



PetLink CAT Rev.6V2 US

BT Antenna data information

1. Antenna Data

Type of Antenna	Monopole on flex PCB
Max Antenna Gain (BLE)	-5.49 dBi

2. Radiation Diagram

In all operating bands the measurements for Total Radiated Power (TRP) and Effective Isotropic Radiated Power (EIRP) measurements were performed on lowest, middle and highest channels.

The output power of the device was set to maximum for all tests.

The EUT is rotated along two different spherical axes: theta (θ) and phi (Φ). The relationship between the 3D Cartesian coordinate system (X, Y, Z) and the theta and phi axes is illustrated in the following figure. This coordinate system should be used as reference in all 3D radiation pattern.

3. BLE 3D patterns:

2402 MHz – Free Space

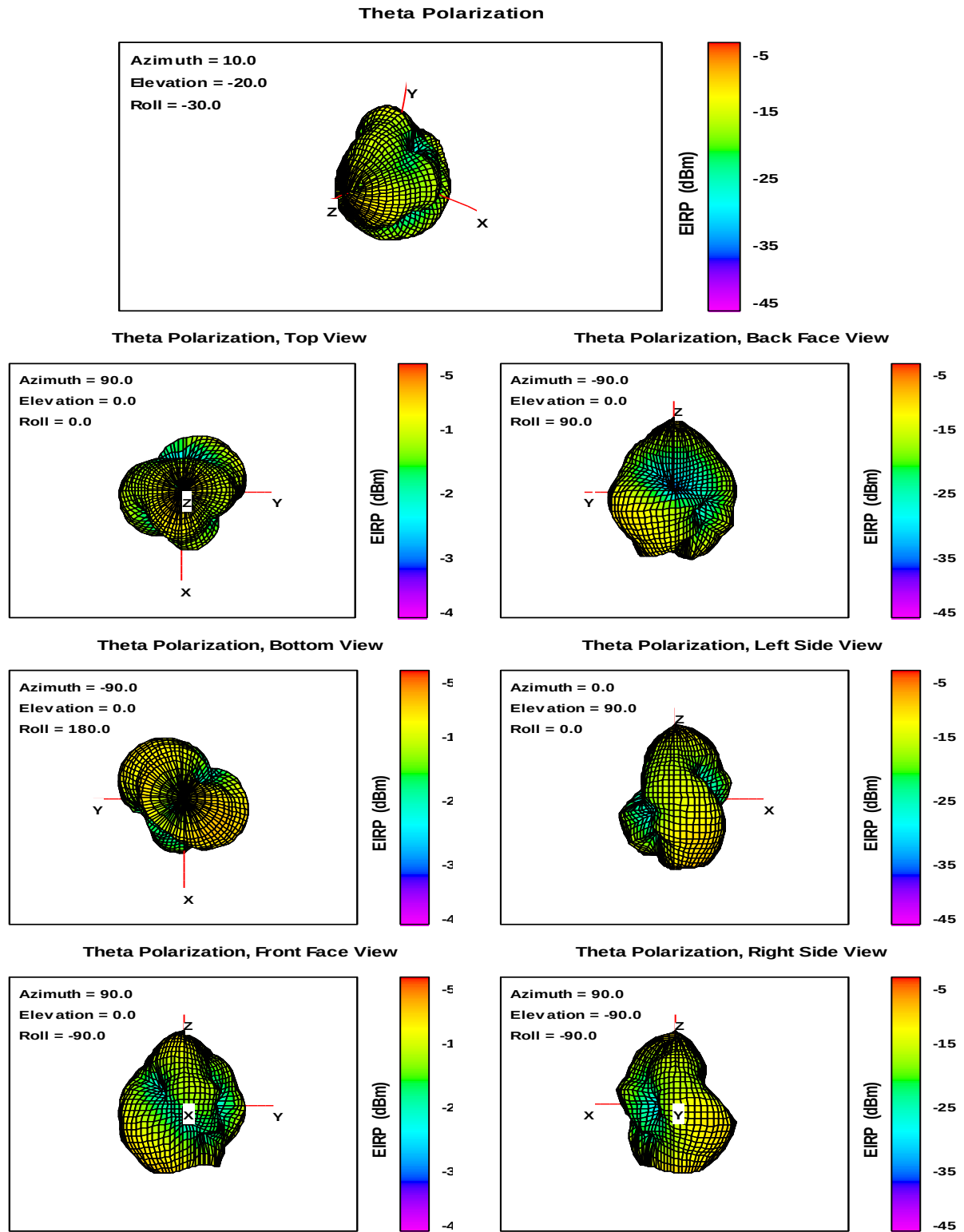


Fig. 6. Theta Polarization EIRP, Free Space, 2402 MHz.

