Public Service Broadcasting Licence issued by

THE COMMISSION FOR COMMUNICATIONS REGULATION

To

Teilifís na Gaeilge

For an Analogue Terrestrial Television Service

Document Number: 12/13c

Licence issued by the The Commission For Communications Regulation

to

Teilifís na Gaeilge

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 121 (2) of the Broadcasting Act 2009 (No. 18 of 2009), hereby issues to Teilifís na Gaeilge a licence for the purpose of providing an Analogue Terrestrial Television Service as follows, subject to the conditions set out hereunder:

Licensed

1. (1) For the purpose of carrying out the functions authorised by the Broadcasting Act 2009, the Licensee is licensed to:

(a) maintain and operate the broadcasting stations recorded in the Schedule in Part II of this Licence and in accordance with the provisions set out therein and not otherwise, except with the written consent of the Commission,

(b) establish, maintain and operate additional broadcasting stations at such places, and in accordance with such provisions, as the Commission may from time to time approve in writing, and any such approved additional broadcasting stations shall thereupon be deemed to be added to the Schedule in Part II of this Licence,

(c) acquire, install and operate such apparatus for wireless telegraphy as is incidental to the operation of the broadcasting stations mentioned at (a) and (b) as the Commission may approve in writing.

(2) Nothing in this Licence shall serve to preclude the Licensee from entering into any contracts, agreements and arrangements incidental or conducive to carrying out the activities listed in (1) above.

2. The Licensee shall not operate any broadcasting station without the Commission's specific approval in writing in respect of: -

   (i) characteristic frequency,

   (ii) name and geographical co-ordinates of broadcasting stations,

   (iii) effective radiated power,

   (iv) antenna characteristics, and

   (v) antenna height.

3. The Licensee shall comply with the directions given by the Commission in writing in relation to tolerance on characteristic frequency and radiation of spurious emissions or in relation, in any other respect, to the technical operation of the broadcasting stations and apparatus for wireless telegraphy mentioned in the preceding paragraphs.

4. The establishment and operation of television broadcasting stations shall be in accordance with the conditions relating to the establishment and operation of television broadcasting stations set out in Part I of this Licence.

5. If any harmful interference (whether avoidable or not) is caused to any radionavigation service or other safety services or a radiocommunications service operating in accordance with the applicable European Community or national regulations which was in existence prior to the broadcasting station or apparatus for wireless telegraphy causing the harmful interference, the Licensee shall, if the Commission considers it reasonable so to request, pay to the relevant party the amount of the expenses incurred in providing protection for such a service against the harmful interference, or in substituting for such a service a service of the same or a different description in another place and providing for the substituted service such protection against the harmful interference as the Commission considers necessary or expedient.

6. The Licensee shall comply with any radiation emission standards adopted and published by the International Commission for Non-Ionising Radiation Protection (ICNIRP) or its successors from time to time; any radiation emission standards of the European Committee for Electrotechnical Standards and any other radiation emission standards specified by national and EC law. The Licensee shall ensure that non-ionising radiation emissions from apparatus operated by the Licensee are within the

limits specified by the guidelines published by ICNIRP. The Licensee shall ensure that apparatus operated by the Licensee is not installed or operated at a location in such a manner as to cause the aggregate of non-ionising radiation emissions to exceed the limits specified by the guidelines published by ICNIRP.

7. The broadcasting stations which are the subject of this Licence shall, at all times, be operated by persons properly authorised by the Licensee and all reasonable steps shall be taken to ensure that access to the broadcasting stations cannot be obtained by unauthorised persons at any time.

8. The Commission shall not be liable for any costs incurred by the Licensee in averting any harmful interference whatsoever.

Sanctions for Breach of Licence

9. (1) Where the Commission finds that the Licensee does not comply with one or more of the conditions of the Licence conferred on it, the Commission shall notify the Licensee of those findings and give the Licensee a reasonable opportunity to state its views or remedy any breaches within:

(a) one month after notification,

(b) a shorter period agreed by the Licensee or stipulated by the Commission in the case of repeated breaches, or

(c) a longer period decided by the Commission.

(2) The Commission may publish, in such manner as it thinks fit, any notification given by it under this Condition subject to the protection of the confidentiality of any information which the Commission considers confidential.

10. Where, at the end of the period referred to in Condition 9 (1), the Commission is of the opinion that the Licensee has not complied with the condition, it shall take appropriate and proportionate measures aimed at ensuring compliance.

Licence revocation

11. (1) The Commission may, in cases of serious and repeated breaches of the conditions of the licence revoke, suspend or withdraw the licence, where measures aimed at ensuring compliance as referred to in Condition 10 have failed.

(2) Prior to any such revocation, suspension or withdrawal, the Commission shall serve notice on the Licensee specifying the reason therefor and shall give the Licensee a reasonable opportunity to make representations about the proposed revocation, suspension or withdrawal.

Prevention of Interference

12. (1) If the Commission –

(a) is satisfied that the use of the system or any part thereof is causing or represents an immediate and serious threat to public safety, public security or public health, or will create serious economic or operational problems for other providers or users of electronic communications networks or services, and

(b) serves on the Licensee an interim notice requiring that the use of such system or part as may be specified in such notice cease forthwith, or on or before such date and time as may be so specified;

The Licensee shall cease to use the system or part, unless and until such notice has been withdrawn by the Commission.

(2) Following the issuing of an interim notice, the Commission shall give the Licensee a reasonable opportunity to make representations about the interim notice and to propose any remedies.

(3) The Commission, having taken into account any representations or proposed remedies made under paragraph (2) may confirm, amend or withdraw the measure.

Restrictions on the Licensee

13. The Licensee shall not, without the prior consent in writing of the Commission (such consent not to be unreasonably withheld), assign the Licence (or lease, or let the Licence). Any consent to transfer granted by the Commission under this paragraph, may be subject to such further conditions as the Commission considers appropriate in the circumstances.

14. The provisions of the International Telecommunication Convention, and of any international convention or international agreement relating to the use of frequencies to which the State may be, or may become, a party during the continuance of this Licence, shall be complied with.

Licence Duration

15. This Licence shall operate from 29 February 2012 and, without prejudice to the right of the Commission to terminate or suspend the Licence in the case of non-compliance with the provisions of the Licence by the Licensee, shall be valid and continue in force until 24 October 2012 and shall then expire.

Definitions

16. In this Licence:

(a) a reference to a Schedule is to a Schedule to this Licence, unless it is indicated that reference to some enactment is intended;

(b) a reference to a paragraph or subparagraph is to the paragraph or subparagraph of the provision in which the reference occurs, unless it is indicated that reference to some other provision is intended;

(c) a reference to an enactment shall be construed as a reference to the enactment as amended or extended by or under any subsequent enactment.

17. (1) In this Licence, except where the subject or context requires otherwise, the following expressions have the meanings hereby assigned to them, that is to say: -

"broadcasting station" has the same meaning as in the Wireless Telegraphy Acts, 1926 to 2009;

"Commission" means the Commission for Communications Regulation established by Part 2 of the Communications Regulation Act, 2002;

"harmful interference" means interference which endangers the functioning of a radionavigation service or of other safety services or which otherwise seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with the applicable European Community or national regulations;

"International Telecommunication Convention" means the International Telecommunication Convention signed at Nairobi on the 6th day of November 1982 and the Radio Regulations and additional Radio Regulations in force thereunder, and includes any Convention and Regulations which may from time to time be in force in substitution therefor, or in amendment thereof;

"Licensee" means the holder of the Licence, in this case Teilifís na Gaeilge;

"wireless telegraphy" and "apparatus for wireless telegraphy" have the same meaning as in the Wireless Telegraphy Acts, 1926 to 2009.

(2) A word or expression which is used in this Licence and which is also used in the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 has, unless the context otherwise requires, the same meaning in this Licence that it has in the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011

(3) A word or expression which is used in this Licence and which is also used in the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 has, unless the context otherwise requires, the same meaning in this Licence that it has in the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011

GIVEN under the official seal of the Commission for Communications Regulation this 27 day of February 2012

Alex Chisholm
Chairperson

PART I

CONDITIONS RELATING TO THE ESTABLISHMENT AND OPERATION OF TELEVISION BROADCASTING STATIONS

1. PURPOSE

This document specifies the general conditions attached to a licence for the establishment maintenance and operation of broadcasting stations. These conditions are set out in accordance with Section 121 (1) of the Broadcasting Act 2009.

2. GENERAL

2.1 These conditions detail the characteristics of the equipment required for the purpose of frequency spectrum management and safety and do not include detailed equipment specifications.

2.2 Evidence of type approval of equipment is not required by the Commission[1]. Instead a procedure of station certification by a suitably qualified person, will apply.

2.3 Procedures for the modification of or addition of a station assignment are also specified in this document.

2.4 The technical parameters specified in this document are in accordance with values specified in the Radio Regulations (2008), by ITU-R Study Group 11 (Television), and the final acts of the Geneva 2006 Agreement.

2.5 The conditions specified in this document may be varied or added to from time to time by the Commission as required.

2.6 In cases of doubt regarding the interpretation of these conditions, the decision of the Commission will be final.

3. DEFINITIONS AND GLOSSARY OF TERMS

3.1 Radio Regulations

Radio Regulations, Edition of 2008, as published by the International Telecommunications Union (ITU).

3.2 Assignments

A radio frequency or radio frequency channel for which authorisation by the Commission for Communications Regulation has been granted for its use at a specified station with specified characteristics.

3.3 Station

One or more transmitters or receivers or a combination of transmitters and receivers, including the associated equipment necessary, at one location for the purpose of carrying on a broadcasting service.

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[1] It is recommended that broadcasting transmitters comply with any appropriate European Telecommunications Standard.

3.4 Stockholm 1961 Agreement
The Final Acts of the European VHF/UHF Broadcasting Conference, Stockholm 1961. An updated plan of assignments constitutes part of this Agreement.

3.5 Geneva 2006 Agreement
The Final Acts of the Regional Radiocommunication Conference for planning of the digital terrestrial broadcasting service in parts of regions 1 and 3 in the frequency bands 174-230MHz and 470-862MHz.

3.6 Effective Radiated Power (ERP) in a given direction.
The product of the power supplied to the antenna and its gain relative to a halfwave dipole in a given direction. This is usually expressed in decibels relative to one watt (dBW). In the case of analogue television broadcasting the ERP of the vision transmissions is the peak envelope power and for sound transmissions it is the unmodulated carrier power.

3.7 Maximum Effective Radiated Power.
The maximum value of the effective radiated power in any direction.

3.8 Effective Antenna Height (Eff.Ht.)
The height in meters above the average level of the ground between distances of 3 and 15km from the transmitter. This is calculated for each of 36 evenly spaced radials (10 degree separation) starting from true North[2].

3.9 Maximum Effective Antenna Height
The maximum value in meters for the effective antenna height in any one of the 36 directions referred to in 3.8.

3.10 Omnidirectional Antenna
An antenna having a horizontal radiation pattern with variations of 2 dB or less over 360 degrees.

3.11 Service Area
Locations where the field strength available (in the case of VHF and UHF services at the reference receiver height of 10 meters above ground) exceeds both the minimum wanted field strength and the protected field strength (PFS) values as derived from the assignments in the appropriate plans.

3.12 Vertical Aperture
In relation to a VHF or UHF antenna system, the distance in wavelengths between the centres of the outermost radiating elements, plus one half wavelength, in the vertical plane.

3.13 Commission
Commission for Communications Regulation

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[2] This can be calculated by the Commission using the National Grid Reference, consisting of one letter and six digits, for the transmitting station, provided the site height above sea level and the antenna height above ground level are supplied

4. TRANSMITTER CONSTRUCTION

4.1 General

The mechanical and electrical construction shall meet such requirements as can be reasonably set, taking the state of the art into account (see also section 6 'Safety and Weather Protection').

All controls, meters, indicators and terminals shall be clearly labelled. Details of the power supply from which the equipment is intended to operate shall be clearly indicated. The equipment should normally consist of one complete unit.

4.2 Controls

Controls which, when wrongly adjusted, increase the risk of causing interference or of improper functioning of the transmitter shall be immediately accessible to qualified personnel only.

4.3 Manufacturer's Identification

The transmitter shall be provided with an indication showing the manufacturer's trademark, type designation and serial number. The indication shall be fitted on the outside of the transmitter, shall be clearly readable, non-removable and indelible.

5. FACILITIES FOR TESTING TRANSMISSION INSTALLATION

Adequate and accurately calibrated test equipment shall be made available for non-radiative measurement of transmitter power, modulation characteristics and spurious emissions while the station is undergoing initial alignment and regular maintenance.

6. SAFETY AND WEATHER PROTECTION

6.1 General Safety

The station and its premises must comply with all relevant statutory safety regulations.

6.2 Safety Controls

There shall be a single control to isolate power for the entire installation. If a form of auxiliary power (such as diesel generators or an uninterruptable power supply) is provided, then the same control should isolate these. The "on" position of such a devise must be clearly indicated.

6.3 Safety Standards

The system must comply with

- the Safety Requirements for Radio Transmitting Equipment as per I.S./EN 60215 : 1989[3]
- any radiation emission standards adopted and published by the International Commission for Non-Ionising Radiation Protection (ICNIRP) or its successors from time to time;
- any radiation emission standards of the European Committee for Electrotechnical Standards and
- any other radiation emission standards specified by national and EC law.

[3] This standard is available from the National Standards Authority of Ireland

The Licensee shall ensure that non-ionising radiation emissions from apparatus operated by the Licensee are within the limits specified by the guidelines published by ICNIRP. The Licensee shall ensure that apparatus operated by the Licensee is not installed or operated at a location in such a manner as to cause the aggregate of non-ionising radiation emissions to exceed the limits specified by the guidelines published by ICNIRP.

6.4 Weather Protection

All apparatus and cables exposed to weather, corrosive atmosphere or other adverse conditions shall be so constructed or protected as may be necessary to prevent danger or interference to other services arising from such exposure.

7. SITE ENGINEERING

7.1 General

The practice of good site engineering is a necessary requirement to ensure good coverage, safety of personnel and minimum interference to other services. In addition, careful consideration is required for other services when operating from the same site or in close proximity to them. The Licensee shall ensure that all necessary precautions are undertaken to ensure good site engineering practise.

7.2 Spurious Emissions

Careful consideration should be given to the levels of spurious emissions set out in the relevant subsection of section 8.

8. TRANSMISSION CHARACTERISTICS FOR TELEVISION BROADCASTING

8.1 Frequency Aspects

The equipment shall be designed to operate on the assigned frequency in the frequency Bands 174.0 to 222.0 MHz or 470.0 to 862.0 MHz only.

The frequency tolerance shall be:

- ± 500 Hz, for transmitters for which the licence characteristics do not require the use of precision offset.
- ± 1 Hz, for transmitters for which the licence characteristics require the use of precision offset.
- ± 10 kHz, for stations of 0 dBW (vision peak envelope power) used to serve small isolated communities.

The transmit frequency shall be derived from a crystal oscillator. If use is made of a synthesiser and/or a phase locked loop system, the transmitter shall be inhibited when synchronisation is absent. The transmitter frequency adjustment control shall be accessible to qualified personnel only.

8.2 Maximum Permitted Levels of Spurious Emissions

The maximum permitted level of spurious emission for a transmitting station shall be:

- at least 40 dB below the transmitter e.r.p. and shall not in any case exceed -46 dBW for a transmitter e.r.p. less than or equal 14dBW.
- at least 60dB below the transmitter e.r.p. and

    1) in the case of VHF transmitters shall not in any case exceed -30 dBW for transmitter e.r.p. above 14 dBW or
    2) in the case of UHF transmitters shall not in any case exceed -17 dBW for transmitter e.r.p. above 14 dBW.

8.3 Class of Emission, Bandwidth, and Modulation Standards

8.3.1 Designation of Emission and Maximum permitted Bandwidth

The total bandwidth of the radiated signal shall not exceed 8 MHz. The emissions shall comply with the following designations:

A) 7M25C9FNW where;

7M25	=	necessary bandwidth	=	7.25 MHz
C	=	type of modulation	=	Vestigial sideband
9	=	Modulating signal	=	Composite analogue/digital signal
F	=	Information type	=	Television (video)
N	=	Colour		
W	=	Combination of frequency-division and time-division multiplex		

B) 750KF3EGN where;

750K	=	necessary bandwidth	=	750 kHz
F	=	type of modulation	=	Frequency modulation
3	=	modulating signal	=	a single channel containing analogue information
E	=	information type	=	Sound broadcasting
G	=	Sound of broadcasting quality (monophonic)		
N	=	Nature of multiplex	=	None

8.3.2 Television Standard

The television standard used shall be PAL system I or the PALPlus system.

Summary list of parameters (for PAL I only):-

Frequency spacing

Nominal radio-frequency channel bandwidth	8 MHz
Vision/Sound Carrier separation	5.9996MHz (±0.0005 MHz)
Nearest edge of channel relative to vision carrier	-1.25MHz
Nominal width of vestigial sideband	1.25 MHz
Nominal width of main sideband	5.5 MHz

Modulation

Type and polarisation of vision modulation	C9F negative
Type of sound modulation	F3E
Maximum frequency deviation	±50 kHz
Pre-Emphasis for modulation	50 μS

Levels in the radiated signal (% of peak vision carrier)

Synchronising level	100
Blanking level	76 ±2
Difference between black level and blanking level (nominal)	0
Peak white level	20 ±2
Ratio of vision to sound effective radiated powers	10/1 [4]

8.3.3 Permitted second sound carrier for the transmission of stereo or bilingual sound

An additional carrier at 6.552 MHz above the vision carrier for the NICAM 728 multi channel sound system as specified in ITU-R Rec. 707 is permitted.

8.4 Additional Broadcasting Services

8.4.1 Permitted Additional Broadcasting Services

The transmission of a teletext service during the field blanking interval is permitted. The system used must conform to Teletext System B parameters described in ITU-R Rec. 653-1. Insertion reference signals may be transmitted on lines 17 and 330 as outlined in ITU-R Rep. 628-4. Insertion test signals for automatic monitoring of the television system may also be transmitted on other blank lines. The transmission of PALPlus signals in lines at the start and end of each frame is permitted.

A widescreen television service may broadcast in the 16:9 aspect ratio using the PALPlus system as described in ITU-R BT 1197-1 ensuring compatibility with the current PAL I system.

8.4.2 Additional Broadcasting Services Requiring Approval from the Commission

Prior approval must be obtained from the Commission for any additional broadcasting services other than those indicated in 8.4.1

[4] In certain cases an alternative vision to sound carrier ratio may be specified by the Commission

8.5 Power and Polarisation

For a given assignment the radio frequency power and polarisation are specified in the licensed station characteristics. The power is given in terms of the maximum effective radiated power for the vision carrier (peak envelope power) and the sound carrier (unmodulated carrier power). The effective radiated power in a given azimuth is the maximum effective radiated power (in dBW) less the radiation restriction (in dB) at the azimuth due to the antenna radiation pattern.

As the effective radiated power is the sum of the transmitter output power (in dBW) and the gain of the antenna (in dB) in a given direction, the output carrier power of transmitter shall be adjustable so that the value of the effective radiated power in a given direction permitted for each station is not exceeded.

