

Antenna Gain Report for ANRF

REPORT ID: 2025-AG-001

MODEL NO.: ANRF Standard

TESTED DATE: 2025-07-26

ISSUED: 2025-08-27

MANUFACTURER: Motorola Solutions Inc.

ADDRESS : 500 W Monroe Street, Ste 4400. Chicago, IL 60661

ISSUED BY : Motorola Solutions Inc, 2000 Progress Pkwy, Schaumburg, IL 60196

TEST LOCATION : Motorola Solutions, Inc. 2000 Progress Pkwy, Schaumburg, IL 60196
1.

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RELEASE CONTROL RECORD

REPORT ID	REASON FOR CHANGE	DATE ISSUED
2025-AG-001	Original release	2025-08-26

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1 General Information

APPLICANT:	Motorola Solutions, Inc
MANUFACTURER:	Motorola Solutions, Inc
MODEL NO:	H55TGT9PW8BN
SERIAL NUMBER:	Serial Number: 123ABC1234
HARDWARE VERSION:	Rev P2
SOFTWARE VERSION:	NA
PRODUCT TYPE:	Converged device
BLUETOOTH:	2.4GHz ILA (Inverted L)
WLAN:	2.4GHz, 5GHz and 6GHz (Inverted L)
NFC:	13.56MHz Flex Antenna
CONFIGURATION OF PRIMARY MECHANICAL MODE:	Monoblock (example)

The above equipment has been tested by **Motorola Solutions Schaumburg, IL.**

PREPARED BY: Ross Ripley

APPROVED BY: Ross Ripley

2 Test Lab Environment Conditions

Temperature	20°C to 30°C
Humidity	30% to 70%

3 Test Equipment List

Type of Equipment	Model Number	Calibration Due Date
Antenna Chamber	R&S 3 meter	20 Sep 2025
OTA Test Rack	R&S TS8991	20 Sep 2025
LTE Call Box	R&S CMW500	20 Sep 2025
5G Call Box	R&S CMX	20 Sep 2025
Vector Network Analyzer	R&S ZNB8	20 Sep 2025
Power Meter	R&S NRQ	20 Sep 2025
Switch Control Units	R&S OSP230	20 Sep 2025

4 Test Procedure

Device Under Test mounted on Antenna Chamber turntable as shown in Appendix B. Measurements, including conducted power, TRP, and Peak EIRP and obtained by the TS8991 test system across low, mid and high portions of the frequency band and across a 360 degree sphere. Peak antenna gain is determined from the maximum EIRP measured across the sphere with respect to the conducted power.

5 Evaluation Summary

5.1 2.4GHz Antenna Gains (Bluetooth and WLAN)

Ant0: WLAN 2.4GHz 802.11b 1Mbps

Wifi 2.4GHz Channel	CH1	CH6	CH11	Unit
Frequency	2412	2437	2462	MHz
Peak Antenna Gain	2.4	2.7	2.0	dBi

Ant1: WLAN 2.4GHz 802.11b 1Mbps

Wifi 2.4GHz Channel	CH1	CH6	CH11	Unit
Frequency	2412	2437	2462	MHz
Peak Antenna Gain	-11.0	-7.8	-6.8	dBi

Bluetooth BT 1M GFSK 1Mbps

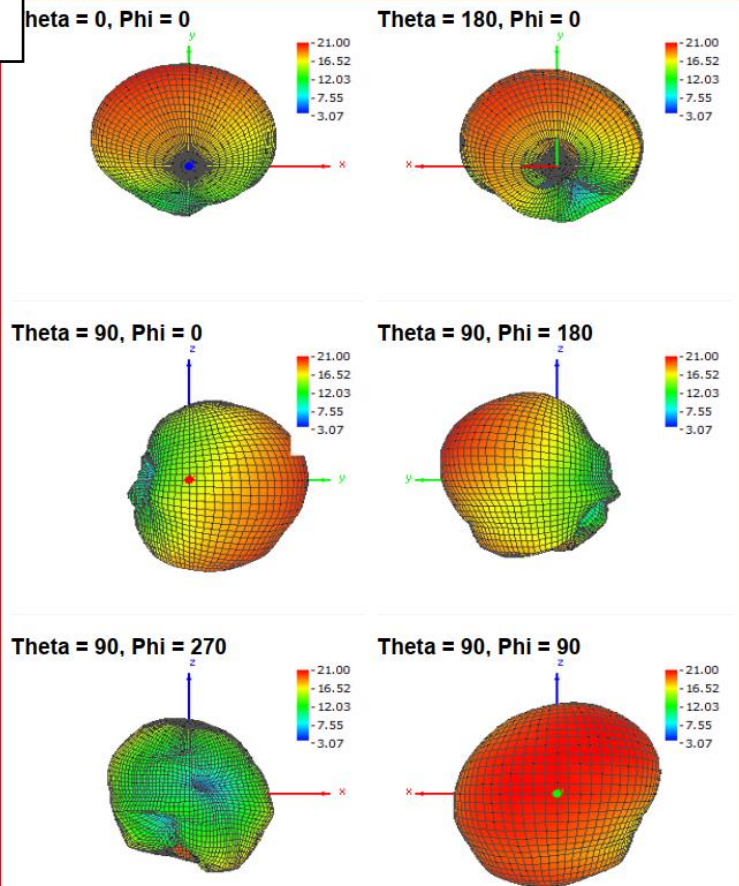
Bluetooth Channel	CH 37	CH 16	CH 39	Unit
Frequency	2402	2438	2480	MHz
Peak Antenna Gain	2.4	2.7	2.0	dBi

