



Office of the Director of
**Telecommunications
Regulation**

List of Reserved Frequency Channels

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National UHF Television Plan And Draft Digital Terrestrial Television Plan

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Oifig an Stiúirthóra Rialála Teileachumarsáide
Office of the Director of Telecommunications Regulation
Abbey Court, Irish Life Centre Lower Abbey Street, Dublin 1.
Telephone +353-1-804 9600 *Fax* +353-1-804 9680
Web www.odtr.ie

List of Reserved Frequency Channels

This document outlines the summary details of frequency assignments, which constitute the National UHF Television Plan for Ireland (Analogue) and the draft Digital Terrestrial Television (DTT) plan. These plans allow for the development of the national television services (i.e. RTE1, Network 2, TV3 and TG4) in order to provide nationwide coverage and for the establishment of a six multiplex Digital Terrestrial Television network.

The document is divided into four parts. Part I outlines the main station details, while Part II gives the horizontal radiation pattern (hrp), where available, for each station. Part III provides details of the currently proposed Digital Terrestrial Television stations. Part IV details the horizontal radiation pattern for DTT services where these differ from the analogue hrp at a site. Where a separate DTT hrp is not listed the analogue hrp in Part II should be assumed. In some instances the horizontal radiation pattern in Part II may be used for some DTT services at a site, in these cases the applicable channel numbers for the DTT hrp are indicated in Part IV.

The plans include details of existing analogue stations and make provision for stations which are intended to be brought into operation at a future date. It will be necessary to add further stations to the plan as additional requirements for the development of both DTT and national analogue television services are identified.

Digital television is expected to be operational in the near future and further frequency assignments will be required to accommodate full national coverage. Digital television, as currently planned, uses the same UHF frequency band as analogue television and it is therefore expected that the band will become more congested as digital television coverage is extended.

This document is provided for information purposes only in the context of preparing applications for deflector licences. While every effort has been made to ensure that the information contained in this document is correct the Office of the Director of Telecommunications Regulation will not accept responsibility for any errors or omissions and reserves the right to update the document without notice where necessary. In particular as the process of planning for DTT is ongoing and subject to international co-ordination, readers should be aware that there may be substantial differences between the channels proposed for DTT and those which may eventually be licenced.

Part I

Details of the National UHF Television Plan

Column	Title	Unit	Comment
1	TX NAME		Name of transmitter site.
2	LATITUDE		Latitude in degrees, minutes seconds.
3	LONGITUDE		Longitude in degrees, minutes seconds.
4	SITE HT	metres	Height of transmitter site above mean sea level.
5	AERIAL HT	metres	Height of aerial above ground level.
6	MAX ERP (dBW)	dBW	Maximum effective radiated power, in dB relative to one watt.
7	POL	H/V	Polarisation of the emitted radio wave, H= horizontal, V= vertical.
8	DIR	D/N	Indicates if Horizontal Radiation Pattern is given, D= directive, N= non-directive.
9	CHANNEL		Channel number
10	OFFSET ¹		Vision carrier offset, given in twelfths of the line frequency (15625 Hz).
11	STATUS	N/O	Indicates if the transmitter station is in operation or not, O= in operation, N= not in operation.
12	PLANNED		Planned date, where available, for the operation of the transmitter station. (1Q= first quarter, 2Q = second quarter etc..)

¹All offsets for stations with an effective radiated power of 1 watt or less are uncontrolled and do not provide any additional protection for these stations. Offsets of greater than 11/12ths line offset are treated as normalised to under 12/12ths, i.e. 20/12 and 32/12 are treated as 8/12, relative offsets of 40/12, 52/12 and 64/12 are treated as 4/12, Offset of 12/12 is treated as 0/12. NB The same Protection Ratio is used for 8/12ths and 4/12ths offsets.

Part II

Details of the Horizontal Radiation Patterns

The horizontal radiation pattern for each station in Part I is listed in Part II. The pattern is given as a restriction in dBs relative to the maximum effective radiated power and is given in radials every ten degrees east of true north (ETN) starting at zero degrees ETN.

Part III

Details of the Draft DTT Plan

Column	Title	Unit	Comment
1	TX NAME		Name of transmitter site.
2	LATITUDE		Latitude in degrees, minutes seconds.
3	LONGITUDE		Longitude in degrees, minutes seconds.
4	SITE HT	metres	Height of transmitter site above mean sea level.
5	AERIAL HT	metres	Height of aerial above ground level.
6	MAX ERP (dBW)	dBW	Maximum effective radiated power, in dB relative to one watt.
7	POL	H/V	Polarisation of the emitted radio wave, H= horizontal, V= vertical.
8	DIR	D/N	Indicates if Horizontal Radiation Pattern is given, D= directive, N= non-directive.
9	CHANNEL		Channel number
10	OFFSET ²		Offsets will be used to ease the combining/filtering of digital and analogue signals at sites.
11	STATUS	N/O/P	Indicates if the transmitter station is in operation or not, O= in operation, N= not in operation. P= Proposed, not operational.
12	PLANNED		Planned date, where available, for the operation of the transmitter station. (1Q= first quarter, 2Q = second quarter etc..)

²Offsets for DTT stations will be plus or minus 167kHz. Details of offsets for DTT have not yet been finalised and are not included. DTT Offsets have no implications for spectrum planning.

Part IV

Details of DTT Horizontal Radiation Patterns

The horizontal radiation pattern (hrp) for some of the DTT stations in Part III is listed in Part IV. The pattern is given as a restriction in dBs relative to the maximum effective radiated power and is given in radials every ten degrees east of true north (ETN) starting at zero degrees ETN.

The hrp in Part II may be assumed for DTT services at other sites. In some instances the hrp in Part IV may only be used for some DTT services at a site, in these cases the applicable channel numbers for the DTT hrp are indicated in Part IV.