4.2.3 Protection ratio

This mode is identical to the “sensitivity” mode since the only difference is that the Blocking value (relative to the noise floor) is provided in dB. The software processes the information using exactly the same method to obtain the value of the receiver attenuation (see A8.7).

The function $block_{Protection\ Ratio}(Df)$ that you entered represents the protection ratio, i.e. the ratio of maximum acceptable level of interfering signal to the wanted signal level, at a given frequency separation.

In this case SEAMCAT calculates the receiver attenuation $a_{VLR}(Df)$ to be applied to the interfering signal by using the following expression (see Figure 105):

(Eq. 24)

$$Attenuation(\Box f) = blockProtectionRatio(\Box f)(dB) + C/(N+I)(dB) + (N+I)/N(dB) - I/N(dB)$$

$$Attenuation(\Box f) = 40 + 16 + 3 - 0 = 59dB$$

$$iRSSblocking = InterferingSignalLevel(fit) = -54.5 - 59 = -113.5dBm$$

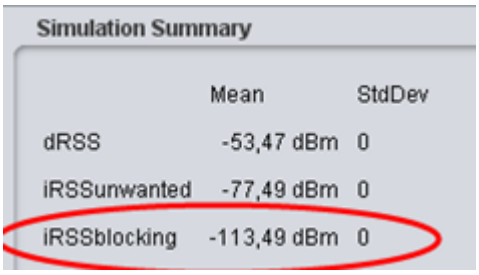

Figure 105: Mean $iRSS_{blocking}$ in case of Protection-ratio mode

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Revision #1
Created 2026-04-15 04:43:33 UTC by ECO TECH
Updated 2026-04-15 04:44:43 UTC by ECO TECH