

9.9 UL calculation of the UE frequencies

The frequency of the UE in UL is calculated as follow

$$F_{UE} = F_{system} - \frac{BW_{system}}{2} + \frac{Diff}{2} + \left(\frac{(N_{RB}^{UE} \times BW_{RB})}{2} \times ((index_{link} \times 2) + 1) \right) \quad (\text{Eq. 61})$$

with Diff taking into account for any difference between the BW_{system} and the effective bandwidth () so that

$$Diff = BW_{system} - (N_{RB}^{BS} \times BW_{RB}) \quad (\text{Eq. 62})$$

where

- F_{UE}: Centre frequency of the UE;
- F_{system}: Frequency of the system (i.e. the network);
- BW_{system}: Bandwidth of the system;
- N_{RB_UE}: Number of Resource Blocks (RB) per mobile;
- N_{RB_BS}: Number of RB for the BS;
- BW_{RB}: Bandwidth of the RB;
- N_{UE}: Number of UEs in the system (calculated as N_{RB_BS}/N_{RB_UE});
- Index_{link}: Index of the specific link UE to serving BS (input to SEAMCAT). Index = [0, N_{UE}-1].

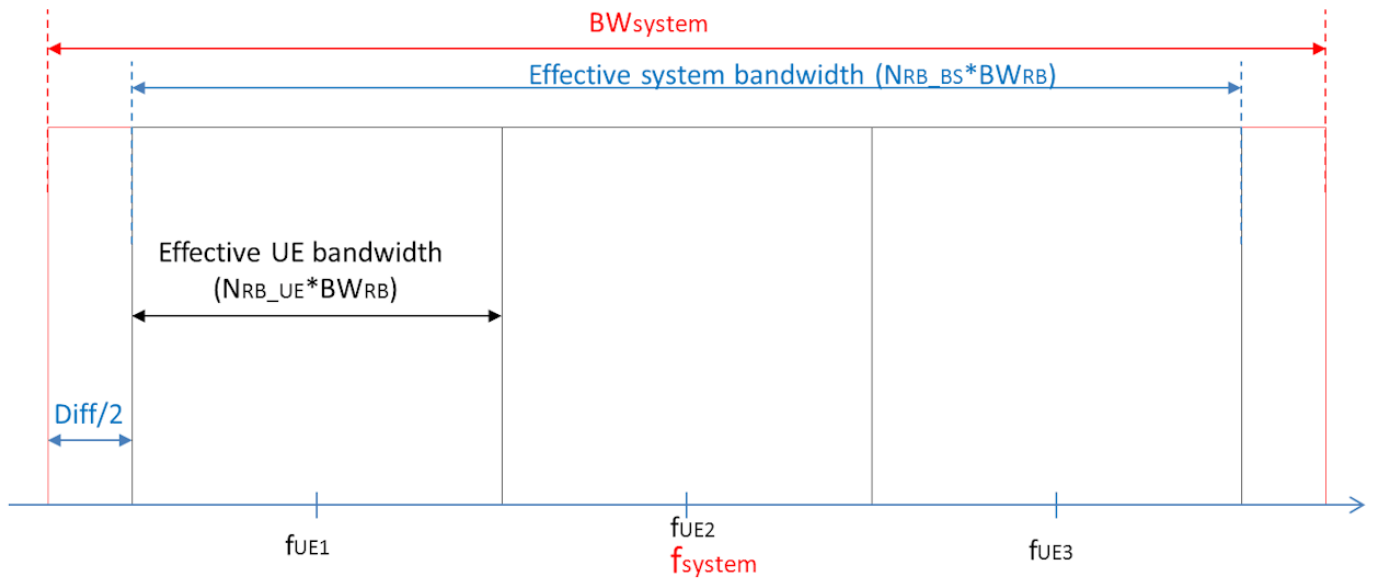


Figure 206: Illustration of the calculation of the UE frequencies in UL

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