Phi Polarization

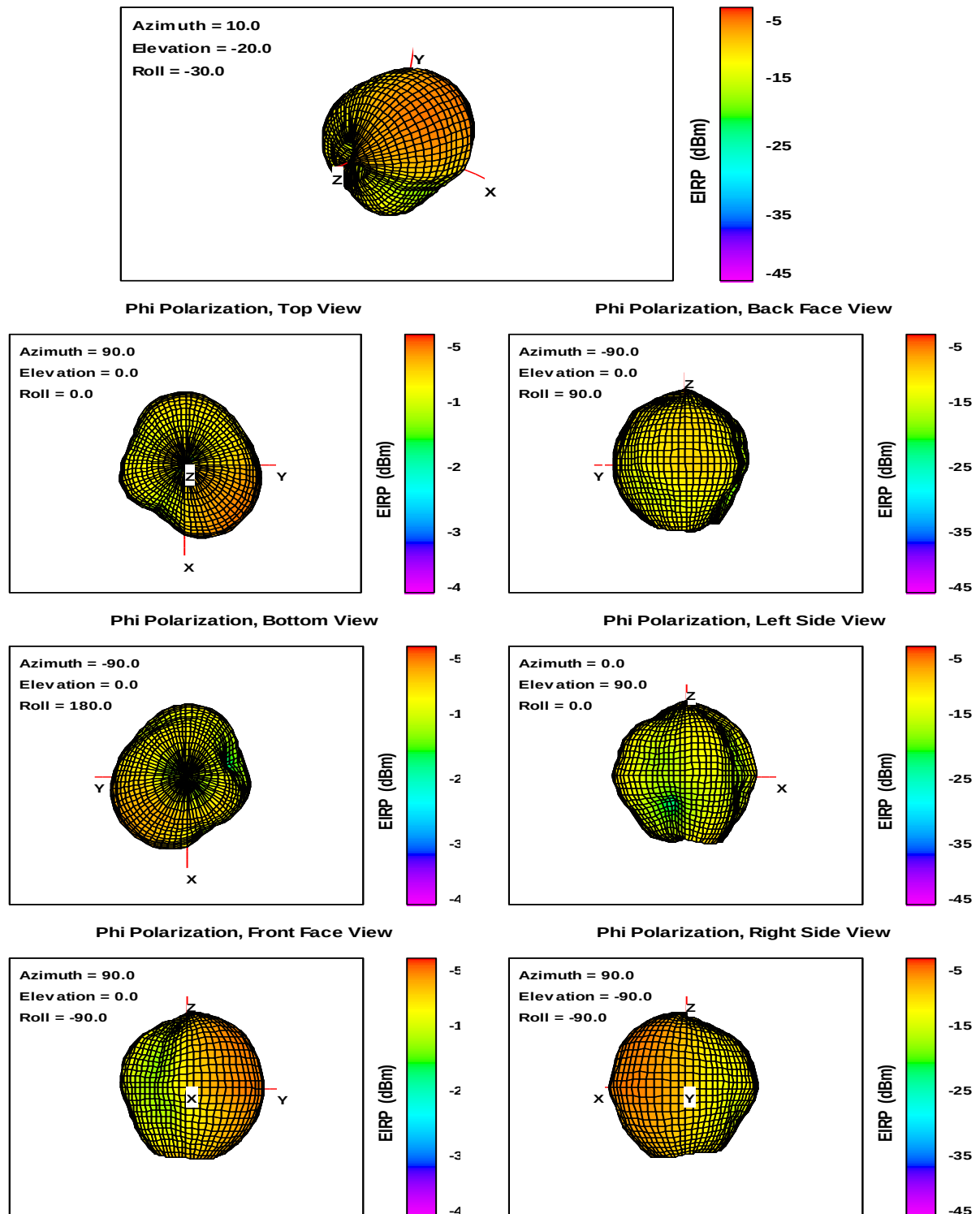


Fig. 7. Phi Polarization EIRP, Free Space, 2402 MHz.

