

LICENCE

**GRANTED BY THE MINISTER
UNDER THE
TELECOMMUNICATIONS ACT No-- of 200-**

TO

[BROADCAST LICENSEE]

FOR THE

ESTABLISHMENT AND OPERATION

OF A

FM RADIO BROADCAST NETWORK

IN

[ECTEL Member State]

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TELECOMMUNICATIONS BROADCAST LICENCE

THE MINISTER in accordance with the Telecommunications Act No - of 200-, and acting upon the recommendation of ECTEL, hereby grants this Licence to [BROADCAST LICENSEE] (hereinafter referred to as the Licensee) to establish and operate a Broadcast Network and/or Services within [ECTEL Member State] and to do all or any of the acts specified herein.

PART I - LICENCE

1. LICENCE

- 1.1 This licence shall be known as the [Broadcast Licensee] Broadcast Network and Services Licence 200-.

2. INTERPRETATION

- 2.1 In this Licence:

“**Act**” means the Telecommunications Act 200- and regulations made thereunder;

“**Affiliate**” means, in relation to this Licensee, any body corporate that is a subsidiary of this Licensee or if this Licensee and another body corporate are subsidiaries of the same body corporate or if each of them is controlled by the same person; and if the Licensee and another body corporate are affiliated with the same body corporate at the same time, they are affiliated with each other

“**Annex**” means one or more attachments to this Licence, all of which constitutes a part of and is unique to this Licence.

“**Annual Licence Fee**” means the fee payable by the Licensee to the Commission on each anniversary of the Effective Date;

“**Authorised Frequency**” means the radio frequency that the Licensee is authorized to use pursuant to its frequency authorization issued under the Act.

“**Broadcasting Services**” means either sound broadcasting or television broadcasting or both and includes subscriber television services;

“**Commission**” means the Commission established under the Telecommunications Act;

“**Control**” means the Licensee is controlled by a person if any shares of the Licensee carrying voting rights sufficient to elect the majority of the directors of the Licensee are, except by security only, held, directly or indirectly, by or on behalf of that person;

“**Coverage Obligations**” means the geographical coverage obligations to provide the Licensed Services according to the geographical coverage set out in **Annex B** to this Licence;

“**Effective Date**” means [DATE OF LICENCE]

“**Government**” means the Government of the [ECTEL Member State];

“**Licence**” means this Licence together with the Annexes;

“**Licence Term**” means five (5) years from the Effective Date

“**Licensed Area**” means the territory of ECTEL Member State;

“**Licensed Networks**” means those networks detailed in **Annex A**;

“**Licensee**” means [Broadcast Licensee];

“**Order**” means an order issued by the Minister under the Act;

“**Quality of Service Obligations**” means the quality of service obligations set out in an **Annex** to this Licence;

“**Regional Spectrum Management Plan**” means the Spectrum Plan to be developed by ECTEL in accordance with the Regulations;

“**Regulations**” means regulations issued by the Minister pursuant to Section [-] of the Act;

“**Renewal Fee**” means a fee payable by the Licensee to the Commission on the renewal of this Licence;

“**Technical Standards**” means those principles and protocols established by the Commission including those in **Annex D**.

“**Universal Service Obligation**” means the obligation to provide Universal Service as set out in Part II, Condition 3.1 of this Licence and **Annex C**;

2.2 Any word, phrase or expression used in the Licence shall, unless the context requires otherwise, have the same meaning as it has in the Act.

2.3 Words importing the singular shall include the plural and vice versa.

3. SCOPE

- 3.1 The Licensee is hereby authorized to establish and operate the Licensed Networks to provide the broadcast services to any Person within the Licensed Area provided that such network is in compliance with all applicable laws and regulations, and in particular the Telecommunications (Terminal Equipment) Regulations.
- 3.2 This License is non-exclusive and is not intended to convey proprietary rights.

4. PRECONDITION

- 4.1 The rights of the Licensee set out herein shall not take effect until the Licensee shall have paid the fees as prescribed in the Act.

