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ELECTRONIC COMPONENT SPECIFICATION

DOC NO	R390-7634
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REV	2.0

Rev	Change Note	Date Document Drafted	Document Prepared by (Name)	Document Checked by (Name)
1.0	K011553-00	19 Jan 2022	David Boehm	Nicholas Yip
2.0	TBD	26 Nov 2025	David Boehm	Nicholas Yip

R390-7634 SPEC CELLULAR TRACEANTENNA TURBO

1 CHANGE DETAILS

Revision	Section	Change Details
1.0	All	Initial release
2.0	2.2, 9, 10	Updated Specifications, added gain and pattern data

2 DETAILS

RESMED PART NO.	R390-7634
ORACLE DESCR.	Spec Cellular TraceAntenna Turbo

2.1 PURCHASING DETAILS

ResMed Part Number	Manufacturer	Manufacturer Part Number
R390-7634	NA	NA

Note: Not a purchased part.

2.2 GENERAL SPECIFICATIONS

Description	Wideband Cellular Trace Antenna
Frequency Range(s)	698MHz to 960MHz 1710MHz to 2170MHz
Type	Planar printed trace antenna
Polarisation	Linear
Nominal Impedance	50Ω
Average Gain	-0.2dBi (Average of bands in 698-960Mz) +0.4dBi (Average of bands in 1700-2170MHz) See §9 for detailed gain data and §10 for radiation patterns

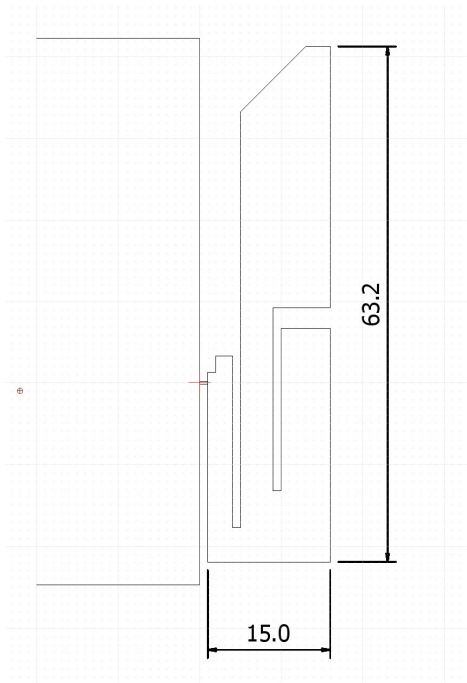
2.3 COMPONENT PICTURES

Image is for reference only.



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3 DIMENSIONS



Dimensions in mm.

For exact shape and dimensions see DXF CAD file:



R390-7634-Copper Pattern_dxf.zip

This file can be imported into PCB design CAD packages for implementation on PCB's.

4 MANUFACTURER TEST REQUIREMENTS

Antenna is part of a bare PCB and will be tested as per specifications of the PCB.

5 LABELLING

Antenna is part of a bare PCB and will be Labeled as per specifications of the PCB.

6 PACKAGING

Antenna is part of a bare PCB and will be packaged as per specifications of the PCB.

7 GENERAL SUPPLIER REQUIREMENTS

Antenna is part of a bare PCB and requirements are as per the specifications for the PCB.

8 RESMED SAMPLING, INSPECTION AND TESTING

Component is never received by ResMed except as part of an assembly. Inspection is to be carried out by ResMed's contract manufacturer as per the contract manufacturer's standard QC inwards procedures.



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9 GAIN BY BAND

BAND	Freq (MHz)	Antenna Gain (dBi)	Average Gain (dBi)
1	1925	2.5	2.0
	1950	2.0	
	1975	1.5	
2	1855	1.3	1.6
	1880	1.7	
	1905	1.8	
3	1715	3.0	2.7
	1747.50	2.4	
	1780	2.6	
4	1715	0.7	0.9
	1732.5	1.7	
	1750	0.2	
5	829	-1.8	-1.7
	836.5	-1.9	
	844	-1.4	
8	885	0.6	0.6
	897.5	0.6	
	910	0.6	
12	701.5	-1.4	-1.1
	707.5	-0.9	
	713.5	-0.9	
13	778.04	-2.2	-2.4
	782.36	-2.6	
	785.96	-2.5	
20	837	-0.8	-0.3
	847	0.2	
	857	-0.3	
25	1852.5	1.3	1.6
	1852.5	1.2	
	1912.5	2.2	
26	816.5	-1.5	-2.3
	831.5	-3.1	
	846.5	-2.5	
28	708	-0.8	-0.2
	723	-0.4	
	743	0.4	
66	1715	2.2	2.1
	1745	1.7	
	1775	2.5	