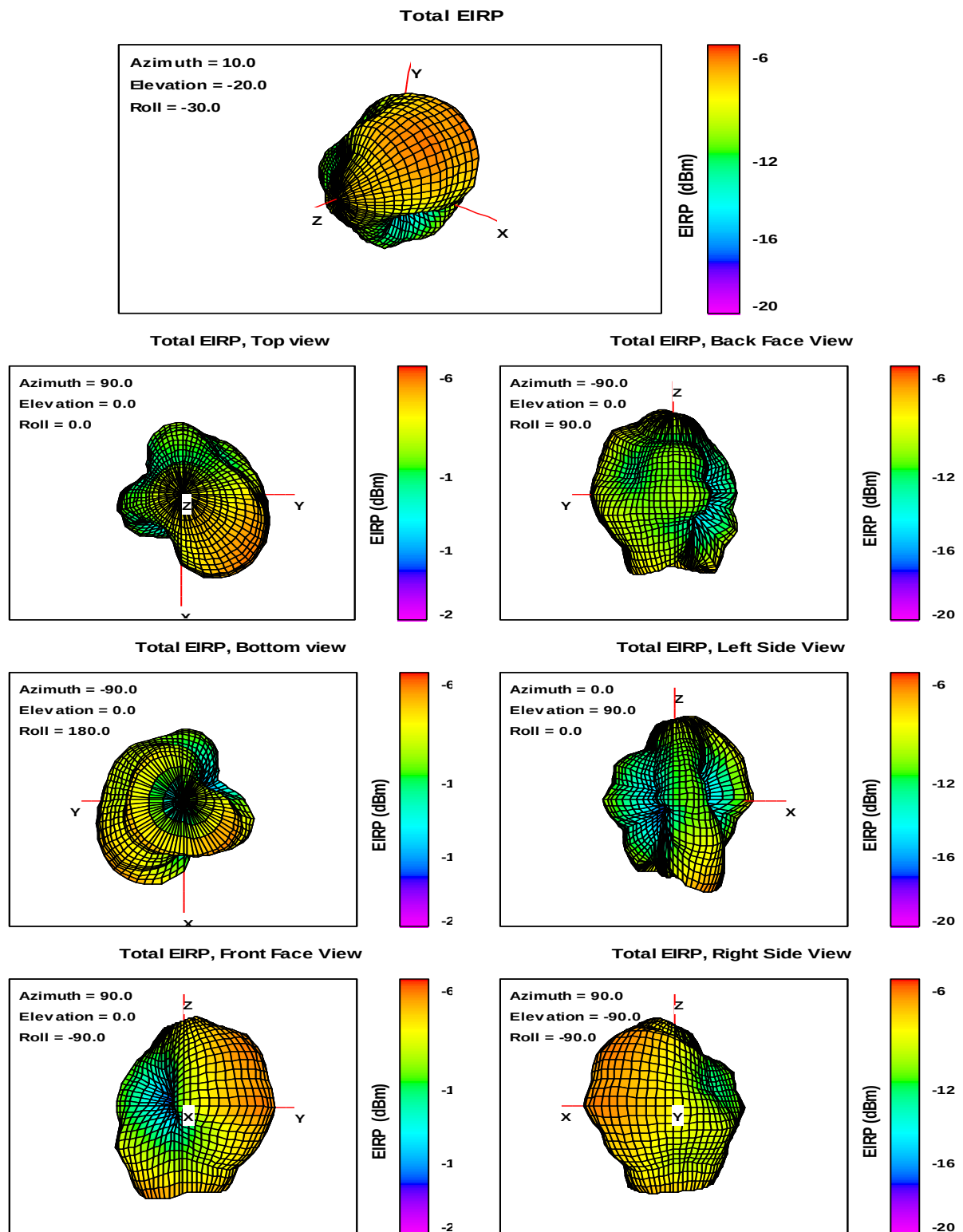


Fig. 8. Total EIRP, Free Space, 2402 MHz.

