

FIXED WIRELESS ACCESS 3.4 GHz LICENCE

This licence document replaces the version of the Licence issued by Ofcom on 18 May 2021 to Newtel Limited.

Licence no. **0277676**

Date of issue: **07 February 2024**

Fee payment interval: **Each 5th anniversary of the date first issued:
(02 September 2004)**

1. The Office of Communications (Ofcom) grants this licence to

Newtel Limited
Company Registration No: 70523
("the Licensee")
Nelson House
David Place
St Helier
Jersey
JE2 4TD

to establish, install and use radio transmitting and receiving stations and/or radio apparatus as described in the schedule the ("Radio Equipment") subject to the terms, set out below.

Licence Term

2. This Licence shall continue in force until 31 December 2026 unless earlier revoked by Ofcom or surrendered by the Licensee.

Licence Variation and Revocation

3. Pursuant to schedule 1 paragraph 8 of the Wireless Telegraphy Act 2006 (the "Act"), Ofcom may not revoke or vary this Licence under schedule 1 paragraph 6 of the Act except:

- (a) at the request of, or with the consent of, the Licensee;
- (b) if there has been a breach of any of the terms of this Licence;
- (c) in accordance with schedule 1 paragraph 8(5) of the Act;
- (d) if it appears to Ofcom to be necessary or expedient to revoke or vary the Licence for the purposes of complying with a direction by the Secretary of State given to Ofcom under Section 5 of the Act or Section 156 of the Communications Act.
- (e) if there is not in force a licence granted to the Licensee by the Jersey Competition Regulatory Authority for the provision of a telecommunications service in that territory;

- (f) for reasons related to the management of the radio spectrum, provided that in such case the power to revoke or vary may only be exercised after at least one year's notice is given in writing and after Ofcom has considered any pertinent factors; or
 - (g) if Ofcom has reasonable grounds for concluding that the use of the Radio Equipment in accordance with paragraphs 5-8 of schedule 1 to this Licence causes or will cause undue interference to other authorised users of radio equipment;
4. Ofcom may only revoke or vary this licence by notification in writing to the Licensee and in accordance with schedule 1 paragraphs 6 and 7 of the Act.

Changes

5. This Licence may not be transferred.
6. The Licensee must give prior notice to Ofcom in writing of any proposed change to the Licensee's name and address from that recorded in the Licence.

Fees

7. The Licensee shall pay Ofcom the relevant fee as provided in Section 12 and 13 of the Act and the Regulations made there under on or before each fifth anniversary of the date this Licence was first issued, 02 September 2004, or on or before such dates as shall be notified in writing to the Licensee, failing which Ofcom may revoke this Licence.

Radio Equipment Use

8. The Licensee shall ensure that the Radio Equipment is established, installed and used only in accordance with the provisions specified in the schedules to this Licence. Any proposal to amend any detail specified in the schedules to this Licence must be agreed with Ofcom in advance and implemented only after this Licence has been varied or reissued accordingly.
9. The Licensee must ensure that the Radio Equipment is operated in compliance with the terms of this Licence and is used only by persons who have been authorised in writing by the Licensee to do so and that such persons are made aware of, and of the requirement to comply with, the terms of this Licence.
10. The Licensee must ensure that all Radio Equipment is established, installed, modified and used only in accordance with the provisions specified in schedule 2 (EMF Licence Condition) of this Licence.

Access and Inspection

11. The Licensee shall permit a person authorised by Ofcom:
- (a) to have access to the Radio Equipment; and
 - (b) to inspect this Licence and to inspect, examine and test the Radio Equipment;

at any and all reasonable times or, when in the opinion of that person an urgent situation exists, at any time to ensure the Radio Equipment is being used in accordance with the terms of this Licence.

Modification, Restriction and Closedown

- 12.** A person authorised by Ofcom may require any of the radio stations or radio apparatus that comprise the Radio Equipment to be modified or restricted in use, or temporarily or permanently closed down immediately if in the opinion of the person authorised by Ofcom:
- (a) a breach of this Licence has occurred; and/or
 - (b) the use of the Radio Equipment is causing or contributing to undue interference to the use of other authorised radio equipment.
- 13.** Ofcom may require any of the radio stations or radio apparatus that comprise the Radio Equipment to be modified or restricted in use, or temporarily closed down either immediately or on the expiry of such period as may be specified in the event of a national or local state of emergency being declared. Ofcom may only exercise this power after a written notice is served on the Licensee or a general notice applicable to holders of a named class or Licence is published.