5. DURATION AND RENEWAL

- 5.1 This Licence is granted on the Effective Date for a period of five (5) years.
- 5.2 The Minister shall renew the Licence upon request by the Licensee for an additional period of five (5) years by the Minister upon expiration of the Licence Term provided none of the provisions of section [-] of the Act would cause the Minister to refuse a request for renewal.
- 5.3 Where a Licensee wishes to renew the Licence, it shall apply to the Minister in writing one year prior to the expiry date of the Licence or at a later date if the Minister so determines.
- 5.4 On granting a renewal of the Licence the Minister may vary the terms of the Licence; if the conditions then prevailing require such variation and it is reasonable to do so.
- 5.5 The provisions of section [-] of the Act relating to modification, suspension, revocation shall apply mutatis mutandis to the renewal of a Licence.
- 5.6 Renewal of the Licence shall not take effect until the Licensee has paid the Renewal Fee and any other fees owed under the Licence.

6. ASSIGNMENT

- 6.1 The Licensee shall not assign or otherwise transfer this Licence or any of its rights or obligations under this Licence without the prior written consent of the Minister, subject to clause 6.2 below.

- 6.2 The prior written consent of the Minister shall not be required by the Licensee where the assignment or transfer results from an internal reorganization of a body corporate that involves no change in the beneficial ownership thereof. The Licensee shall give prior notification to the Minister of the nature and extent of such assignment or transfer.

7. MODIFICATION, SUSPENSION AND REVOCATION

- 7.1 This Licence shall be subject to modification, variation, suspension and revocation in accordance with sections [-] and [-] of the Act.
- 7.2 In deciding whether to agree to an amendment proposed by the Licensee, the Minister shall give due consideration to any submissions received from the Licensee and other interested parties in relation to the proposed amendment.
- 7.3 If after twelve [12] months of the date of issuance of this licence the Licensee does not commence operations leading to the provision of the licensed services for which this licence has been granted, then the Licensee shall forfeit this licence. Upon forfeiture, there shall be no refund of any fees or any other payment that have been paid in respect of this licence.

PART II - LICENCE CONDITIONS

1. LICENCE FEES AND MONEYS OWED

- 1.1 The Licensee shall pay all fees prescribed under the Act.
- 1.2 If the Licensee owes the prescribed fees payable in respect of this Licence, the Licensee shall be in breach of this Licence.

2. NETWORK BUILD OUT AND EMERGENCIES

- 2.1 The Licensee shall comply with the Geographical Coverage Obligations as outlined in **Annex B**.
- 2.2 The Licensee shall provide access to emergency services by means of the Licensed Networks.
- 2.3 In the event of hurricanes, earthquakes, floods and similar emergencies, the Minister may require the Licensee to provide free of charge to Government or to such Institutions or persons as the Minister may identify, such Telecommunications Services as the Minister reasonably determines are necessary in the public interest, provided that if the emergency extends beyond

thirty (30) days, the Government will compensate the Licensee for any days in excess of thirty (30) days.

3. UNIVERSAL SERVICE

- 3.1 The Licensee shall fulfill the Universal Service Obligations pursuant to section [-] of the Act.
- 3.2 The Licensee shall make and receive payments into and from the Universal Service Fund in accordance with the Act or Regulations issued by the Minister pursuant to Section [-] of the Act.

4. LICENSEE'S OBLIGATIONS

- 4.1 The Licensee agrees that after consultation appropriate Quality of Service Obligations shall be included as an Annex to this licence.
- 4.2 The Licensee shall meet those quality of service obligations and a repeated failure to comply with a Commission's directive to meet such quality of service obligations shall be regarded as a breach of this Licence.

5 TECHNICAL STANDARDS

The Licensee shall develop and operate the Licensed Networks in accordance with the technical standards outlined in **Annex D**.

6. FREQUENCY

- 6.1 Nothing in this Licence empowers the Licensee to use spectrum that has not been granted in accordance with the Act.
- 6.3 The Licensee shall use the Authorised Frequency in accordance with the Regional Spectrum Management Plan and only for the purposes of providing the Licensed Services.

7. NON-DISCRIMINATION AND FAIR TRADING

- 7.1 The Licensed Networks shall be established and operated, and the Licensed Services shall be provided, by the Licensee on an arm's length commercial basis with respect to all Affiliates of the Licensee.

- 7.2 The Licensee shall not engage in any activities, whether by act or omission, which have, or are intended to or likely to have, the effect of unfairly preventing, restricting or distorting competition in relation to the Licensed Services.

8. INFORMATION REQUIREMENTS

- 8.1 The Licensee shall provide the Minister, the Commission and ECTEL with any relevant agreements (including agreements with any Affiliates of the Licensee) and such relevant accounting, financial, costs, technical and other information (including but not limited to a complete audited financial report) reasonably required to enable the Minister, the Commission and ECTEL to carry out their functions under the Act in such manner and at such times that the Minister, the Commission and ECTEL may request.

