UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Escola Superior d'Enginyeries Industrial,
Aeroespacial i Audiovisual de Terrassa

Disseny d'una Antena

Informe de progrès 1

Informe

Curs: Màster Universitari en Enginyeria Aeronàutica
Assignatura: Navegació Aària
Data d'entrega: 23-05-2018

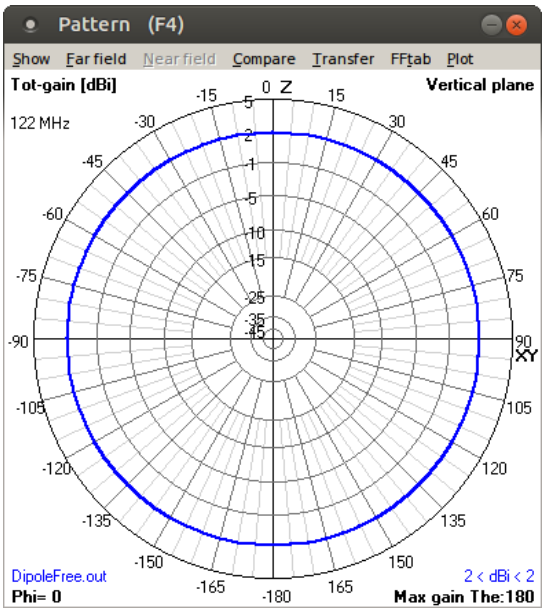
Estudiants:

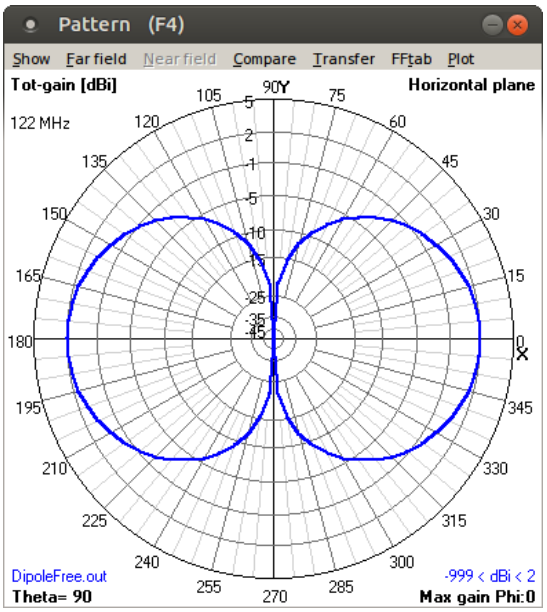
González García, Silvia
Naydenov, Boyan

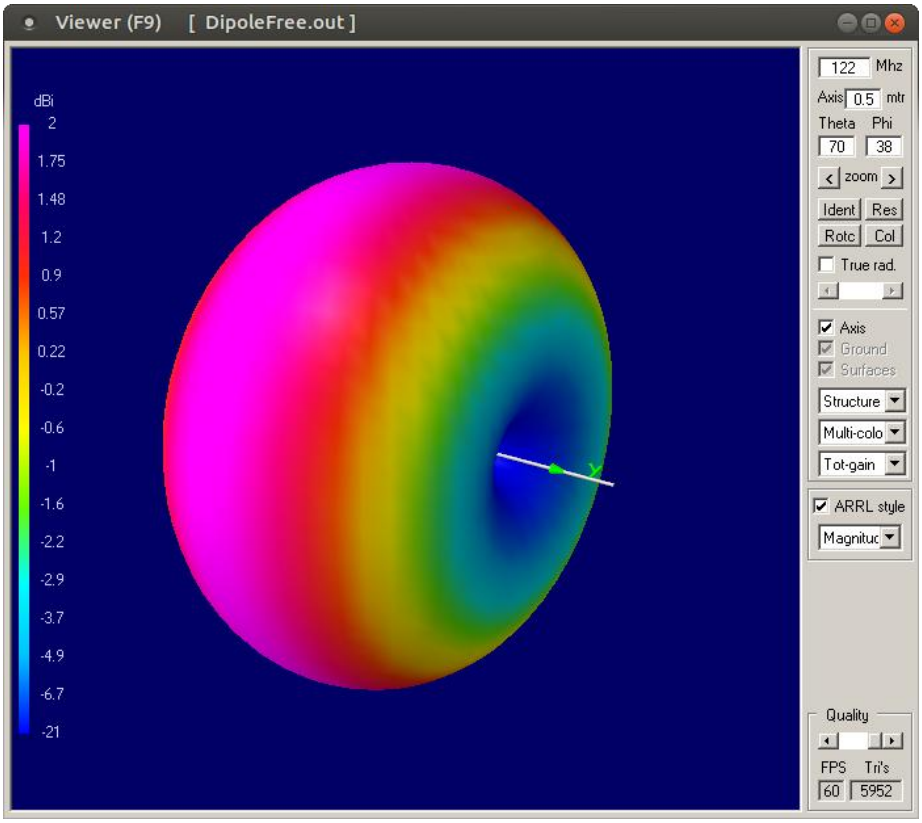
Per cada una de les següents configuracions es treballa amb una freqüència de 122MHz doncs aquesta serà la freqüència central de la banda de la futur antena a construir.

1. Antena dipol en λ/2 en espai lliure

Diagrama de radiació





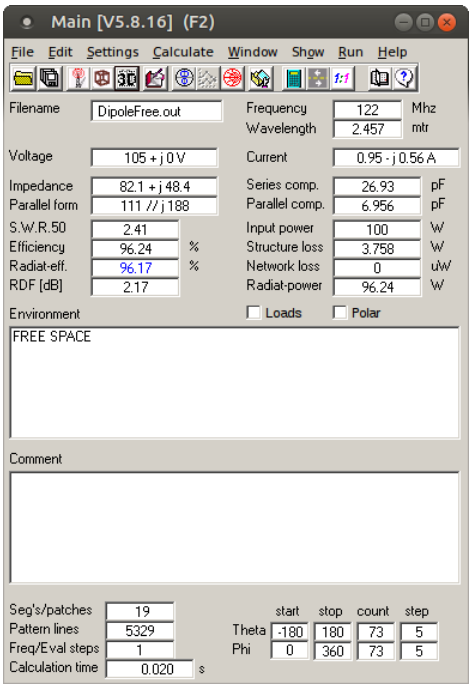


Directivitat

D = 2.17 dB

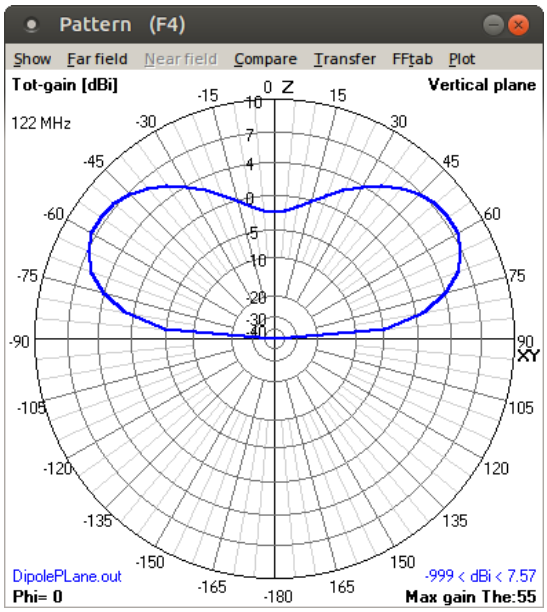
Impedància d'entrada de l'antena.