If the equipment is designed to operate with different levels of carrier power, the rated output power for each power level must be declared by the manufacturer.

9. MINIMUM FIELD STRENGTH

The minimum field strengths used in planning are:

1) +55dB(μV/m) for band III (174 MHz to 223 MHz)

2) +65dB(μV/m) for band IV (470 MHz to 582 MHz)

3) +70dB(μV/m) for band V (582 MHz to 862 MHz)

The VHF/UHF values are for 10 metres above ground level.

Protection cannot be sought for locations with a field strength below the above mentioned values.

10. OVERVIEW OF NATIONAL BAND PLAN (Television)

10.1 Frequency Channels and Standard Groups

The VHF frequency band for television broadcasting is 174 to 222 MHz. The UHF frequency band for broadcasting is 470 to 862 MHz. The designated television channels for the VHF and UHF bands and the UHF channel grouping adopted by the Commission are detailed in Annex 1.

As a general principle and in order to minimise interference between different users the allocation of channels in a group will as far as it is practical to do so, be on the principle of co-programming i.e. the same user will be allocated the same channel in a given channel group wherever it is allocated.

Due to the phased development of UHF television broadcasting a station may initially have coverage in excess of the planned service area. With the introduction of additional stations it is to be expected that this extended service area will be reduced.

10.2 Assignment List

A list of the Assignments, which constitute the national plan, will be maintained by the Commission.

10.3 Planning Parameters

The planning parameters used by the Commission correspond to those recommended by the ITU-R. A summary of these parameters is given below.

Parameter	Description	Value used
Propagation using terrain data	Wanted Signal: Unwanted Signal, Domestic: Unwanted Signal, RBL[5]:	50% location, 50% time 50% location, 5% time 50% location, 1% time
Quality of service	Continuous Interference: Tropospheric Interference:	Grade 4 [6] Grade 3 [7]
Polarisation Discrimination	Domestic: RBL:	15 dB 20 dB
Maximum Receive antenna directivity	Domestic: RBL:	16 dB 20 dB

[5]Re-Broadcast Link
[6]Grade 4: Perceptible, but not annoying
[7]Grade 3: Slightly annoying

Protection Ratio		
Co-channel, continuous:		52 dB, no offset 40 dB, 4/12 line offset
Co-channel, continuous: (PAL I interfered with by DVB-T 8 MHz)		41 dB
Co-channel, tropospheric:		45 dB, no offset 30 dB, 4/12 line offset
Co-channel, tropospheric: (PAL I interfered with by DVB-T 8 MHz)		37 dB
Lower adjacent channel		-9 dB, tropospheric
Analogue vision signal interfered with by lower adjacent channel DVB-T 8MHz		-8 dB, tropospheric -4 dB, continuous
Upper adjacent channel		-12 dB, tropospheric
Analogue vision signal interfered with by upper adjacent channel DVB-T 8MHz		-10 dB, tropospheric -6 dB, Continuous
Image channel		-10 dB, tropospheric
Local oscillator channel		-10 dB, tropospheric
Co-Channel Precision offset	continuous, no offset	36 dB
	tropospheric, no offset	32 dB
	continuous, 4/12 line offset	27 dB
	tropospheric, 4/12 line offset	22 dB

Protection ratios for analogue television broadcasting interfered with by digital sound broadcasting (T-DAB) in VHF III are as given in the Wiesbaden, 1995, Special Arrangement, as revised at Maastricht 2002.

11. STATION CERTIFICATION AND MAINTENANCE

11.1 Access and Personnel

Only authorised personnel shall have access to the Transmission Equipment for the purpose of adjustment or maintenance of that equipment.

The Licensee shall ensure that all authorised personnel are adequately trained for the functions they are to undertake.

11.2 Examination and Testing

When the installation of equipment is complete the Licensee shall inform the Commission and seek permission for on-air testing. The Licensee shall then examine the station and when ready to commence operations shall provide the Commission with certification indicating that the station is operating in accordance with the specified conditions and characteristics and shall inform the Commission of the date of commencement of operations.

11.3 Maintenance

The transmission installation shall be so maintained as to always comply with these conditions. The Licensee shall ensure that a suitably qualified person has the necessary technical training, knowledge and practical experience so as to be able to certify that the installation and maintenance of the station complies with these conditions. The Licensee shall examine each station annually to ensure compliance and shall keep a log indicating dates and results of these examinations.

11.4 Time Limit

A Maximum period of one year will be allowed from the date of amendment of a licence for an amended station to come on air and the procedures outlined in this section to be completed. If a certificate of compliance has not been forwarded to the Commission within this period the approval for the station in question may be revoked by the Commission.

12. ADDITIONAL AND MODIFIED ASSIGNMENTS

12.1 Requisite Information

The Licensee shall provide the Commission with all the necessary details in support of an application for an additional assignment or a modification of an existing assignment. The standard information required is contained in Annex 2.

12.2 Examination

The Licensee shall have regard, in preparation of an application for an additional or modified assignment, to other Licensees having assignments in the same frequency segment and make an examination of the compatibility of the assignments. A report of this examination shall be provided to the Commission at the time of making an application.

12.3 Field Strength Measurements

It may be necessary to supply field strength measurements in support of an application or an interference complaint. In relation to VHF and UHF, these measurements shall be supplied in accordance with the procedures outlined in Annex 3.

12.4 International Agreements

The Commission is bound by the provisions of the Radio Regulations and various Regional Radiocommunications Agreements, including but not limited to the Geneva 2006 Agreement. These agreements require the Commission to undertake certain co-ordination and registration procedures when considering additions or modifications of the assignment plan.

A minimum of three months is allowed for co-ordination. However, co-ordination of additional or modified assignments cannot be guaranteed. The Licensee shall allow adequate time in planning and provide the Commission with the relevant information to ensure compliance with these agreements.

ANNEX 1

TABLE OF CHANNEL FREQUENCIES and CHANNEL GROUPS

NOTE

The carrier frequencies do not include offsets.
The offsets to be used will be specified in the licence.

TABLE 1

BAND III CHANNELS

Frequency Band 174.00 to 222.00 MHz

Channel Number	Channel Frequencies (MHz)	Vision Carrier (MHz)	Sound Carrier (MHz)
ID	174 - 182	175.25	181.25
IE	182 - 190	183.25	189.25
IF	190 - 198	191.25	197.25
IG	198 - 206	199.25	205.25
IH	206 - 214	207.25	213.25
II	214 - 222	215.25	221.25

TABLE 2

BAND IV CHANNELS

Frequency Band 470.00 to 582.00 MHz

Channel Number	Channel Frequencies (MHz)	Vision Carrier (MHz)	Sound Carrier (MHz)
21	470 - 478	471.25	477.25
22	478 - 486	479.25	485.25
23	486 - 494	487.25	493.25
24	494 - 502	495.25	501.25
25	502 - 510	503.25	509.25
26	510 - 518	511.25	517.25
27	518 - 526	519.25	525.25
28	526 - 534	527.25	533.25
28	534 - 542	535.25	541.25
30	542 - 550	543.25	549.25
31	550 - 558	551.25	557.25
32	558 - 566	559.25	565.25
33	566 - 574	567.25	573.25
34	574 - 582	575.25	581.25

TABLE 3

BAND V CHANNELS

Frequency Band 582.00 to 862.00

Channel Number	Channel Frequencies (MHz)	Vision Carrier (MHz)	Sound Carrier (MHz)
35	582 - 590	583.25	589.25
36	590 - 598	591.25	597.25
37	598 - 606	599.25	605.25
38	606 - 614	607.25	613.25
39	614 - 622	615.25	621.25
40	622 - 630	623.25	629.25
41	630 - 638	631.25	637.25
42	638 - 646	639.25	645.25
43	646 - 654	647.25	653.25
44	654 - 662	655.25	661.25
45	662 - 670	663.25	669.25
46	670 - 678	671.25	677.25
47	678 - 686	679.25	685.25
48	686 - 694	687.25	693.25
49	694 - 702	695.25	701.25
50	702 - 710	703.25	709.25
51	710 - 718	711.25	717.25
52	718 - 726	719.25	725.25
53	726 - 734	727.25	733.25
54	734 - 742	735.25	741.25

TABLE 3 (continued)

BAND V CHANNELS

Channel Number	Channel Frequencies (MHz)	Vision Carrier (MHz)	Sound Carrier (MHz)
55	742 - 750	743.25	749.25
56	750 - 758	751.25	757.25
57	758 - 766	759.25	765.25
58	766 - 774	767.25	773.25
59	774 - 782	775.25	781.25
60	782 - 790	783.25	789.25
61	790 - 798	791.25	797.25
62	798 - 806	799.25	805.25
63	806 - 814	807.25	813.25
64	814 - 822	815.25	821.25
65	822 - 830	823.25	829.25
66	830 - 838	831.25	837.25
67	838 - 846	839.25	845.25
68	846 - 854	847.25	853.25
69	854 - 862	855.25	861.25

TABLE 4

TABLE OF STANDARD UHF CHANNEL GROUPS

Group Number	Channels			
1	21	24	27	31
2	22	25	28	32
3	23	26	29	33
4	39	42	45	49
5	40	43	46	50
6	41	44	47	51
7	53	57	60	63
8	54	58	61	64
9	55	59	62	65
10	52	56	66	68
Some of the channels in the above groups together with others not appearing in any group may be formed into alternative groups, for example:				
3A	23	26	30	34

Note: The use of other non-standard groups is considered where necessary.