2440 MHz – Free Space

Theta Polarization

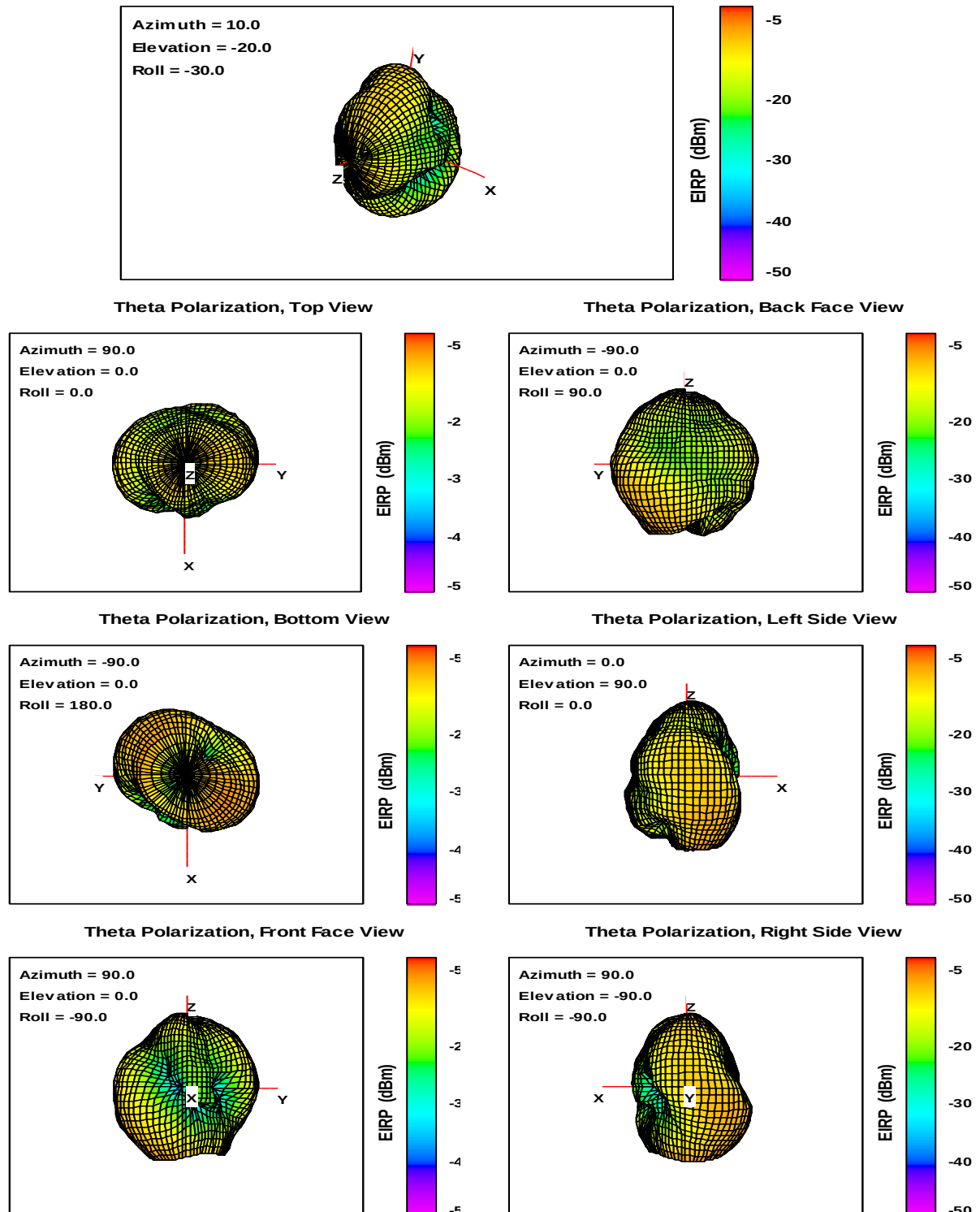


Fig. 9. Theta Polarization EIRP, Free Space, 2440 MHz.