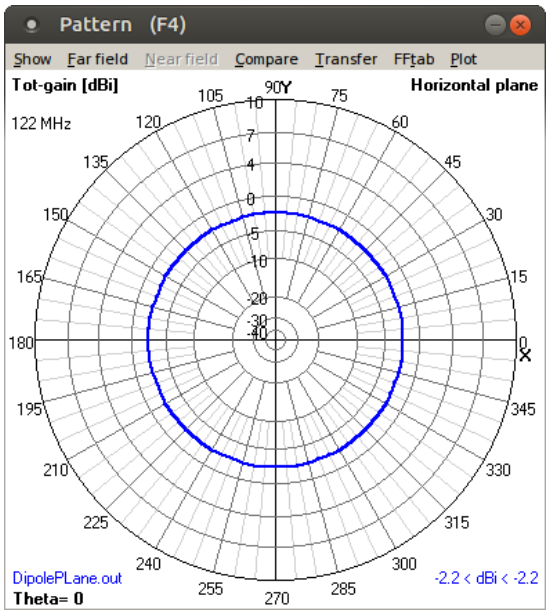
Zo = 82.1 + j48.4 Ohms

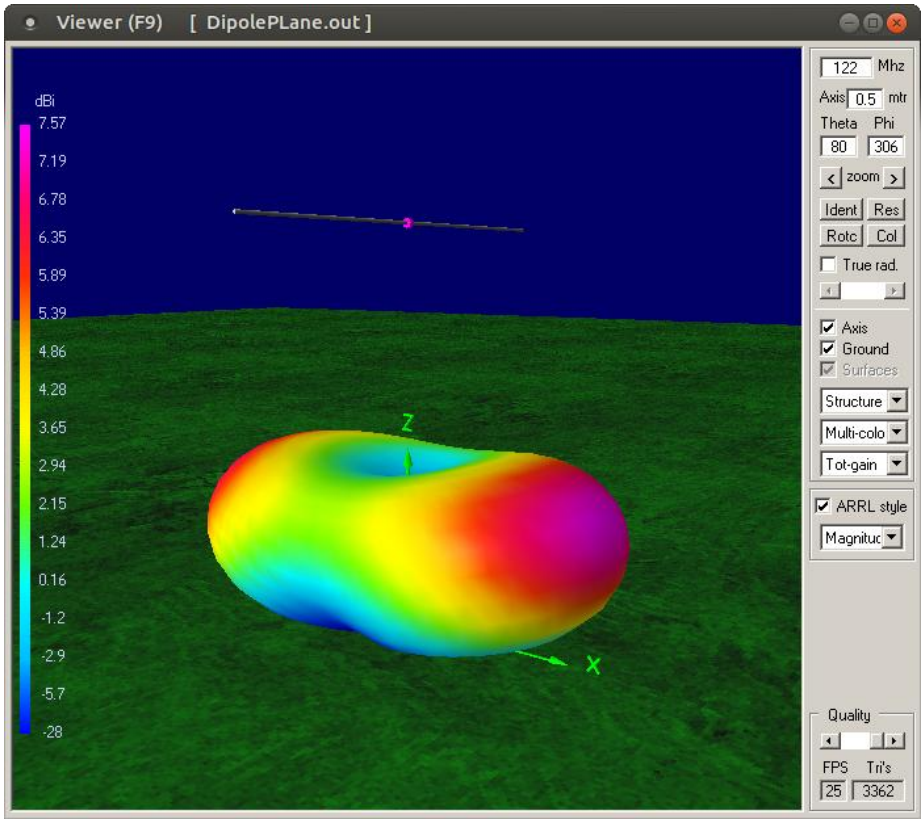


2. Antena dipol en λ/2 a una certa distància d'un pla conductor perfecte

