

Your response

Question	Your response
<p>Question 1: Do you agree with our proposal to authorise gateways (NGSO and GSO) in urban HD areas? Please explain your reasons.</p>	<p>Confidential? – N</p> <p>Amazon strongly supports Ofcom’s proposal to authorise Q/V-band satellite gateways in urban HD areas. Amazon has consistently supported gateway access in HD areas, as reflected in our September 2025 response, and we welcome Ofcom’s recognition of the commercial and practical rationale for permitting gateway operations in these areas.</p> <p>Satellite gateways require access to high-quality fibre infrastructure, internet exchange points, data centres, and skilled technical personnel—all of which are typically concentrated in urban HD areas. Restricting gateway deployment to LD areas alone could impose unnecessary costs on operators, increase latency for end users, and limit the capacity of satellite systems to deliver broadband services to UK customers.</p> <p>Amazon notes that the interference environment in HD areas can be managed in many cases through appropriate technical conditions and operator mitigations. Satellite operators are well-positioned to assess the costs and benefits of urban gateway deployment and to implement shielding, frequency planning, and site selection strategies that enable successful co-existence with other spectrum users.</p>
<p>Question 2: Do you agree with our proposal to limit receive frequencies available in urban HD areas to 37.5 – 40.5 GHz, and for operations to be on:</p> <p>(a) a ‘non-interference’ basis with respect to fixed links and mobile services in the downlink direction,</p> <p>(b) a ‘non-protection’ basis with regards to adjacent mobile services in 40.5-43.5 GHz?</p> <p>Please explain your reasons.</p>	<p>Confidential? – N</p> <p>Amazon agrees with Ofcom’s proposal to make 37.5-40.5 GHz available for gateway receive operations in HD areas on a non-protection basis. An additional non-interference obligation on satellite downlink transmissions, however, would be unnecessary.</p> <p>The ITU Radio Regulations Article 21 power flux density (“PFD”) limits exist precisely to facilitate co-frequency operation between satellite and terrestrial services. Compliance with these internationally agreed limits should be sufficient to protect incumbent terrestrial services—including fixed links and mobile services—from satellite downlink transmissions. Amazon recognises that Ofcom declined this approach in LD areas, where it chose to rely on Article 21 PFD limits together with a “backstop</p>

Question	Your response
	<p>condition” that prohibits harmful interference from downlink transmissions to incumbent terrestrial services. We remain concerned, however, that a further condition to not cause harmful interference is disproportionately restrictive and may inadvertently constrain satellite services.</p> <p>Should Ofcom impose a non-interference condition in HD areas, as it has in LD areas, Amazon urges Ofcom to similarly require any terrestrial operator raising an interference concern to provide evidence demonstrating that the interference in question was harmful. This analysis should be made available to the satellite operator for review and evaluation, in addition to Ofcom, and should be assessed before any further action is required of the satellite licensee. Such a safeguard would ensure that the condition is applied proportionately and is not used to unduly restrict satellite operations.</p>
<p>Question 3: Do you agree with our recommended option A for managing co-existence with Ofcom coordinated fixed links through our usual, first-come, first-served coordination. Please explain your reasons</p>	<p>Confidential? – N</p> <p>Amazon agrees with Ofcom’s recommended Option A—first-come, first-served coordination—for managing co-existence between satellite gateways and Ofcom-coordinated fixed links in HD areas. Option A provides a clear, predictable, and well-established framework that enables gateway operators to make informed siting decisions based on the known fixed link environment at the time of licensing. It is also consistent with the approach adopted for LD areas, providing regulatory certainty and simplicity for all stakeholders.</p>
<p>Question 4: Do you agree with our proposal to authorise NGSO gateways in ‘high density’ areas at a MEA of at least 20 degrees and GSO gateways at an MEA of at least 15 degrees. Please explain your reasons.</p>	<p>Confidential? – N</p> <p>Amazon considers Ofcom’s proposed 20-degree MEA for NGSO gateways to be a sensible starting point. We respectfully suggest that Ofcom may wish to consider a reduction to 15 degrees in HD areas over time, as operational experience confirms that co-existence can be effectively managed at lower elevation angles.</p>
<p>Question 5: Do you have views on the benefits of additional co-channel access for gateways in 40.5-42.5 GHz in future, and how the interference risks we have identified could be mitigated</p>	<p>Confidential? – N</p> <p>Amazon considers that additional co-channel access for satellite gateway receive operations in 40.5-42.5 GHz in HD areas would deliver significant benefits and</p>

