

Measurement Report

Project: Innogy

Device: Innogy

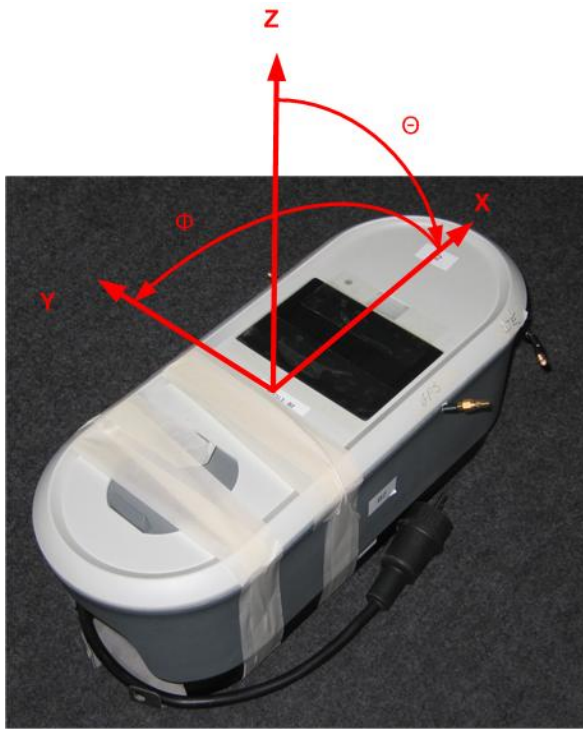
Date: 23.02.2018

DUT Comment: Accu 3 - B2 Box 08

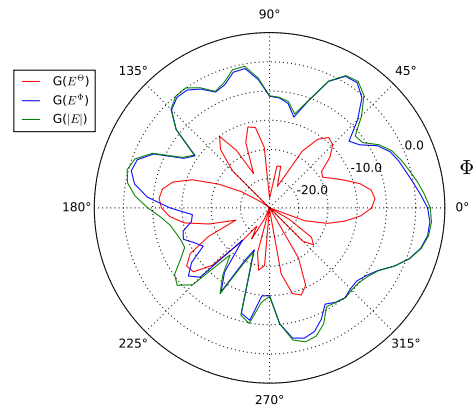
Frequency (MHz)	max. Gain (dBi)			η (%)
	$G(E^\Theta)$	$G(E^\Phi)$	$G(E)$	
2400.0	-0.8	4.0	4.1	49.2
2421.0	-0.6	3.8	3.9	50.6
2442.0	-0.5	3.8	4.1	52.3
2463.0	0.1	4.2	4.3	54.5
2484.0	0.4	4.4	4.6	55.8

Table 1: Measurement Result Summary

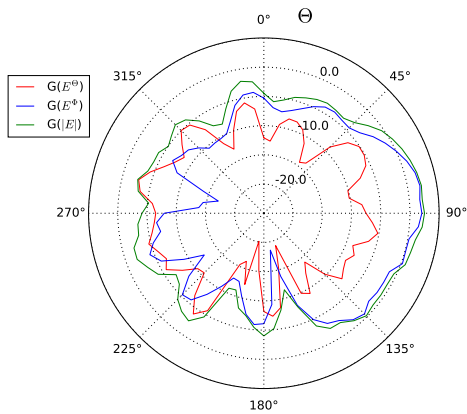
2400.0 MHz**Frequency:** 2400000000 Hz**Efficiency:** 49.2 %**max. Gain (Θ):** -0.8 dBi at ($\Theta=125.0^\circ$, $\Phi=-25.0^\circ$)**max. Gain (Φ):** 4.0 dBi at ($\Theta=65.0^\circ$, $\Phi=-75.0^\circ$)**max. Gain (abs):** 4.1 dBi at ($\Theta=65.0^\circ$, $\Phi=-75.0^\circ$)