9. PRIVACY AND CONFIDENTIALITY

- 9.1 The Licensee shall ensure the privacy and confidentiality of information and business secrets obtained in the course of its business from any Person to whom it provides Licensed Services by establishing and implementing procedures for maintaining confidentiality of such information as set out in the Act.

10. PRE-NOTIFICATION OF CHANGES IN SHAREHOLDING

- 10.1 The Licensee shall notify the Minister of any acquisition of shares or change in shareholding of the Licensee, by reason of that acquisition or change, the total number of shares held by any nominee or trustee for that Person, immediately after the change or acquisition exceeds 25 per cent of the total number of shares in the Licensee (where such shareholding did not already exceed 25 per cent prior to that change or acquisition).
- 10.2 The Licensee shall notify the Minister in writing thirty (30) days prior to the taking effect of such change or acquisition stated above.
- 10.3 Upon receipt of such information the Minister may vary, suspend or revoke such licence pursuant to sections [-] and [-] of the Act.

11. RIGHTS OF ACCESS

- 11.1 Subject to the provisions of section [-] of the Act, the Licensee shall have the rights of access that are necessary to permit the installation and maintenance of the Licensed Networks on public rights-of-way, in public buildings and other public property, and in respect of similar works necessary for the provision of the Licensed Services.

- 11.2 In the course of constructing or maintaining any Licensed Network of the Licensee, the Licensee may, by its officers or agents duly authorized in writing and on production of the authority, cut or remove from any street, high-way or land, any tree or branch or other parts of a tree, tending to interfere with, endanger, or otherwise prejudicially affect such Licensed Networks. In exercising this right, no person shall enter any land without the consent of the owner or occupier until after the expiration of fifteen days notice in writing given to the owner of occupier or posted up conspicuously upon the property.
- 11.3 If such owner or occupier, within seven days from the service or posting up of such notice gives written objection thereto, the Licensee may not enter upon the private land in question without first having obtained the necessary Court Order.
- 11.4 Where any condition exists which is dangerous and relates to the provision of the licensed services by the Licensee, the Licensee may immediately enter upon Land and take whatever reasonable action is necessary and expedient to establish safe conditions thereon.
- 11.5 Where the Licensee takes action under Condition 11.4 above, the Licensee must within three (3) days thereof, inform the owner or occupier of the land in question (either by service of a written notice on him or by posting up conspicuously a notice on such land) of the action taken.
- 11.6 In the exercise of any powers under this Clause, the Licensee shall cause as little inconvenience or damage as is reasonably practicable and the Licensee is liable to pay compensation to any person who suffers damage to his property in consequence of the exercise of such powers by the Licensee. For the avoidance of doubt, this Condition shall also apply to public lands, public buildings and other public property.

12. FORCE MAJEURE

- 12.1 Force Majeure refers to an event or accident which is beyond the control of the Licensee and includes:
- (a) acts of God, action by or against enemies of the State, riot or civil commotion;
 - (b) strikes, lock-outs and other industrial disturbances;
 - (c) wars, blockades or insurrection;
 - (d) earthquake, hurricane, flood, fire or explosion or other such disaster;
 - (e) outbreak of pestilence or epidemics;
 - (f) government rationing of electricity or other wartime or emergency controls imposed by Government;
 - (g) embargoes or trade restrictions;

12.2 The Licensee shall not be in breach of this Licence if and to the extent that it is prevented from fulfilling its obligations be reason of Force Majeure.

13 COMPLIANCE

13.1 The Licensee shall comply with all applicable Acts, Regulations, Directions, Orders and Recommendations, including but not limited to the Act and shall comply with the Directions, Orders and Recommendations issued by the Minister and the Commission.

Signed by

.....
Minister of Telecommunications

ANNEX A

LICENSED NETWORKS

1. The Licensee is authorized pursuant to this Licence to establish, own and operate all telecommunications facilities necessary for the transmission of Broadcast telecommunications services whether:
 - (a) using wireline or wireless technology, or any combination thereof, provided that network is used to provide broadcast audio programming;
 - (b) reception or retransmission from satellite networks; or
 - (c) used in conjunction with other multi-media services

2. In this context, the term “transmission” relates to the infrastructure for the transport of signals intended for the production of broadcast audio programming.

For the avoidance of doubt, nothing in this Licence grants a person the rights to own or operate any telecommunications facilities used for the provision of a any other telecommunication service that have not been granted in accordance with the Act or any other legislation.

