4.7 Planar ultra wideband antennas

Matlab program

For an approximate design, parameters of a broadband antenna with a rectangular slots and U-shaped notch from the layer B are available here. The program runs in a command window by calling function

```
U_antena(f_res2, f_res3, f_res4, ε_r, T)
```

For the parameters of the function `U_antena` we substitute:

f_{res2} the lower limit of the desired frequency range [Hz]

f_{res3} central frequency in [Hz], $f_{res3} = f_{res2} + \frac{1}{2}\left(f_{res4} - f_{res2}\right)$

f_{res4} the higher limit of desired frequency range [Hz]

ε_r desired permittivity substrate

T desired substrate thickness [mm]

Outputs are the approximate dimensions of the antenna with a rectangular slots and U-shaped notch as shown in figure **4.7B.1**.