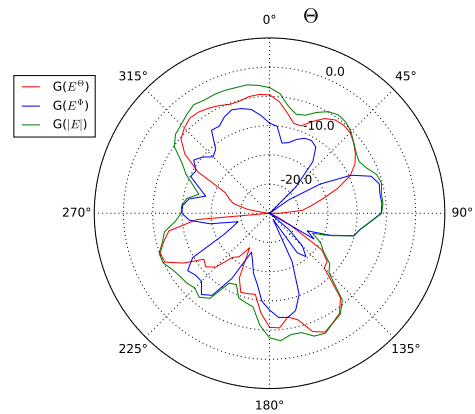
(a) Device under Test



(b) xy-plane



(c) xz-plane



(d) yz-plane

Figure 1: Antenna Gain Measurement Results

2421.0 MHz

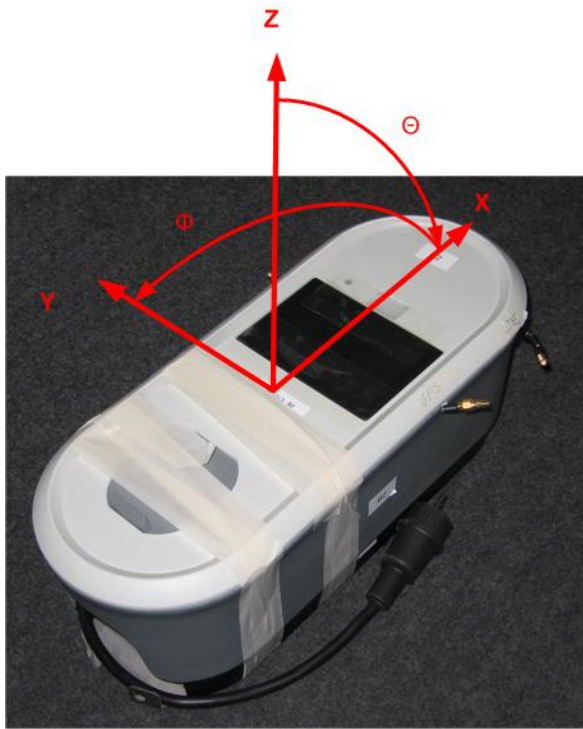
Frequency: 2421000000 Hz

Efficiency: 50.6 %

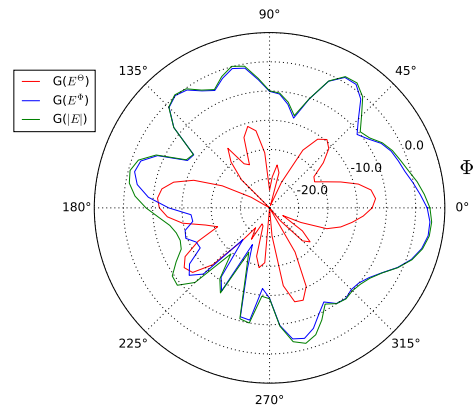
max. Gain (Θ): -0.6 dBi at ($\Theta=125.0^\circ$, $\Phi=-25.0^\circ$)

max. Gain (Φ): 3.8 dBi at ($\Theta=65.0^\circ$, $\Phi=-75.0^\circ$)

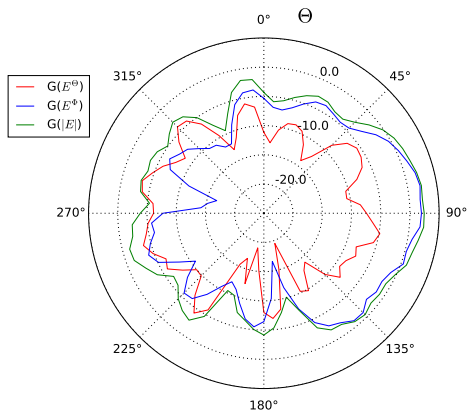
max. Gain (abs): 3.9 dBi at ($\Theta=65.0^\circ$, $\Phi=-75.0^\circ$)