ANNEX 2

Information for the Addition / Modification of a Television Assignment

1 Name of Transmitter Site: _____

2 Geographic Coordinates: Lat: _____ Long: _____

3 National Grid Reference: _____

4 Channel(s): _____

5 Offset(s)(twelfth line): _____

6 Frequency (MHz)

Programme Services	**Vision**	**Sound**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

7 Altitude of Site above sea level(m): _____

8 Height of Antenna above ground level (m): _____

9 Polarisation: _____

10 Maximum Effective Radiated Power (dBW): _____

11 Directivity of Antenna (D or ND): _____

12 Map, Ordnance Survey Maps such as the "Discovery Series" or equivalent are acceptable, outlining the intended service area.

13 Radiation Restrictions (dB) if Directional

AZIMUTH	0°	10°	20°	30°	40°	50°	60°	70°	80°
Horizontal Polarisation									
Vertical Polarisation									

AZIMUTH	90°	100°	110°	120°	130°	140°	150°	160°	170°
Horizontal Polarisation									
Vertical Polarisation									

AZIMUTH	180°	190°	200°	210°	220°	230°	240°	250°	260°
Horizontal Polarisation									
Vertical Polarisation									

AZIMUTH	270°	280°	290°	300°	310°	320°	330°	340°	350°
Horizontal Polarisation									
Vertical Polarisation									

Annex3

Standardised Procedure for Making Field Measurements of Signals Radiated from VHF and UHF Broadcasting Transmitters

Location of Tests

1. The precise location of the selected test point should be noted on a map. The scale of the map should be large enough to allow a national grid reference, accurate to 100m, to be easily read.

2. A general description of the test point vicinity should be noted (i.e. urban, suburban, rural, mountains, flat etc).

3. Particular note should be made of obstructions, if any, in the vicinity that may obscure the line of sight from the selected test point to a particular transmitter.

4. The test point should be selected as far as possible, so as to minimize electrical interference from ESB power lines, heavy traffic or high-power industrial electrical apparatus.

Taking Measurements

1. **Height of Antenna above ground level (agl)**
   The internationally accepted reference height, used in VHF and UHF broadcast planning, for field strength values is 10 metres agl.

2. **Horizontal separation distance of the antenna from the mast**
   The antenna should be separated a suitable distance from the mast. This minimises any distortive effects on the specified antenna gain pattern which may be caused by the proximity of the mast. A separation distance of at least one quarter wavelength between the antenna and the mast is recommended.

3. **Cable Loss**
   Cable loss should be taken into account

4. **Voltage Standing Wave Ratio (VSWR)**
   The VSWR of the antenna should be measured, for the frequency range in question, using a VSWR meter. This is done to verify the antenna impedance is matched to that of the cable. The VSWR should be between 1.0 and 1.5.

   A form to plan and record measurements has been drawn up and is contained below.

5. **Conversion Formulae**

Equations for the conversion of voltage values to electric field strength values are contained in below.

Equations for conversion of voltage values to electric field strength values :

$$E = 4 * (\Pi / \lambda) * \sqrt{((30 * V^2) / (R * G))}$$

where

E = Electric Field Strength (volts/metre)
Π = 3.14159
λ = Wavelength of transmitted signal (metres)
V = Measured Voltage Reading (volts)
R = Input Impedance (50 ohms)
G = Receiving Antenna Gain (Linear Ratio)

$$E_{dB\mu V/m} = 20 * Log_{10} E_{\mu V/m}$$

Alternatively,

$$E_{dB\mu V/m} = V_{dB\mu V} + 20 * Log_{10}(F_{MHz}) - G_{rx} + L_{dB} - 29.78$$

where

F = Frequency
L = Feeder losses

Date: **Sheet No.**

MEASUREMENTS

Downlead (Uncorrected) Values

Antenna Details:		
Type:	Height (m):	Gain (dB):
	Polarisation:	VSWR:
Cable Loss at 100 MHz (dB):	Cable Loss at 200 MHz (dB):	
Cable Loss at 600 MHz (dB):	Cable Loss at 800 MHz (dB):	
Measuring Instrument Used:		

Test Point

NGR: Description:	NGR: Description:	NGR: Description:

Transmitter Site	Description of Terrain in Transmitter Direction			
Station	Freq (MHz)	Signal Level (dBμV)		

Transmitter Site	Description of Terrain in Transmitter Direction			
Station	Freq (MHz)	Signal Level (dBμV)		

Date: **Sheet No.**

Test Point

NGR: Description:	NGR: Description:	NGR: Description:

Transmitter Site	Description of Terrain in Transmitter Direction			
Station	Freq (MHz)	Signal Level (dBμV)		

Transmitter Site	Description of Terrain in Transmitter Direction			
Station	Freq (MHz)	Signal Level (dBμV)		

Transmitter Site	Description of Terrain in Transmitter Direction			
Station	Freq (MHz)	Signal Level (dBμV)		

PART II – Technical Schedules

Station Name	Ch	Longitude	Latitude	Site Ht. (m)	Ant. Ht. (m)	Pol	Vision Carrier Freq. (MHz)	Vision ERP (dBW)	Primary Sound Freq (MHz)	Primary Sound ERP (dBW)	Secondary Sound Carrier Freq (MHz)	Nicam Sound ERP (dBW)	Service Name	Offset
ABBEYFEALE	50	9W1731	52N2213	194	20	H	703.25	17	709.25	7	709.8	-3.0	TG4	0
ACHILL VP	50	10W0135	53N5726	366	50	V	703.25	43	709.25	33	709.8	23.0	TG4	32
AGHAVANNAGH	64	6W2625	52N5525	285	6	H	815.25	13	821.25	3	821.8	-7.0	TG4	0
ANASCAUL	49	10W0902	52N0334	37	5	H	695.25	10	701.25	0	701.8	-10.0	TG4	0
ANNAGARY	23	8W2004	55N0120	15	5	H	487.25	0	493.25	-10	493.8	-20.0	TG4	0
ARANMORE	49	8W3027	54N5859	125	45	V	695.25	39	701.25	29	701.8	19.0	TG4	-32
ASHFORD	32	6W0554	53N0053	50	18	V	559.25	16	565.25	6	565.8	-4.0	TG4	-32
ASHLEAM	31	9W5536	53N5431	20	10	V	551.25	14	557.25	4	557.8	-6.0	TG4	32
BALLINGEARY	64	9W1333	51N5010	220	18	H	815.25	14	821.25	4	821.8	-6.0	TG4	0
BALLINGLEN	31	9W2250	54N1345	70	10	H	551.25	10	557.25	0	557.8	-10.0	TG4	32
BALLINTRILLICK	37	8W2524	54N2434	48	30	H	599.25	17	605.25	7	605.8	-3.0	TG4	0
BALLYANDREEN	37	8W0315	51N4930	61	6	V	599.25	0	605.25	-10	605.8	-20.0	TG4	-32
BALLYBOFEY	64	7W4458	54N4730	83	37	V	815.25	27	821.25	17	821.8	7.0	TG4	0
BALLYDAVID	32	10W2215	52N1143	15	20	V	559.25	23	565.25	13	565.8	3.0	TG4	-32
BALLYMACARBRY	64	7W4354	52N1550	158	12	H	815.25	15	821.25	5	821.8	-5.2	TG4	-32
BANDON	51	8W4347	51N4426	55	20	H	711.25	17	717.25	7	717.8	-3.0	TG4	-32
BANTRY HP	50	9W2638	51N3956	175	33	H	703.25	30	709.25	20	709.8	10.0	TG4	-32
BANTRY VP	50	9W2638	51N3956	175	35	V	703.25	36	709.25	26	709.8	16.0	TG4	-32
BEALANABRACK	49	9W3627	53N3124	75	15	H	695.25	20	701.25	10	701.8	0.0	TG4	32
BEEFAN	51	8W4335	54N4250	50	3	H	711.25	10	717.25	0	717.8	-10.0	TG4	0
BELLEVUE-GREYSTONES	63	6W0600	53N0855	220	30	V	807.25	30	813.25	20	813.8	10.0	TG4	-32
BEN GORM	64	9W4455	53N3645	110	5	V	815.25	10	821.25	0	821.8	-10.0	TG4	0
BLARNEY	23	8W3503	51N5503	101	25	H	487.25	20	493.25	10	493.8	0.0	TG4	0
BONANE	50	9W3159	51N4925	137	6	H	703.25	0	709.25	-10	709.8	-20.0	TG4	0
BRISKA	21	9W4315	54N0902	220	12	H	471.25	10	477.25	0	477.8	-10.0	TG4	0
BROADFORD	50	8W3858	52N4806	61	12	V	703.25	13	709.25	3	709.8	-7.0	TG4	32
BURT	43	7W2918	55N0155	40	10	V	647.25	7	653.25	-3	653.8	-13.0	TG4	0
CAHIR	48	7W5700	52N2311	177	20	V	687.25	20	693.25	10	693.8	0.0	TG4	-32
CAIRN HILL	48	7W4258	53N4825	277	129	H	703.25	59	709.25	49	709.8	39.0	TG4	0
CARHAN (KILLURLEY WEST)	63	10W1136	51N5824	46	12	V	807.25	20	813.25	10	813.8	0.0	TG4	32
CARLINGFORD	51	6W0749	54N0138	10	35	V	711.25	23	717.25	13	717.8	3.0	TG4	0
CARRICKMOURNE	64	7W0749	52N3150	30	10	H	815.25	13	821.25	3	821.8	-7.0	TG4	0
CARRIGADROHID	64	8W5125	51N5333	88	15	H	815.25	0	821.25	-10	821.8	-20.0	TG4	0
CARROWREVAGH	37	9W3400	53N4310	212	5	V	599.25	14	605.25	4	605.8	-6.0	TG4	0
CASLA	49	9W3334	53N1721	10	55	V	695.25	37	701.25	27	701.8	17.0	TG4	-32
CASTLEBAR	23	9W2223	53N5530	420	60	H	487.25	43	493.25	33	493.8	23.0	TG4	0
CASTLETOWNBERE	63	10W0003	51N3822	460	35	V	807.25	43	813.25	33	813.8	23.0	TG4	0
CLERMONT CARN	68	6W1919	54N0443	510	116	V	847.25	55	853.25	45	853.8	34.7	TG4	32
CLERMONT CARN LP	23	6W1919	54N0443	510	45	V	487.25	20	493.25	10	493.8	0.0	TG4	-32
CLIFDEN	32	9W5618	53N3024	270	50	V	559.25	43	565.25	33	565.8	23.0	TG4	32
CLIFDEN GLEN	49	9W5909	53N2916	61	10	V	695.25	10	701.25	0	701.8	-10.0	TG4	0
CLOGHAN (Donegal)	50	7W5643	54N5058	140	5	H	703.25	0	709.25	-10	709.8	-20.0	TG4	0
CLONAKILTY	49	8W5552	51N3645	91	30	H	695.25	17	701.25	7	701.8	-3.0	TG4	0
CLONMANY	49	7W2521	55N1537	25	12	V	695.25	13	701.25	3	701.8	-7.0	TG4	0
CLONMEL	50	7W4135	52N2025	215	30	H	695.25	30	701.25	20	701.8	10.0	TG4	32
CNOC FOLA/KNOCKFOLA	37	8W1625	55N0842	70	5	H	599.25	7	605.25	-3	605.8	-13.0	TG4	0
COLLINS BARRACKS	43	8W2759	51N5508	67	37	V	647.25	22	653.25	12	653.8	2.0	TG4	0
CORNAMONA	31	9W2640	53N3115	100	25	V	551.25	10	557.25	0	557.8	-10.0	TG4	-32
CRAFFIELD	37	6W2210	52N5133	213	10	H	599.25	10	605.25	0	605.8	-10.0	TG4	0
CRIMLIN EAST	51	9W2949	53N3106	55	6	V	711.25	10	717.25	0	717.8	-10.0	TG4	0

Station Name	Ch	Longitude	Latitude	Site Ht. (m)	Ant. Ht. (m)	Pol.	Vision Carrier Freq. (MHz)	Vision ERP (dBW)	Primary Sound Freq. (MHz)	Primary Sound ERP (dBW)	Secondary Sound Carrier Freq (MHz)	Nicam Sound ERP (dBW)	Service Name	Offset
CROSS	68	7W1430	55N0830	194	18	H	847.25	10	853.25	0	853.8	-10.0	TG4	0
CROSSBARRY	64	8W3759	51N4657	72	15	V	815.25	20	821.25	10	821.8	0.0	TG4	-32
CROSSHAVEN	65	8W1739	51N4728	91	45	V	823.25	30	829.25	20	829.8	10.0	TG4	32
CURRANS PORT	41	8W1328	55N0857	10	10	H	631.25	10	637.25	0	637.8	-10.0	TG4	0
DINGLE	33	10W1836	52N0719	61	34	V	567.25	27	573.25	17	573.8	7.0	TG4	32
DONARD	49	6W3716	53N0129	198	7	V	695.25	0	701.25	-10	701.8	-20.0	TG4	0
DOONCARTON (IORRAS)	31	9W4931	54N1623	260	10	V	551.25	30	557.25	20	557.8	10.0	TG4	-32
DOONCARTON (IORRAS)	31	9W4931	54N1623	260	10	H	551.25	30	557.25	20	557.8	10.0	TG4	-32
DRIMOLEAGUE	49	9W1534	51N3755	120	40	V	695.25	27	701.25	17	701.8	7.0	TG4	32
DROMANASSIG	64	9W3152	51N5049	107	10	H	815.25	10	821.25	0	821.8	-10.0	TG4	0
DROMORE	64	7W4122	54N5720	20	5	H	815.25	10	821.25	0	821.8	-10.0	TG4	0
DROMORE CORK	51	9W2155	51N3858	90	5	H	711.25	0	717.25	-10	717.8	-20.0	TG4	-32
DROUMGARRIF	32	9W3207	51N4535	122	10	H	559.25	0	565.25	-10	565.8	-20.0	TG4	0
DRUMMIN	59	9W3721	53N4055	300	10	H	775.25	0	781.25	-10	781.8	-20.0	TG4	0
DUNGARVAN	63	7W4404	52N0414	255	50	H	807.25	40	813.25	30	813.8	20.0	TG4	32
DUNLEWY	49	8W0707	55N0043	152	5	H	695.25	0	701.25	-10	701.8	-20.0	TG4	0
DUNMANWAY	51	9W0414	51N4249	110	15	V	711.25	20	717.25	10	717.8	0.0	TG4	0
DUNQUIN	23	10W2756	52N0809	65	9	H	487.25	13	493.25	3	493.8	-7.0	TG4	32
ENNISTYMON	64	9W1800	52N5808	45	25	H	815.25	13	821.25	3	821.8	-7.0	TG4	32
FAILMORE	64	9W3341	53N3015	20	15	V	815.25	10	821.25	0	821.8	-10.0	TG4	0
FALCARRAGH	31	8W1032	55N0714	98	40	H	551.25	30	557.25	20	557.8	10.0	TG4	-32
FALLMORE	32	10W0605	54N1610	90	16	H	559.25	10	565.25	0	565.8	-10.0	TG4	0
FANAD	64	7W3949	55N1338	220	30	V	815.25	37	821.25	27	821.8	17.0	TG4	-32
FEOHANAGH SH	31	10W214	52N1318	45	10	V	551.25	10	557.25	0	557.8	-10.0	TG4	0
FERMOY	49	8W1649	52N0836	50	30	V	695.25	20	701.25	10	701.8	0.0	TG4	0
FERMOYLE	37	8W5205	52N0525	200	8	H	599.25	10	605.25	0	605.8	-10.0	TG4	0
FERRYPOINT	51	7W4936	51N5708	61	9	V	711.25	17	717.25	7	717.8	-3.0	TG4	-32
FINVARRA	31	9W0611	53N0859	25	20	V	551.25	17	557.25	7	557.8	-3.0	TG4	0
GLANDORE	68	9W0530	51N3330	120	18	V	847.25	17	853.25	7	853.8	-3.0	TG4	32
GLANLEA	37	8W2822	51N4527	220	5	H	599.25	10	605.25	0	605.8	-10.0	TG4	0
GLANMIRE	51	8W2311	51N5447	35	30	H	711.25	23	717.25	13	717.8	3.0	TG4	32
GLEANN NA NGEALT	50	9W5619	52N1251	150	12	H	703.25	13	709.25	3	709.8	-7.0	TG4	0
GLENACARNEY	50	9W0932	52N1707	275	6	H	703.25	10	709.25	0	709.8	-10.0	TG4	0
GLENBEIGH	49	9W5623	52N0410	15	15	H	695.25	15	701.25	5	701.8	-5.2	TG4	32
GLENCAR Co KERRY	32	9W5430	52N0114	100	15	V	559.25	10	565.25	0	565.8	-10.0	TG4	32
GLENCAR Co LEITRIM	49	8W2320	54N1956	152	10	V	695.25	10	701.25	0	701.8	-10.0	TG4	0
GLENCOLUMBCILLE	49	8W4245	54N4337	270	55	H	695.25	23	701.25	13	701.8	3.0	TG4	32
GLENGAD	63	7W1030	55N1915	60	6	V	807.25	10	813.25	0	813.8	-10.0	TG4	-32
GLENISLAND SH	37	9W2409	53N5352	55	10	H	599.25	0	605.25	-10	605.8	-20.0	TG4	0
GLENMALURE	37	6W1910	52N5617	236	10	H	599.25	10	605.25	0	605.8	-10.0	TG4	0
GLENNAGEVLAGH	49	9W4010	53N3610	50	10	V	695.25	10	701.25	0	701.8	-10.0	TG4	0
GLENTIES	50	8W1902	54N4853	175	25	H	703.25	20	709.25	10	709.8	0.0	TG4	-32
GOREY	64	6W1648	52N4040	58	12	H	815.25	10	821.25	0	821.8	-10.0	TG4	32
HEADFORT	49	9W2343	52N0041	150	18	H	695.25	14	701.25	4	701.8	-6.0	TG4	-32
HOLYWELL HILL	33	7W2405	54N5956	260	45	H	567.25	46	573.25	36	573.8	26.0	TG4	-32
INCHIGEELAGH	50	9W0733	51N4958	110	24	V	703.25	10	709.25	0	709.8	-10.0	TG4	0
INISCLEIRE	64	9W3036	51N2555	50	13	V	815.25	20	821.25	10	821.8	0.0	TG4	0
INISTIOGE	63	7W0416	52N2847	122	30	H	807.25	13	813.25	3	813.8	-7.0	TG4	-32
KELLS Co KERRY	32	10W0629	52N0121	61	12	H	559.25	14	565.25	4	565.8	-6.0	TG4	0
KILBANE	37	8W3308	52N4817	150	6	V	599.25	10	605.25	0	605.8	-10.0	TG4	0

