



**TELECOMMUNICATIONS REGULATORY COMMISSION  
RADIO FREQUENCY AUTHORISATION**

Authorisation Number: VRGM/004/2016

**DATE OF ISSUE: 23 August 2016  
DATE OF EXPIRATION: 22 August 2031**

The Telecommunications Regulatory Commission (the *Commission*) **HEREBY ISSUES** this Frequency Authorisation to Caribbean Cellular Telephone Limited (the *Authorisation Holder*) for the use of the spectrum contained in the assigned frequency band in the Virgin Islands in accordance with the Telecommunications Act, 2006 (the *Act*) and subject to the terms and conditions herein.

**Terms and Conditions**

**1. Interpretation**

- 1.1. In this Frequency Authorisation, unless indicated otherwise, the following words shall have the following meanings:
- a) "assigned frequency band" means the frequencies authorized by the Commission for use by the Authorisation Holder under this Frequency Authorisation as identified in Schedule A hereto.
  - b) "Date of Issue" means the date of issue hereinabove written.
  - c) "Date of Expiration" means the date of expiration hereinabove written.
  - d) "facilities" means particular poles, masts, towers, roof-tops and other similar apparatus, inclusive of buildings, which are used to host the equipment used by the Authorisation Holder to facilitate operations on the assigned frequency band.
  - e) "IMT telecommunications services" means subject to such definition that may be published from time to time by the International Telecommunications Union, such telecommunications services that may be provided utilising those systems, system components and related aspects of International Mobile Telecommunications as defined by the International Telecommunications Union.
- 1.2. Except as specified in 1.1 above, the words and expressions used herein shall have the meanings given in the Act.
- 1.3. References to any statute or statutory provision shall, unless the context otherwise requires, be construed as a reference to that statute or statutory provision as from time to time amended, consolidated, modified, extended, re-enacted or replaced.

## **2. General Conditions**

### **2.1. Regulatory Framework and Applicable Laws**

- 2.1.1. The Authorisation Holder shall comply with the provisions of the Act in the operation or use of the assigned frequency band. The terms and conditions of this Frequency Authorisation shall be subject to the provisions of the Act.
- 2.1.2. The Authorisation Holder shall comply with all Regulations, with the Telecommunications Code, the terms and conditions of its licence, any lawful instructions from the Commission and all other instruments made under the Act and all relevant laws in force from time to time in the Virgin Islands.
- 2.1.3. The Authorisation Holder shall comply with any lawful directive issued by the Commission or any other person so duly authorised under the Act.
- 2.1.4. The Authorisation Holder shall at all times strictly comply with the terms of the Undertakings agreed between the Commission and the Authorisation Holder.
- 2.1.5. The terms and conditions of this Frequency Authorisation shall be construed in accordance with the Laws of the Virgin Islands.

### **2.2. Term**

- 2.2.1. This Frequency Authorisation shall take effect from the Date of Issue and shall expire on the Date of Expiration (the "Term").
- 2.2.2. The Commission alone shall determine whether, upon expiration of the Term, this Frequency Authorisation shall be renewed. In deciding whether to renew this Frequency Authorisation, the Commission shall take into account:
  - a) the conduct of the Authorisation Holder during the Term or during the term of any licence granted by the Commission to the Authorisation Holder;
  - b) whether the Authorisation Holder failed to comply materially with the Act, with the Telecommunications Code, with the terms of this Frequency Authorisation, its licence, any instructions from the Commission and with any lawful directive of the Commission;
- 2.2.3. This Frequency Authorisation shall terminate in the event the Authorisation Holder ceases to hold, for whatever reason, a licence for the operation of a telecommunications network providing services in the Virgin Islands.

### **2.3. Payment of Fees**

- 2.3.1. The Authorisation Holder shall pay to the Commission annual fees of US\$1,400 per MHz of total frequency spectrum as defined in Schedule A. Annual fees will be payable in advance and the first payment of such fees shall be due upon grant of this Frequency Authorisation.
- 2.3.2. The Authorisation Holder shall pay to the Commission such fees applicable to the use of the assigned frequency band as the Commission may determine from time to time in

accordance with section 5.3 of the Authorisation Holder's Unitary Licence inclusive of application fees.