Phi Polarization

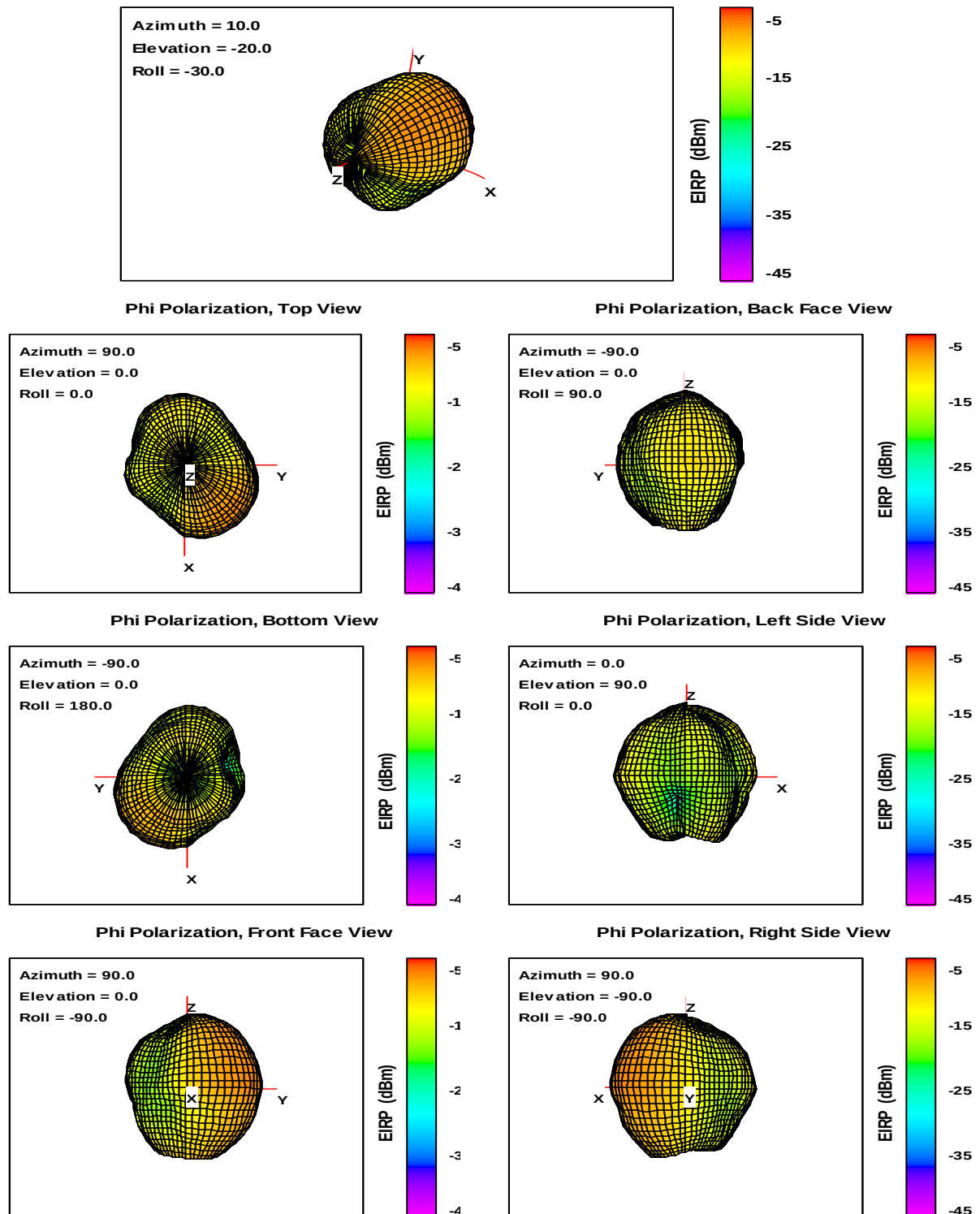


Fig. 10. Phi Polarization EIRP, Free Space, 2440 MHz.