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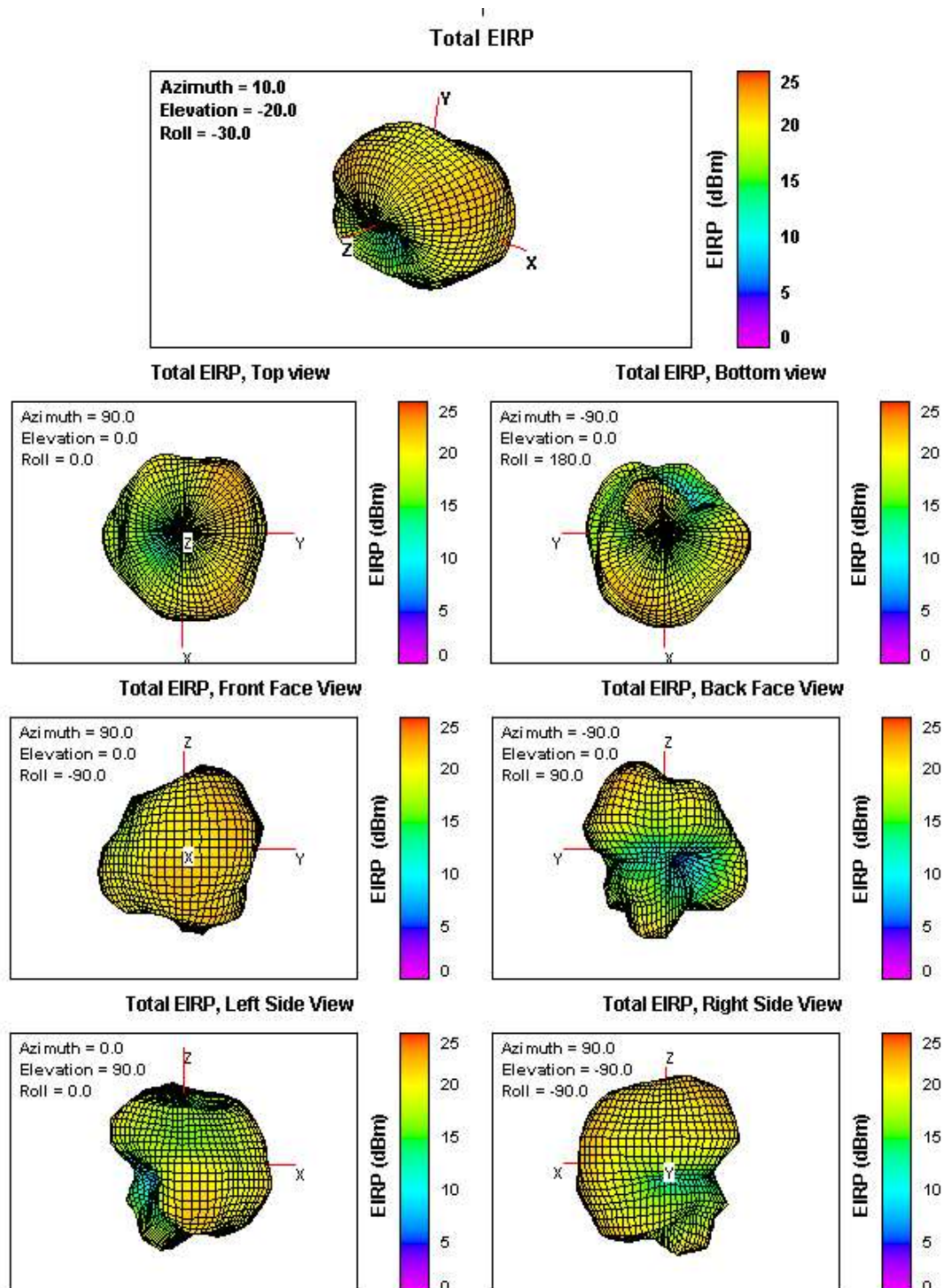
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10 RADIATION PATTERN BY BAND

Radiation patterns of selected bands are shown below.

Note: Power levels are for when used with a 20dBm transmitter.

10.1 BAND 2 : 1880MHz





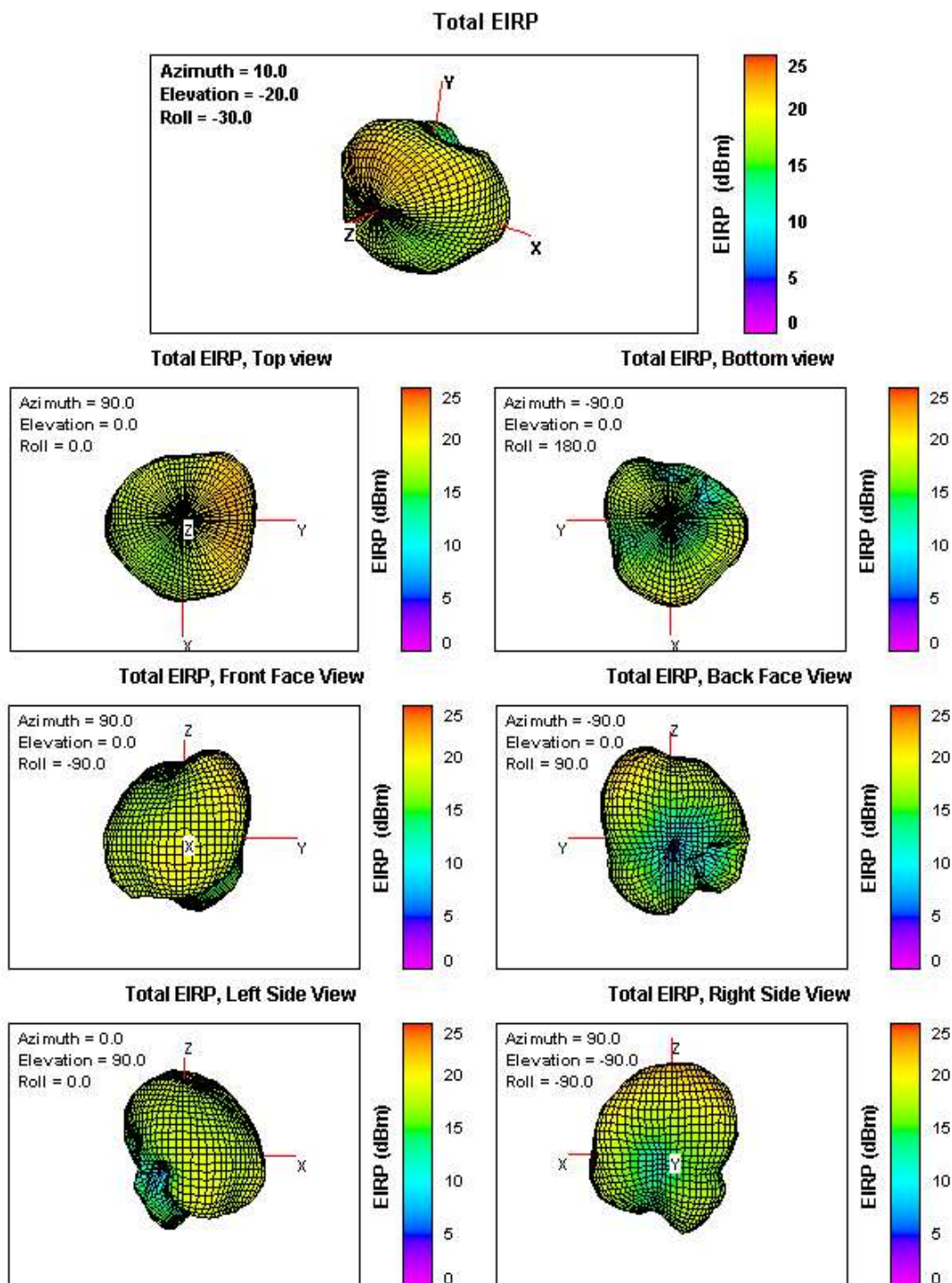
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10.2 BAND 4 : 1732.5MHz