- 2.3.3. Subject to Regulations, fees payable by the Authorisation Holder under Article 2.3.1 above shall be payable from the Date of Issue.

**2.4. Requirement to Furnish Information to the Commission**

- 2.4.1. Without prejudice to the obligation of the Authorisation Holder to provide specific information to the Commission under the terms of this Frequency Authorisation, the Authorisation holder shall provide the Commission with such information in such manner and at such times as the Commission may request in accordance with the Act.

**2.5. Remedies for Non-Compliance**

- 2.5.1. Without prejudice to any other right of action available to the Commission under the terms of this Frequency Authorisation or under any other law or regulation, the Commission may take such action as it considers appropriate under the Act for a breach of any condition of this Frequency Authorisation.
- 2.5.2. If in the opinion of the Commission, the Authorisation Holder has engaged in any conduct identified in section 75(1) of the Act, the Commission may exercise such enforcement powers against the Authorisation Holder under section 75(2) of the Act.
- 2.5.3. Without prejudice to any other right of action available to the Commission, the Commission shall have the right to revoke this Frequency Authorisation upon 30 days written notice if the Authorisation Holder is in breach of the Undertakings and has failed to cure the breach to the Commission's satisfaction within the 30 day notice period.

**2.6. Force Majeure**

- 2.6.1. The Authorisation Holder shall not be held liable for failure to comply with its obligations under this Frequency Authorisation to the extent that the Commission is satisfied that such failure was directly attributed to an act of force majeure provided that the Authorisation Holder shall use all reasonable endeavours to resume performance of its obligations as soon as the effect of the event of force majeure ceases or abates. For the avoidance of doubt, there are no circumstances in which failure to pay fees due hereunder will be attributed to an act of force majeure.
- 2.6.2. The Authorisation Holder may during a period of emergency in which public services are disrupted due to an act of force majeure, use the assigned frequency band for emergency communications and in a manner other than as specified in this Frequency Authorisation provided that such use only persists during the declared period of emergency and is discontinued when it is possible to resume normal telecommunications services or until such special use of the assigned frequency bands is terminated by the Governor.

**2.7. National Security**

- 2.7.1. The Authorisation Holder shall, upon request by the Governor or otherwise in accordance with any relevant law, co-operate with the Governor or other official agency duly authorised by the Governor to the extent required in matters of law enforcement, public emergency or national security.
- 2.7.2. The Authorisation Holder shall make available to the Government, as authorised by the Governor, its facilities and or telecommunications equipment for such purposes as may be required under section 89 of the Act when a period of public emergency has been declared.

**2.8. Amendment**

- 2.8.1. This Frequency Authorisation may be amended by the written agreement of the Authorisation Holder or by the Commission and otherwise in accordance with section 23 of the Act:
- a) due to the effect of an act of force majeure, national security considerations, changes in national legislation or, subject to section 86 of the Act, the need to implement international obligations; or
  - b) if the Commission, taking into account the public interest, otherwise deems it necessary to achieve the purposes of the Act.

**2.9. Assignment or Transfer**

- 2.9.1. The Authorisation Holder shall not, without the prior written approval of the Commission, such approval not to be unreasonably withheld, transfer, assign or otherwise part with this Frequency Authorisation or any permission, right, obligation or benefit granted under this Frequency Authorisation
- 2.9.2. Subject to section 20 of the Act, the Authorisation Holder shall not, without the prior written approval of the Commission, such approval not to be unreasonably withheld, enter into any agreement or other arrangement the effect or the purported effect of which would be to permit a person to acquire a significant interest in the Authorisation Holder.

**2.10. International Obligations**

- 2.10.1. The Authorisation Holder shall comply with such Regulations of the International Telecommunications Union as the Commission may adopt from time to time and shall observe such international obligations that may be applicable to the Virgin Islands.



**2.11. Termination and Suspension**

- 2.11.1. This Frequency Authorisation may be terminated or suspended in accordance with the Act.

