

4.6 Simulation radius (ILT-VLR)

The distance between the Victim link receiver and the Interfering link transmitter is referred to as the **simulation radius** (see ANNEX 13:). It can be defined as shown in Figure 117.

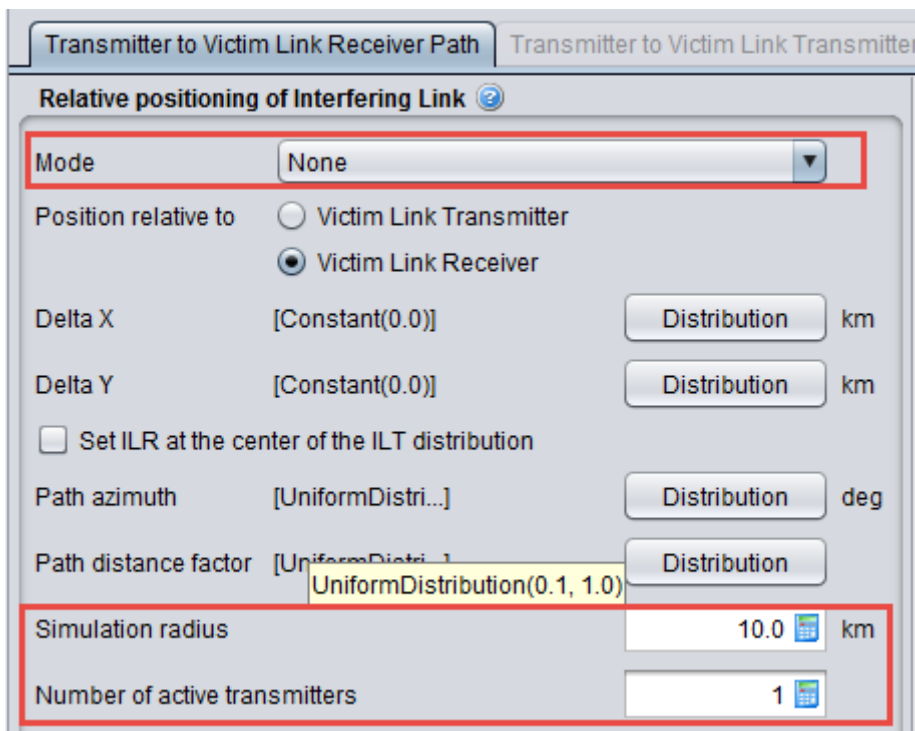


Figure 117: Definition of the minimum distance

Using this feature, the interfering link transmitter is located between 1 km (0.1 x 10 km) and 10 km (1 x 10 km) from the Victim link receiver as shown in the SEAMCAT display in Figure 118.