Station Name	Ch	Longitude	Latitude	Site Ht. (m)	Ant. Ht. (m)	Pol	Vision Carrier Freq. (MHz)	Vision ERP (dBW)	Primary Sound Freq. (MHz)	Primary Sound ERP (dBW)	Secondary Sound Carrier Freq (MHz)	Nicam Sound ERP (dBW)	Service Name	Offset
KILCAR	50	8W3615	54N3745	100	6	H	703.25	10	709.25	0	709.8	-10.0	TG4	0
KILCAR GLEN	51	8W3547	54N3830	80	6	H	711.25	10	717.25	0	717.8	-10.0	TG4	
KILGARVAN	49	9W2641	51N5217	170	24	H	695.25	14	701.25	4	701.8	-6.0	TG4	32
KILKEAVERAGH	49	10W2000	51N5202	360	60	V	695.25	42	701.25	32	701.8	22.0	TG4	0
KILKEE	64	9W3957	52N3944	61	12	H	815.25	13	821.25	3	821.8	-7.0	TG4	0
KILLALOE	64	8W2511	52N4940	183	18	V	815.25	20	821.25	10	821.8	0.0	TG4	-32
KILLEAGH	64	7W5939	51N5620	30	24	H	815.25	20	821.25	10	821.8	0.0	TG4	0
KILMACOMMA	32	7W4315	52N2120	45	10	H	559.25	13	565.25	3	565.8	-7.0	TG4	32
KILMACTHOMAS	64	7W2520	52N1156	65	40	V	815.25	13	821.25	3	821.8	-7.0	TG4	0
KINSALE	23	8W2951	51N4152	33	8	V	487.25	7	493.25	-3	493.8	-13.0	TG4	0
KIPPURE	59	6W1955	53N1038	750	120	H	775.25	57	781.25	47	781.8	37.0	TG4	-32
KNOCKALAFALLA	59	7W3226	52N2026	165	10	V	775.25	0	781.25	-10	781.8	-20.0	TG4	0
KNOCKANEDIN	37	10W0519	51N5657	180	7	H	599.25	10	605.25	0	605.8	-10.0	TG4	0
KNOCKANORE	49	9W3626	52N3131	268	20	V	695.25	32	701.25	22	701.8	11.8	TG4	32
KNOCKMOYLE	63	9W4242	52N1238	375	55	V	807.25	33	813.25	23	813.8	13.0	TG4	32
LARAGH	51	6W1557	53N0010	270	30	H	711.25	20	717.25	10	717.8	0.0	TG4	-32
LAURAGH	65	9W4718	51N4453	30	12	H	823.25	14	829.25	4	829.8	-6.0	TG4	-32
LEAP	51	9W0924	51N3425	76	12	H	711.25	13	717.25	3	717.8	-7.0	TG4	32
LEENAUN	31	9W4141	53N3535	46	18	V	551.25	13	557.25	3	557.8	-7.0	TG4	0
LEHINCH	50	9W2223	52N5932	207	40	V	703.25	20	709.25	10	709.8	0.0	TG4	-32
LETTERKENNY	68	7W3739	54N5321	230	80	V	847.25	37	853.25	27	853.8	17.0	TG4	0
LISSCARRIGANE	50	9W0440	51N5850	250	10	H	703.25	10	709.25	0	709.8	-10.0	TG4	0
LISSYCLEARIG	37	9W3908	51N5433	165	8	V	599.25	3	605.25	-7	605.8	-17.0	TG4	0
LISTOWEL	63	9W2750	52N2736	90	35	H	807.25	20	813.25	10	813.8	0.0	TG4	32
MAAM	31	9W3400	53N3113	35	15	H	551.25	13	557.25	3	557.8	-7.0	TG4	32
MAAMCLASSACH	50	10W2535	52N0832	200	25	V	703.25	23	709.25	13	709.8	3.0	TG4	32
MACROOM	55	8W5742	51N5353	152	20	H	743.25	17	749.25	7	749.8	-3.0	TG4	0
MAGHERA	68	8W4308	52N5803	400	150	H	847.25	60	853.25	50	853.8	40.0	TG4	0
MALIN	32	7W1733	55N1931	183	35	H	559.25	33	565.25	23	565.8	13.0	TG4	-32
MARINO POINT	23	8W1854	51N5232	60	25	V	487.25	21	493.25	11	493.8	1.0	TG4	-32
MEENACREEVA	23	8W0815	55N0210	145	5	H	487.25	0	493.25	-10	493.8	-20.0	TG4	0
MITCHELSTOWN	51	8W1823	52N1842	330	40	V	711.25	30	717.25	20	717.8	10.0	TG4	-32
MONAGHAN / LUGAD	64	7W0143	54N1106	214	50	H	815.25	40	821.25	30	821.8	20.0	TG4	0
MONASOOTAGH	64	6W2757	52N3909	130	15	H	815.25	14	821.25	4	821.8	-6.0	TG4	-32
MORLEY'S BRIDGE	37	9W2255	51N5423	180	5	H	599.25	0	605.25	-10	605.8	-20.0	TG4	0
MOSSY GLEN	63	7W0107	55N1502	165	12	V	807.25	7	813.25	-3	813.8	-13.0	TG4	0
MOUNT GABRIEL HP	23	9W3229	51N3320	408	10	H	487.25	33	493.25	23	493.8	13.0	TG4	32
MOUNT GABRIEL VP	23	9W3229	51N3320	408	10	V	487.25	33	493.25	23	493.8	13.0	TG4	32
MOUNT LEINSTER	23	6W4643	52N3706	796	110	H	487.25	57	493.25	47	493.8	37.0	TG4	32
MOUNTAINSTAGE	32	9W5723	52N0101	200	15	H	559.25	10	565.25	0	565.8	-10.0	TG4	32
MOVILLE	50	7W0104	55N1315	320	35	H	703.25	33	709.25	23	709.8	13.0	TG4	32
MULLAGHANISH	31	9W0844	51N5854	650	170	H	551.25	56	557.25	46	557.8	36.0	TG4	0
MULRANY	65	9W4844	53N5427	152	15	H	823.25	13	829.25	3	829.8	-7.0	TG4	32
NEWBAUN	59	6W4700	52N2049	80	40	H	775.25	0	781.25	-10	781.8	-20.0	TG4	0
NIRE VALLEY	31	7W3816	52N1703	230	18	H	551.25	14	557.25	4	557.8	-6.0	TG4	-32
RECESS	64	9W4353	53N2737	70	7	H	815.25	0	821.25	-10	821.8	-20.0	TG4	-32
RINVYLE	63	10W0145	53N3624	10	15	V	807.25	0	813.25	-10	813.8	-20.0	TG4	0
ROSSCARBERY	63	9W0152	51N3406	52	30	H	807.25	17	813.25	7	813.8	-3.0	TG4	0
SHANAFARAGHAUN	49	9W3011	53N3434	60	6	V	695.25	10	701.25	0	701.8	-10.0	TG4	0
SLIGO TOWN	51	8W2709	54N1507	125	30	V	711.25	23	717.25	13	717.8	3.0	TG4	32

Station Name	Ch	Longitude	Latitude	Site Ht. (m)	Ant. Ht. (m)	Pol	Vision Carrier Freq. (MHz)	Vision ERP (dBW)	Primary Sound Freq. (MHz)	Primary Sound ERP (dBW)	Secondary Sound Carrier Freq (MHz)	Nicam Sound ERP (dBW)	Service Name	Offset
SPUR HILL	63	8W3100	51N5121	137	30	H	807.25	40	813.25	30	813.8	20.0	TG4	0
SUIR VALLEY	63	7W1546	52N2224	280	45	V	807.25	36	813.25	26	813.8	16.0	TG4	0
THE GLEN	37	8W1309	54N4753	150	5	V	599.25	0	605.25	-10	605.8	-20.0	TG4	0
THREE ROCK	55	6W1411	53N1449	448	60	H	743.25	44	749.25	34	749.8	24.0	TG4	-32
TIMOLEAGUE	37	8W4505	51N3719	89	10	V	599.25	10	605.25	0	605.8	-10.0	TG4	0
TINAHELY	37	6W2810	52N4805	107	12	V	599.25	13	605.25	3	605.8	-7.0	TG4	0
TOMRILAND	31	6W1242	53N0056	200	12	V	551.25	10	557.25	0	557.8	-10.0	TG4	-32
TOOMES BRIDGE	51	9W0509	51N5205	110	5	H	711.25	13	717.25	3	717.8	-7.0	TG4	0
TRUSKMORE	63	8W2259	54N2225	640	130	H	807.25	57	813.25	47	813.8	37.0	TG4	0
WEST PORT	64	9W3109	53N4745	60	12	H	815.25	15	821.25	5	821.8	-5.2	TG4	32
WOODCOCK HILL	49	8W4122	52N4311	244	55	H	695.25	33	701.25	23	701.8	13.0	TG4	0
WOODENBRIDGE	37	6W1420	52N4940	61	10	V	599.25	10	605.25	0	605.8	-10.0	TG4	0
YOUGHAL STRAND	37	7W5126	51N5610	15	15	H	599.25	7	605.25	-3	605.8	-13.0	TG4	0