**2.12. Service of Notices**

- 2.12.1. Any notice required to be given by the Commission to the Authorisation Holder under this Frequency Authorisation shall be in writing and shall be deemed to have been given if sent by hand or post or by facsimile (in the case of facsimile when proof of transmission is received) to the Authorisation Holder's address in the Territory, as indicated in the Authorisation Holder's application for a frequency authorisation or any other address of which the Authorisation Holder might have provided notice to the Commission from time to time.
- 2.12.2. Any notice required to be given by the Authorisation Holder to the Commission under this Frequency Authorisation shall be in writing and shall be deemed to have been given if sent by post or by facsimile (in the case of facsimile when proof of transmission is received) to the Commission's principal place of business in the Territory.

**3. Conditions Specific to the Use of the Assigned Frequency Band**

**3.1. Use of Spectrum**

- 3.1.1. The Authorisation Holder shall use the assigned frequency band for the delivery of IMT Telecommunications Services within the Territory of the Virgin Islands to the extent as may be technically possible without causing harmful interference to the telecommunications network of another operator. The Authorisation Holder shall not use the assigned frequency band for any other purpose without the prior written approval of the Commission and in any event shall not use the assigned frequency band for any purpose other than to operate a telecommunications network and or to provide a telecommunications service in the Territory of the Virgin Islands.
- 3.1.2. The Authorisation Holder shall comply with the terms and conditions of this Frequency Authorisation and the Schedules hereto which include Minimum Service Requirements, a Network Deployment Plan and agreed Additional Commitments.
- 3.1.3. The Authorisation Holder shall ensure that telecommunications services are provided within the Territory of the Virgin Islands to at least the minimum service requirements defined in Schedule B, the Network Deployment Plan in Schedule C and the Additional Commitments defined in Schedule D.
- 3.1.4. The Authorisation Holder shall ensure that its use of the assigned frequency band does not cause harmful interference to any other authorised user of the spectrum unless and to the extent provided for under the Act, in accordance with Regulations or with the Telecommunications Code and or in accordance with international recommendations and standards recognised by the International Telecommunications Union.
- 3.1.5. The Authorisation Holder shall ensure that its use of the assigned frequency band does not cause danger to the public.

- 3.1.6. The Authorisation Holder shall, when using the assigned frequency band, take proper and adequate measures to safeguard life, property and the environment, including safeguarding against exposure to any electrical or radiation hazard emanating from any equipment used by the Authorisation Holder.
- 3.1.7. The Authorisation Holder shall ensure that any radio communications service or radio transmitting equipment operated on the assigned frequency band or otherwise with the use of the spectrum is in compliance with such emission standards and technical specifications that may be published by the Commission from time to time.
- 3.1.8. The Authorisation Holder shall, in accordance with instructions issued by the Commission from time to time, co-operate with the Commission in its co-ordination and management of the efficient use of the spectrum as a public resource and shall provide any assistance reasonably requested by the Commission for this purpose. Such assistance shall include realignment of authorised spectrum within a frequency band for the purpose of ensuring contiguous spectrum for all authorisation holders using that frequency band.
- 3.1.9. Subject to Article 3.2 below, the Authorisation Holder shall, in accordance with the Act and with any other applicable law, obtain all required approvals and rights of access for access to lands and or for the construction or erection of the facilities or of any equipment or other installation in relation to the use of the assigned frequency band.
- 3.1.10. The Authorisation Holder shall retain accurate and up-to-date detailed records of the operation of a telecommunications network or the provision of a telecommunications service on the assigned frequency band and shall make such information available to the Commission promptly upon request and without charge to the Commission in accordance with the Act.
- 3.1.11. Without prejudice to the provisions of the Act, the Authorisation Holder shall allow the Commission upon receiving reasonable prior notice to inspect the facilities, inclusive of the Authorisation Holder's equipment and shall provide any related assistance to satisfy the Commission that the Authorisation Holder is in compliance with the terms and conditions of this Frequency Authorisation.
- 3.1.12. The Authorisation Holder shall not significantly change the location or any technical parameter of any transmitter used on the assigned frequency band without the prior approval of the Commission.

