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Example for the calculation of spurious emissions above 40 GHz

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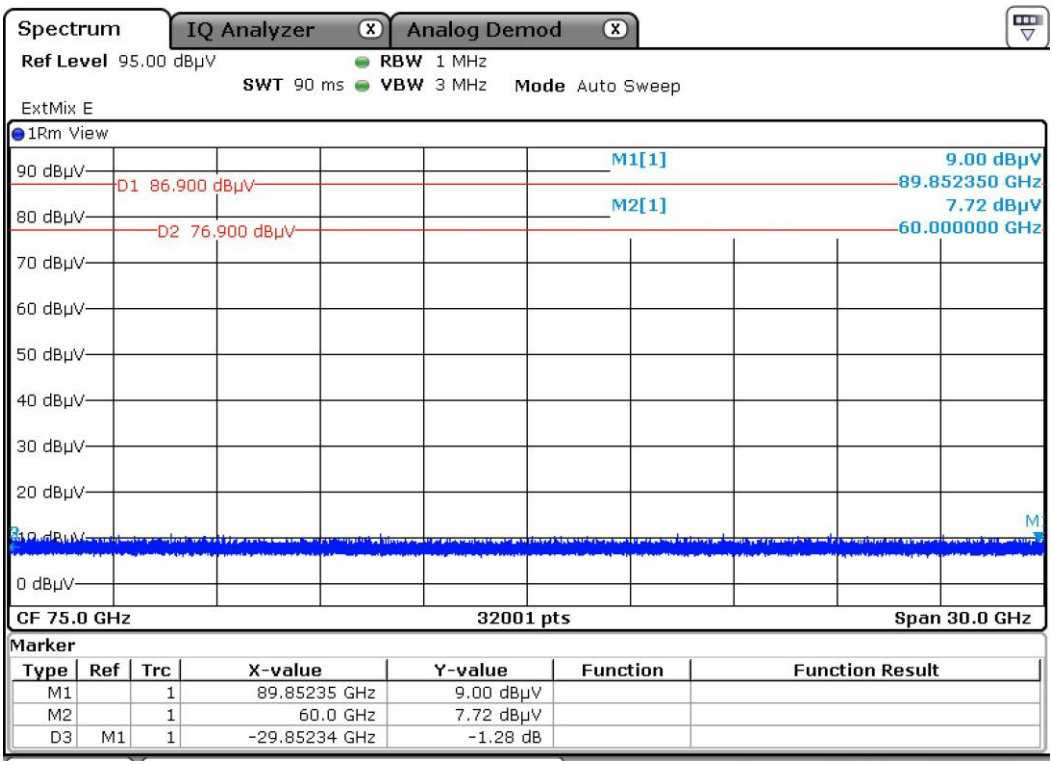
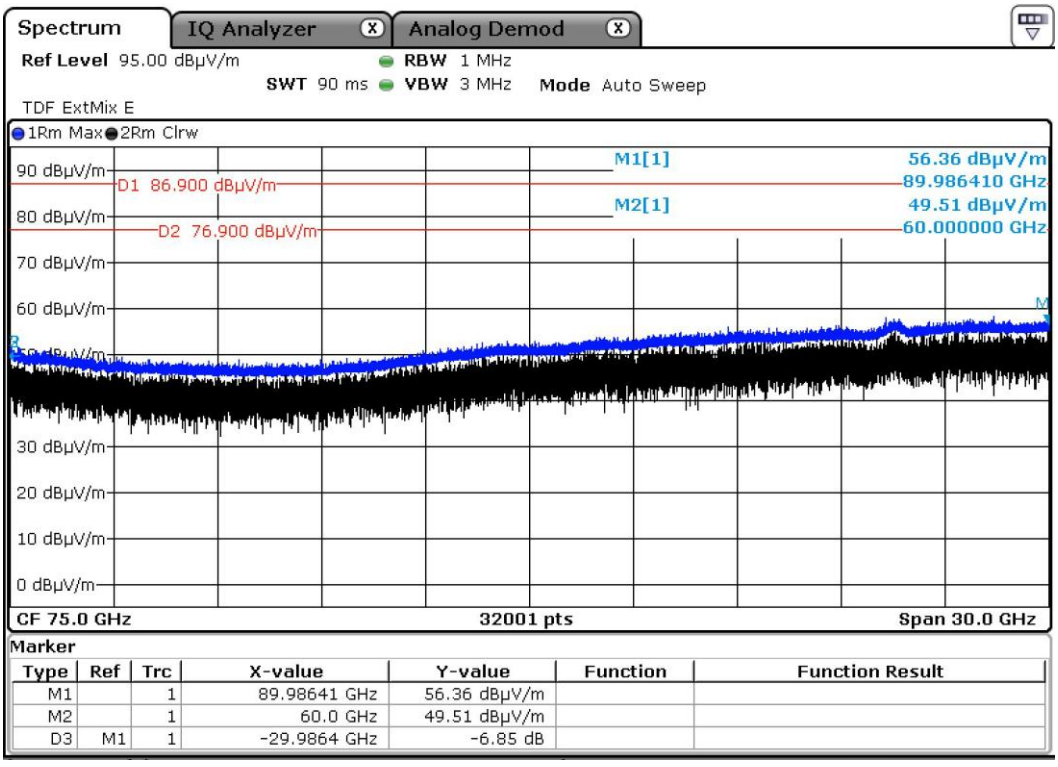
Plot 1 (noise floor without any corrections)



Plot 2 (noise floor with all corrections)



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Example: Calculation for 90 GHz:

corrected level = measuring level + antenna conversion + mixer conversion – distance factor

in which

measuring level at 90 GHz = noise level (see Plot 1) = 9 dBµV
antenna conversion = antenna conversion factor in at 90 GHz = 41.5 dB/m
mixer conversion = mixer conversion factor at 90 GHz = 21.6 dB
distance factor = distance extrapolation factor for measurement at 0.5 m instead of 3 m = 15.6 dB
corrected level = measuring level with all corrections (see Plot 2)

corrected level = 9.0 dBµV + 41.5 dB/m + 21.6 dB – 15.6 dB
= **56.5 dBµV/m**

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