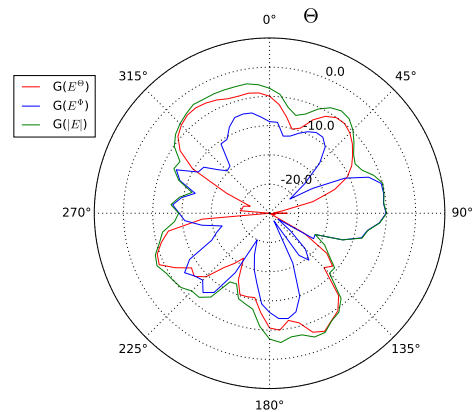
(a) Device under Test



(b) xy-plane



(c) xz-plane



(d) yz-plane

Figure 2: Antenna Gain Measurement Results

2442.0 MHz

Frequency: 2442000000 Hz

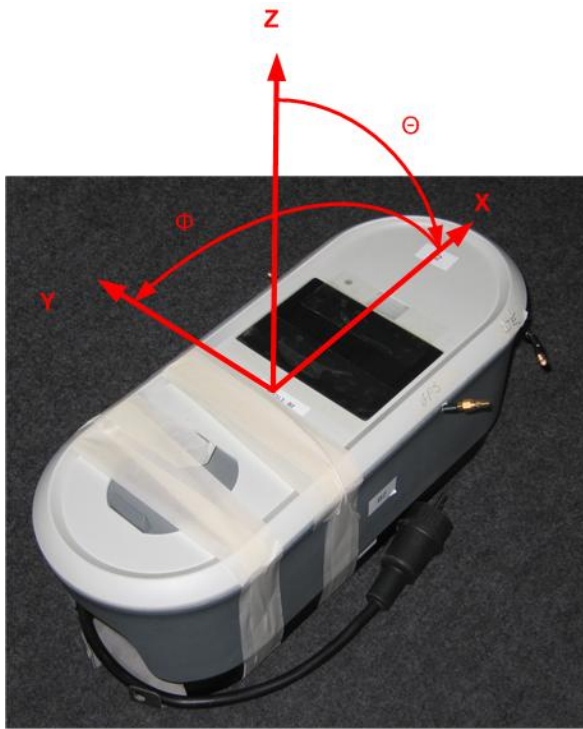
Efficiency: 52.3 %

max. Gain (Θ): -0.5 dBi at (Θ=125.0°, Φ=-25.0°)

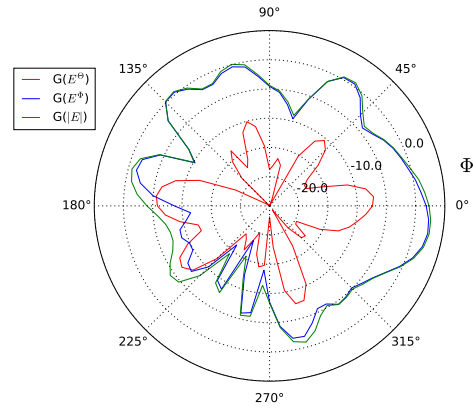
max. Gain (Φ): 3.8 dBi at (Θ=65.0°, Φ=-75.0°)

max. Gain (abs): 4.1 dBi at (Θ=65.0°, Φ=-75.0°)