Bluetooth BLE 1M GFSK 1Mbps

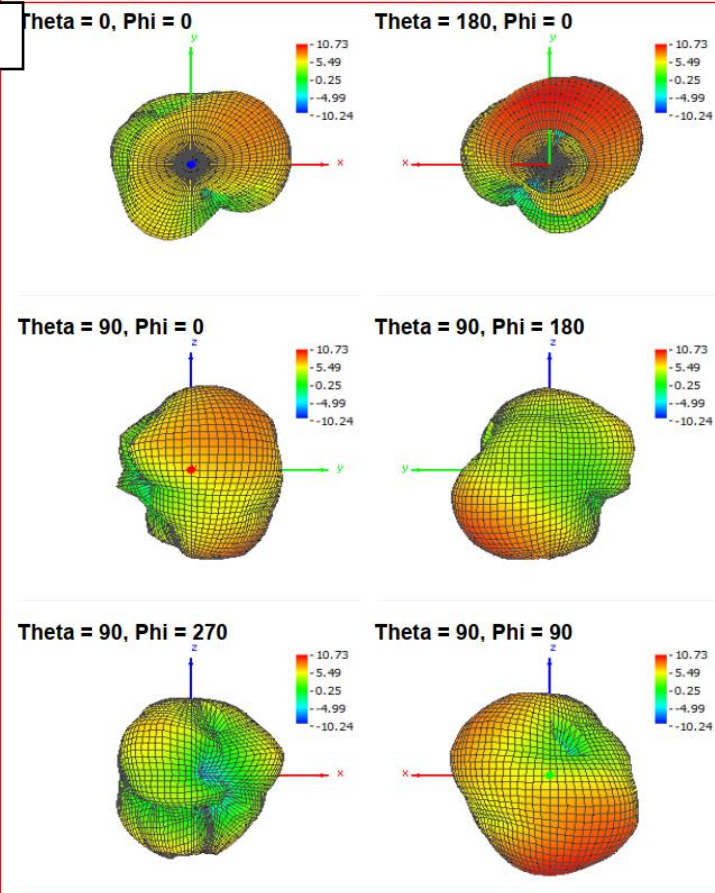
Bluetooth Channel	CH 37	CH 16	CH 39	Unit
Frequency	2402	2438	2480	MHz
Peak Antenna Gain	2.4	2.7	2.0	dBi

Ant0 & Ant1: WLAN 2.4GHz 802.11b 11bps antenna 3D patterns

Ant 0



Ant



5.2 5GHz Antenna Gains (WLAN)

