

Response to Ofcom Consultation
Mobile Phone Repeaters
Indoor and in-vehicle

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Context for the Consultation Response:

I am responding to the consultation as individual who is also an active member of the Orkney Digital Forum (ODF). The Orkney Digital Forum was set-up and run by our MP and MSP. It is generally held twice a year. The forum was in response to the difficulties in enabling digital infrastructure in the Orkney Islands resulting in social and business impacts.

The need to have mobile repeaters suitable for the network has long been identified by the ODF and we have been in communication with Ofcom and Highlands and Islands Enterprise regarding the subject matter for some time. I also have liaised with your enforcement officers confiscating unregulated repeaters in Orkney and seen first-hand the impact that is caused to the mobile network by poorly specified repeaters. We have highlighted this in the ODF to get the message out to switch off these un-regulated repeaters!

I have performed area surveys of Orkney mobile coverage (only operator EE) and have liaised with Ofcom engineers in their area wide survey. There are still large areas of Orkney that do not have a decent mobile phone signal so the pressure to resolve poor coverage by individuals is significant. This aspect is recognised in your consultation as one of the main driving forces for the licence exempt repeaters.

In addition to the work with ODF, I have performed two presentations to One Digital Scotland, a project to help people reach their digital potential.

Q1 Do you agree with Ofcom's proposal to authorise the use of static mobile repeaters intended for indoor use on a licence exempt basis?

Q3 Do you agree with Ofcom's proposal to authorise the use of low gain mobile phone repeaters intended for in-vehicle use on a licence exempt basis?

Answers to Q1 and Q3. I fully endorse the approach by Ofcom as outlined in the document. I would encourage Ofcom to implement the licence free mobile phone repeaters as soon as practical.

No matter how good the MNO's networks become, there will always be areas where there is no coverage and it is up to the individual consumers and businesses to resolve this. We must provide them with enabling technologies that can be fit and forget yet not cause undue interference to the network.

As the Government asks house builders and home owners to improve their insulation to reduce energy consumption, this often leads to aluminium foil being used on insulation boards which inhibits the phone signal. It is unfair to ask MNO's to provide a signal to penetrate these conditions, so the solution is to provide an antenna outside the building and re-transmit the signal within i.e. a repeater.

Q2 Do you agree with technical requirements as set out in Table 1 above for licence exempt static mobile phone repeaters intended for indoor use?

Q4 Do you agree with technical requirement set out in Table 2 above for licence exempt low gain mobile phone repeaters intended for in-vehicle use?

In principle yes, however I have a number of specific comments:

Under 3.22 Gain and Power, I am surprised there are no restrictions on antenna design as I can see folks with some technical knowledge replacing a basic omni-directional with a high gain yagi. I presume it is believed that the electronics will detect the extra power and turn down the signal? (This comment applies more to Q2 than Q4).

Under Table 1 regarding frequencies, it is presumed that where a MNO transmits on several frequencies, the equipment is permitted to switch as required between the frequencies and not be limited to one frequency.

The rest of my comment relate to assuring the consumer that what they have purchased and installed is compliant. In my research on mobile repeaters I have found that what the internet vendor states is legal and what is compliant is often in disagreement. Our aim should be to protect the average prudent consumer and the network. As such I would suggest:

1. Support Table 1 in having each mobile phone repeater limited to one operator.
2. Could it be prudent that the repeater will only work if a Mobile Network Operator (MNO) SIM card or equivalent is inserted? If so The SIM card or equivalent will set the frequencies etc. and also identify the owner of the repeater (actually the SIM card owner).
3. MNO's may wish to provide this equipment for their system only (i.e. the SIM (or equivalent) cannot be changed) and this should be allowed.
4. The MNO's can disable their SIM card (or equivalent) where network interference is detected.
5. There is a clear mark of compliance on the equipment
6. The consumer may cross-reference the model on a website to ensure compliance.