Geographical Boundaries

- 14.** This Licence authorises the Licensee to establish, install and use the Radio Equipment only in the Bailiwick of Jersey.

Interpretation

- 15.** In this Licence:
- (a) the establishment, installation and use of the Radio Equipment shall be interpreted as establishment and use of stations and installation and use of apparatus for wireless telegraphy as specified in Section 8(1) of the Act;
 - (b) the expression "interference" shall have the meaning given in Section 115 of the Act;
 - (c) the schedules form part of this Licence together with any subsequent schedule(s) which Ofcom may issue as a variation to this Licence at a later date; and
 - (d) the Interpretation Act 1978 shall apply to the Licence as it applies to an Act of Parliament.

Issued by Ofcom

Office of Communications

SCHEDULE 1 TO LICENCE NUMBER: **0277676**

Licence Category: Fixed Wireless Access 3.6 GHz

Description of Radio Equipment Licensed

1. In this Licence, the Radio Equipment means any radio transmitting and receiving stations and/or any radio apparatus.

Interface Requirements for the Radio Equipment Use

2. Use of the Radio Equipment shall comply with the following Interface Requirement:
IR 2015.1 – IR 2015.3 Spectrum Access in the 3400 to 4009 MHz band.

Special Conditions relating to the Operation of the Radio Equipment

3.
 - (a) During the period that this Licence remains in force and for 6 months thereafter, the Licensee shall compile and maintain accurate written records of:
 - (i) The following details relating to the Radio Equipment:
 - a) postal address;
 - b) National Grid Reference, (to 100 Metres resolution);
 - c) antenna height (above ground level) and type bearing east of true north;
 - d) radio frequencies used by the Radio Equipment;
 - (ii) a statement of the number of subscribing customers;

and the Licensee must produce these records if requested by a person authorised by Ofcom.

- (b) The Licensee shall inform Ofcom of the address of the premises at which this Licence and the information detailed at sub-paragraph (3a) above shall be kept.
- (c) The Licensee must submit to Ofcom copies of the records detailed in sub-paragraph (3a) above at such intervals as Ofcom shall notify to the Licensee.
- (d) The Licensee must submit to Ofcom in such manner and at such times, all information relating to the establishment, installation or use of the Radio Equipment, whether stored in hard copy or electronic form, as reasonably requested for the purposes of verifying compliance with this Licence or for statistical purposes.
- (e) The Licensee must ensure that the Radio Equipment is established and installed only for terrestrial use.

Coordination

- 4. The Radio Equipment shall be operated in compliance with such co-ordination and sharing procedures as may be considered necessary and notified to the Licensee by Ofcom.

Permitted Frequency Bands

- 5. The Licensee is authorised to operate the Radio Equipment in the following frequency ranges:

Lower Frequency Block	3480 – 3500 MHz
Upper Frequency Block	3580 – 3600 MHz

Maximum Permissible e.i.r.p.

- 6. The Licensee shall ensure that the Radio Equipment conforms to the following e.i.r.p. limits:

Maximum e.i.r.p. = +14 dBW/MHz

In addition to this, the Licensee may be required to take additional measures to ensure that the establishment, installation and use of the Radio Equipment does not cause undue interference to receiving stations and/or radio apparatus operated by a neighbouring licensee.

Permissible Out of Block Emissions

7. The Licensee shall ensure that Out of Block Emissions from the Radio Equipment shall conform to the following:

Offset from edge of block	Maximum permitted radiated level
from 0 MHz up to +3.5 MHz	$-43 - \left(\frac{26}{7} \times \Delta_{F1}\right)$ dBW/MHz Note 1
+3.5 MHz of block edge	-56dBW/MHz

Note 1: Δ_{F1} is the frequency offset between 0 MHz to +3.5 MHz of the block edge.