Diagrama de radiació





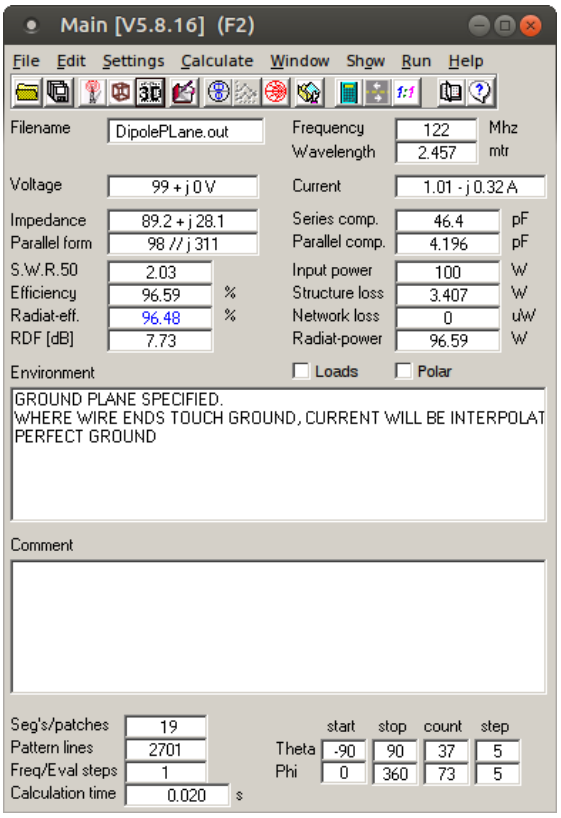


Directivitat

D = 7.73 dB

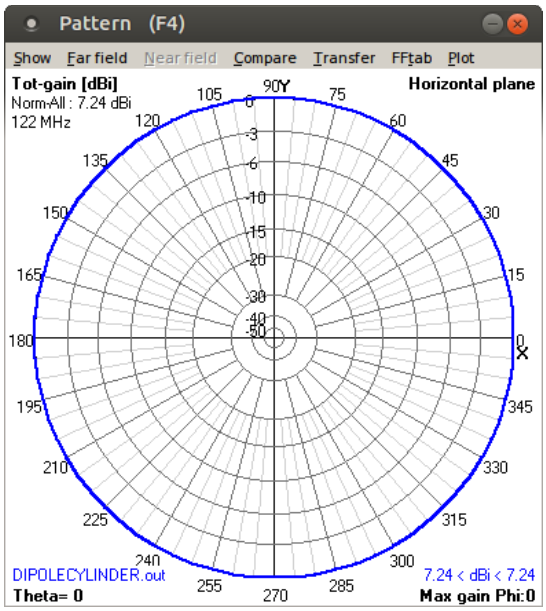
Impedància d'entrada de l'antena.

