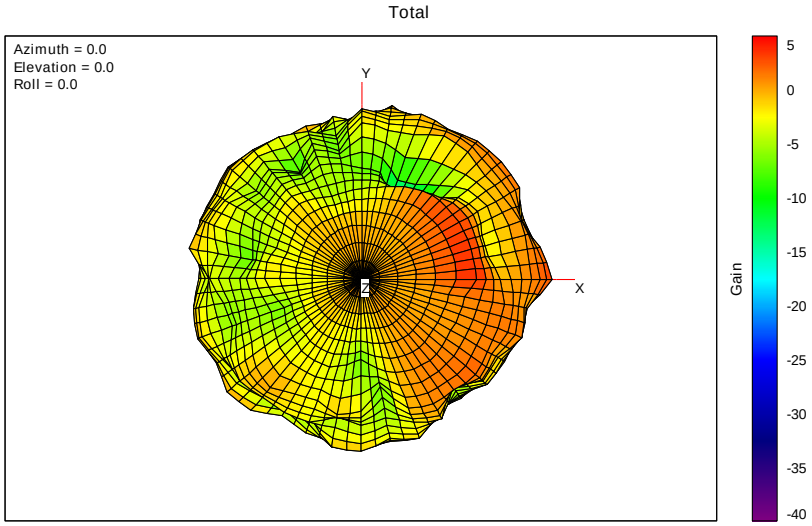

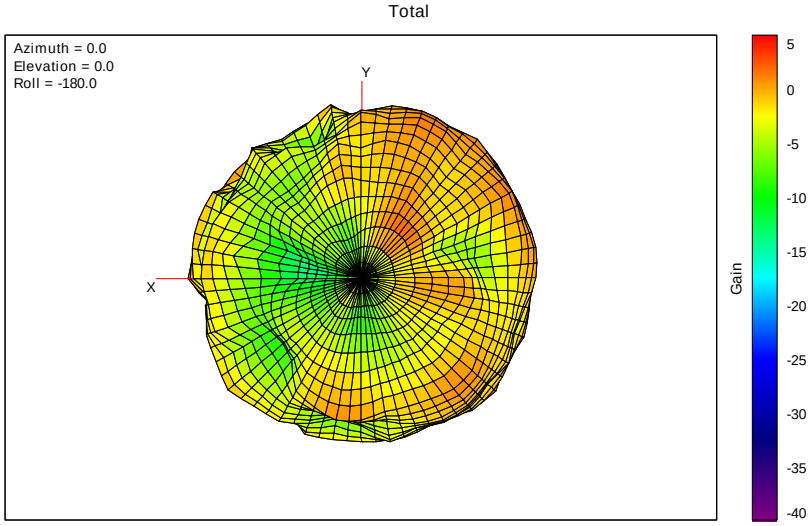

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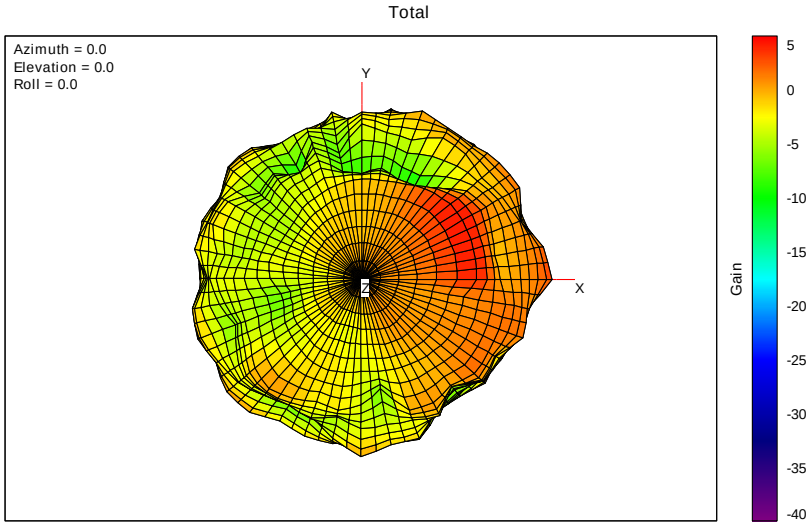