Where;

- = in block of block edge

+ = out of block of block edge

Interpretation

8. In this schedule:
- (a) “e.i.r.p.” means the equivalent isotropic radiated power. This is the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna (absolute or isotropic gain).
 - (b) “Maximum Permitted Radiated Level” (of Out of Block Emissions) is the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna that is outside the Licensee’s Frequency Block.
 - (c) “Out of Block Emissions” means radio frequency emissions generated by the Radio Equipment and radiated into the frequency bands adjacent (in terms of frequency) to the Licensee’s Permitted Frequency Bands.

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SCHEDULE 2 TO LICENCE NUMBER: 0277676

EMF Licence Condition

Licence Category: Fixed Wireless Access 3.6 GHz

Sites which are not shared with another licensee

1. The Licensee shall only establish, install, modify or use Relevant Radio Equipment if the total electromagnetic field exposure levels produced by the Licensee's On-Site Radio Equipment do not exceed the basic restrictions¹ in the relevant tables for general public exposure identified in the ICNIRP Guidelines² in any area where a member of the general public is or can be expected to be present when transmissions are taking place.

Sites which are shared with another licensee

2. In the case of a shared site where the Shared Site Exemption applies to the Licensee, the Licensee shall comply with paragraph 1 above.
3. In the case of a shared site where the Shared Site Exemption does not apply to the Licensee, the Licensee shall only establish, install, modify or use the Relevant Radio Equipment if:
 - a) the total electromagnetic field exposure levels produced by the Licensee's On-Site Radio Equipment, together with
 - b) the total electromagnetic field exposure levels produced by all other wireless telegraphy stations and wireless telegraphy apparatus operated by another licensee on the same site for which the Licensee can reasonably assume that a Shared Site Exemption does not apply,

do not exceed the basic restrictions³ in the relevant tables for general public exposure identified in the ICNIRP Guidelines⁴ in any area where a member of the general public is or can be expected to be present when transmissions are taking place.

¹ Compliance with the reference levels for general public exposure identified in the ICNIRP Guidelines will ensure compliance with the basic restrictions.

² The relevant tables for general public exposure are identified in Ofcom's "Guidance on EMF Compliance and Enforcement".

³ Compliance with the reference levels for general public exposure identified in the ICNIRP Guidelines will ensure compliance with the basic restrictions.

⁴ The relevant tables for general public exposure are identified in Ofcom's "Guidance on EMF Compliance and Enforcement".

Emergency Situations

4. The obligations in paragraphs 1, 2 and 3 above will not apply if the Relevant Radio Equipment is being used for the purpose of seeking emergency assistance or reporting and responding to an emergency situation (in the vicinity of that situation) including for search and rescue activities and maritime emergency communications⁵.

Relationship with authorised transmission levels

5. The Licensee shall comply with paragraphs 1, 2 and 3 above notwithstanding the maximum transmission levels authorised in the Licence.

Records

6. The Licensee shall keep, or shall procure that a third party shall keep, and shall make available to Ofcom on request, records (including the type of records identified in Ofcom's "Guidance on EMF Compliance and Enforcement") that demonstrate how it has complied with paragraphs 1, 2 and 3 above when Relevant Radio Equipment is established, installed, modified or used.

Ofcom's "Guidance on EMF Compliance and Enforcement"

7. When evaluating its compliance with paragraphs 1, 2 and 3 above, the Licensee shall take into account Ofcom's "Guidance on EMF Compliance and Enforcement" that is in force at the relevant time.

⁵ Further information on emergency situations is set out in Ofcom's "Guidance on EMF Compliance and Enforcement".

Interpretation

8. In this schedule:

- (a) “**dBi**” means the ratio in dB (decibel) when comparing the gain of the antenna to the gain of an isotropic antenna. An isotropic antenna is a theoretical antenna which radiates power uniformly in all directions;
- (b) “**EIRP**” means equivalent isotropically radiated power which is the product of the power supplied to an antenna and the absolute or isotropic antenna gain in a given direction relative to an isotropic antenna;
- (c) “**ERP**” means effective radiated power which is the product of the power supplied to an antenna and its gain in a given direction relative to a half-wave dipole;
- (d) “**general public**” means any person who is not: (a) the Licensee, owner, operator or installer of the Relevant Radio Equipment; or (b) acting under a contract of employment or otherwise acting for purposes connected with their trade, business or profession or the performance by them of a public function;⁶
- (e) “**ICNIRP Guidelines**” means the version of the Guidelines published by the International Commission on Non-Ionizing Radiation Protection for limiting exposure to electromagnetic fields which are identified in Ofcom’s “Guidance on EMF Compliance and Enforcement” that is in force at the relevant time.⁷
- (f) “**Licensee’s On-Site Radio Equipment**” means the Relevant Radio Equipment and any other wireless telegraphy station(s) and wireless telegraphy apparatus on the same site which transmits at powers higher than 10 Watts EIRP or 6.1 Watts ERP.⁸

