

Recommendation

ITU-T G.107.2 (03/2023)

SERIES G: Transmission systems and media, digital systems and networks

International telephone connections and circuits –
Transmission planning and the E-model

Fullband E-model

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Recommendation ITU-T G.107.2

Fullband E-model

Summary

Recommendation ITU-T G.107.2 gives the algorithm for the fullband (FB) version of the E-model as the common ITU-T transmission rating model for planning speech services that provide FB speech transmission (20 – 20 000 Hz). This computational model can be useful to transmission planners, to help ensure that users will be satisfied with end-to-end transmission performance. The primary output of the model is a scalar rating of transmission quality. A major feature of this model is the use of transmission impairment factors that reflect the effects of different types of degradations occurring on the entire transmission path, mouth-to-ear.

This FB-E-model is an adapted version of the narrowband (NB) (300 – 3 400 Hz) and wideband (WB) (50 – 7 000 Hz) E-models, which are described in Recommendations ITU-T G.107 NB and ITU-T G.107.1 WB. It does not replace the NB or the WB E-model. Instead, it describes a separate FB version of the model that uses, within limits, similar concepts and input parameters as the NB and WB E-models.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T G.107.2	2019-06-29	12	11.1002/1000/13926
2.0	ITU-T G.107.2	2023-03-01	12	11.1002/1000/15461

Keywords

E-model, fullband, speech quality, transmission planning.

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

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