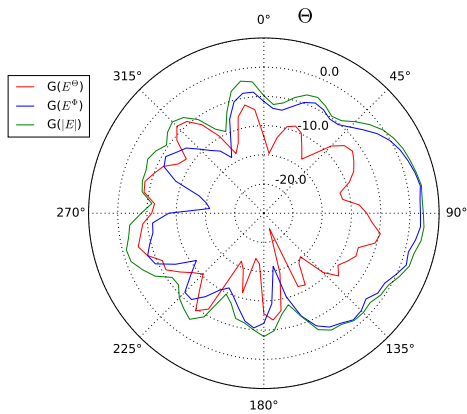




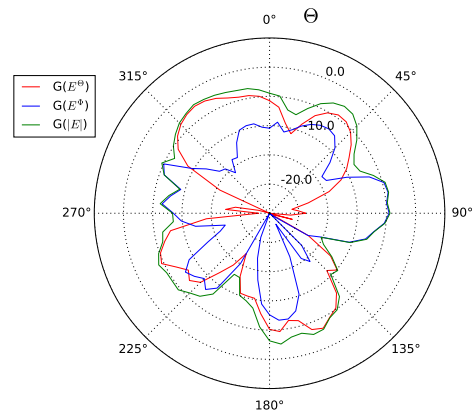
(a) Device under Test



(b) xy-plane



(c) xz-plane



(d) yz-plane

Figure 3: Antenna Gain Measurement Results

2463.0 MHz

Frequency: 2463000000 Hz

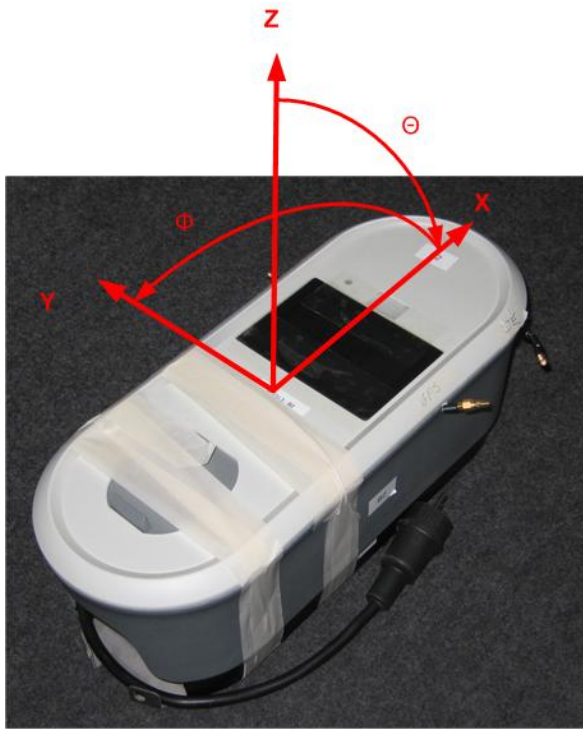
Efficiency: 54.5 %

max. Gain (Θ): 0.1 dBi at ($\Theta=125.0^\circ, \Phi=-25.0^\circ$)

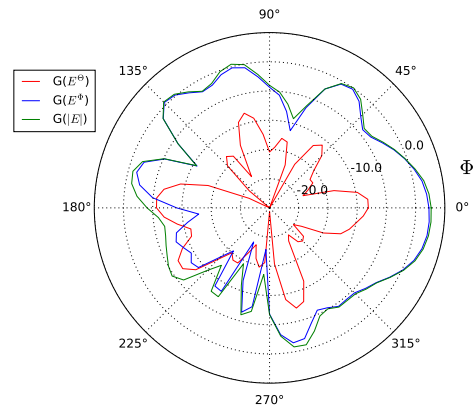
max. Gain (Φ): 4.2 dBi at ($\Theta=70.0^\circ, \Phi=-80.0^\circ$)

max. Gain (abs): 4.3 dBi at ($\Theta=70.0^\circ, \Phi=-80.0^\circ$)

