The following excel file can be used to determine the BEM, regarding the emission and reception of the earth station, that is going to used for interference studies with terrestrial networks.

In the first sheet "Enter data", of the excel file, the bandwidth (Bn) and power (dBW) at the antenna input are entered. The sheet "BEM according to ITU" shows the BEM as determined in accordance with ITU recommendations, Rec. ITU-R SM.1541-6 Annex 5, Rec. ITU-R SM.1539-1 and Rec. ITU-R SM.329-8.

If the actual BEM of the earth station’s emission and reception is better than the ITU’s, e.g. due to better filters, equipment in the earth station system chain or requirements of the satellite provider, provide the actual BEM corresponding to the specific characteristics of the earth station for transmission and reception respectively. The actual can also be determined after relevant measurements.

An indicative BEM that could be used is shown on the "Indicative BEM" sheet.



For example, for a bandwidth of 120 MHz and power of 30 dBW at the antenna input, the BEM that could be used is the following: