

Following steps were implemented- As shown in Notes of Lectures.

1. Determine the number of training cells for each dimension T_r and T_d . Similarly, pick the number for guard cells G_r and G_d as shown in notes.
2. Slide the cell under test (CUT) across the complete cell matrix.
3. For every iteration sum the signal level within all the training cells. To sum convert the value from logarithmic to linear using dbpow2 function.
4. Average the summed values for all of the training cells used. After averaging convert it back to logarithmic using pow2db .
5. add the offset to it to determine the threshold.
6. Next, compare the signal under CUT against this threshold.
7. If the CUT level $>$ threshold assign it a value of 1, else equate it to 0.
8. To keep the map size same as it was before CFAR, equate all the non-thresholded cell to 0.

Selection of Training, Guard cells and offset.

$T_r = 10$
 $T_d = 10$
 $G_r = 4$
 $G_d = 4$
Offset = 1.3

Steps taken to suppress the non-thresholded cells at the edges.

Any cell value that is neither 1 nor a 0, assign it a zero.

```
RDM(RDM~=0 & RDM~=1) = 0;
```