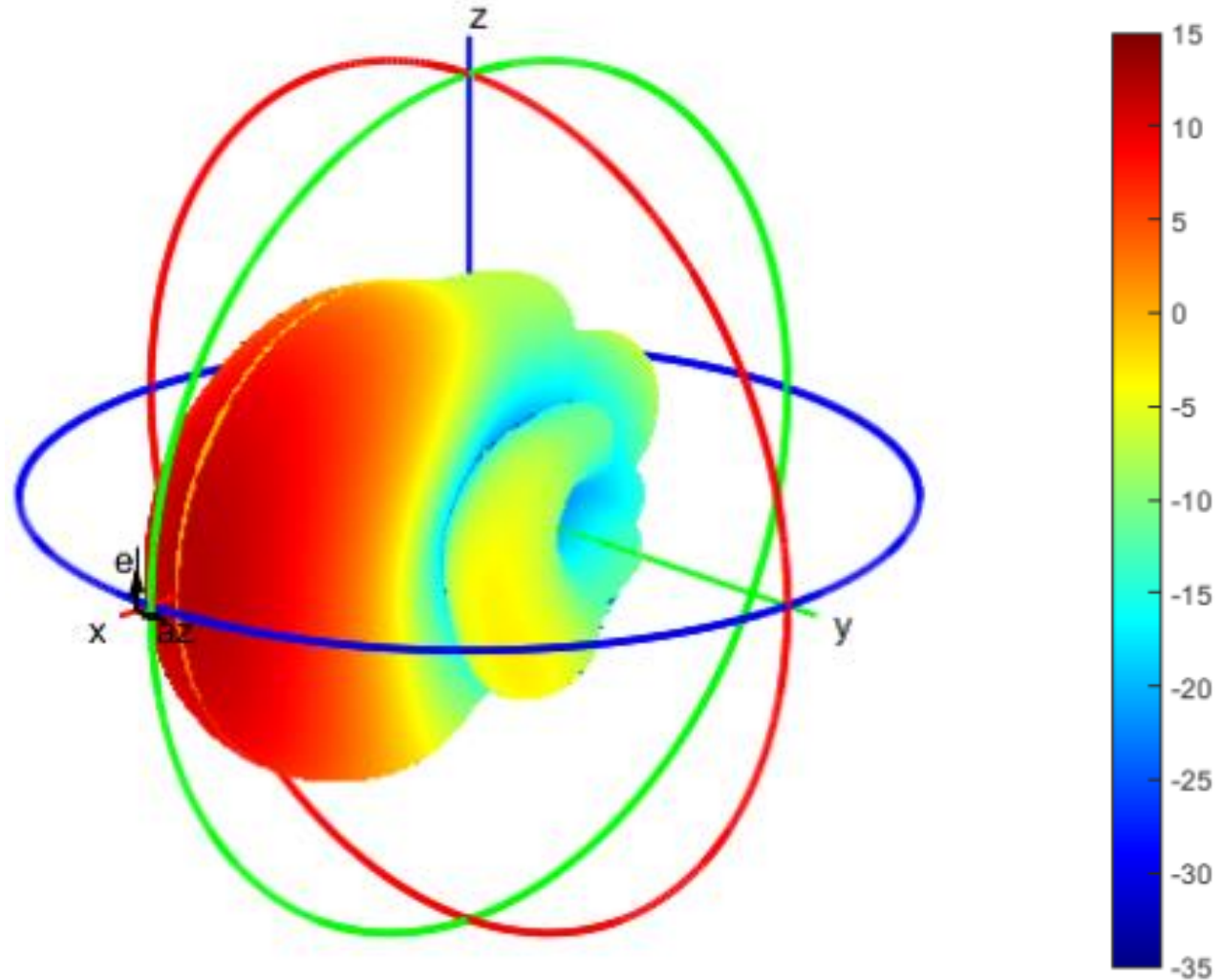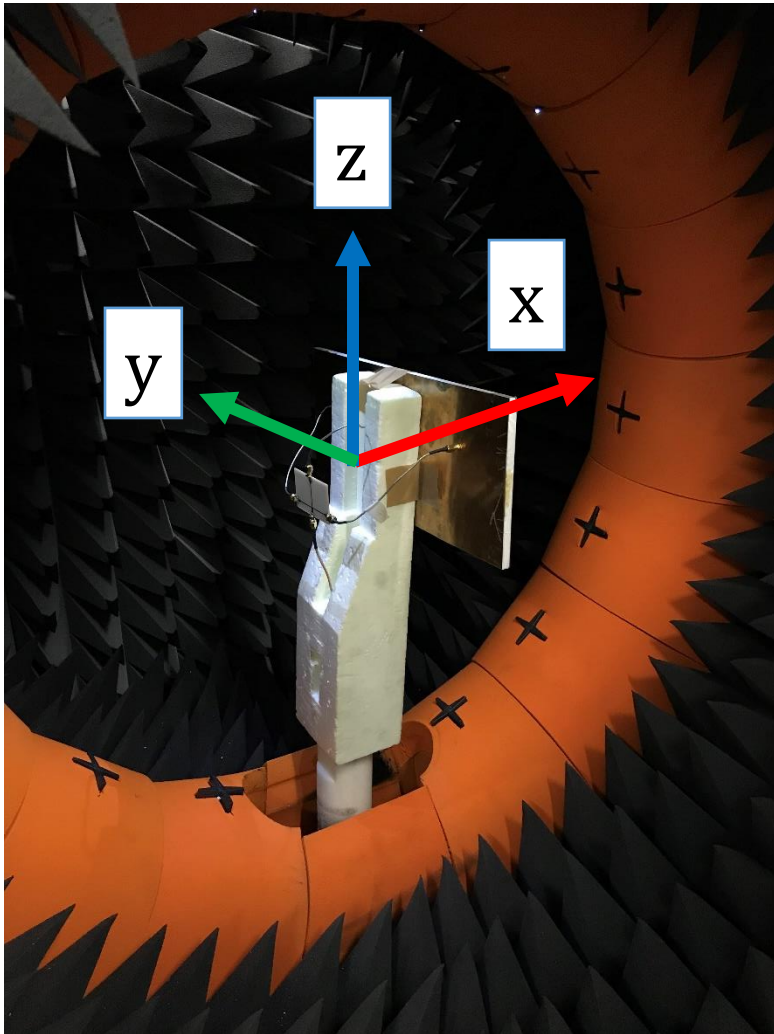# AUT (3 x 1 patch array): full-3D pattern as the total realized gain (dBi) presented in standard spherical coordinate system