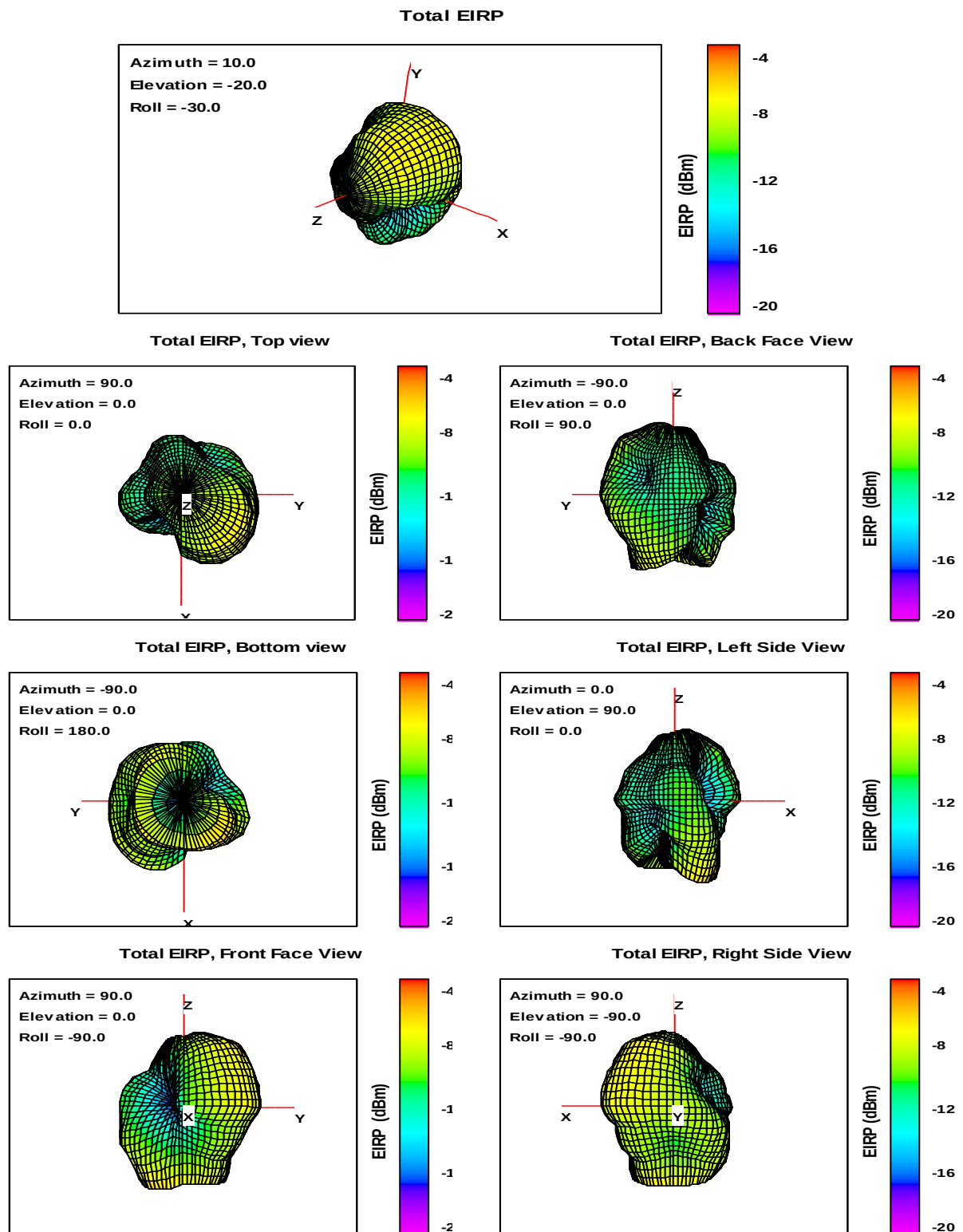


Fig. 11. Total EIRP, Free Space, 2440 MHz.