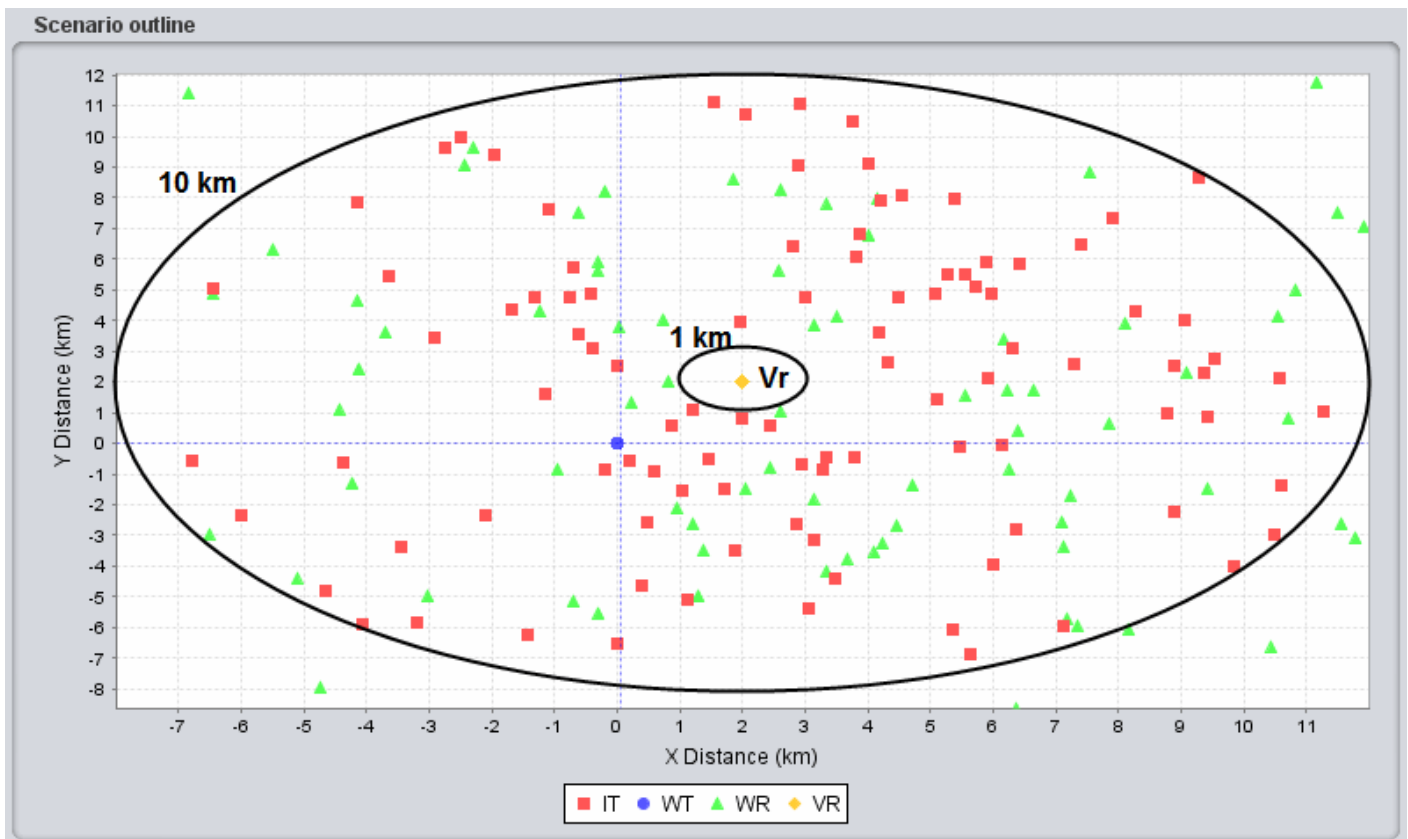


Figure 118: SEAMCAT display of the minimum distance

(ILT-red, ILR-green, VLR-yellow, VLT-blue)

If the interfering link transmitter is located at 10 km, it is possible to derive the $iRSS_{\text{unwanted}}$:

$$iRSS_{\text{unwanted}} = 33(\text{dBm}) + 11 + 9 - (32.5 + 10\log(10 \times 10) + 20\log(1000))$$

$$iRSS_{\text{unwanted}} = 53 - 32.5 = 20.5 - 60 - 20 = -59.5\text{dBm}$$

If the interfering link transmitter is located at 1 km:

$$iRSS_{\text{unwanted}} = 33(\text{dBm}) + 11 + 9 - (32.5 + 10\log(1) + 20\log(1000))$$

$$iRSS_{\text{unwanted}} = 53 - 32.5 = 20.5 - 60 = -39.5\text{dBm}$$

The $iRSS_{\text{unwanted}}$ extends from -59.5 dBm to -39.5 dBm as confirmed by Figure 119.

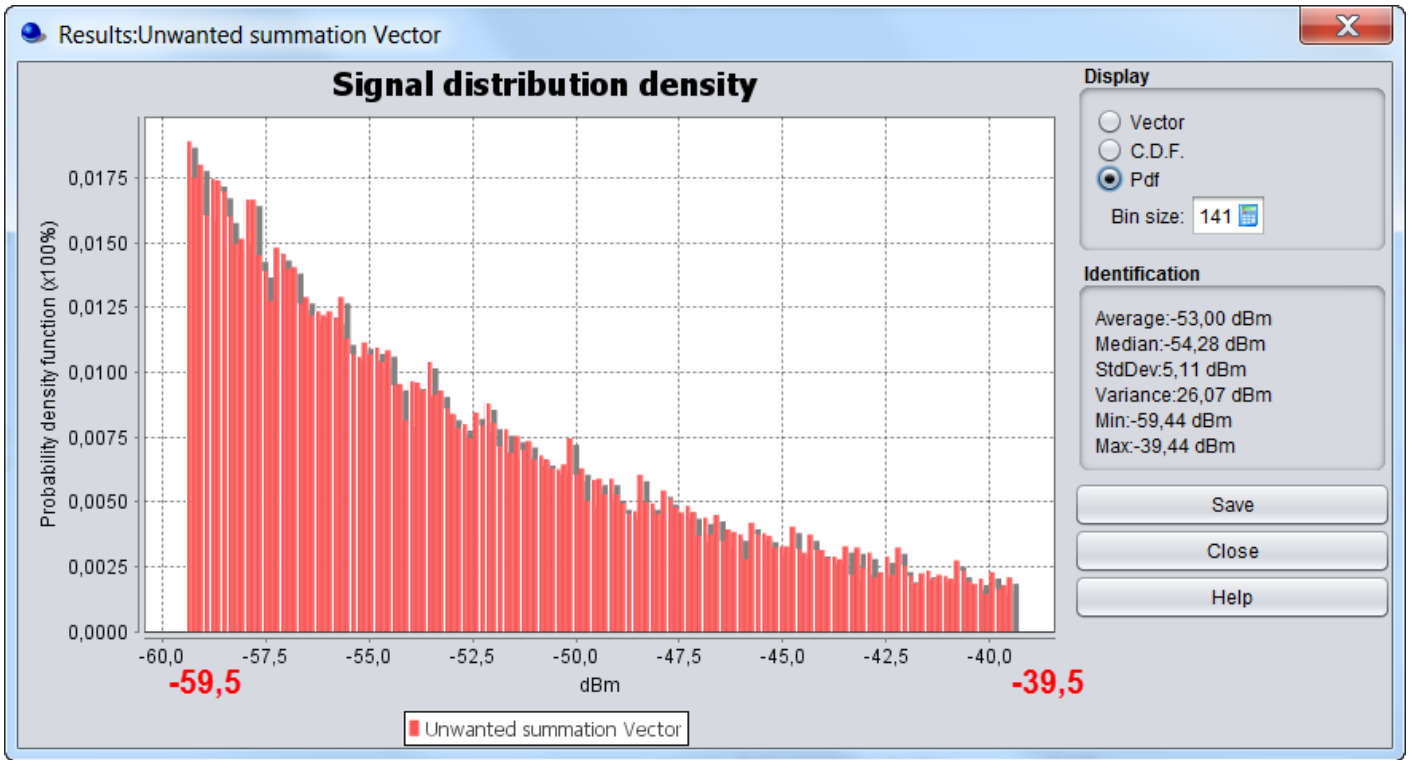


Figure 119: iRSS_{unwanted}

Revision #1

Created 2026-04-15 05:29:07 UTC by ECO TECH

Updated 2026-04-15 05:31:23 UTC by ECO TECH