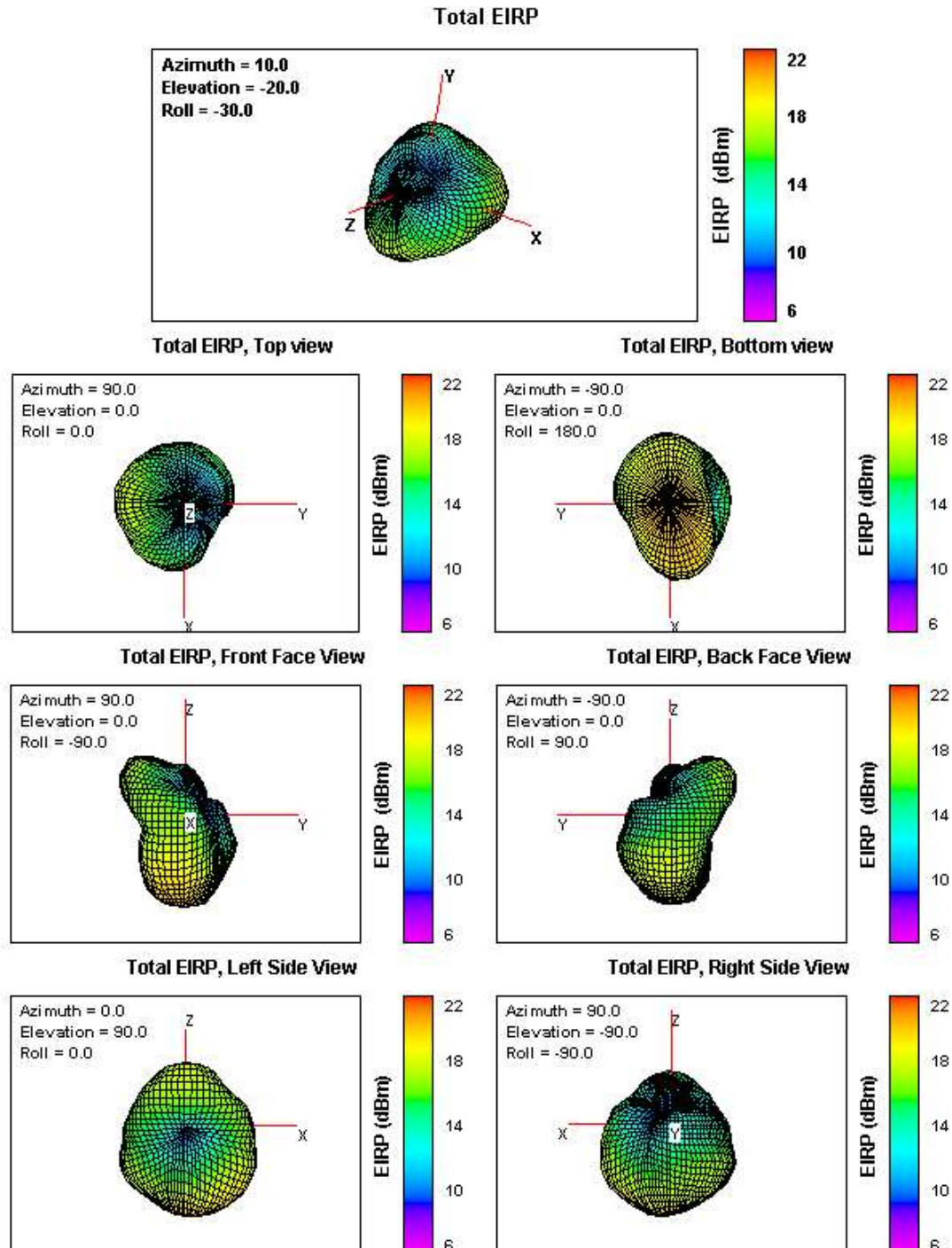
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10.3 BAND 5 : 836.5MHz