Section 2 - UHF Horizontal Radiation Restrictions - TG4

Station Name	Service Name	0º	10º	20º	30º	40º	50º	60º	70º	80º	90º	100º	110º	120º	130º	140º	150º	160º	170º	180º	190º	200º	210º	220º	230º	240º	250º	260º	270º	280º	290º	300º	310º	320º	330º	340º	350º
ABBEYFEALE	TG4	0	0	0	0	0	0	0	0	0	0	0	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ACHILL VP	TG4	3	4	4	3	2	3	5	5	4	3	4	5	3	3	3	5	5	3	3	4	5	3	1	1	2	2	0	0	0	2	2	1	1	3	5	4
AGHAVANNAGH	TG4	26	26	24	20	16	12	9	5	3	1	0	0	0	1	3	5	9	12	16	20	24	26	26	26	28	28	28	28	28	28	28	28	28	28	28	26
ANASCAUL	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANNAGARY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARANMORE	TG4	14	10	6	3	1	0	0	0	2	2	1	0	1	2	2	0	0	0	1	3	6	10	14	19	23	24	23	26	28	23	28	26	23	24	23	19
ASHFORD	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASHLEAM	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BALLINGEARY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BALLINGLEN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BALLINTRILLICK	TG4	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	5
BALLYANDREEN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BALLYBOFEY	TG4	10	10	10	6	3	2	2	0	0	1	2	3	5	7	9	11	10	8	4	5	9	12	13	11	8	6	4	2	0	0	1	1	1	1	5	9
BALLYDAVID	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BALLYMACARBRY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BANDON	TG4	6	5	5	6	9	12	14	16	18	20	21	23	24	31	21	23	26	22	25	23	18	14	11	7	5	3	1	0	0	0	2	3	3	3	4	7
BANTRY HP	TG4	0	0	2	3	1	0	1	2	5	7	10	13	17	19	20	19	19	31	22	22	31	19	19	20	19	17	13	10	7	5	2	1	0	1	3	2
BANTRY VP	TG4	29	30	30	32	32	30	30	30	30	32	32	30	30	29	26	26	29	29	18	10	5	3	1	0	0	0	0	1	3	5	10	18	29	29	26	26
BEALANABRACK	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEEFAN	TG4	1	2	3	4	5	6	8	10	12	16	18	20	22	24	25	28	28	28	28	28	25	24	22	20	18	16	12	10	8	6	5	4	3	2	1	0
BELLEVUE-GREYSTONES	TG4	3	3	3	3	3	6	6	6	6	6	6	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEN GORM	TG4	0	0	0	1	3	5	5	5	5	5	3	1	0	0	0	2	3	5	7	10	16	20	23	26	25	24	25	26	23	20	16	10	7	5	3	2
BLARNEY	TG4	0	0	0	0	1	1	1	2	3	4	5	6	7	8	7	6	6	6	6	6	6	6	7	8	7	6	5	4	3	2	1	1	1	0	0	0
BONANE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRISKA	TG4	26	26	26	26	26	26	24	20	16	12	8	5	3	1	0	0	0	1	3	5	8	12	0	16	20	24	26	26	26	26	26	28	28	28	28	26
BROADFORD	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BURT	TG4	10	10	10	7	5	3	0	0	0	0	0	0	3	5	7	10	10	16	16	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	16
CAHIR	TG4	28	26	26	26	24	20	16	12	8	5	3	1	0	0	0	1	3	5	8	12	16	20	24	26	26	26	28	30	34	34	34	34	34	34	34	30
CAIRN HILL	TG4	5	5	4	4	5	5	6	6	5	4	3	2	1	1	0	0	0	0	0	0	0	1	2	3	2	3	5	6	6	7	7	6	4	5	6	6
CARHAN (KILLURLEY WEST)	TG4	6	6	6	4	4	3	3	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	3	3	5	5	5	6	6	6	6	6
CARLINGFORD	TG4	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	7	7	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	14	14
CARRICKMOURNE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARRIGADROHID	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARROWREVAGH	TG4	1	0	0	1	3	4	6	9	13	17	23	23	17	13	9	6	4	2	1	0	0	2	3	1	1	1	3	1	0	0	1	3	1	1	1	3
CASLA	TG4	1	3	3	4	6	8	6	4	5	7	7	5	3	3	2	0	0	0	2	3	2	1	2	3	1	0	0	2	3	2	1	2	3	1	0	0
CASTLEBAR	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CASTLETOWNBERE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	6	6	6	6	6	6	6	3	3	3	3	3	0	0	0
CLERMONT CARN	TG4	0	0	0	0	0	0	3	6	10	16	16	16	14	8	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name	Service Name	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°	330°	340°	350°
CLERMONT CARN LP	TG4	10	7	4	3	1	0	0	0	1	3	4	7	10	14	18	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	18	14
CLIFDEN	TG4	2	3	3	4	7	15	15	11	14	12	7	4	3	4	3	0	1	2	4	3	0	0	2	3	2	1	2	4	3	0	0	1	3	2	1	1
CLIFDEN GLEN	TG4	8.6	12	16.5	20	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	20	16.5	12	8.6	5.5	3	0.5	0.4	0	0.4	1.5	3.2	5.5
CLOGHAN (Donegal)	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLONAKILTY	TG4	10	10	3	3	3	0	0	0	0	0	0	3	3	3	10	10	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
CLONMANY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	6	6	6	6	6	6	3	3	3	3	3	0
CLONMEL	TG4	0	0	0	0	0	0	0	3	3	3	3	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	3	3	3	0	0	0	0	0	0
CNOC FOLA/KNOCKFOLA	TG4	26	26	26	26	26	26	26	26	26	24	20	16	12	9	5	3	1.5	0.4	0	0.4	1.5	3	5	9	12	16	20	24	26	26	26	26	26	26	26	26
COLLINS BARRACKS	TG4	0	0	2	2	1	1	2	2	0	0	0	2	2	1	1	2	2	0	0	0	2	2	1	1	2	2	0	0	0	2	2	1	1	2	2	0
CORNAMONA	TG4	4	4	4	4	6	6	6	6	6	6	4	4	4	3	3	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
CRAFFIELD	TG4	1	2	3	2	1	1	2	3	2	1	0	1	2	3	5	7	10	16	20	23	24	24	24	24	24	23	20	16	12	10	7	5	3	2	1	0
CRIMLIN EAST	TG4	1.5	0.3	0	0.3	1.3	2.6	3.1	2.6	0.4	0	0.8	2.2	4	6	9	11	13	16	16	16	16	16	16	16	14	12	11	8	6	4	3	6	0	3	2	3
CROSS	TG4	0	0	0	2	3	1	0	1	3	2	0	0	0	2	4	6	8	11	13	15	16	16	16	16	16	16	16	16	16	14	12	11	8	6	4	2
CROSSBARRY	TG4	5	5	4	2	0	0	0	1	3	6	10	14	18	20	20	20	20	20	20	20	20	20	20	17	15	9	6	3	1	0	0	1	2	4	5	5
CROSSHAVEN	TG4	2	1	0	0	0	3	6	11	16	19	19	20	24	24	28	25	25	28	24	24	20	19	19	16	11	6	3	0	0	0	1	2	3	2	2	3
CURRANS PORT	TG4	26	26	26	26	26	25	22	18	14	10	7	4	2	0.9	0.1	0.1	0.9	2	4	7	10	14	18	22	25	26	26	26	26	26	26	26	26	26	26	26
DINGLE	TG4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3
DONARD	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOONCARTON (IORRAS)	TG4	23.7	23.7	25	25	25	25	25	25	25	20	20	20	20	20	11	11	11	4	4	4	0	0	0	0	0	0	0	4	4	4	11	11	11	20	23.7	23.7
DOONCARTON (IORRAS)	TG4	23.7	23.7	25	25	25	25	25	25	25	20	20	20	20	20	11	11	11	4	4	4	0	0	0	0	0	0	0	4	4	4	11	11	11	20	23.7	23.7
DRIMOLEAGUE	TG4	1	1	1	2	2	3	3	4	5	6	6	6	6	6	6	6	5	4	3	3	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0
DROMANASSIG	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DROMORE	TG4	26	26	26	26	26	26	26	26	24	20	16	12	8	5	3	1	5	0	0.5	1.5	3	5	8	12	16	20	24	26	26	26	26	26	26	26	26	26
DROMORE CORK	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DROUMGARRIF	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRUMMIN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUNGARVAN	TG4	0	0	0	0	0	0	1	1	2	3	4	6	7	7	6	6	6	5	5	5	6	6	6	7	7	6	4	3	2	1	1	0	0	0	0	0
DUNLEWY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUNMANWAY	TG4	0	0	0	0	0	3	3	3	3	3	6	6	6	6	6	6	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUNQUIN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENNISTYMON	TG4	1	0	0	0	1	3	5	7	10	12	15	19	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	19	15	12	10	7	5	3
FAILMORE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FALCARRAGH	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
FALLMORE	TG4	16	16	16	16	16	16	16	16	13	12	10	7	5	3	1	0.2	0	1.7	3	2.1	0.5	0.6	2.5	3	1.4	0.8	0.3	1.4	3	5	8	10	12	13	16	16
FANAD	TG4	13	13	13	13	11	8	6	4	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	5	7	9	12	13	13
FEOHANAGH SH	TG4	26	26	2	22	18	14	10	7	4	2	1	0.1	0.1	1	2	4	7	10	14	18	22	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26
FERMOY	TG4	6	6	5	4	3	3	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	5	6	6	6	6	6
FERMOYLE	TG4	4	4	4	12	20	30	30	30	30	30	30	30	24	24	24	24	24	24	24	24	24	30	30	30	30	30	30	30	20	12	4	4	0	0	0	0