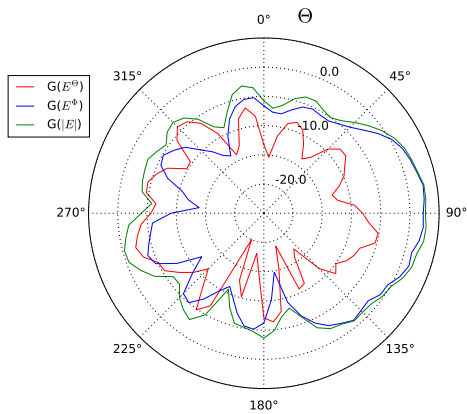




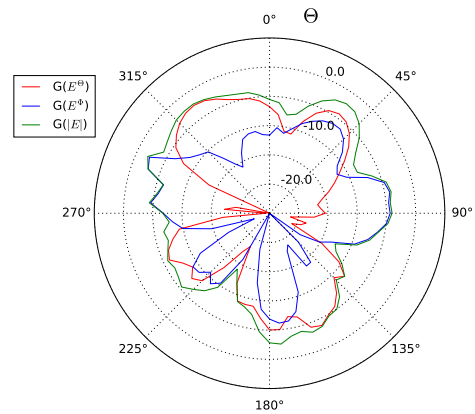
(a) Device under Test



(b) xy-plane



(c) xz-plane



(d) yz-plane

Figure 4: Antenna Gain Measurement Results

2484.0 MHz

Frequency: 2484000000 Hz

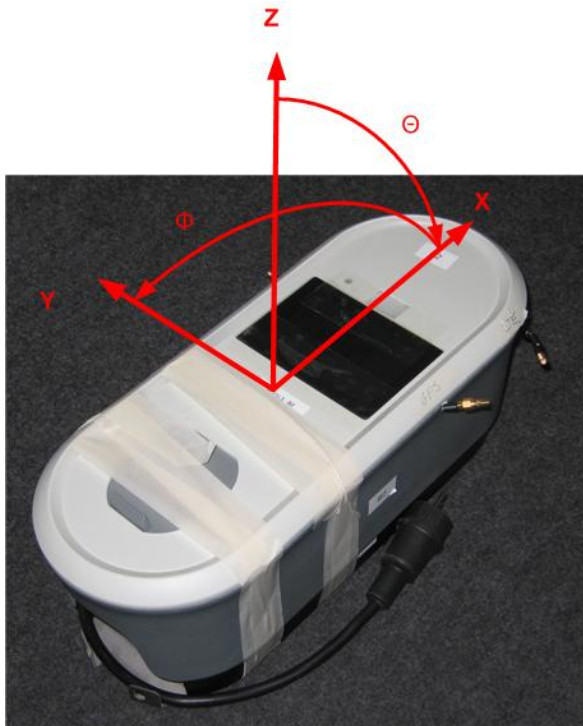
Efficiency: 55.8 %

max. Gain (Θ): 0.4 dBi at (Θ=125.0°, Φ=-25.0°)

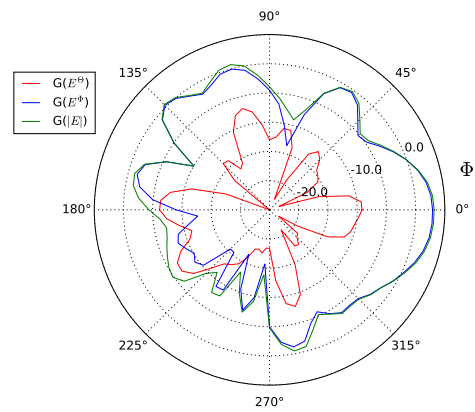
max. Gain (Φ): 4.4 dBi at (Θ=70.0°, Φ=-80.0°)

max. Gain (abs): 4.6 dBi at (Θ=70.0°, Φ=-80.0°)

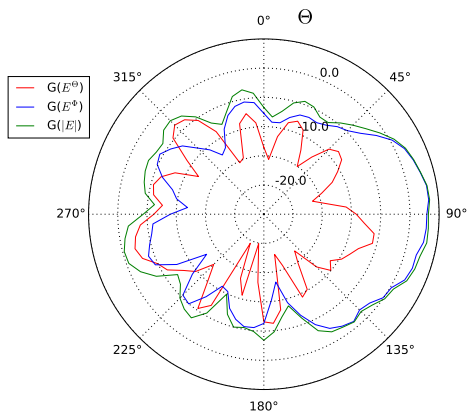




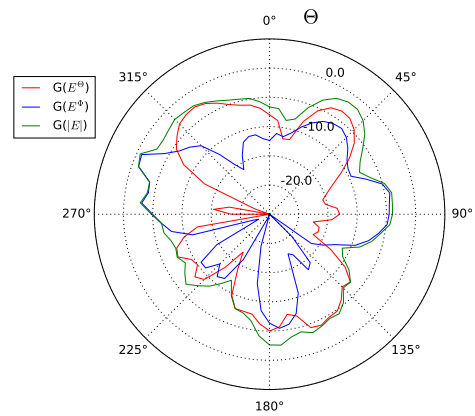
(a) Device under Test



(b) xy-plane



(c) xz-plane



(d) yz-plane

Figure 5: Antenna Gain Measurement Results