ANNEX B

GEOGRAPHICAL COVERAGE OBLIGATIONS

1. The Licensee shall provide a geographical coverage of at least **[95]**% of **[Member State]**
2. The Licensee shall provide a geographical coverage of at least 92% across ECTEL Member State with a quality of service as determined by the Commission with the requisite power levels to ensure non-interference reception by customers in the designated area. For greater certainty, detailed technical specifications are provided in Annex D.

ANNEX C

UNIVERSAL SERVICE OBLIGATION

ANNEX D

Technical Standards for Signal Transmission and Reception

BROADCASTING STANDARDS

FM STANDARDS

1.0 GENERAL

- 1.1 The standards contained in this document are the conditions necessary for the establishment of sound broadcasting in the FM band and in addition for the issuance of a Type Approval Certification for FM transmitters.
- 1.2 Type Approval Certification will be issued in accordance with accepted Commission guidelines -
- 1.3 The Commission reserves the right to require adjustments to be made to the equipment should it cause interference notwithstanding having been certified previously
- 1.4 Major changes in design made to the equipment, other than for the replacement of defective parts, will void the certification unless notified and approved by the Commission.
- 1.5 Transmitters will be authorized for power levels which will provide the minimum accepted field strength of 70 dBu (3.16mV/m) but shall not exceed 1KW transmitter power and an ERP of 3dBK.
- 1.6 Licensees of FM stations will not be permitted to operate same programming in multiple sub bands¹

¹ This is ensure that links between transmitter sites are only established by using Studio to Transmitter Links (STL) and not FM broadcast frequencies.

- 1.7 The use of prime (broadcast) frequencies (88-108MHz) for program rebroadcast will not be permitted.

2.0 Labeling

2.1 All certified broadcasting equipment must display in a conspicuous location:

- (a) the manufacturer's name or brand name
- (b) the model identification
- (c) the serial number
- (d) the Type Approval Acceptance number (if applicable)

2.2 The identification label must be affixed permanently so that the above information can be seen throughout the life of the equipment

3.0 Minimum distance separation between stations

- (a) FM stations on the same channel must be separated by a minimum distance of 100 Km or 61 Miles.
- (b) FM stations on channels separated by 200 kHz must be separated by a minimum distance of 61Km or 35 Miles.
- (c) FM stations on channels separated by 400 kHz to 600 kHz must be separated by a minimum distance of 25 Km or 15miles.

3.1 Transmitter Location

Location must be so chosen that on the basis of the effective radiated power and antenna height above average terrain (HAAT) employed, a minimum of 70 dB above 1 uV/m (dBu) or 3.16 mV/m is provided over the service area. The transmitter location must ensure that the 1mV/m contour encompasses the population centre that is being served.

4.0 Transmitting Equipment Standard

4.1 Transmission System

A FM broadcasting equipment consists of all the apparatus necessary to convert the modulating input signal to a frequency modulated carrier at the centre frequency of a standard FM channel in the 88 to 108 MHz frequency band.

4.2 Type of Emission

The designation of modulation and emission refer to the manner in which the carrier is modulated and transmitted. The transmitting equipment shall produce

F3EGN emission for monophonic operation and F8EHF emission for stereophonic operation. The transmitting equipment shall be capable of operating with a frequency deviation of ± 75 kHz, which is equivalent to 100% modulation.

4.3 Limits of modulation

Emissions shall not exceed 100 percent modulation except for the following conditions:

- (a) FM multiplex sub carrier using any modulation may operate if the multiplexed sub carrier and their sidebands are maintained within the range 20 kHz to 99 kHz.
- (b) Total peak modulation may be increased 0.5% for each 1.0% sub carrier injection modulation.

4.4 Carrier Frequency Adjustment

The transmitting equipment shall be capable of operation in accordance with these standards on any channel in the specified carrier frequency range without change in construction other than changing frequency-determining components.

4.5 Power Supply Rating

The AC voltage input shall be at a frequency of 50Hz. Voltage, Frequency and maximum kVA requirement shall be indicated on the transmitting equipment.

4.6 Phase-to-Phase Loading

The transmitting equipment, if rated above 10kVA, shall present a balanced load to the AC mains such that the current in each phase shall be 10% of the average of all three currents.

5.0 RF carrier Performance Rating

5.1 Power output Rating

5.1.1 Definition

The power output rating of transmitting equipment is the carrier power at which the transmitting equipment may be operated continuously into the test load.