### **3.2. Construction of Sites**

- 3.2.1. The Authorisation Holder shall ensure that the facilities:
  - a) are used, to the maximum possible extent, on a shared basis with other users of the spectrum, licensees and public utilities. To the extent that it is not considered feasible to use the existing facilities and utility installations, the Authorisation Holder shall submit such proof to the Commission as the Commission considers appropriate;



- b) are designed and constructed in such a way that they blend in with the surrounding physical environment to the maximum possible extent and to the satisfaction of the Commission.
- 3.2.2. Except where the Commission exempts a specific type of facility from the requirements of Article 3.2.1 above, the Authorisation Holder, shall satisfy the Commission that the facilities, inclusive of the equipment hosted therein will comply such requirements.
- 3.2.3. The Commission may recommend changes to the design, structure or any other aspect of the facilities to ensure that the Authorisation Holder complies with the requirements of Article 3.2.1(a) and (b).

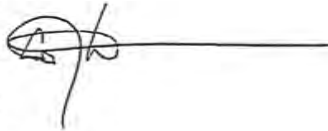
### 3.3. Maintenance of Technical Records

- 3.3.1. The Authorisation Holder shall maintain accurate, up to date and detailed technical data in relation to the use of the assigned frequency band authorised by this Frequency Authorisation as follows:
  - a) A plan for the use of the assigned frequency band identifying:
    - i. The name of each cell site used in relation to the assigned frequency band;
    - ii. Information in relation to the size of the guard bands;
    - iii. A channelization plan identifying the channels used on the assigned frequency band.
  - b) Specifications of the telecommunications equipment, including each antenna, used in the operation of any network or in the provision of any services on the assigned frequency band;
  - c) The coverage area;
  - d) The effective radiated power (ERP) and the radiated pattern of each antenna;
  - e) A Site map of the Station including geographical location coordinates in latitude and longitude to at least one metre resolution;
  - f) The height of each antenna above ground level, and boresight bearing east of true north (if applicable); and
  - g) The International Telecommunications Union emission designation.
- 3.3.2. The Authorisation Holder shall, subject to section 70 of the Act, provide the Commission with the records referred to in 3.3.1 above on a quarterly basis and in such form as might be specified by the Commission from time to time.
- 3.3.3. The Authorisation Holder shall notify the Commission of any proposed material changes to its radio communication service or radio transmitting equipment, and shall provide the Commission with such information as the Commission shall reasonably require for the purpose of assessing the effect of such changes.

### 3.4. Enforcement

- 3.4.1. The Commission may take such enforcement action against the Authorisation Holder as it considers appropriate and or suspend or terminate this Frequency Authorisation in accordance with the Act.

By: )  
GUY LESTER MALONE )  
Chief Executive Officer )  
For and on behalf of: )  
THE TELECOMMUNICATIONS )  
REGULATORY COMMISSION )



By: )  
AVERAD PENN )  
Chief Executive Officer )  
For and on behalf of: )  
Caribbean Cellular Telephone Limited )





## SCHEDULE A

### The Frequency Band

The Commission hereby assigns to the Authorization Holder the following frequency band for the operation of a telecommunications network and the provision of telecommunications services subject to the terms and conditions of this Frequency Authorisation:

Uplink frequency range		Downlink frequency range	
Lower bound	Upper bound	Lower bound	Upper bound
1865 MHz	1880 MHz	1945 MHz	1960 MHz

The total frequency spectrum assigned under this authorisation is 30 MHz.

## SCHEDULE B

### Minimum Service Requirements

The Authorisation Holder shall provide services in the Virgin Islands using the frequency bands defined in Schedule A and shall ensure that the following minimum service requirements are attained:

1. The minimum service requirements defined in this Schedule shall be met using the frequency bands specified in Schedule A.
2. The Authorisation Holder shall provide, and thereafter maintain, a telecommunications network that is capable of providing at 90% of locations within any area of 100m by 100m a mobile telecommunications service with a sustained downlink speed of not less than 2 megabits per second when that network is lightly loaded, to users:
  - a) within 12 months of the Date of Issue;
  - b) to at least 90% of the population of each of the islands of Tortola, Anegada, Jost Van Dyke and Virgin Gorda.
3. For the purpose of the Minimum Service Requirements, a network is considered 'lightly loaded' if it has a single user demanding service within the serving cell, and the surrounding cells of the network are loaded to a light level (by which is meant the common channels only are transmitting at 22% of the maximum cell power).
4. The Commission may assess the Authorisation Holder's compliance with this Schedule by assessment of the Network Deployment Plan submitted by the Authorisation Holder with its application for a Frequency Authorisation. Where applicable, the Network Deployment Plan is attached to this Frequency Authorisation as Schedule C.
5. Where a Network Deployment Plan is attached to this Frequency Authorisation as Schedule C, the Authorisation Holder shall deploy, and thereafter, maintain its network,

