

3.2 The antenna diagram for LPR

The 408 antenna is a planoconvex hyperbolic PE lens antenna illuminated by a small horn. A lossy cone is used to reduce side-lobes.

Simulations showed that the antenna reaches both the 8° HPBW and -38 dBc for angles >60° requirements (see figure 2 below).

The directivity of this antenna is 28 dBi @79 GHz.

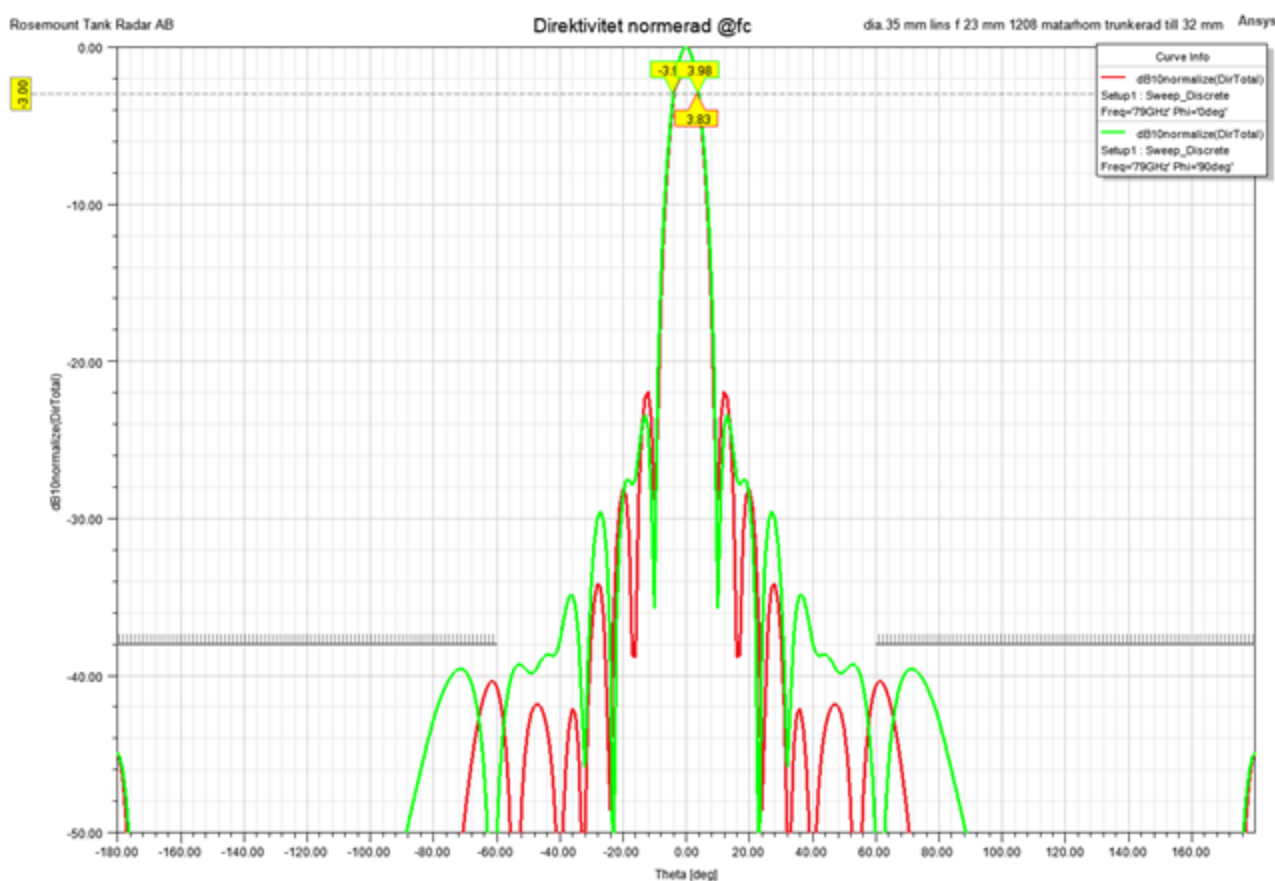


Figure 2 Directivity diagram for 408 antenna. 3 dB lobe width < 8° and SLL<-38 dBc at angles >+ 60°.