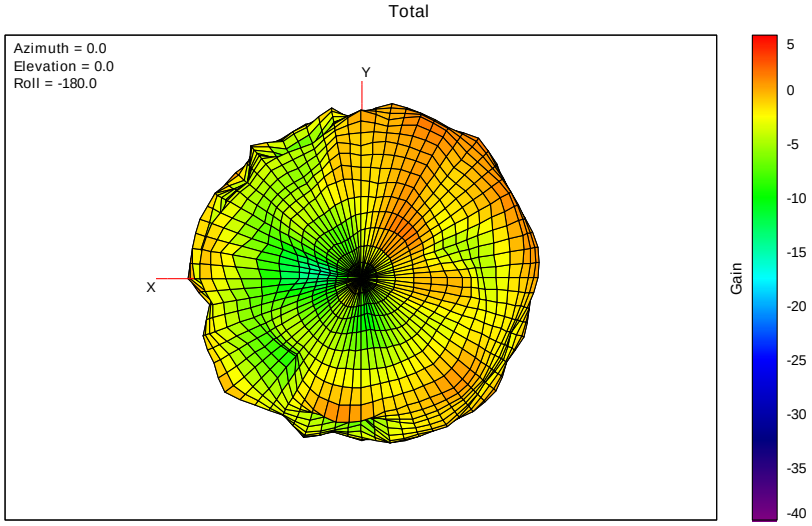

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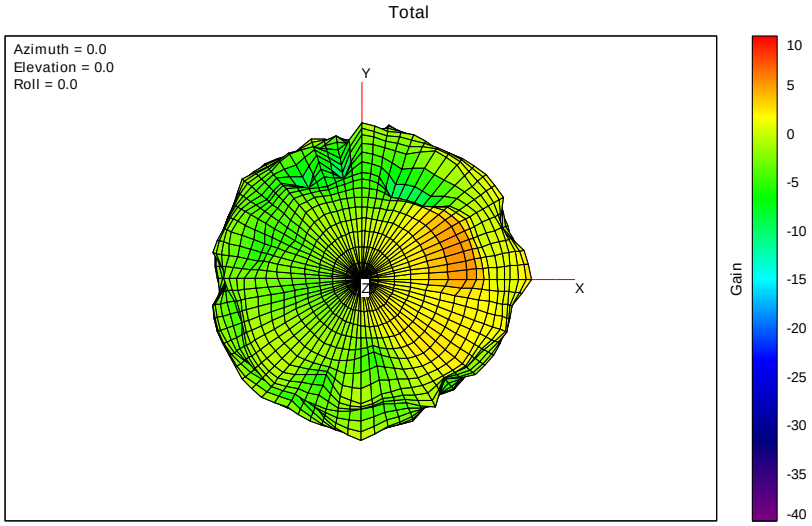