2480 MHz – Free Space

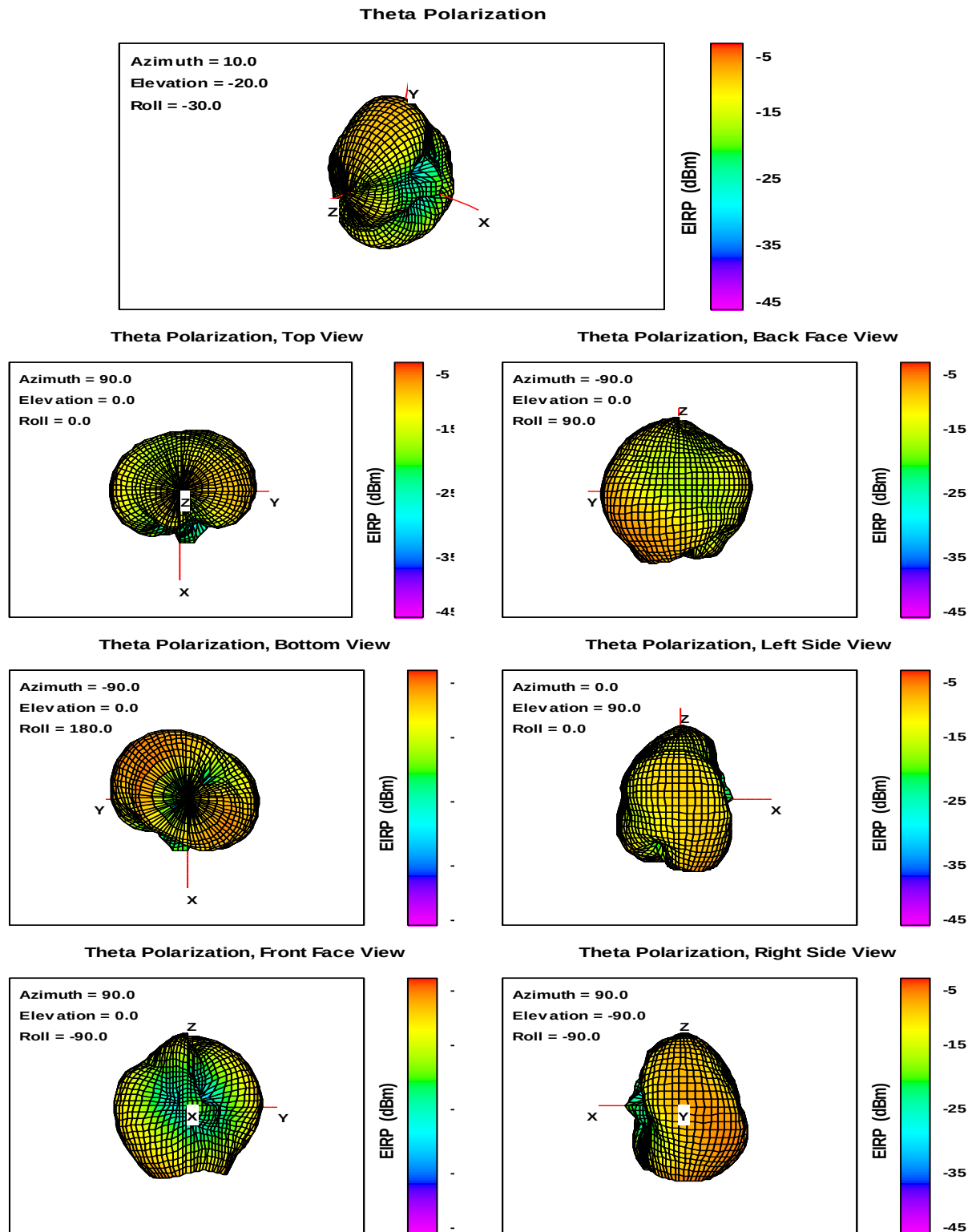


Fig. 12. Theta Polarization EIRP, Free Space, 2480 MHz.

Phi Polarization

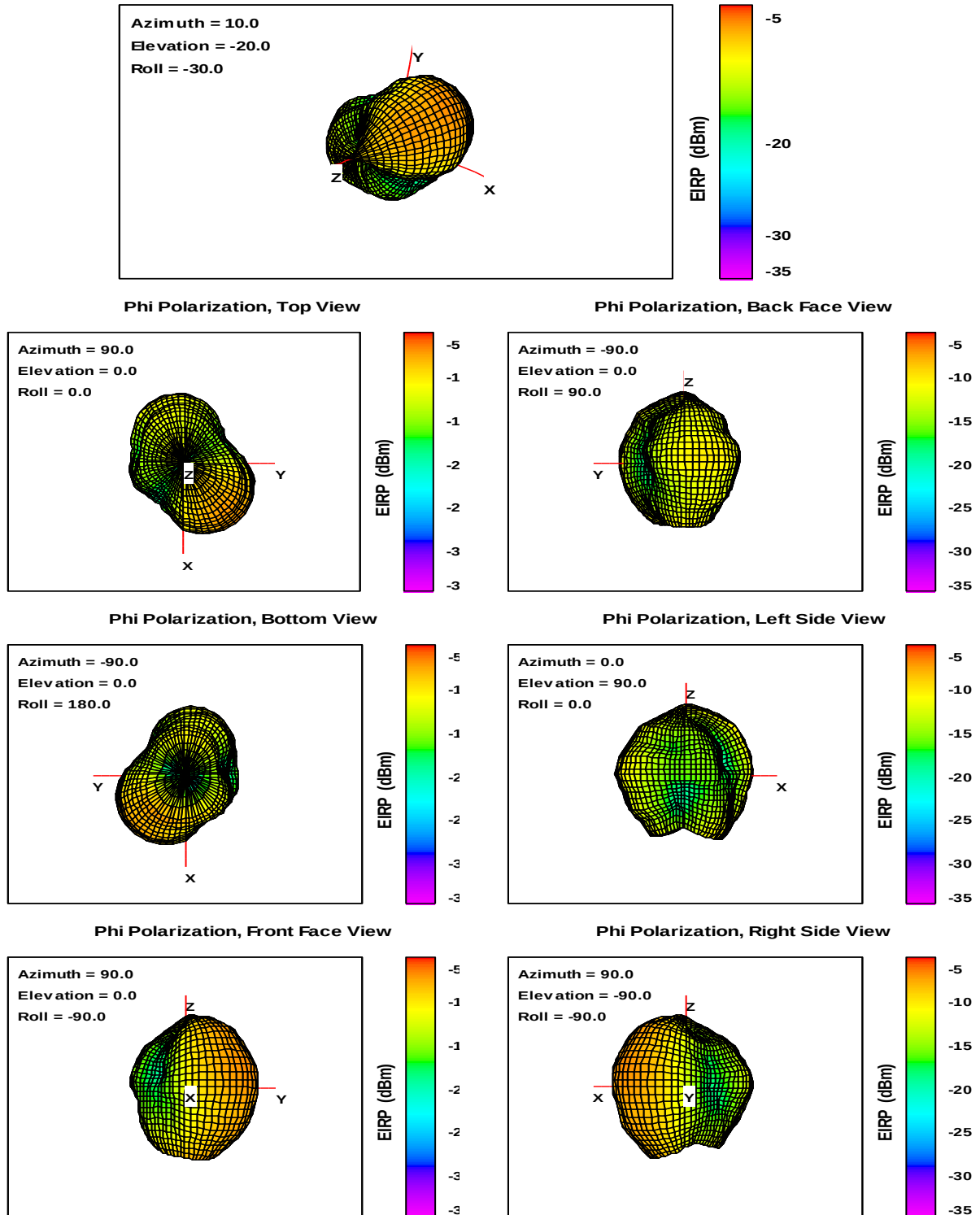


Fig. 13. Phi Polarization EIRP, Free Space, 2480 MHz.