- incorporating at a minimum, the cell sites with the configuration defined in the Network Deployment Plan.
6. The Network Deployment Plan may only be varied with the written approval of the Commission, such approval not to be unreasonably withheld. Such approval will only be granted where the proposed changes are capable of meeting the minimum service requirements defined in this Schedule.
  7. In this Schedule:
    - a) "population" means persons resident in the British Virgin Islands, including its territorial waters, who have access to a mobile telecommunications network.
    - b) "Network Deployment Plan" means a document which defines urban and rural link budgets based on the IMT technology to be deployed, coverage maps produced using industry recognised propagation analysis software and a list of cell sites including the information defined in paragraph 3.3.1 of this Frequency Authorisation.

## SCHEDULE C

### Network Deployment Plan

The Authorisation Holder shall deploy, and thereafter maintain, its network incorporating as a minimum the cell sites with the configuration defined in the Network Deployment Plan of this Schedule. The Network Deployment Plan may only be varied with the written approval of the Commission, and such approval is not to be unreasonably withheld. Such approval will only be granted where the proposed changes are capable of meeting the minimum service requirements.

The cell sites shall be installed as defined in Table C.1.

**Table C.1: Definition of cell sites in the Network Deployment Plan**

Name	Coordinates (degrees)		Azimuth in degrees	Antenna height (ft AGL)	ERP in dBW
	Latitude	Longitude			
Palm Grove_LTE	18.42177222	-64.61784167	310	60	23
Palm Grove_LTE	18.42177222	-64.61784167	60	60	23
Palm Grove_LTE	18.42177222	-64.61784167	180	60	23
Cinemax_LTE	18.42565278	-64.62190556	20	80	23
Cinemax_LTE	18.42565278	-64.62190556	140	80	23
Cinemax_LTE	18.42565278	-64.62190556	270	80	23
Fish Bay_LTE	18.4221	-64.60114167	90	20	29
Fish Bay_LTE	18.4221	-64.60114167	180	20	29
Ft Hill_LTE	18.42772778	-64.60515	40	40	29
Ft Hill_LTE	18.42772778	-64.60515	180	40	23
Ft Hill_LTE	18.42772778	-64.60515	300	40	23