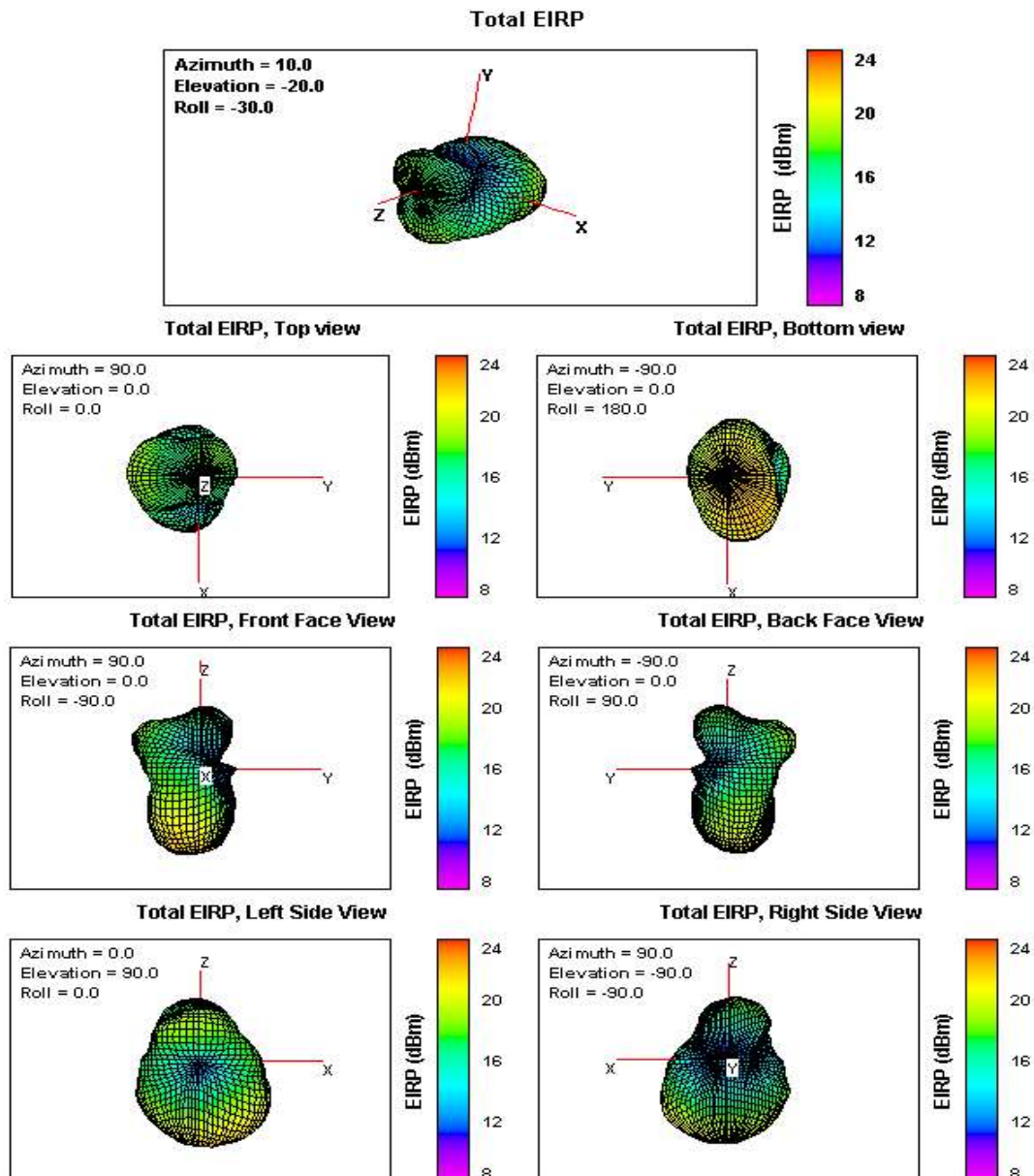
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10.4 BAND 8 : 897.5MHz