Question	Your response
<p>in practice (including through gateway shielding and site locations, and discussions between gateway operators and the MNOs). Please provide supporting analysis, as appropriate.</p>	<p>encourages Ofcom to enable this access now, rather than deferring to a future date.</p> <p>Amazon observes that the interference risk in 40.5-42.5 GHz is to the satellite gateway itself, rather than to mobile services. Since permitting co-channel access would not place any additional burden on mobile operators, Amazon respectfully submits that satellite operators should be afforded the opportunity to assess the interference scenario and determine whether the cost-benefit analysis supports deployment. Satellite operators are best placed to conduct this cost-benefit analysis, weighing the value of additional downlink capacity against the potential for interference from future mobile deployments.</p> <p>These cost-benefit decisions will necessarily be case-by-case, unique to the facts and circumstances of each operator, the specific gateway location requirements, and predictions regarding future mobile use of these frequencies in a given HD area. Mobile deployment will not necessarily be uniform across all 68 major towns and cities in the UK that qualify as HD areas. There may well be locations within certain HD areas where the interference environment is benign—for example, where mobile deployment is sparse or where natural terrain and built structures provide effective screening—and where the cost-benefit analysis clearly favours deploying satellite gateway operations notwithstanding the risk of receiving and accepting some interference. Operators should be permitted to identify and utilize these opportunities.</p> <p>Access to 40.5-42.5 GHz in HD areas would provide an additional 2 GHz of downlink capacity, increasing total available downlink spectrum from 3 GHz to 5 GHz—equivalent to the allocation available in LD areas. This additional capacity would enable higher aggregate throughput per gateway site, reducing the total number of gateway sites required to serve UK customers. It would also provide greater frequency planning flexibility, and would support the growing demand for satellite backhaul capacity as NGSO constellations scale their services.</p> <p>Amazon recognises that co-channel interference from mobile base stations in 40.5-42.5 GHz may present a greater challenge than adjacent-channel interference in some locations. However, satellite operators have a range</p>

Question	Your response
	<p>of proven mitigation techniques at their disposal. Gateway shielding structures can significantly attenuate signals arriving from low elevation angles where mobile base station interference is most likely. Site selection can exploit natural terrain, buildings, or other structures to provide additional path loss. Gateway antennas operating at elevation angles of 15-20 degrees or higher inherently provide significant directional discrimination against signals arriving from near the horizon. Operators can also dynamically avoid specific frequency segments where local interference levels are elevated, using the remaining available spectrum to maintain service quality.</p> <p>Amazon is willing to engage in discussions with mobile network operators to share deployment information and identify practical co-existence arrangements. Amazon encourages Ofcom to facilitate a framework for voluntary information sharing between gateway operators and MNOs that would support co-existence planning without imposing undue regulatory burden on either party.</p>
<p>Question 6: Do you have any further comments on our Consultation proposals?</p>	<p>Confidential? – N</p> <p>In its decision to authorise Q/V-band gateways in LD areas, Ofcom noted that it would review NGSO use of 51.4–52.4 GHz following the conclusion of WRC-27. Amazon encourages Ofcom to similarly consider NGSO use of this spectrum in HD areas. Prompt alignment of this band for NGSO use following WRC-27 outcomes—in both LD and HD areas—would help meet rapidly growing demand for satellite backhaul capacity</p> <p style="text-align: center;">* * *</p> <p>Amazon appreciates Ofcom’s continued engagement with stakeholders and its commitment to enabling efficient spectrum use that supports innovation, investment, and digital inclusion across the UK.</p>

Please tell us how you came across this consultation.

- Email from Ofcom
- Saw it on social media
- Found it on Ofcom's website
- Found it on another website
- Heard about it on TV or radio
- Read about it in a newspaper or magazine

- Heard about it at an event
- Somebody told me or shared it with me
- Other (please specify)

Please complete this form in full and return to QVgateways@ofcom.org.uk.