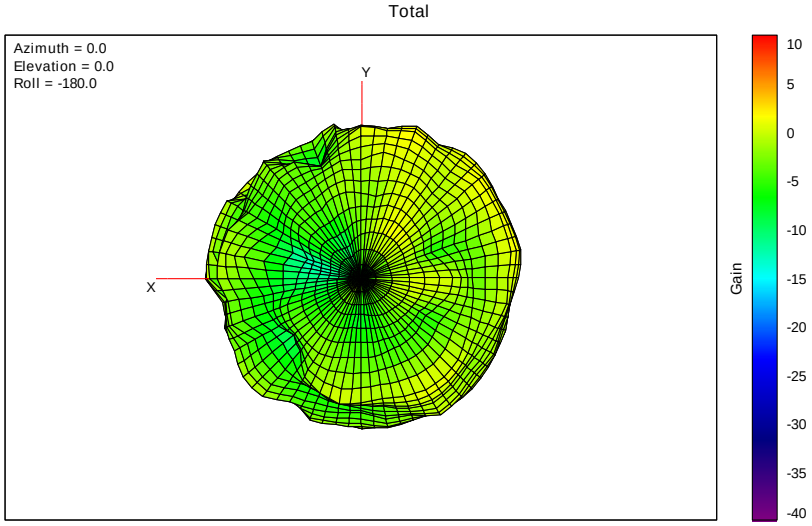

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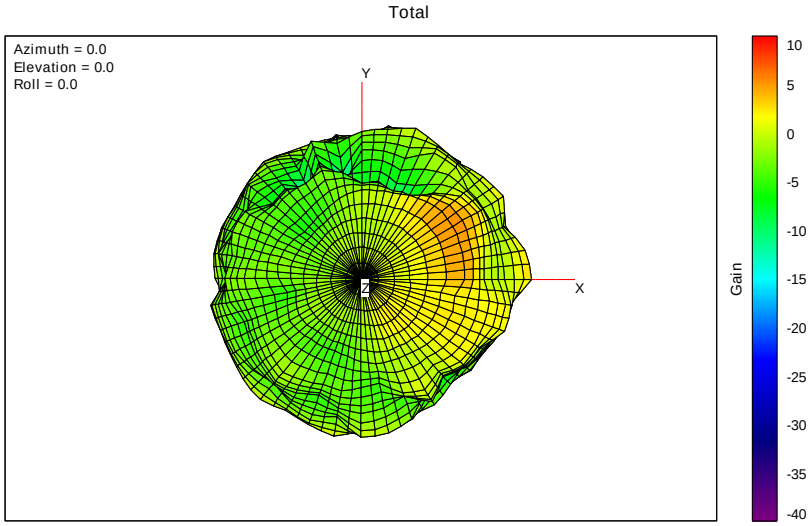