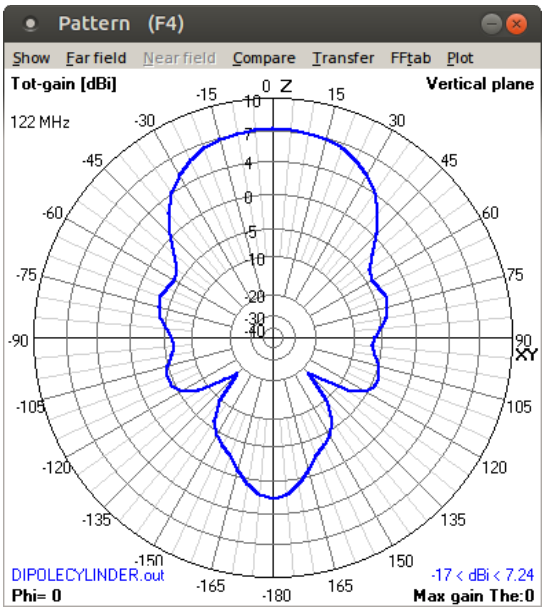
Zo = 89.2 + j28.1 Ohms

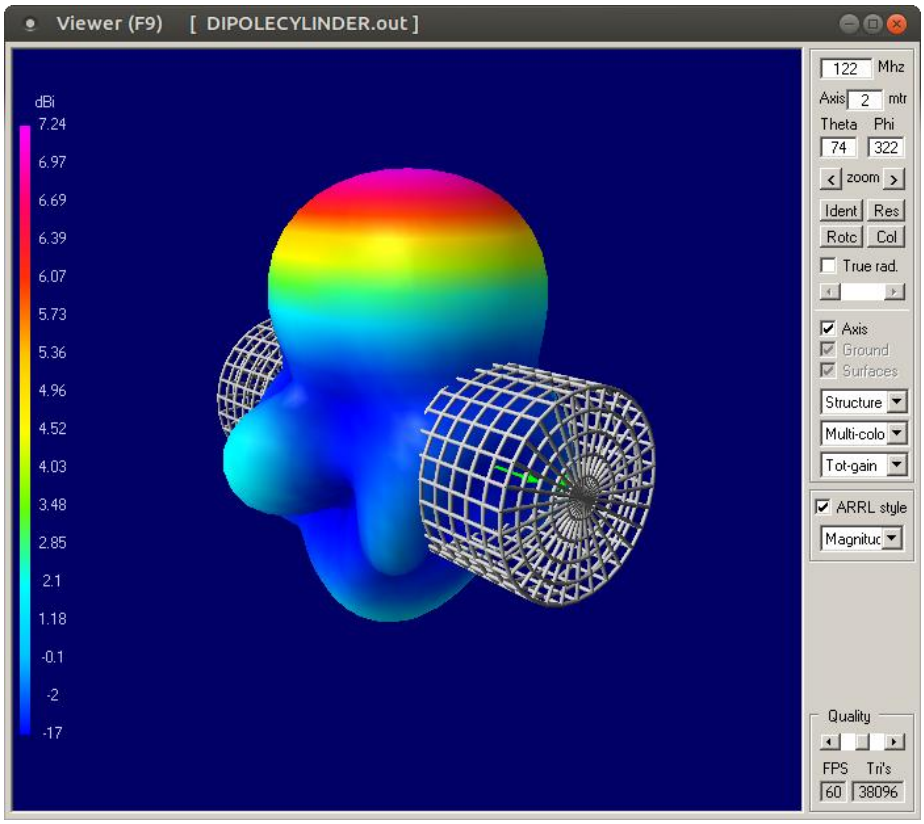


3. Antena dipol en λ/2 a una certa distància d'un cilindre metàl·lic

Diagrama de radiació





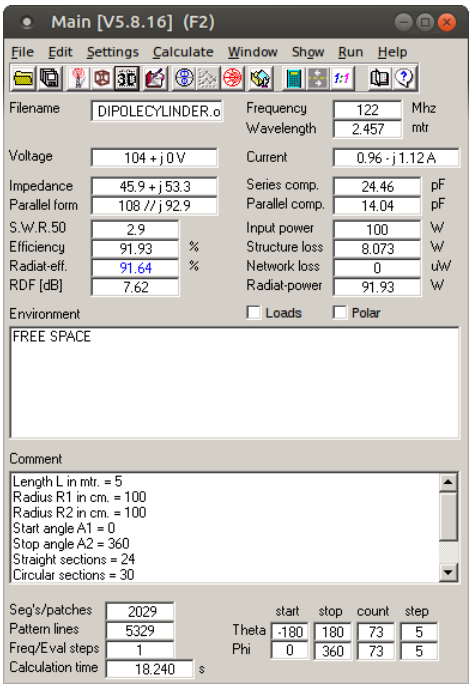


Directivitat

D = 7.62 dB

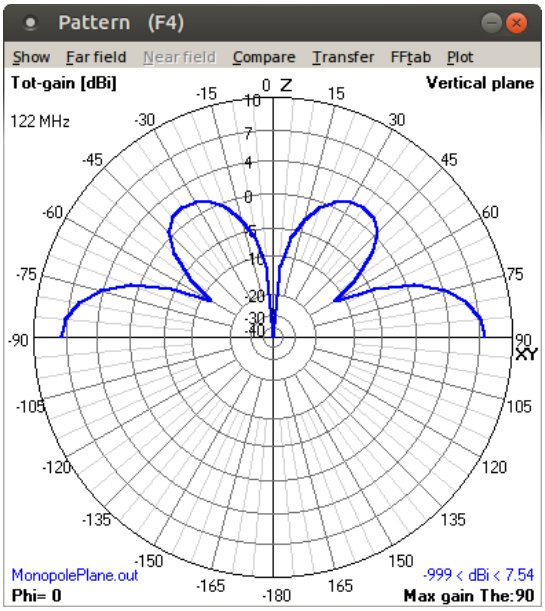
Impedància d'entrada de l'antena.