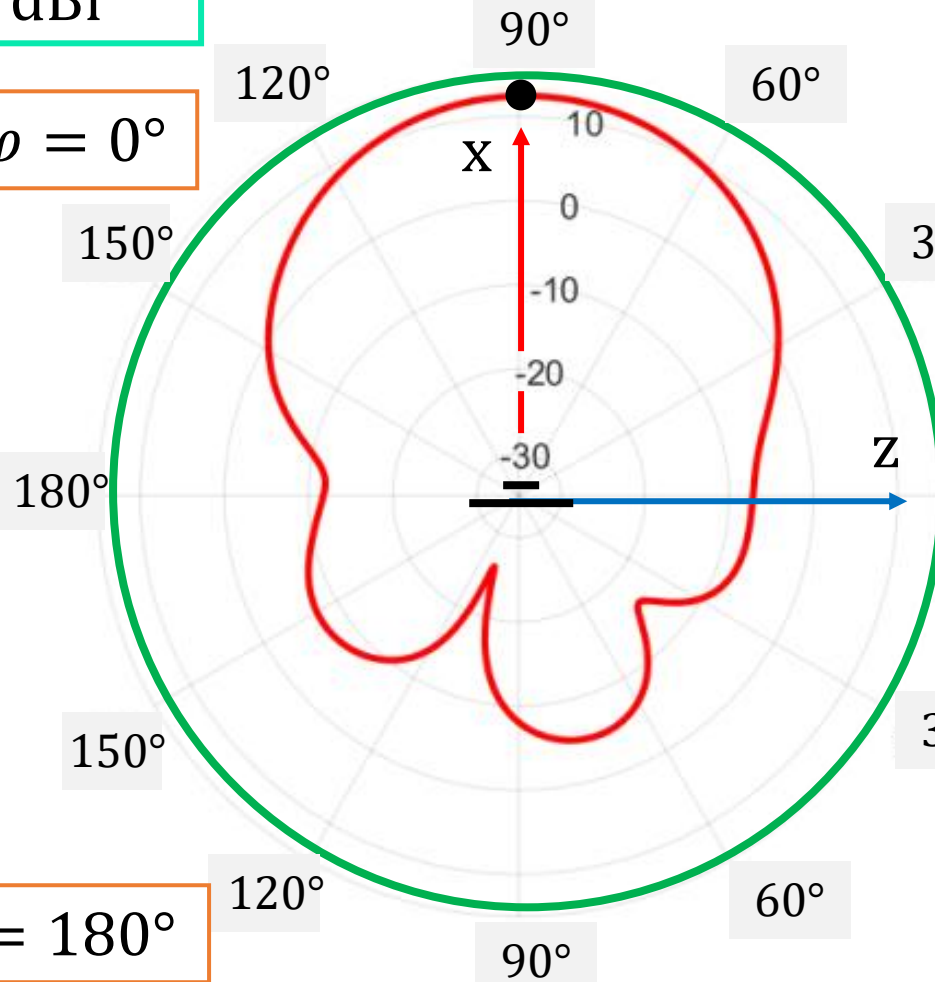
AUT (3 x 1 patch array): two principal pattern cuts as total realized gain (dBi) are presented in polar cuts of the standard spherical coordinates system