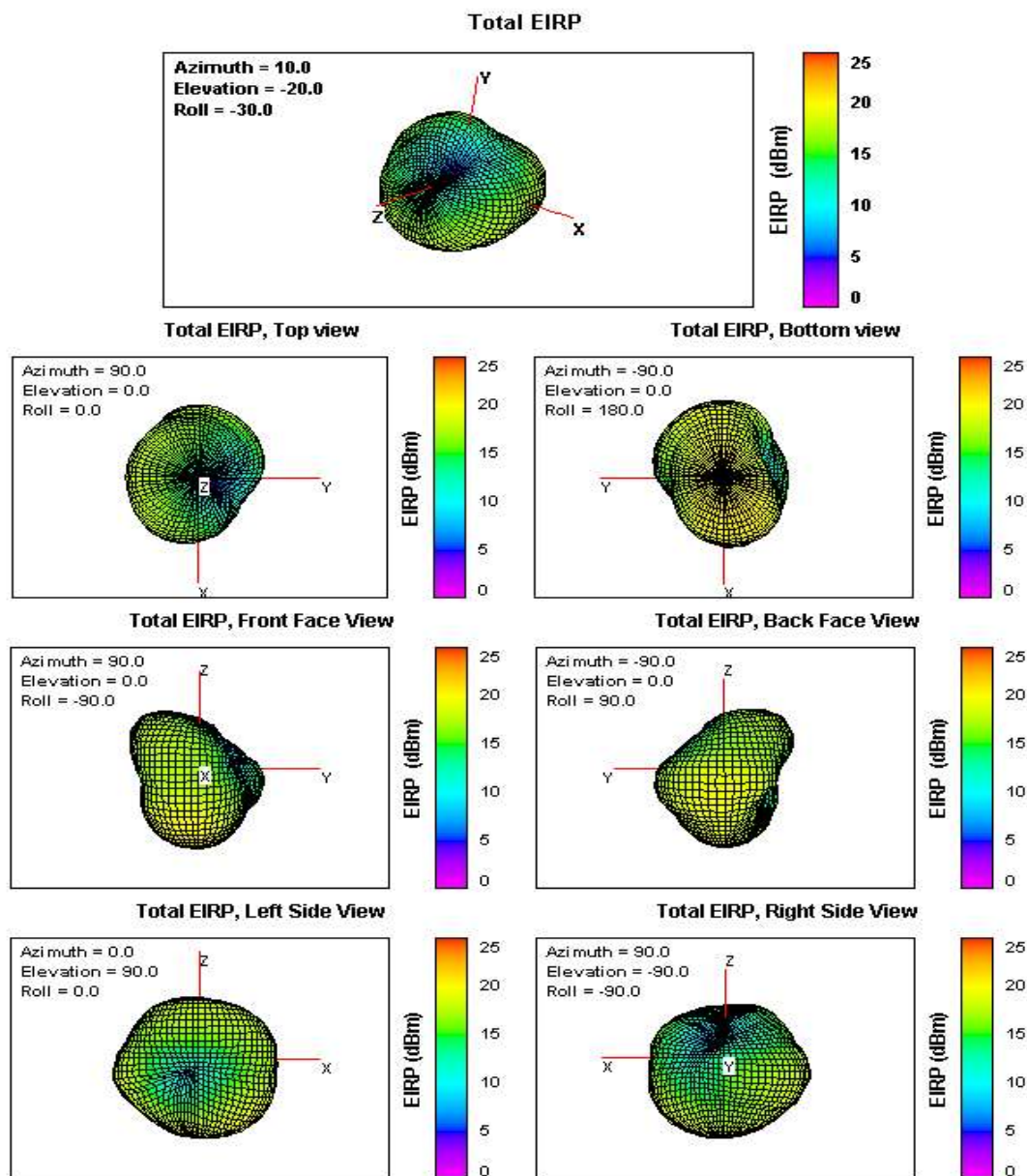
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10.5 BAND 12 : 707.5MHz





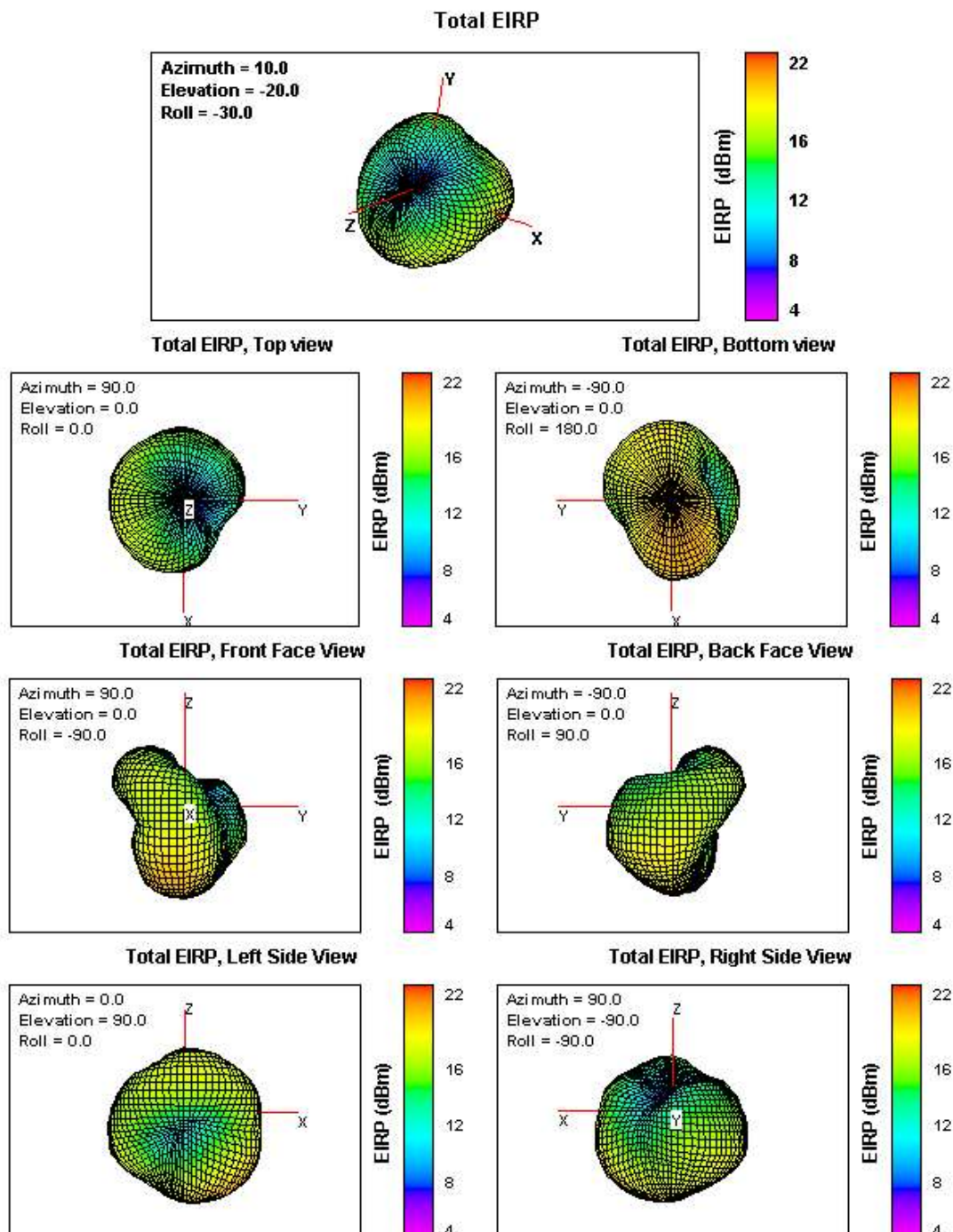
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10.6 BAND 13 : 782.36MHZ