⁶ There is pre-existing health and safety legislation which already requires employers to protect workers from exposure to electromagnetic fields (“EMF”) including the following legislation specifically relating to EMF (as amended from time to time): [The Control of Electromagnetic Fields at Work Regulations 2016](#), [The Control of Electromagnetic Fields at Work Regulations \(Northern Ireland\) 2016](#) and [The Merchant Shipping and Fishing Vessels \(Health and Safety at Work\) \(Electromagnetic Fields\) Regulations 2016](#).

⁷ with the ICNIRP Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz), published in: Health Physics 74(4):494-522, dated April 1998 and available at: <https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf> (“1998 Guidelines”) or the ICNIRP Guidelines for limiting exposure to electromagnetic fields (100 KHz to 300 GHz), published in: Health Physics 118(5): 483–524; 2020 and available at: <https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf> (“2020 Guidelines”).

However, once work on the relevant standards explaining the methodology for assessing compliance with the 2020 Guidelines has progressed sufficiently, Ofcom will publish a public consultation on updating its “Guidance on EMF Compliance and Enforcement” to explain that going forward Ofcom will be requiring the Licensee to comply with the 2020 Guidelines only. Following this public consultation, Ofcom will publish an updated version of Ofcom’s “Guidance on EMF Compliance and Enforcement” on its website. Ofcom will follow the same process for any subsequent versions of the ICNIRP Guidelines.

⁸ 10 Watts EIRP is equivalent to 6.1 Watts ERP. In linear units $EIRP (W) = 1.64 \times ERP (W)$; in decibels $EIRP (dB) = ERP (dB) + 2.15$. Ofcom’s “Guidance on EMF Compliance and Enforcement” explains how the Licensee can determine if wireless telegraphy station(s) or wireless telegraphy apparatus “transmits at powers higher than 10 Watts EIRP or 6.1 Watts ERP”

- (g) **“Relevant Radio Equipment”** means all the Radio Equipment that is authorised by this Licence to transmit at powers higher than 10 Watts EIRP or 6.1 Watts ERP.
- (h) **“Shared Site Exemption”** means any of the following three situations apply on a shared site in relation to the Licensee’s or another licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus that is authorised to transmit at powers higher than 10 Watts EIRP or 6.1 Watts ERP:
- The first situation is that all of the licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus on a shared site do not transmit at a combined total radiated power in any particular direction⁹ that is higher than 100 Watts EIRP or 61 Watts ERP;¹⁰
 - The second situation is that the total electromagnetic field exposure levels produced by the licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus in any area where a member of the general public is or can be expected to be present when transmissions are taking place is no more than 5% of the basic restrictions or 5% of the reference levels in the relevant tables for general public exposure identified in the ICNIRP Guidelines;¹¹
 - The third situation is where the licensee’s wireless telegraphy station or wireless telegraphy apparatus has an antenna gain that is equal to or higher than 29 dBi and has a fixed beam;
- (i) **“shared site”** means a site that is shared by the Licensee and at least one other licensee for the purposes of establishing, installing, modifying or using wireless telegraphy stations or wireless telegraphy apparatus;
- (j) **“site”** means a physical structure, building, vehicle or moving platform;
- (k) **“wireless telegraphy apparatus”** has the meaning given to it in section 117 of the Wireless Telegraphy Act 2006; and
- (l) **“wireless telegraphy station”** has the meaning given to it in section 117 of the Wireless Telegraphy Act 2006.

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⁹ For the purpose of this situation, the combined total radiated power is a simple sum of the radiated powers (in EIRP or ERP) of all of the licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus on the shared site that transmits signals covering the same or overlapping areas.

¹⁰ 100 Watts EIRP is equivalent to 61 Watts ERP.

¹¹ The relevant tables for general public exposure are identified in Ofcom’s “Guidance on EMF Compliance and Enforcement”.