- $\theta = 90°, \varphi = 0°$
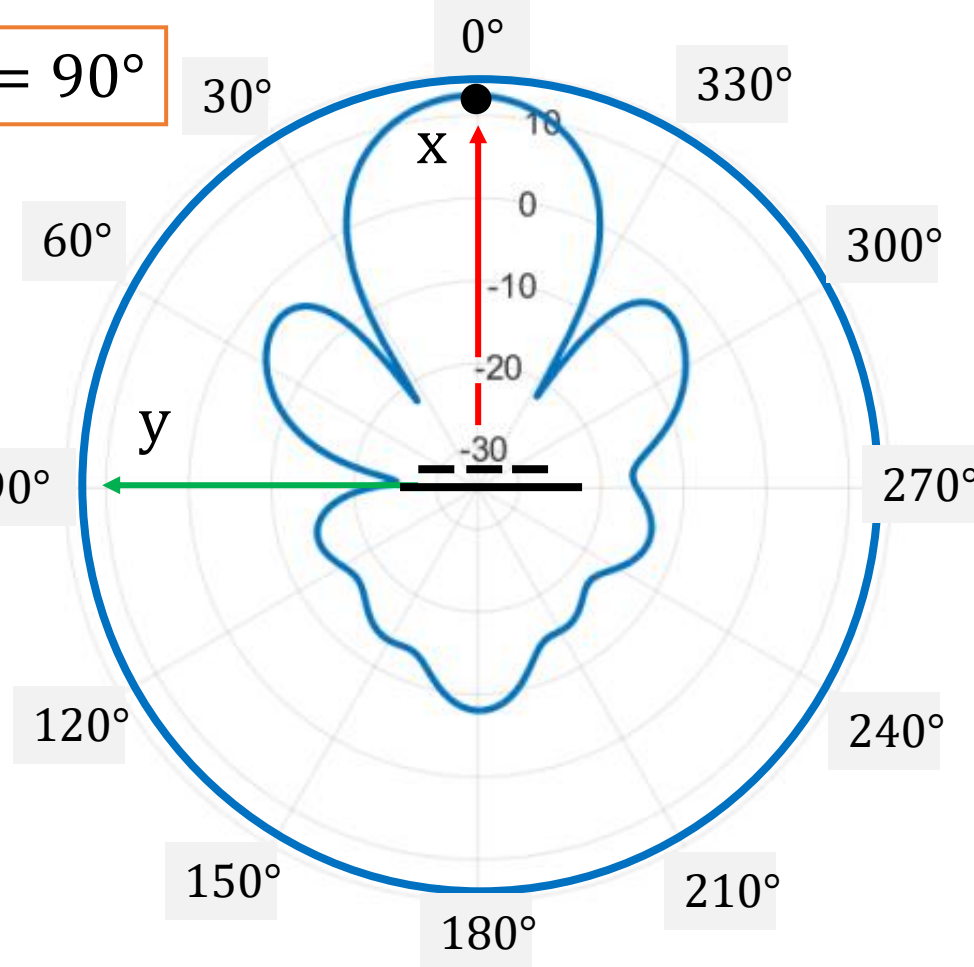- $G_r = 12$ dBi