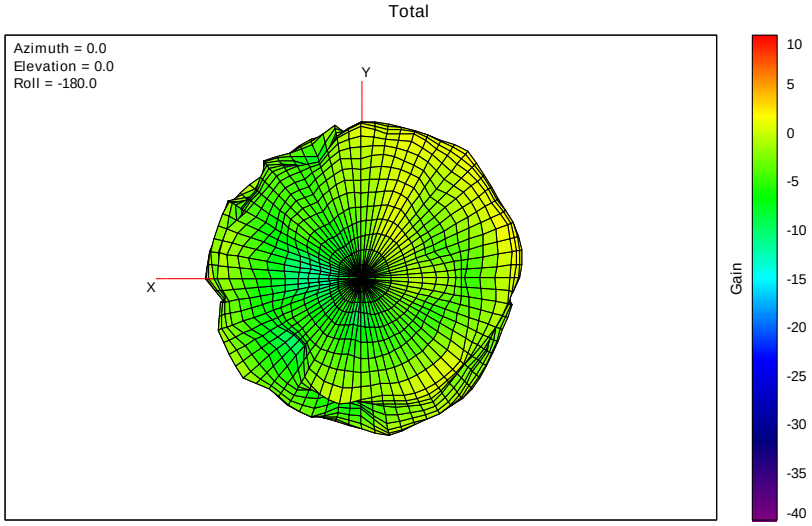
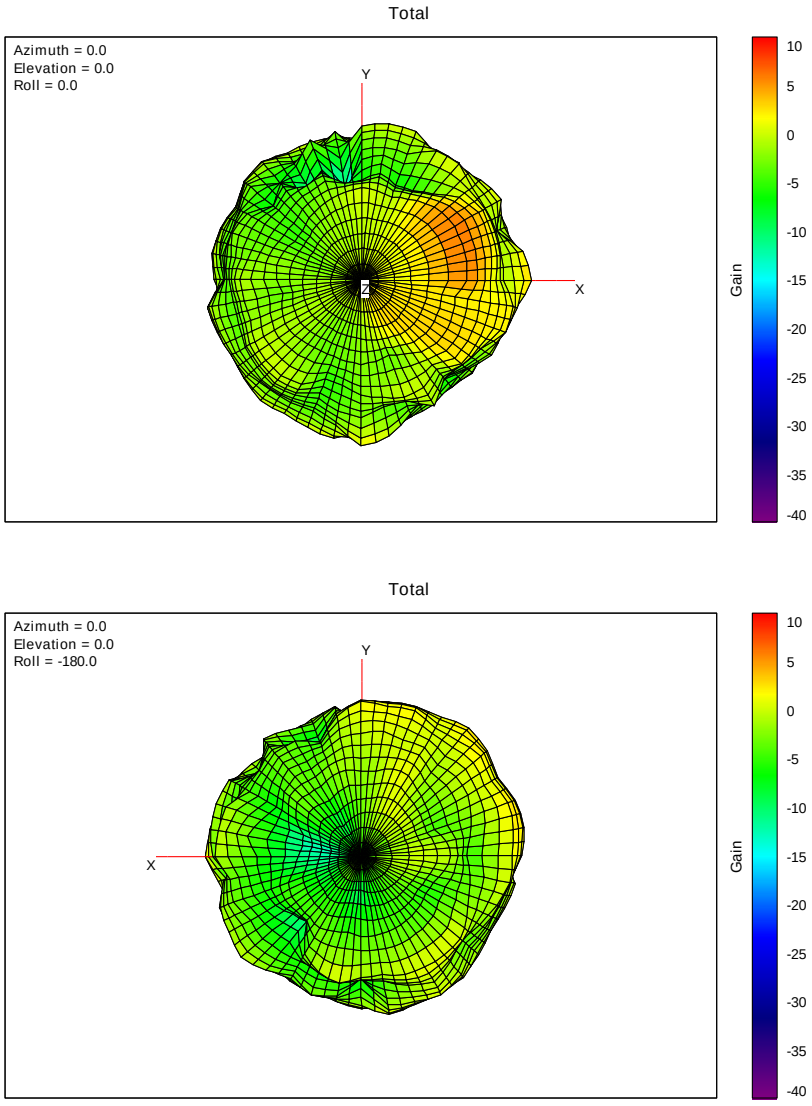
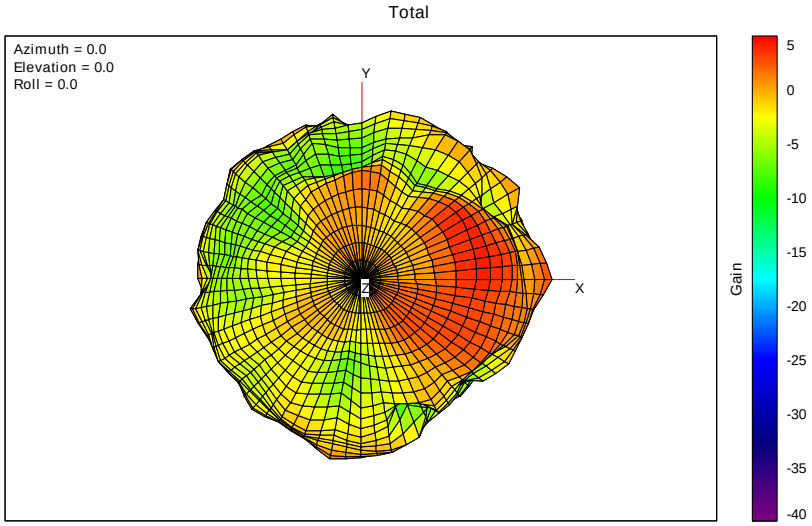