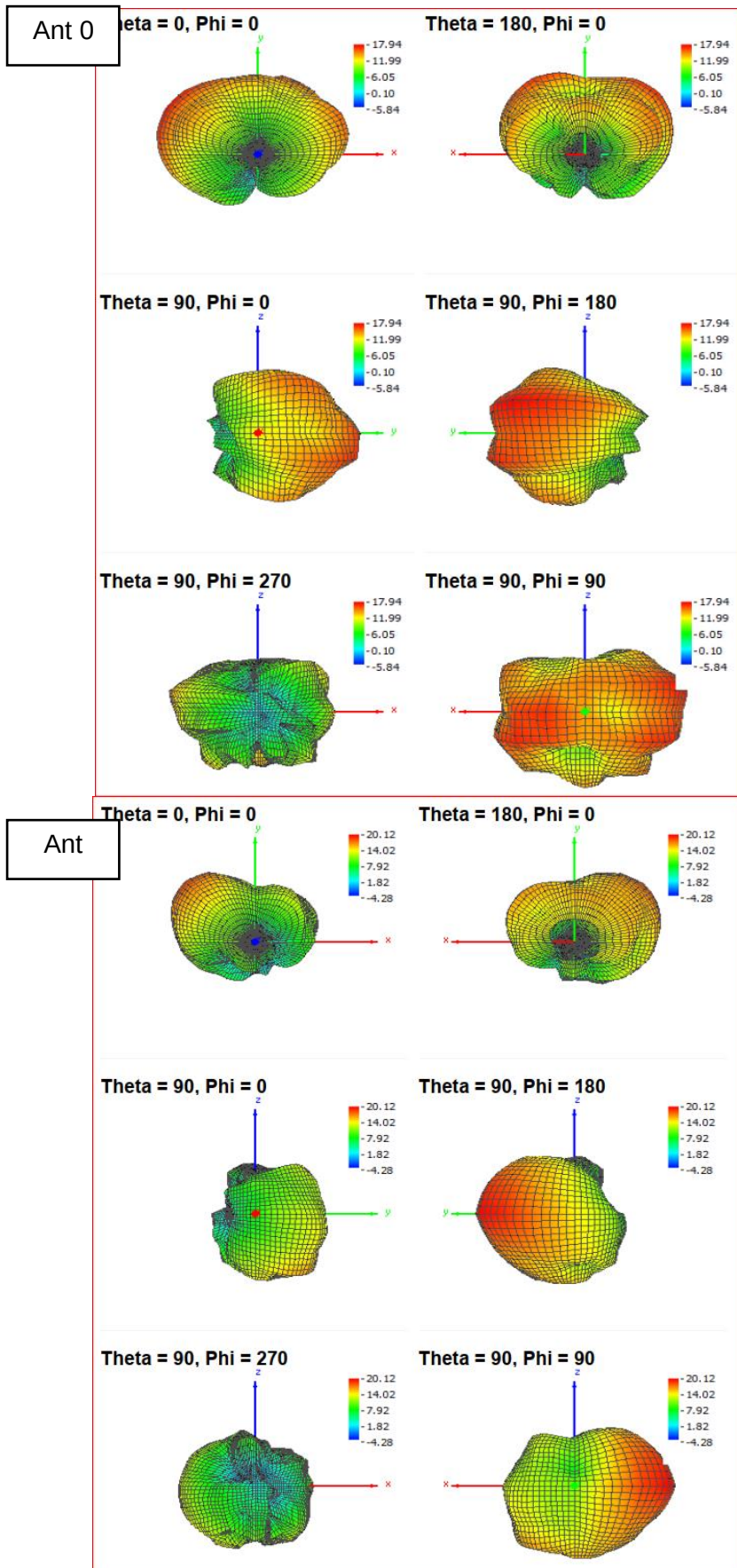
Ant0: WLAN 5GHz802.11a 6Mbps

Wifi 5GHz Channel	CH36	CH60	CH100	CH165	Unit
Frequency	5180	5300	5500	5825	MHz
Peak Antenna Gain	2.5	1.9	0.8	0.5	dBi

Ant1: WLAN 5GHz802.11a 6Mbps

Wifi 5GHz Channel	CH36	CH60	CH100	CH165	Unit
Frequency	5180	5300	5500	5825	MHz
Peak Antenna Gain	-1.8	-3.3	3.0	0.9	dBi

