



Validation of the HAF4017A Antenna Model:

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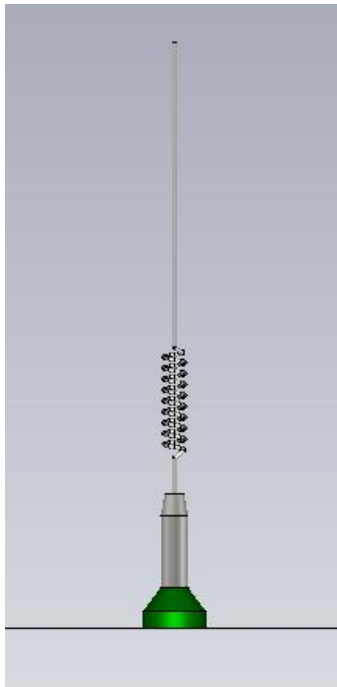


Validation of the simulation model of the HAF4017A antenna

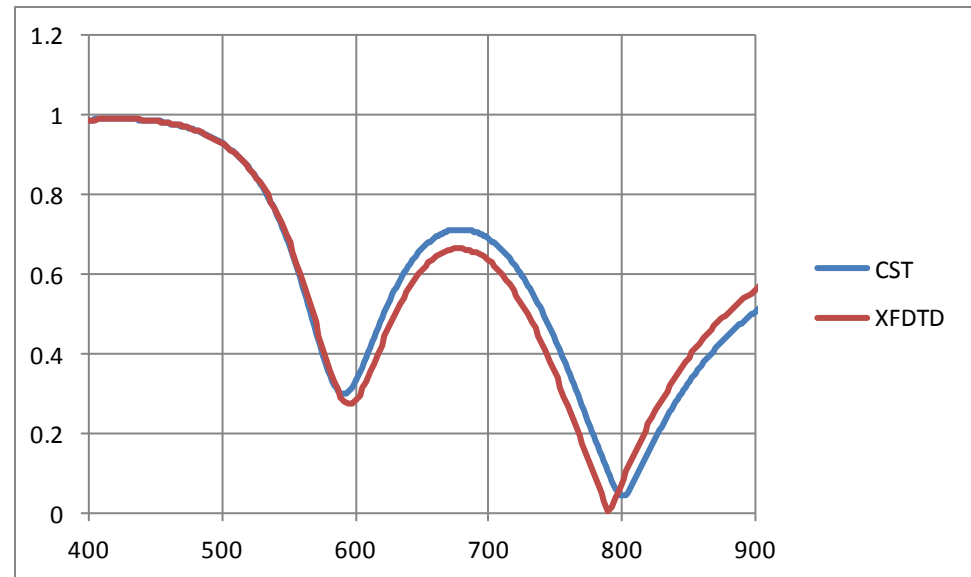
The antenna was simulated using XFDTD tool with 3 mm resolution.