Name	Coordinates (degrees)		Azimuth in degrees	Antenna height (ft AGL)	ERP in dBW
	Latitude	Longitude			
RitterBldg_LTE	18.42625	-64.61269167	10	60	23
RitterBldg_LTE	18.42625	-64.61269167	110	60	23
RitterBldg_LTE	18.42625	-64.61269167	260	60	23
Visar_LTE	18.41311389	-64.61327222	90	45	23
Visar_LTE	18.41311389	-64.61327222	210	45	29
Visar_LTE	18.41311389	-64.61327222	310	45	29
Airport_LTE	18.44337778	-64.53526667	10	50	29
Airport_LTE	18.44337778	-64.53526667	130	50	29
Airport_LTE	18.44337778	-64.53526667	260	50	29
East End_LTE	18.44430278	-64.56786944	110	50	29
East End_LTE	18.44430278	-64.56786944	210	50	29
East End_LTE	18.44430278	-64.56786944	330	50	29
Guana_LTE	18.47593611	-64.58048889	75	35	29
Guana_LTE	18.47593611	-64.58048889	180	35	29
Guana_LTE	18.47593611	-64.58048889	300	35	29
Paraquita_LTE	18.42348333	-64.57339444	120	30	29
Paraquita_LTE	18.42348333	-64.57339444	260	30	29
Chalwell_LTE	18.42112778	-64.64558889	40	160	29
Chalwell_LTE	18.42112778	-64.64558889	145	160	29
Chalwell_LTE	18.42112778	-64.64558889	230	160	29
Luck Hill_LTE	18.43586111	-64.65590278	40	40	29
Luck Hill_LTE	18.43586111	-64.65590278	130	40	29
Luck Hill_LTE	18.43586111	-64.65590278	220	40	29
Windy Hill_LTE	18.416175	-64.66801389	30	45	29
Windy Hill_LTE	18.416175	-64.66801389	230	45	29
Zrod_LTE	18.43611389	-64.63715833	60	80	29
Zrod_LTE	18.43611389	-64.63715833	200	80	29
Zrod_LTE	18.43611389	-64.63715833	310	80	29
Fort Recovery_LTE	18.3885	-64.67694167	135	45	29
Fort Recovery_LTE	18.3885	-64.67694167	310	45	29
Nanny_LTE	18.39900556	-64.63971944	70	30	29
Nanny_LTE	18.39900556	-64.63971944	180	30	29
Nanny_LTE	18.39900556	-64.63971944	345	30	29
Pockwood Pond_LTE	18.39180278	-64.6608	90	100	29
Pockwood Pond_LTE	18.39180278	-64.6608	220	100	29
Sea Cows Bay_LTE	18.41024167	-64.63230278	25	20	29
Sea Cows Bay_LTE	18.41024167	-64.63230278	230	20	29
West End_LTE	18.38925278	-64.70676389	50	55	29
West End_LTE	18.38925278	-64.70676389	150	55	29
West End_LTE	18.38925278	-64.70676389	260	55	29
Jost_COW_LTE	18.44083056	-64.75637222	60	30	29

Name	Coordinates (degrees)		Azimuth in degrees	Antenna height (ft AGL)	ERP in dBW
	Latitude	Longitude			
Jost_COW_LTE	18.44083056	-64.75637222	165	30	29
Jost_COW_LTE	18.44083056	-64.75637222	285	30	29
Jost_NEW_LTE	18.452525	-64.75149167	80	140	29
Jost_NEW_LTE	18.452525	-64.75149167	280	140	29
Anegada_LTE	18.72046389	-64.32226111	0	140	29
Anegada_LTE	18.72046389	-64.32226111	130	140	29
Anegada_LTE	18.72046389	-64.32226111	250	140	29
Necker_LTE	18.52603889	-64.35695833	130	35	29
Necker_LTE	18.52603889	-64.35695833	230	35	29
Norman Island eCell_LTE	18.31998333	-64.61331389	0	30	29
Norman Island eCell_LTE	18.31998333	-64.61331389	190	30	29
Peter Island_LTE	18.35055278	-64.5697	40	40	29
Peter Island_LTE	18.35055278	-64.5697	220	40	29
Peter Island_LTE	18.35055278	-64.5697	310	40	29
Minton Hill_LTE	18.46129722	-64.42700556	60	55	29
Minton Hill_LTE	18.46129722	-64.42700556	190	55	29
Minton Hill_LTE	18.46129722	-64.42700556	280	55	29
North Sound_LTE	18.492775	-64.38788333	0	50	29
North Sound_LTE	18.492775	-64.38788333	100	50	29
North Sound_LTE	18.492775	-64.38788333	220	50	29
Spanish Town Cow_LTE	18.44359167	-64.43263056	0	30	29
Spanish Town Cow_LTE	18.44359167	-64.43263056	160	30	29
Spanish Town Cow_LTE	18.44359167	-64.43263056	250	30	29
Huntums Ghut_LTE	18.43069722	-64.62315556	312	10	23
Huntums Ghut_LTE	18.43069722	-64.62315556	155	10	23
Huntums Ghut_LTE	18.43069722	-64.62315556	224	10	23
Barbay_LTE	18.42853056	-64.56750833	60	60	23
Barbay_LTE	18.42853056	-64.56750833	335	60	29
Barbay_LTE	18.42853056	-64.56750833	192	60	29

**SCHEDULE D**

**Additional Commitments**

Additional Commitments do not apply to this Frequency Authorisation.