Office of Communications (Ofcom)
Wireless Telegraphy Act 2006

PUBLIC WIRELESS NETWORK LICENCE

This licence document replaces Licence 0074595 issued by Ofcom on 18 May 2021 to JT (Jersey) Limited.

Licence no. **1264895**

Date of issue: **22 October 2021**

Fee payment date: **28 February** (annually)

1. The Office of Communications (Ofcom) grants this wireless telegraphy licence ("the Licence") to

JT (Jersey) Limited
Company Registration No: 83487
("the Licensee")
26 New Street
St Helier
Jersey
JE2 3RA

to establish, install and use wireless telegraphy stations and/or wireless telegraphy apparatus as described in the schedules to this Licence (together "the Radio Equipment") subject to the terms, set out below.

Licence Term

2. This Licence shall continue in force until 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 this Licence under schedule 1 paragraph 6 of the Act except:

(a) at the request, or with the consent, of the Licensee;

(b) 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;

(c) if there has been a breach of any of the terms of this Licence;

(d) in accordance with schedule 1 paragraph 8(5) of the Act;

(e) if it appears to Ofcom to be necessary or expedient to revoke the Licence for the purpose of complying with a direction by the Secretary of State given to Ofcom under section 5 of the Act or section 5 of the Communications Act 2003;

(f) for reasons related to the management of the radio spectrum, provided that in such a case the power to revoke may only be exercised after one years' notice is given in writing;

4. Ofcom may only revoke or vary this licence by notification in writing to the Licensee and in accordance with schedule 1 paragraphs 6, 6A and 7 of the Act.

Transfer

5. This Licence may not be transferred.

Changes to Licensee details

6. The Licensee shall give prior notice to Ofcom in writing of any changes to the Licensee's name and/or address as recorded in paragraph 1 of this Licence.

Fees

7. The Licensee shall each year pay to Ofcom the relevant fee(s) as provided in Section 12 of the Act and the regulations made thereunder on or before the fee payment date shown above, or on or before such dates as are notified in writing to the Licensee.

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 any of 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 shall 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 the Radio Equipment or any part thereof, 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, or may be, causing or contributing to undue interference to the use of other authorised radio equipment.

13. Ofcom may require any of 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 has been served on the Licensee or a general notice applicable to holders of a named class of licence has been published.

Geographical Boundaries

14. Subject to the requirements of any coordination procedures notified to the Licensee pursuant to the schedule(s) to this licence, the Licensee is authorised 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 wireless telegraphy stations and installation and use of wireless telegraphy apparatus for wireless telegraphy as specified in section 8(1) of the Act;

(b) the expression " interference" shall have the meaning given by Section 115 of the Act;

(c) the expressions “wireless telegraphy station” and “wireless telegraphy apparatus” shall have the meanings given by section 117 of the Act;

(d) 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

(e) 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: 1264895

Schedule Date: 22 October 2021

Licence Category: Public Wireless Network (900MHz / 1800 MHz Spectrum)

Description of Radio Equipment

1. References in this schedule to the Radio Equipment are references to any wireless telegraphy station or wireless telegraphy apparatus that is established, installed and/or used under this schedule.

Interface Requirements for the Radio Equipment

2. Use of the Radio Equipment shall be in accordance with the following Interface Requirements:

IR 2014 – Public Wireless Networks; and/or
IR 2019 – Third Generation Mobile; and/or
IR 2087 – 900 / 1800 MHz LTE and WiMAX;

or for equipment placed on the market before 8 April 2000, is required to be type approved in accordance with a recognised technical performance standard relating to the service licensed.

Special conditions relating to the Radio Equipment

3.

(a) Subject to paragraph 3(b) of this schedule, during the period that this Licence remains in force, unless consent has otherwise been given by Ofcom, the Licensee shall compile and maintain accurate written records of the following details relating to the Radio Equipment:

i) postal address (including post code);

ii) National Grid Reference, to at least 100 metre resolution;

iii) antenna height (above ground level) and type, and boresight east of true north (if applicable); and

iv) radio frequencies which the Radio Equipment uses;

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

(b) The conditions relating to the keeping of records contained in sub-paragraphs 3(a)i), 3(a)ii) and 3(a)iii), shall not apply in respect of femtocell equipment and smart/intelligent low power repeater equipment.

(c) The Licensee shall submit to Ofcom copies of the records detailed in sub-paragraph (a) above at such intervals as Ofcom shall notify to the Licensee.

Co-ordination at frequency and geographical boundaries

4. The Licensee shall ensure that the Radio Equipment is operated in compliance with such co-ordination and sharing procedures as may be notified to the Licensee by Ofcom from time to time.

International cross-border coordination

5. The Licensee shall ensure that the Radio Equipment is operated in compliance with such cross-border co-ordination and sharing procedures as may be notified to the Licensee by Ofcom from time to time.

Permitted Frequency Blocks

6. The Radio Equipment may only transmit on downlink frequencies within the following frequency bands (the Permitted Frequency Blocks):

Downlink frequencies	Uplink frequencies
945.0 – 960.0 MHz	**900.0 – 915.0** MHz
1805.0 – 1825.0 MHz	**1710.0 – 1730.0** MHz

Radio Frequency carrier spacing

7. In the absence of bilateral or multilateral agreements which have been notified to Ofcom specifying alternative arrangements between the licensee and the licensee(s) of neighbouring networks the licensee must ensure that in respect of the frequencies set out at paragraph 6 of this schedule:

- the centre frequency of any of their GSM carriers is 100 kHz or more inside any edge of their permitted frequency blocks; and
- the centre frequency of any of their UMTS carriers is 2.7 MHz or more inside any edge of their permitted frequency blocks where a neighbouring licensee has deployed a GSM carrier or carriers in the immediately adjacent spectrum; and
- the centre frequency of any of their UMTS carriers is 2.5 MHz or more inside any other edge of their permitted frequency blocks;
- the channel edge of any of their LTE carriers is 200 kHz or more inside any edge of their permitted frequency blocks where a neighbouring licensee has deployed a GSM carrier or carriers in the immediately adjacent spectrum; and
- the channel edge of any of their LTE carriers does not extend beyond their permitted frequency blocks;
- the channel edge of any of their WiMAX carriers is 200 kHz or more inside any edge of their permitted frequency blocks where a neighbouring licensee has deployed a GSM carrier or carriers in the immediately adjacent spectrum; and
- the channel edge of any of their WiMAX carriers does not extend beyond their permitted frequency blocks.