Station Name	Service Name	0º	10º	20º	30º	40º	50º	60º	70º	80º	90º	100º	110º	120º	130º	140º	150º	160º	170º	180º	190º	200º	210º	220º	230º	240º	250º	260º	270º	280º	290º	300º	310º	320º	330º	340º	350º
FERRYPOINT	TG4	0	0	1	3	2	2	2	3	6	9	13	19	25	28	19	17	21	35	23	27	26	18	17	22	34	21	15	10	7	4	3	2	2	3	2	1
FINVARRA	TG4	16	16	16	16	16	13	12	10	7	5	3	1	0	0	1	3	2	0	0	2	3	1	0	0	1	3	5	8	10	12	13	16	16	16	16	16
GLANDORE	TG4	28	27	27	30	30	30	34	30	30	30	30	30	34	30	30	30	28	26	28	30	28	14	7	4	2	1	0	0	0	0	2	4	7	14	28	30
GLANLEA	TG4	2.6	3	1	0.2	1.3	3.1	2.6	0.4	0	1	2	4	6	9	11	13	15	16	16	18	20	20	20	18	19	19	14	12.5	11	8.5	6	4	2	0.6	0	0.6
GLANMIRE	TG4	0	0	1	3	5	7	11	15	18	22	21	20	21	26	22	26	27	19	22	22	21	19	16	12	10	7	4	3	4	5	3	1	1	3	3	1
GLEANN NA NGEALT	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLENACARNEY	TG4	26	26	26	26	26	26	26	26	26	26	26	24	20	16	12	9	5	3	1.5	0.4	0	0.4	1.5	3.2	5.5	9	12	16	20	24	26	26	26	26	26	26
GLENBEIGH	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLENCAR Co KERRY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLENCAR Co LEITRIM	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLENCOLUMBCILLE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLENGAD	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLENISLAND SH	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLENMALURE	TG4	0	1	2	3	2	2	3	2	1	0	1	2	3	4	5	7	10	16	20	23	25	28	28	28	28	28	25	23	20	16	10	7	5	3	2	1
GLENNAGEVLAGH	TG4	1.3	0.2	0	1.7	3	2.1	0.5	0.6	2.5	3	1.4	0	0.3	1.4	3	5	8	10	12	13	16	16	16	16	16	16	16	16	16	16	13	12	10	7	5	3
GLENTIES	TG4	6	6	6	6	6	6	6	6	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6	6	6	6	6	6
GOREY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEADFORT	TG4	0	0	0	0	0	0	0	0	0	0	3	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	3	0	0	0	0	0
HOLYWELL HILL	TG4	2	1	1	0	0	1	3	4	4	5	5	5	5	5	5	5	5	5	4	2	0	0	0	1	2	2	1	2	2	2	1	1	1	2	1	2
INCHIGEELAGH	TG4	2	2	1	0	0	1	3	6	8	10	12	16	20	20	20	20	19	19	20	20	20	20	16	12	10	8	6	3	1	0	0	1	2	2	0	0
INISCLEIRE	TG4	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	5	6	6	6	6	6	6	6	5	4	3	3	2	2	1	1
INISTIOGE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KELLS Co KERRY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KILBANE	TG4	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	20	16	12	9	5.5	3	1.5	0.4	0	0.4	1.5	3.2	5.5	8	12	16	20
KILCAR	TG4	16	12	10	7	5	3	2	1	0	1	2	3	2	2	1	1	1	2	2	3	2	1	0	1	2	3	5	7	10	12	16	20	23	24	23	20
KILCAR GLEN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KILGARVAN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	3	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	3	0	0	0
KILKEAVERAGH	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	6	6	6	6	6	6	3	3	3	3	3	0
KILKEE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KILLALOE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KILLEAGH	TG4	0	1	3	2	0	0	2	4	2	0	0	1	2	3	5	9	12	12	10	12	12	9	5	3	2	1	0	0	2	4	2	0	0	2	3	1
KILMACOMMA	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KILMACTHOMAS	TG4	0	0	0	3	3	3	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	3	3	3	0	0
KINSALE	TG4	0	0	3	3	10	10	10	20	20	20	20	20	20	20	20	20	20	10	10	10	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KIPPURE	TG4	11	12	12	11	13	14	11	9	9	11	12	12	11	12	12	11	10	10	11	9	7	7	6	3	1	0	0	0	1	4	7	7	8	10	11	11
KNOCKALAFALLA	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KNOCKANEDIN	TG4	30	30	30	30	30	24	24	24	24	24	24	24	24	24	30	30	30	30	30	30	30	12	12	4	4	0	0	0	0	0	4	4	12	12	30	30
KNOCKANORE	TG4	16	16	16	16	16	14	12.5	10.8	8.5	6	3.9	2	0.6	0	0.6	2.6	3	1	0.2	1.3	3.1	2.6	0.4	0	0.8	2.2	4	6.2	8.8	11	13	15	16	16	16	16

Station Name	Service Name	0º	10º	20º	30º	40º	50º	60º	70º	80º	90º	100º	110º	120º	130º	140º	150º	160º	170º	180º	190º	200º	210º	220º	230º	240º	250º	260º	270º	280º	290º	300º	310º	320º	330º	340º	350º
KNOCKMOYLE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LARAGH	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAURAGH	TG4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	10	10	18	18	18	18	18	18	18	18	18	18	18	18	10	10	3
LEAP	TG4	2	0	0	1	2	2	0	0	2	3	1	0	0	1	4	7	9	12	12	12	10	9	6	5	2	0	0	1	1	3	6	6	4	6	7	4
LEENAUN	TG4	3	1	0	0	1	3	5	7	10	12	13	16	16	16	16	16	16	16	16	16	16	13	12	10	7	5	2	1	0	0	1	3	2	0	0	2
LEHINCH	TG4	1	2	2	1	1	1	2	1	0	1	2	1	1	1	2	2	1	0	0	1	2	5	7	11	21	20	18	20	21	11	7	5	2	1	0	0
LETTERKENNY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LISSCARRIGANE	TG4	26	26	26	26	26	26	26	26	26	26	26	26	26	25	22	18	14	10	7	4.3	2.3	0.9	0	0.1	0.9	2.3	4.3	7	10	14	18	22	25	26	26	26
LISSYCLEARIG	TG4	25	25	25	12	12	4	4	0	0	0	0	0	0	0	0	4	4	12	12	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
LISTOWEL	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAAM	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAAMCLASSACH	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MACROOM	TG4	0	1	3	3	0	0	0	2	3	5	7	10	12	14	16	20	20	18	18	18	20	20	16	14	12	10	7	5	3	2	0	0	0	3	3	1
MAGHERA	TG4	0	1	5	5	3	3	2	5	5	2	3	5	3	3	3	3	7	4	1	3	5	2	1	1	2	5	2	0	1	3	1	0	0	0	1	3
MALIN	TG4	7	7	7	7	7	7	7	7	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	7
MARINO POINT	TG4	0	0	0	0	0	0	1	1	1	2	2	3	3	4	5	6	6	6	6	6	6	6	5	4	3	3	2	2	1	1	1	0	0	0	0	0
MEENACREEVA	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MITCHELSTOWN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONAGHAN / LUGAD	TG4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	5	7	9	12	13	13	13	13	13	13	11	8	6	4	3	2
MONASOOTAGH	TG4	0	0	0	0	0	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MORLEY'S BRIDGE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOSSY GLEN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOUNT GABRIEL HP	TG4	18	18	18	11	11	5	5	0	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	6	10	10	10	20	20	20	20	20	20	20	20	20
MOUNT GABRIEL VP	TG4	6	6	8	8	12	12	12	12	20	20	20	20	20	20	20	20	20	20	8	8	8	8	3	3	3	0	0	0	0	0	0	0	0	0	0	0
MOUNT LEINSTER	TG4	3	3	5	7	6	5	5	6	7	8	8	6	7	8	8	8	7	5	3	3	3	2	0	0	0	1	2	1	1	3	6	4	3	4	5	5
MOUNTAINSTAGE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOVILLE	TG4	13	13	13	13	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MULLAGHANISH	TG4	3	4	8	6	4	4	5	4	3	3	4	5	4	4	6	5	3	4	3	4	8	4	1	2	2	0	0	0	0	2	2	2	6	7	4	4
MULRANY	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEWBAUN	TG4	0	0	0	0	0	0	10	10	10	10	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	10	10	10	10	0	0	0	0	0	0
NIRE VALLEY	TG4	10	10	10	6	6	6	6	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	10	10	10
RECESS	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RINVYLE	TG4	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10
ROSSCARBERY	TG4	0	0	0	0	0	0	0	0	0	0	0	2	4	6	6	11	11	15	15	15	15	15	15	15	15	11	11	11	6	6	4	2	0	0	0	0
SHANAFARAGHAUN	TG4	20	24	26	26	26	26	26	26	26	26	26	26	22	26	26	26	26	26	26	24	20	16	12	9	5	3	1.5	0.4	0	0.4	1.5	3.2	5	9	12	16
SLIGO TOWN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	5	5	12	12	12	12	12	6	6	6	0	0	0	0	0	3	3	3	3	3	0	0	0	0
SPUR HILL	TG4	0	2	4	1	0	0	1	2	4	6	9	11	14	14	14	14	14	14	14	14	14	14	14	14	11	9	6	4	2	1	0	0	1	4	2	0
SUIR VALLEY	TG4	13	13	13	13	13	13	13	12	9	7	5	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	6	8

Section 2 - UHF Horizontal Radiation Restrictions - TG4

Station Name	Service Name	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°	330°	340°	350°
THE GLEN	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THREE ROCK	TG4	1	2	3	3	4	5	7	6	6	8	7	7	7	8	8	6	5	5	6	8	8	7	7	8	8	6	6	7	5	4	3	3	2	1	0	0
TIMOLEAGUE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TINAHELY	TG4	9	12	16	20	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	20	16	12	9	5	3	3	1	0	1	3	3	5
TOMRILAND	TG4	0	0	0	0	0	3	3	6	6	6	10	10	10	10	10	10	10	10	6	6	6	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0
TOOMES BRIDGE	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRUSKMORE	TG4	1	0	1	1	0	0	3	6	5	4	5	4	2	3	6	4	2	2	4	2	0	1	3	2	0	0	0	3	5	9	12	12	11	6	4	2
WEST PORT	TG4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WOODCOCK HILL	TG4	16	16	16	14	12	10	8	6	3	2	0	0	0	2	3	1	0	1	3	2	0	0	0	2	4	6	8	11	13	15	16	16	16	16	16	16
WOODENBRIDGE	TG4	0	1	2	3	2	2	3	2	1	0	1	2	3	4	5	7	10	16	20	23	25	28	28	28	28	28	25	23	20	16	10	7	5	3	2	1
YOUGHAL STRAND	TG4	2	1	1	2	2	1	0	0	1	3	5	8	11	21	21	19	21	21	11	8	5	3	1	0	0	1	2	2	1	1	2	2	1	0	1	2