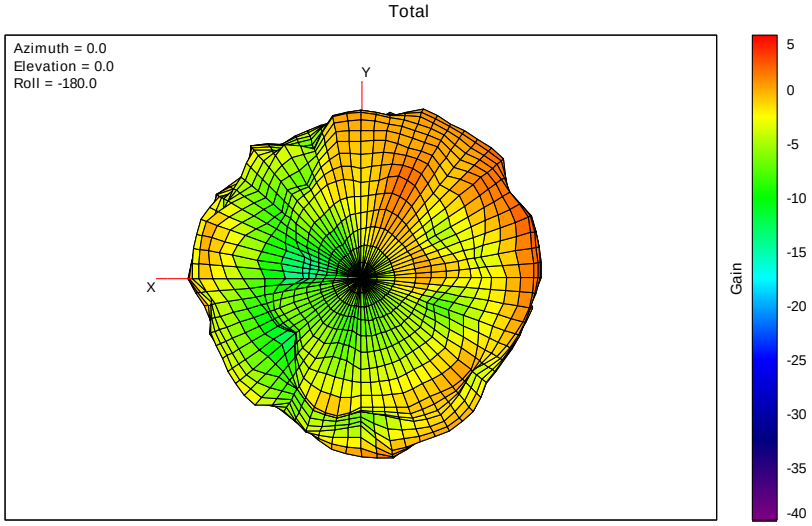


3D Free Space Router Gain Pattern 6G-8-6515MHz

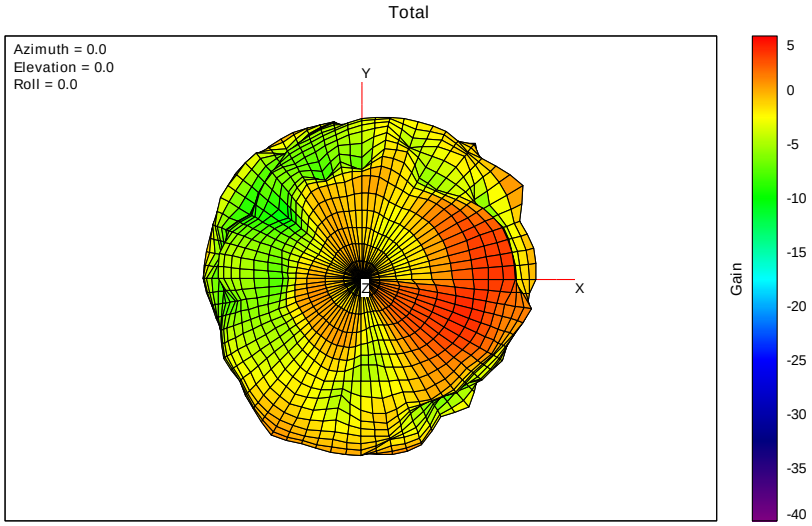


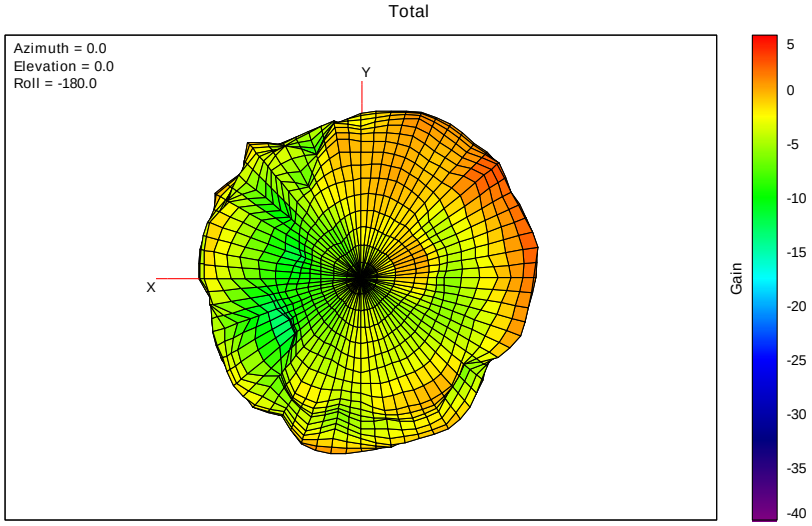
3D Free Space Router Gain Pattern 6G-8-6535MHz