ITU Class of Emission

8.

For GSM:	271KG7W
For UMTS:	5M00D7W
For 1.4 MHz LTE:	1M40D7W
For 3 MHz LTE:	3M00D7W
For 5 MHz LTE:	5M00D7W
For 10 MHz LTE:	10M0D7W
For 15 MHz LTE:	15M0D7W
For 20 MHz LTE:	20M0D7W
For 5 MHz WiMAX:	5M00D7W
For 10 MHz WiMAX:	10M0D7W

Maximum permissible Downlink Transmit Power

9. The power transmitted (in e.i.r.p.) in any direction on the downlink frequencies of the Permitted Frequency Blocks by the Radio Equipment shall not exceed:

Technology	900 MHz spectrum	1800 MHz spectrum
for GSM	62 dBm per carrier	62 dBm per carrier
for UMTS	65 dBm per carrier	62 dBm per carrier
for LTE	65 dBm per 5 MHz	62 dBm per 5 MHz
for WiMAX	65 dBm per 5 MHz	62 dBm per 5 MHz

Interpretation of terms in this schedule

10. In this schedule:

(a) "900 MHz spectrum" means frequencies in the range 880 MHz to 915 MHz paired with 925 MHz to 960 MHz;

(b) "1800 MHz spectrum" means frequencies in the range 1710 MHz to 1781.7 MHz paired with 1805 MHz to 1876.7 MHz;

(c) "dBm" means the power level in decibels (logarithmic scale) referenced against 1 miliwatt (i.e. a value of 0 dBm is 1 milliwatt);

(d) "e.i.r.p." means the effective isotropically 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);

(e) "A femtocell" means Radio Equipment transmitting on the downlink frequencies, which operates at a power not exceeding 20dBm e.i.r.p. per carrier which may be established by customers of the Network but which is or will be used only by and under the control of the Network, following the establishment of a telecommunications link between the femtocell and the Network;

(f) "GSM system" means an electronic communications network that complies with GSM standards, as published by ETSI, in particular EN 301 502 and EN 301 511 and "GSM" means pertaining to such a network or its Radio Equipment;

(g) "IR" means a United Kingdom Radio Interface Requirement published by Ofcom in accordance with Article 4.1 of Directive 1995/5/EC of the European Parliament and of the Council on radio equipment and telecommunications terminal equipment (RTTE) and the mutual recognition of their conformity.

(h) "ITU" means the International Telecommunication Union, and "Class of Emission" shall have the meaning as defined in the ITU Radio Regulations Appendix 1.

(i) “LTE system” means an electronic communications network that complies with the LTE standards as published by ETSI, in particular EN 301 908-1, EN 301 908-13, EN 301 908-14, EN 301 908-15 and EN 301 908-11 and “LTE” means pertaining to such a network or its Radio Equipment;

(j) “Permitted Frequency Blocks” has the same meaning given to it in paragraph 6 of this schedule;

(k) "User Station" means any vehicle mounted or hands portable mobile station designed for mobile use and/ or any station designed or adapted to be established and used from static locations which meet the appropriate technical performance requirements as set out in the Wireless Telegraphy (Exemption) Regulations and either complies with the appropriate Interface Regulation listed in paragraph 3, or for equipment placed on the market before 8 April 2000, is type approved in accordance with a recognised technical standard relating to the service licensed.

(l) A “smart/intelligent low power repeater” means a repeater which operates with power not exceeding 24dBm e.i.r.p. per carrier, which may be established by customers of the Licensee who have written agreements with the Licensee and:

- The Licensee has ultimate control of the repeater, i.e. each individual repeater can be disabled remotely by the Licensee;
- The repeater operates only on the Licensee’s frequencies and with their valid Public Land Mobile Network Identifier;
- Must not cause undue interference to other spectrum users; and
- The repeater only transmits on the Licensee’s Base Receive frequencies when actively carrying a call (voice, video or data) or signalling from serviced handsets.

(m) “UMTS system” means an electronic communications network that complies with the UMTS standards as published by ETSI, in particular EN 301 908-2, EN 301 908-3 and EN 301 908-11 and “UMTS” means pertaining to such a network or its Radio Equipment; and

(n) “WiMAX system” means an electronic communications network that complies with the WiMAX standards as published by ETSI, in particular EN 301 908-1, EN 301 908-21 and EN 301 908-22 and “WiMAX” means pertaining to such a network or its Radio Equipment.

SCHEDULE 2 TO LICENCE NUMBER: 1264895

EMF Licence Condition

Schedule Date: **22 October 2021**

Licence category: **Public Wireless Network**

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 restrictions[1] in the relevant tables for general public exposure identified in the ICNIRP Guidelines[2] 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 restrictions[3] in the relevant tables for general public exposure identified in the ICNIRP Guidelines[4] 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 communications[5].

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 in 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] Ofcom's "Guidance on EMF Compliance and Enforcement" will initially require the Licensee to comply 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 x 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 direction[9] 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".