

26th July 2021

Response in addition to those explicitly requested by Ofcom – IR2102.1 Noise Figure requirement

In addition to answering the questions asked by Ofcom in the document **consultation-response-form-Nextivity.odt** and additional responses provided in **Ofcom_Repeater_Consultation_Further_Responses_Nextivity.docx**, Nextivity would like to raise an additional point regarding the noise figure requirement for licence exempt provider-specific devices.

IR2102.1 currently states “The repeater system noise figure shall not exceed 7 dB”. Nextivity requests a relaxation in the noise figure requirement, to state that “The repeater system noise figure shall not exceed 8 dB”.

As devices incorporate more bands, the front-end loss when combining multiple signals is greater and the challenge of meeting the 7dB noise figure is significantly greater. There is a cost implication of meeting the 7dB limit in “provider-specific” devices supporting several bands, hence this request.

Nextivity believes that the BSCL-30 dB rule will continue to act as protection to the network, even if the maximum noise figure were to increase by 1 dB. If Ofcom has concerns that would not be the case then Nextivity can implement further additional mitigation, for instance if a multi-band device supporting 4 bands (band *a*, band *b*, band *c*, band *d*) were to have per-band noise figures of 6 dB, 6.5 dB, 7dB and 8dB respectively, then the safety margin for band *d* could be increased by 1dB (so in bands *a*, *b* and *c* the safety margin would be 30 dB and in band *d* the safety margin would be 31 dB).