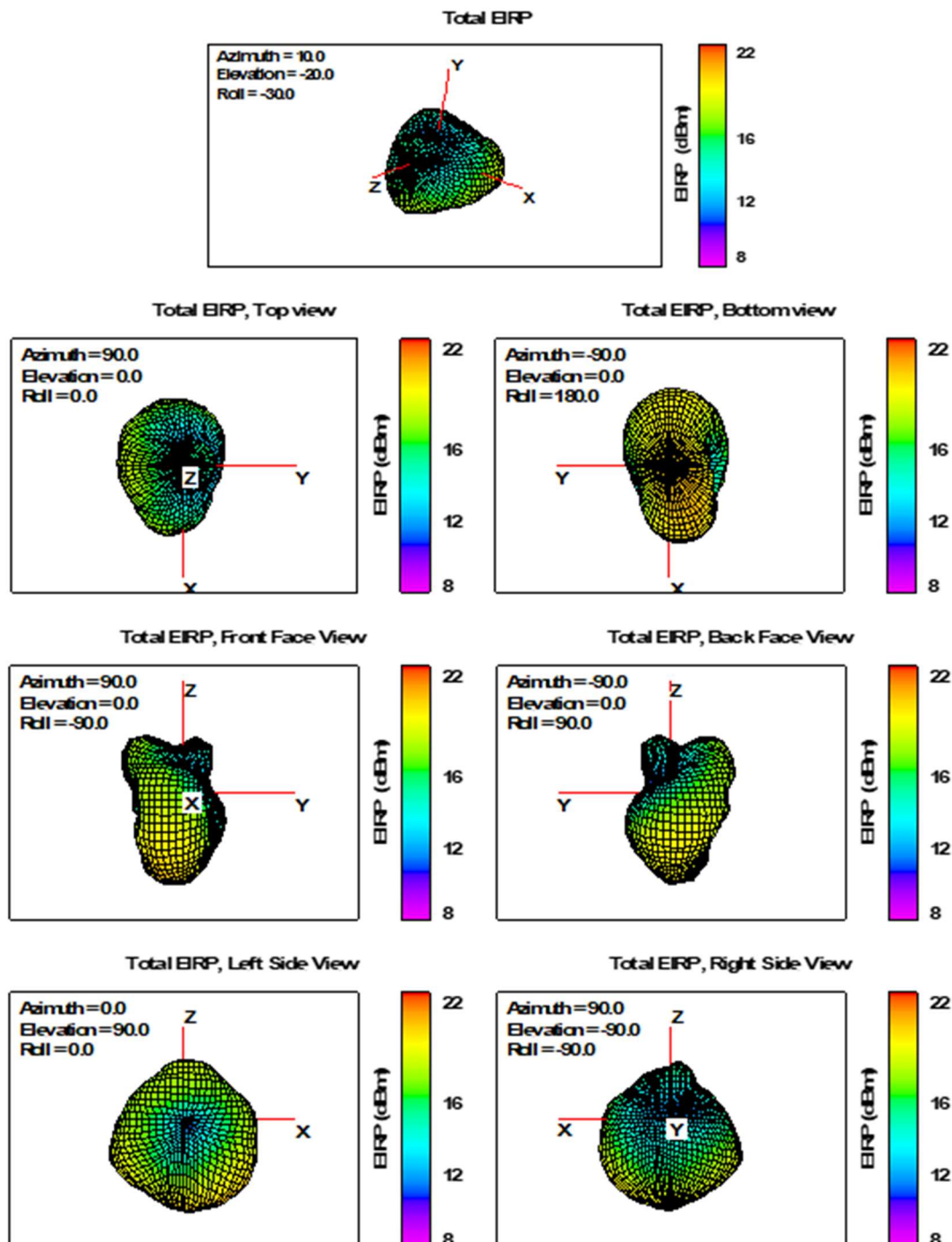
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10.7 BAND 20 : 847MHz





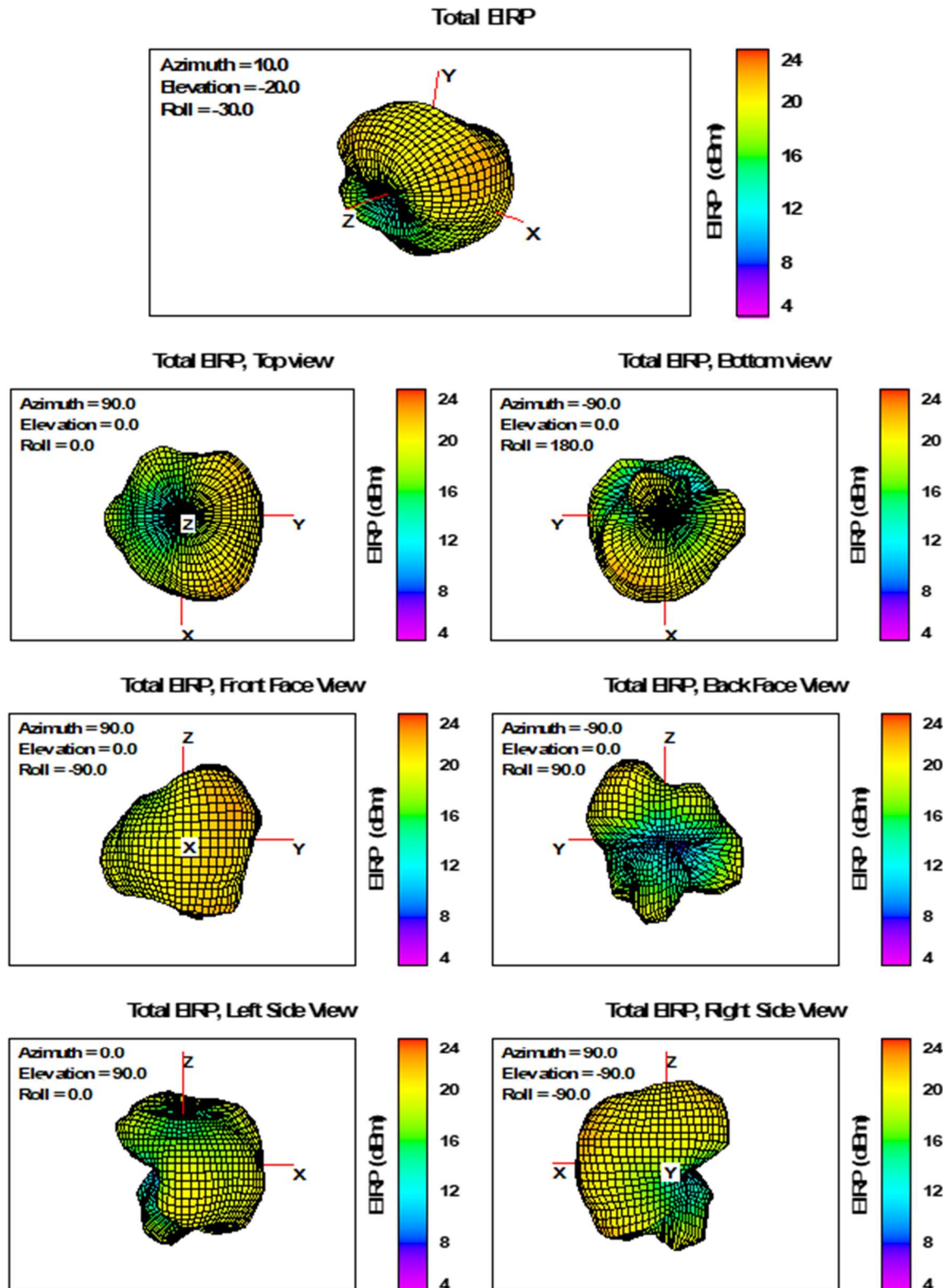
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10.8 BAND 25: 1852.5MHz





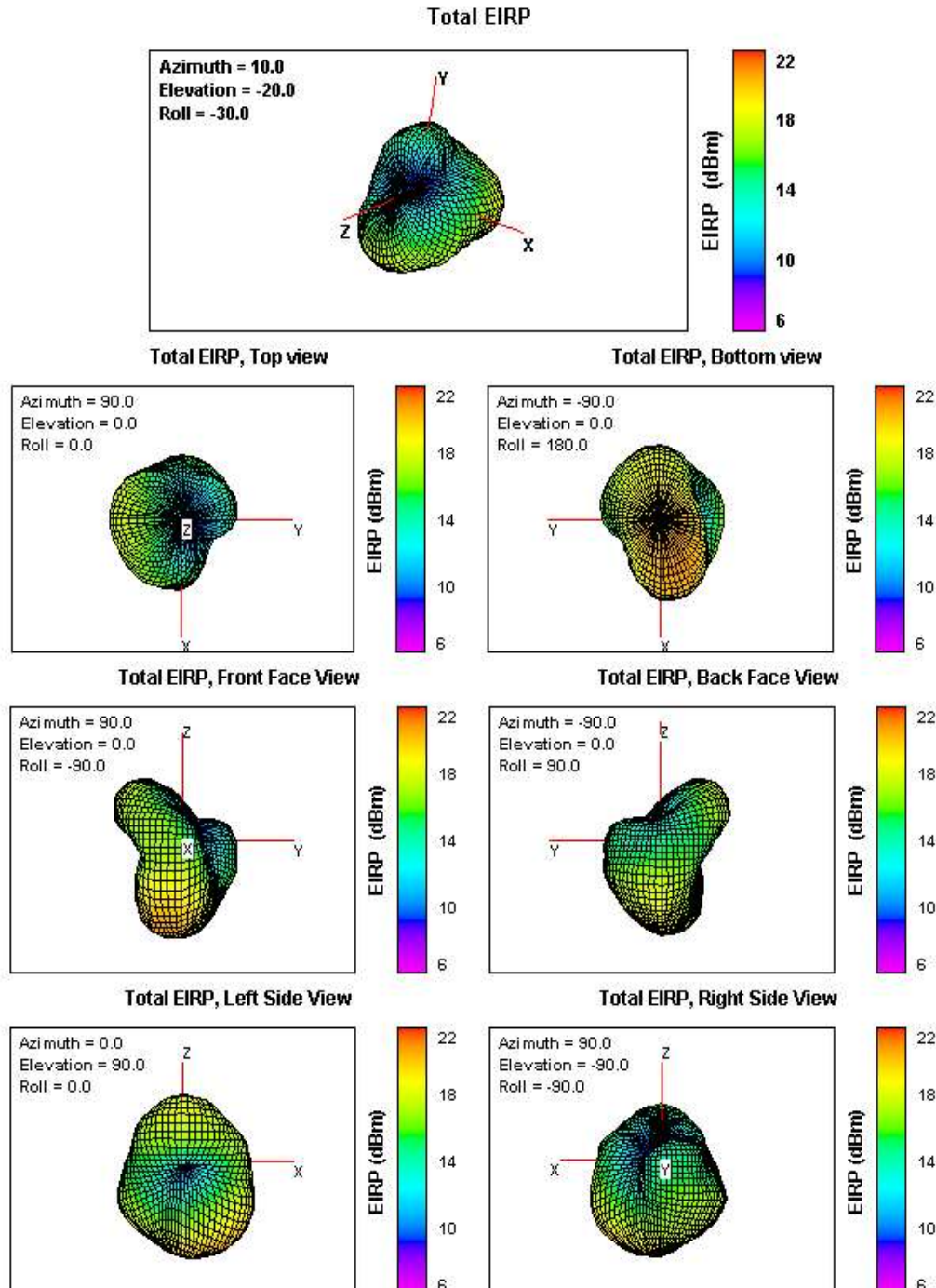
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10.9 BAND 26: 831.5MHz