- 5.1.2 The standard rating of power output for the transmitting equipment shall be as specified by the individual manufacturer. The transmitting equipment shall be capable of being adjusted to deliver the power output when the AC input voltage varies by 5% from the rated value.

5.2 Carrier Frequency Stability

5.2.1 Definition

The carrier frequency stability is the ability of the transmitting equipment to maintain a mean test frequency.

5.2.2 The frequency of the carrier shall remain within ± 1000 Hz of the mean test frequency.

5.3 Spurious Emission

5.3.1 Definition

Spurious emissions are radio frequency signals appearing at the transmitting equipment output terminals on frequency other than the specified frequency and modulation products.

5.3.2 A spurious emission from any part of the installation other than the antenna and its transmission line shall not have an effect greater than would occur if the antenna system were supplied with the maximum permitted power at that spurious emission frequency.

5.3.2 Spurious emissions of the transmitting equipment shall not exceed the values given in table 1.

Table 1

Spurious Emission	Maximum Value
Between 120 kHz and 240kHz from the carrier frequency.	-25 dB*
More than 240 kHz and up to and including 600 kHz from the carrier frequency	-35 dB*
More than 600 kHz from the carrier frequency which ever is the stronger	$-(43 + 10 \log P)^*$ or -80 dB* P= power in watts

* Referred to the power level of the unmodulated carrier.

5.4 Cabinet Radiation

4.4.1 Definition

Cabinet radiation is any emission from the transmitting equipment housing or enclosure from sources other than a normal output port.

4.4.2 Emissions at any frequency shall be at least 54 dB below the calculated field strength reference level.

6.0 FM Stereophonic Sound Transmission Standard

6.1 A FM broadcast station shall not use $19 \text{ kHz} \pm 20 \text{ Hz}$, except as the stereophonic pilot frequency in a transmission system meeting the following criteria –

- a) the modulating signal for the main channel consists of the Left and Right signals;
- b) the pilot subcarrier at $19 \text{ kHz} \pm 2 \text{ Hz}$ shall frequency modulate the main carrier between the limits of 8 and 10 percent;
- c) one stereophonic subcarrier shall be the second harmonic of the pilot subcarrier (that is, 38 kHz) and shall cross the time axis with a positive slope simultaneously with each crossing of the time axis by the pilot subcarrier which are not precluded;
- d) double sideband, suppressed carrier amplitude modulation of the stereophonic subcarrier at 38 kHz shall be used;
- e) the stereophonic subcarrier at 38 KHz shall be suppressed to a level less than 1 % of the main carrier;
- f) the modulating signal for the required subcarrier shall be equal to the difference of the Left and right signal;
- g) the applicable modulating levels-
 - i) when a signal exists in only one channel of a two channel (biphonic) sound transmission, modulation of the carrier by a audio components shall not exceed 45%, and modulation of the carrier by the sum of the amplitude modulated subcarrier in the base band range of 23 kHz to 53 kHz shall not exceed 45%;
 - ii) when a signal exists in only one channel of a stereophonic sound transmission having more than one stereophonic subcarrier in the base band, the modulation of the carrier by audio components within the audio base band range of 23 kHz to 99 kHz shall not exceed 53% with the total modulation not to exceed 90%;

iii) a station not transmitting stereo with a method described above shall limit the main carrier deviation caused by any modulating signals to occupying the band $19 \text{ kHz} \pm 20 \text{ Hz}$ to 125 Hz .

6.2 All stations, regardless of the stereophonic transmission shall not exceed the maximum modulation limits of 100 % on peaks on frequency recurrence to 75 kHz deviation. Stations providing subsidiary communications services using subcarrier standards concurrently with the broadcasting of stereophonic or monophonic programs may increase the peak modulation deviation as follows-

- a) the total peak modulation may be increased 0.5% for each percent subcarrier injection modulation;
- b) the modulation shall not exceed 110 per cent (82.5 kHz peak deviation).

6.3 FM stations operating with transmitter power greater than 10 Watts are to maintain the operating power within 90% and 110% of that authorized.

6.4 Departure of the carrier or centre frequency of an FM station with an authorized power greater than 10 Watts may not deviate more than 2000 Hz from the authorized carrier.

6.5 The audio frequency distortion including all harmonics up to 30 kHz shall not exceed 1% in the range of frequencies from 50 Hz to 15 000 Hz.