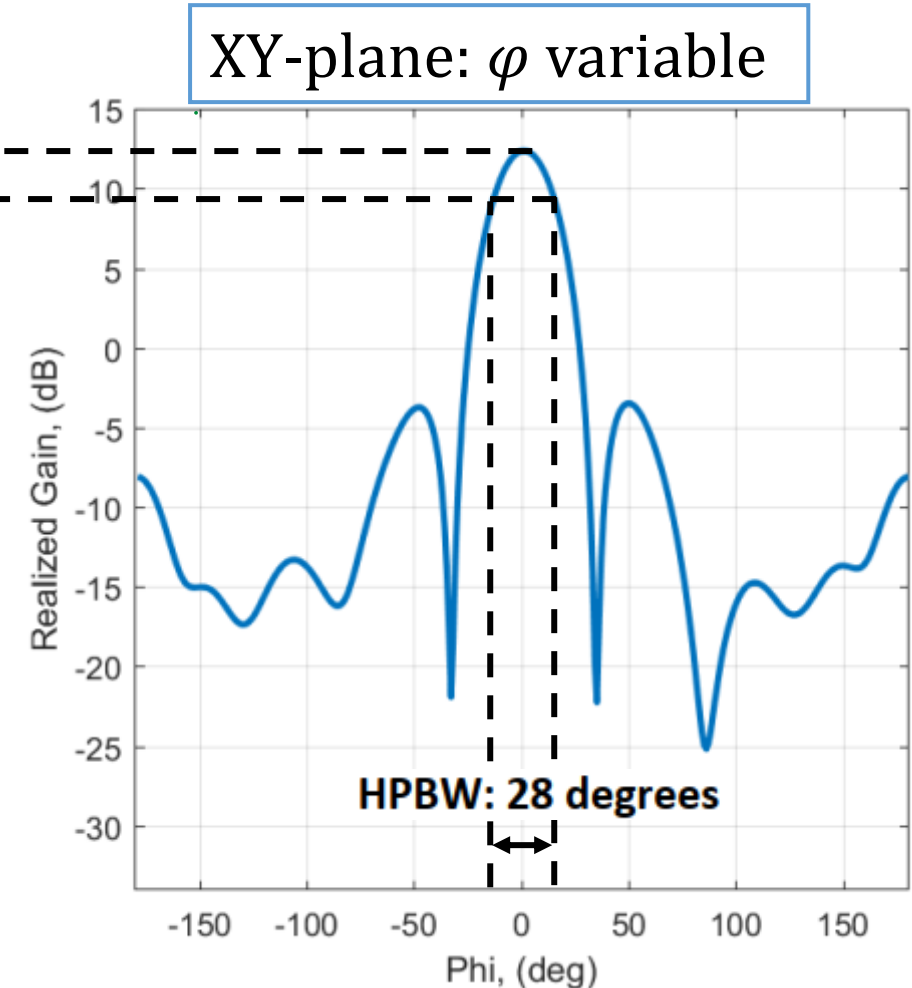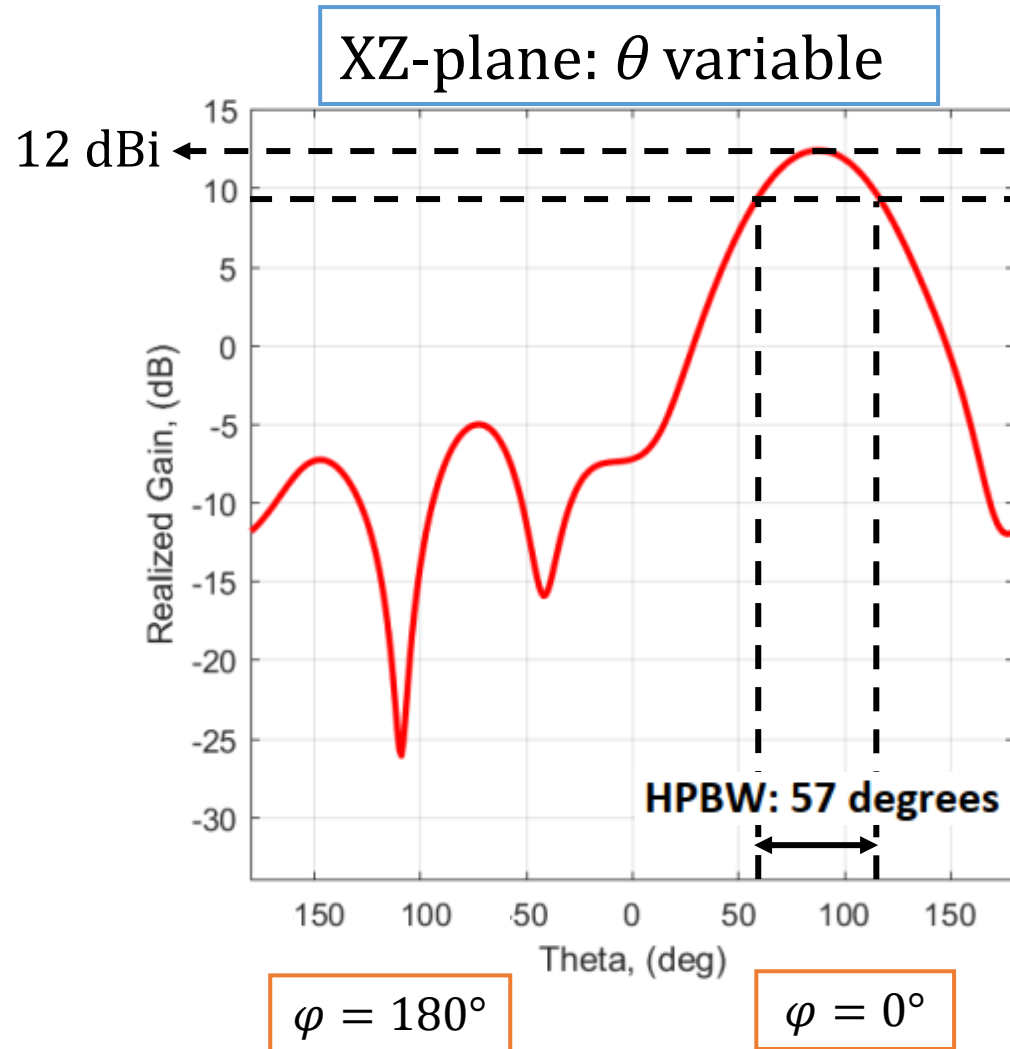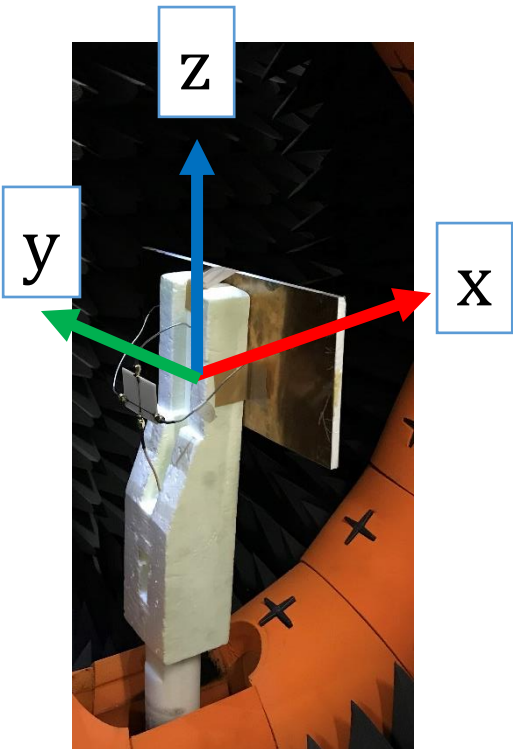XZ-plane: θ variable

$\varphi = 0°$

$\varphi = 180°$

XY-plane: φ variable

$\theta = 90°$

AUT (3 x 1 patch array): two principal pattern cuts as total realized gain (dBi) presented in standard Cartesian coordinate system

XZ-plane: θ variable

XY-plane: φ variable

12 dBi

HPBW: 57 degrees

HPBW: 28 degrees

$\varphi = 180°$

$\varphi = 0°$

Features of a good answer – copy the recipe!

1. The used coordinate system is stated.

2. The orientation of the antenna in the coordinate system used in the plots is given.

3. It is clearly stated which pattern-related antenna parameter including the unit is used in the figures.

4. The plots are marked with angles that are consistent with the earlier-defined (item 1.) coordinate system.

5. The plots are stylish looking – i.e., they are plotted with Matlab, Mathematica or equivalent.

6. The texts and numbers in the figures are given using large enough font.

7. The scaling of the axes is chosen so that the curves are clear for understanding.

8. The presented measurement results are <u>sensible</u> considering the operation of a 3 × 1 linear antenna array.

9. The value of two curves in their common point is equal.

10. Some main results are given in the text part as a numeric value.

11. Some written analysis on the results is given.

12. There is a photo of the measurements.