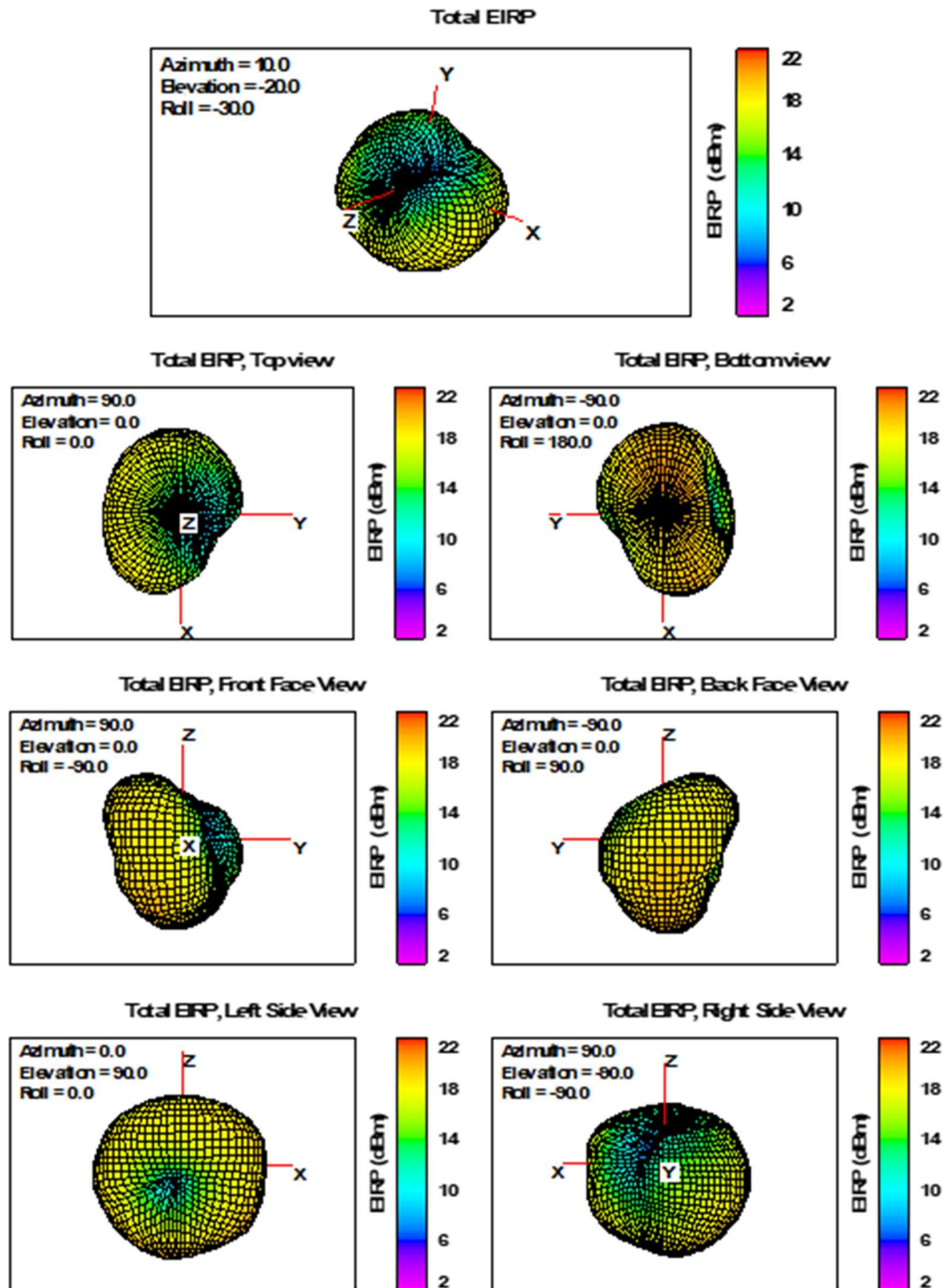
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10.10 BAND 28: 723Hz





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10.11 BAND 66: 1745Hz