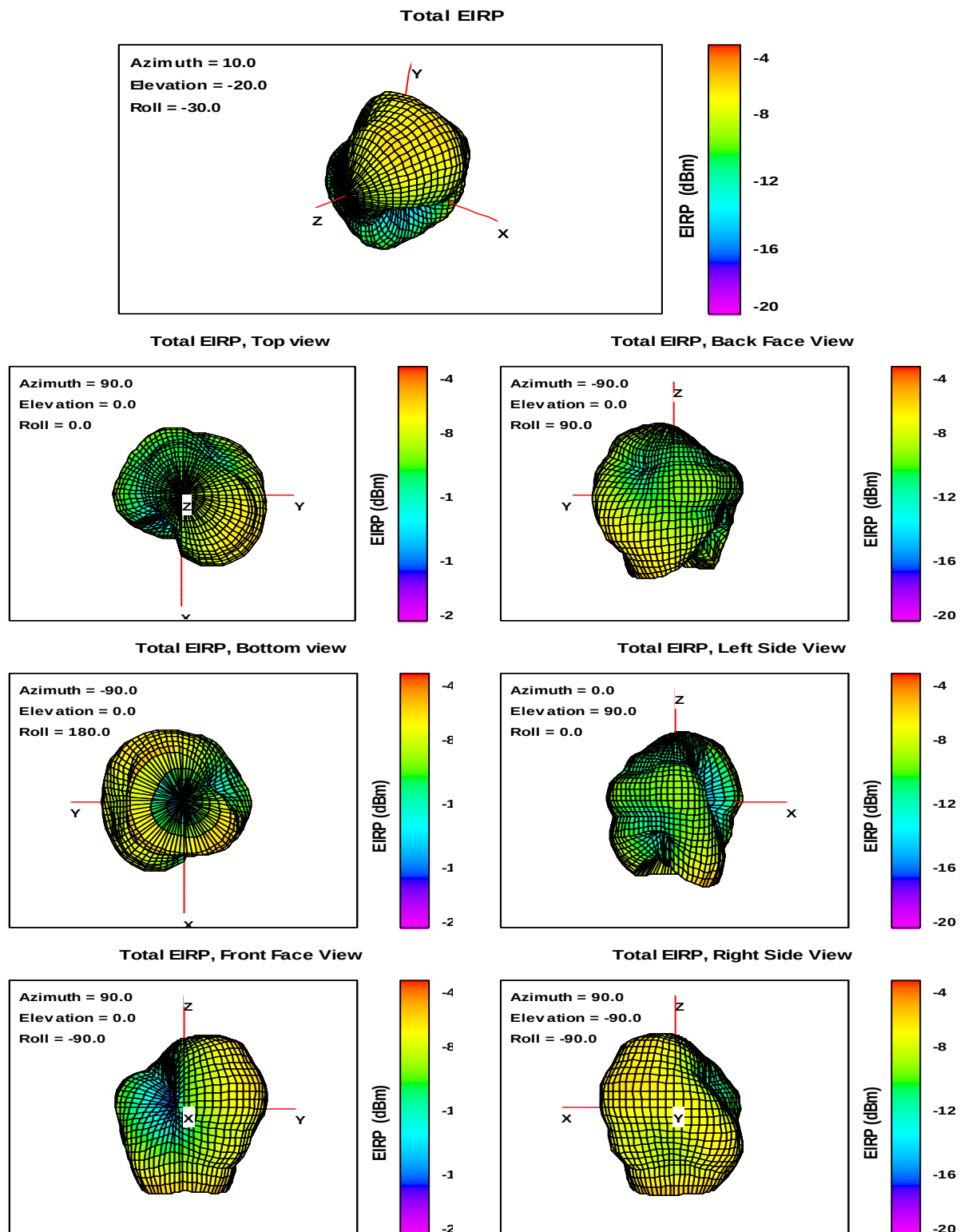


Fig. 14. Total EIRP, Free Space, 2480 MHz.

Antenna Gain:

Technology	Channel	Frequency (MHz)	Max EIRP (dBm)
BLE (2 Mbps)	Low	2402	-7.63
	Middle	2440	-8.03
	High	2480	-7.34

As mentioned before, the output power of the device was set to maximum for all tests. Therefore, the max antenna gain per band is:

Technology /Band	Max Output Power (dBm)	Max EIRP (dBm)	Max Antenna Gain (dBi)
BLE (2 Mbps)	-1.18	-7.63	-6.45
	-1.83	-7.82	-5.99
	-1.34	-6.83	-5.49