Ant0 & Ant1: WLAN 5GHz802.11a 6Mbps antenna 3D patterns



Ant0: WLAN 6GHz 802.11ax 7.3Mbps

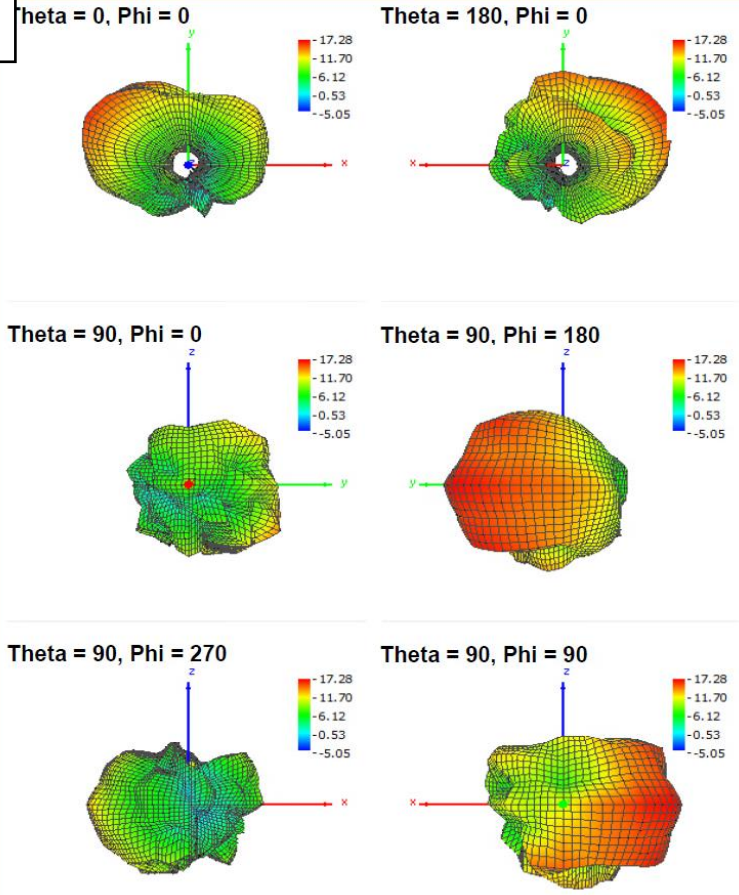
Wifi 6GHz Channel	CH49	CH91	CH117	CH233	Unit
Frequency	6195	6475	6535	7115	MHz
Peak Antenna Gain	-0.5	1.4	1.2	2.4	dBi

Ant1: WLAN 6GHz 802.11ax 7.3Mbps

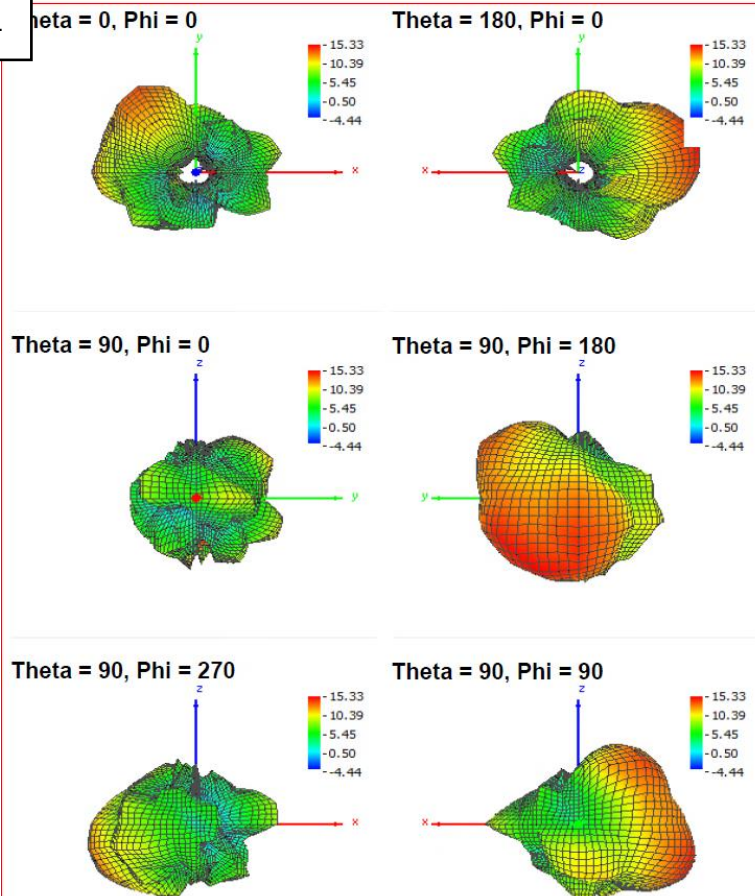
Wifi 6GHz Channel	CH49	CH91	CH117	CH233	Unit
Frequency	6195	6475	6535	7115	MHz
Peak Antenna Gain	0.9	3.8	1.7	0.9	dBi

Ant0 & Ant1: WLAN 6GHz802.11ax 7.3Mbps antenna 3D patterns

Ant 0



Ant 1



6 APPENDIX A. EUT Photographs