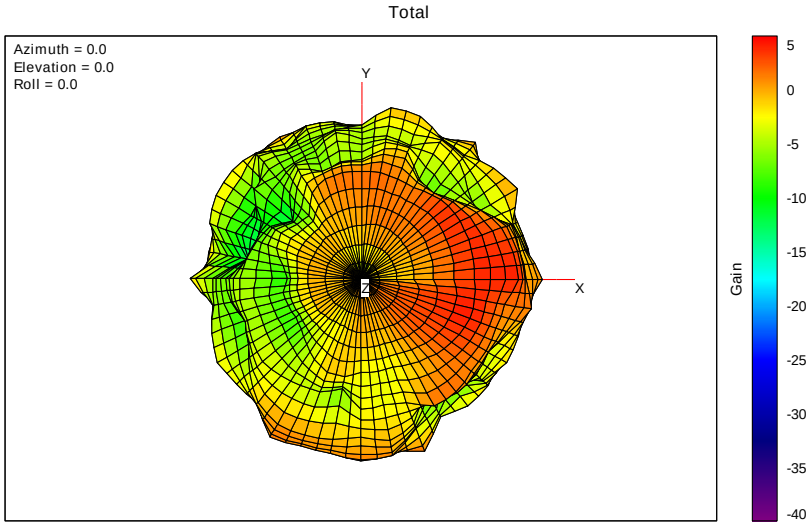


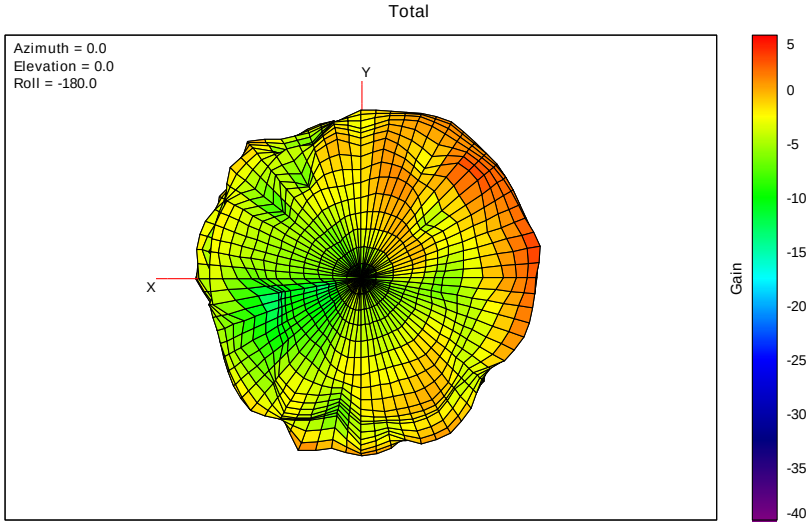
3D Free Space Router Gain Pattern 6G-8-6695MHz



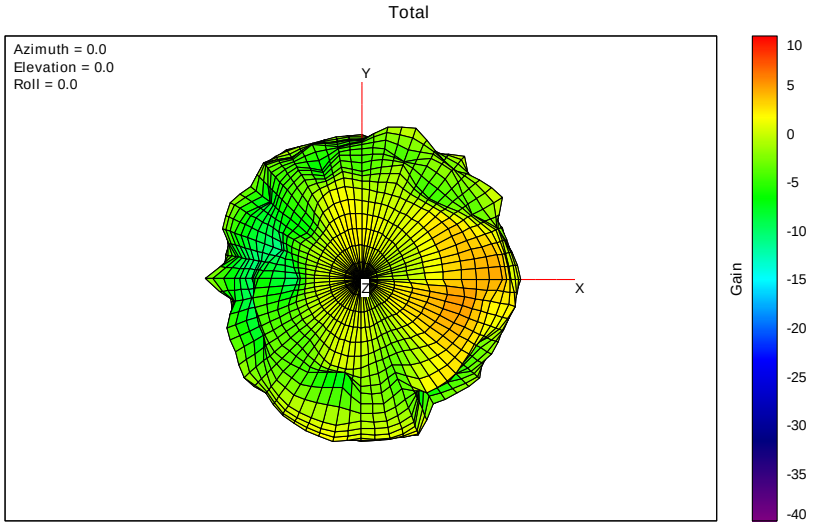


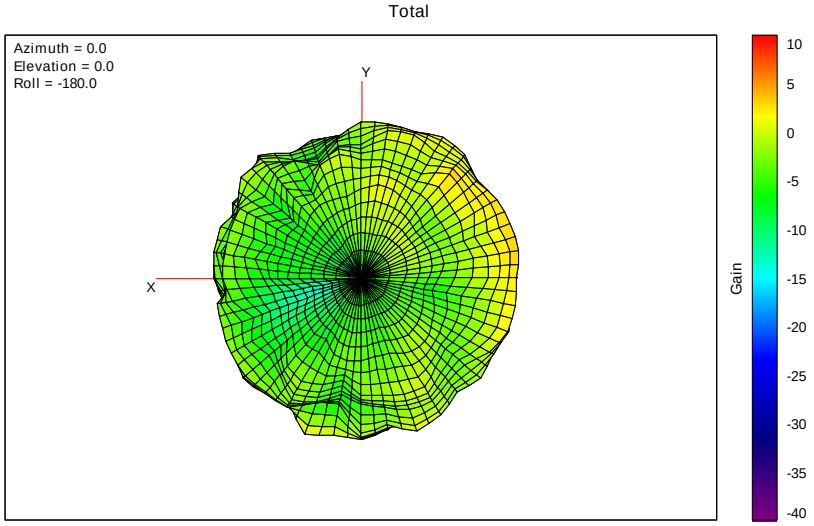
3D Free Space Router Gain Pattern 6G-8-6875MHz





3D Free Space Router Gain Pattern 6G-8-6995MHz





3D Free Space Router Gain Pattern 6G-8-7095MHz