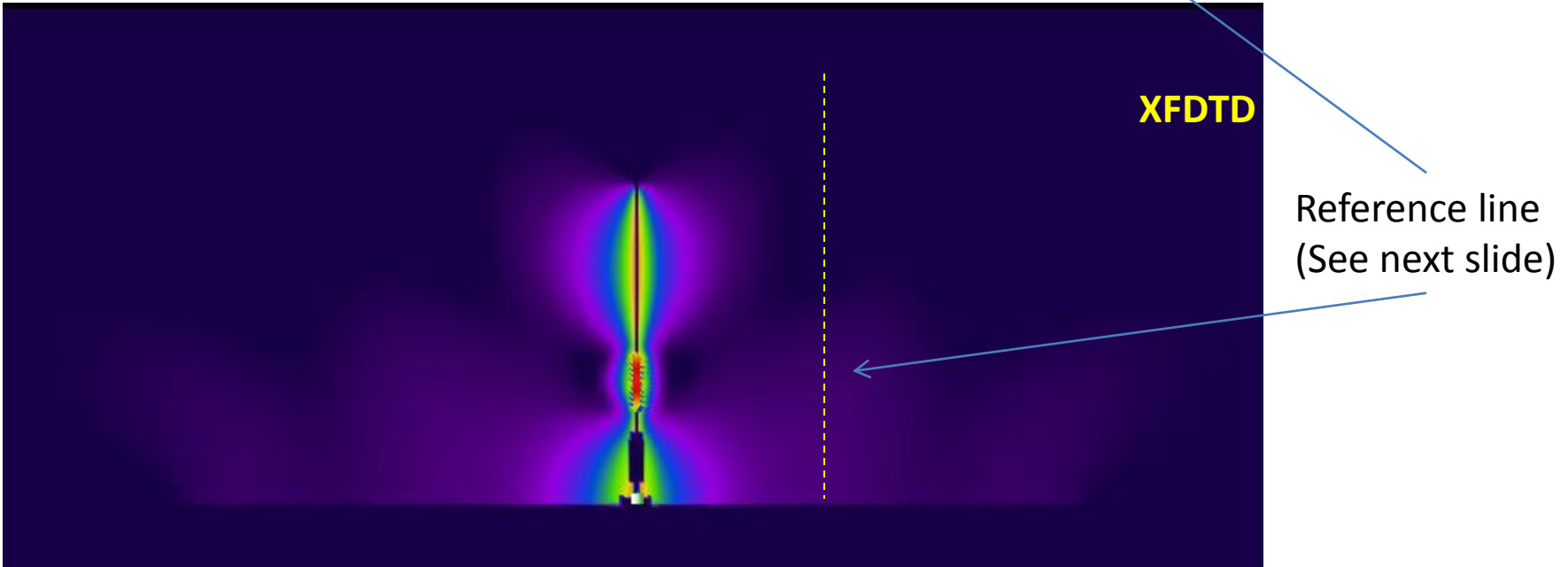
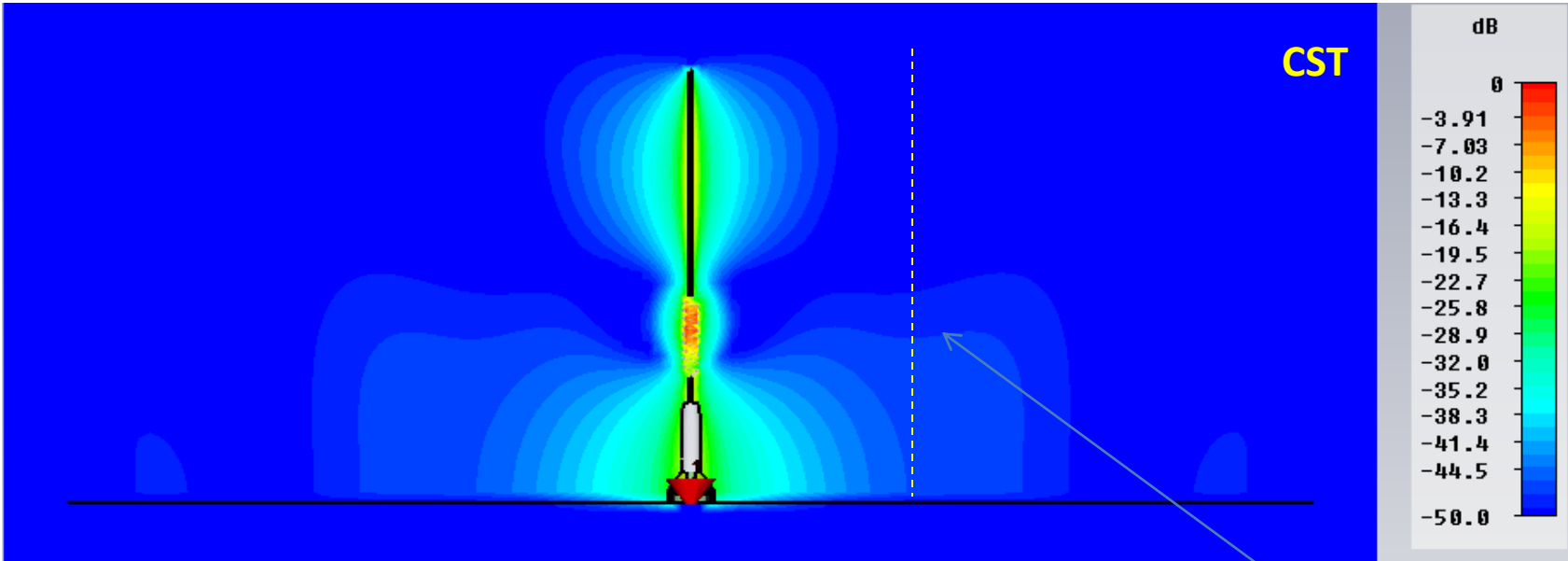
The more refined model with resolutions of 1 mm was also simulated to generate the reference results for validation of the XFDTD model according to IEC/IEEE 62704-2 standard

The simulated configuration was : the antenna in the center of 520 mm radius circular ground plane in free space. The E and H field values were recorded along the vertical line (parallel to the antenna) at 20 cm distance.



Magnitude of S11





Magnetic field distribution at 820 MHz



XFDTD and CST results
comparing the E and H field
Distribution along the vertical 400
mm reference line located 200
mm away from the antenna



antenna