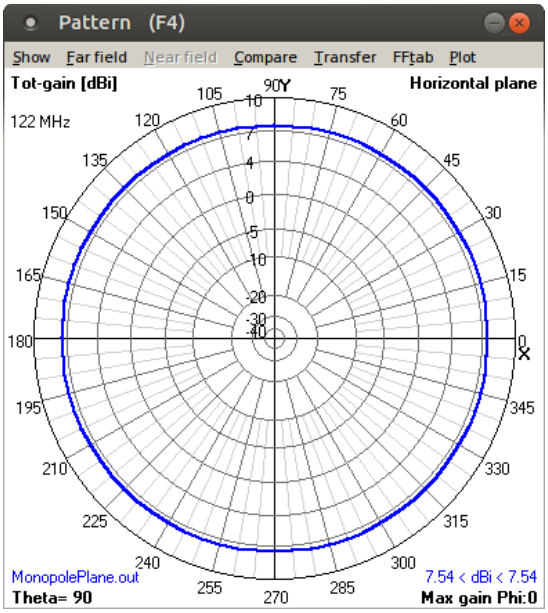
Zo = 45.9 + j53.3 Ohms

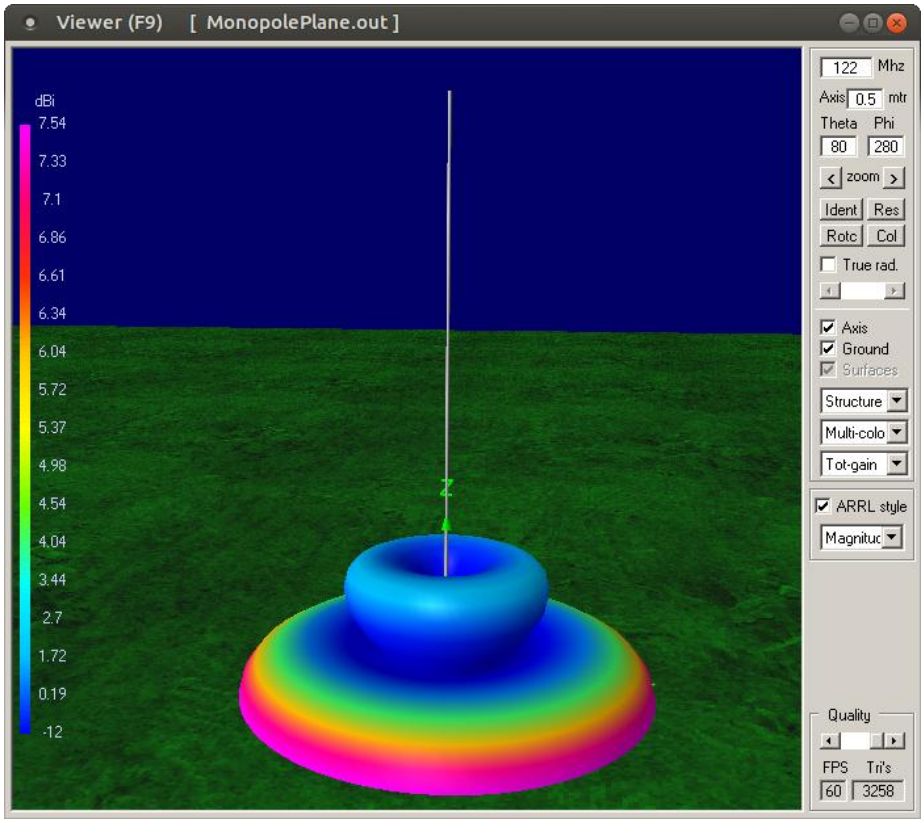


4. Antena monopol (λ/4) sobre un pla conductor perfecte

Diagrama de radiació





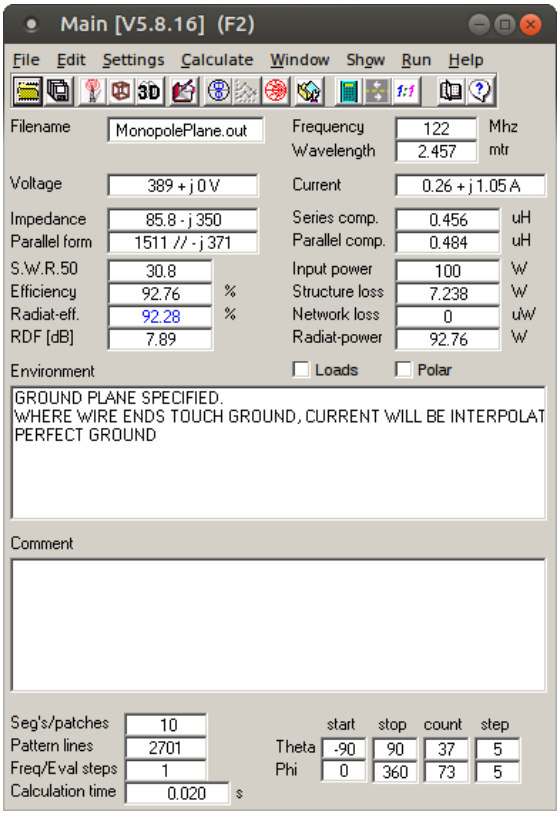


Directivitat

D = 7.89 dB

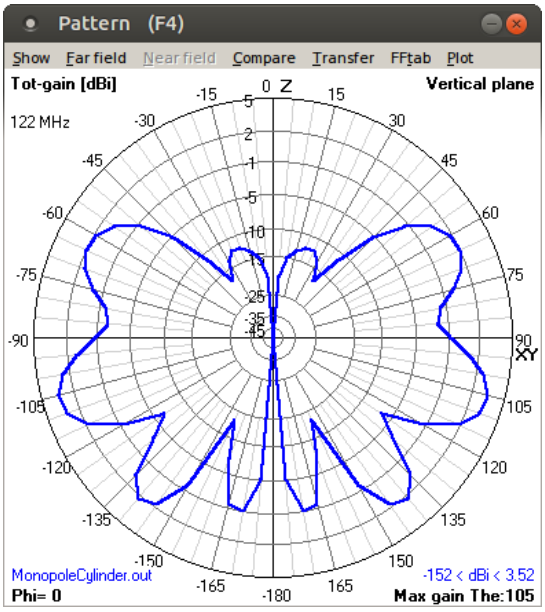
Impedància d'entrada de l'antena.

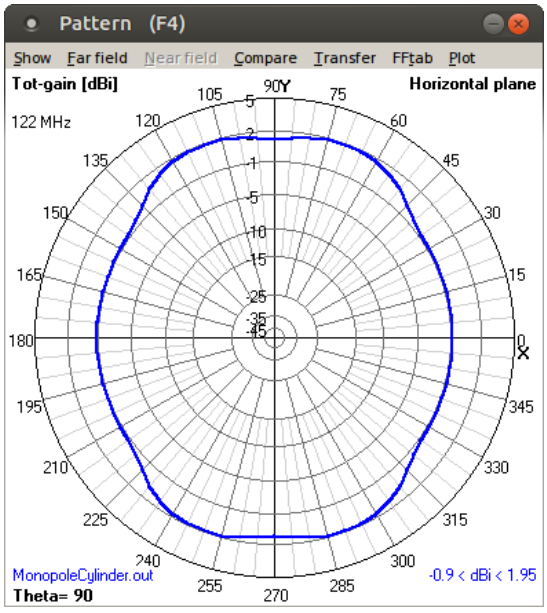
Zo = 85.8 – j350 Ohms

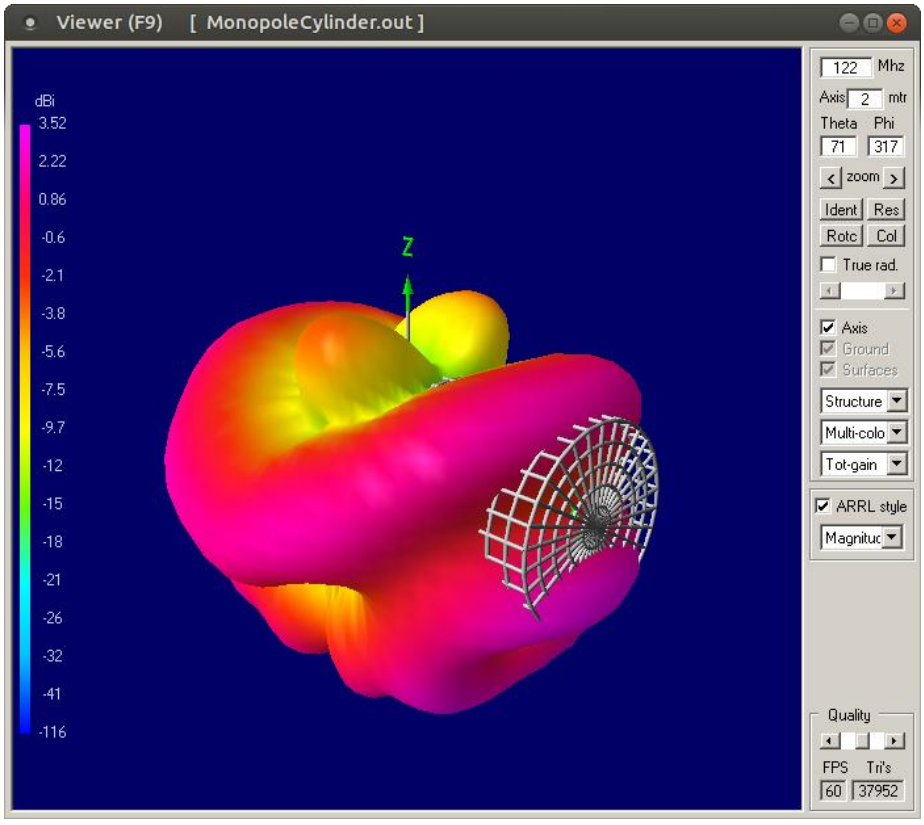


5. Antena monopol (λ/4) sobre un cilindre metàl·lic

Diagrama de radiació







Directivitat

D = 4.11 dB

Impedància d'entrada de l'antena.

Zo = 91.2 + j115 Ohms