

TECHNICAL FREQUENCY ASSIGNMENT CRITERIA

Fixed link equipment for the transmission of analogue television or radar remoting signals or equivalent in the 7.5 GHz, 13/14 GHz, 23 GHz, 28 GHz and 38 GHz frequency bands.

RA 351
June 2003

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Foreword

It is required by the Wireless Telegraphy Act, 1949 and 1998 that no radio apparatus shall be installed or used in the United Kingdom, except under the authority of a licence granted by the Secretary of State. It is a condition of such a licence that the performance of the radio equipment meets certain minimum standards laid down in the appropriate National Technical Regulation or National Standard. Compliance will have been demonstrated by submitting the equipment for a type approval test at an accredited test house.

This document details the frequency assignment criteria and principles that will be employed by the Radiocommunications Agency (RA) in the selection of frequencies for use by fixed point to point, type approved, analogue television or radar remoting signals or equivalent equipments operating in the band or frequency range specified.

The reader should be aware that these assignment criteria are subject to continual updating and amendment, and intending operators / manufacturers should consult the RA to confirm that they have the most recent release of this document. Single copies of this document are available free from the RA library at either the main or temporary address below:

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1. General.

Frequency Assignment Criteria for fixed radio services for the transmission of analogue television or radar remoting signals or equivalent are generally the same as those given in the appropriate specification for the digital systems in each frequency band. Where requirements in this specification differ (due to reference to older issues of MPT 1418 in the digital specifications), this document shall take precedence.

2. Transmitting and Receiving Installations.

The requirements for Effective Isotropic Radiated Power (EIRP), antenna type in relation to EIRP, and antenna polarisation setting accuracy are given in the Frequency Assignment Criteria of the appropriate specification for digital systems.

NOTE: There is currently no digital system specification for the 28 GHz band. Where possible reference is made to the 25 GHz specification MPT 1420. Only parameters specific to 28 GHz not covered in MPT 1420 will be included in this document.

3. Principles of Assignment.

The detailed principles of assignment are given in the Frequency Assignment Criteria of the appropriate specification for digital systems. (See MPT 1420 for 28 GHz)

3.1 Channel Spacings.

- (S) FM-VIDEO SURVEILLANCE: Analogue fm-video (3.5 MHz baseband), used for one hop surveillance TV or radar at 18 GHz and above.
- (D) FM-VIDEO DISTRIBUTION: Analogue fm-video (10 MHz baseband), wide deviation system used for broadcast TV and surveillance at 23 GHz and above.
- (T) FM-VIDEO TRUNK: Analogue fm-video (10 or 14 MHz baseband), ITU-R deviation used on multi-hop trunk routes, broadcast relay.

Table 3.1; Channel Spacings

Baseband (MHz)	7.5 GHz	13/14 GHz	23 GHz	28 GHz	38 GHz
	Channel Spacing	Channel Spacing	Channel Spacing	Channel Spacing	Channel Spacing
<3.5 (S)	-----	-----	21 MHz	-----	21 MHz
<10 (S)	-----	-----	42 MHz	35/42 MHz	42 MHz
<10 (D)	-----	-----	-----	42 MHz	-----
<10 (T)	28 MHz	28 MHz	28 MHz	-----	-----
<14 (T)	28 MHz	28 MHz	28 MHz	-----	-----

The frequencies of like capacity channels shall be separated by multiples of the channel spacing given in Table 4.1 above. Systems of varying capacity will be separated by at least half the channel spacing of one system plus half the channel spacing of the other system.

3.1.1 XS Values

Annex B tables show values for parameter XS which is used to determine the appropriate frequency separation for interfering signals when assessing the levels of interference during the assignment process. For trunk systems in the 7.5 GHz to 23 GHz frequency bands measurements have shown that like broadcast systems can be adequately protected with XS values of 28 MHz whereas radar remoting equipment requires XS values of 42 MHz and 56 MHz as appropriate.

3.2 Parallel Routes

The frequencies of two or more parallel, like capacity channels shall be separated by the minimum channel spacings given in Table 3.1 above.

3.3 Type and bandwidth of link required.

License applications shall state the type of link and video bandwidth required under the categories defined in MPT 1418 Part 1, sub-Clause 5.5 (d) and, in the case of surveillance links (type **(S)**), the required transmission picture grade (5,4 or 3). Grade 5 is assumed for types **(D)** and **(T)**.

3.4 Median signal level assumption for Grade 5 picture quality.

The Radiocommunications Agency will in general examine applications for the use of radio links on the assumption that the median signal level of the receiver input is as outlined in Table 3.2, and the transmitter power shall be assigned accordingly. The levels in Table 3.2 are derived from a link budget as given in Annex A, for Grade 5 picture quality for distribution and trunk links.

3.5 Median signal for other picture quality grades.

For other picture quality grades, the median signal level will be decreased as follows:

- for Grade 4 picture quality, subtract 6 dB
- for Grade 3 picture quality, subtract 10 dB.

The median levels of Table 3.2 for trunk systems include an allowance of 8 dB for multi-hop applications. A multi-hop allowance can also be added to applications for distribution systems up to a maximum of 8 dB.

Table 3.2 : Receiver input levels, dBW, picture Grade 5

Video Bandwidth (MHz)	Band (GHz)				
	7.5	13/14	23	28	38
(S) <3.5	---	---	-102 + M	---	-100 + M
(S) <10;(35 MHz)	---	---	---	-86 + M	---
(S) <10;(42 MHz)	---	---	-100 + M	-100 + M	-99 + M
(D) <10	---	---	---	-101 + M	---
(T) <10	-88 + M	-87 + M	-85+ M	---	---
(T) <14	-87 + M	-86 + M	-86 + M	---	---
NOTE 1:	M = fade margin.				
NOTE 2:	Minimum fade margin is detailed in the appropriate digital specification for each band. See clause 3.7.2.				
NOTE 3:	In the case of protected equipment an extra 4 dB will be added to compensate for the increased system losses and the consequently lower receiver input level.				
NOTE 4:	All measurements referenced to point C on the block diagram in Part 1, Fig 1.2.				

3.6 Maximum availabilities.

The maximum propagation availabilities allowable are as follows:

99.999% to be agreed with RA on a case-by-case basis.

99.99% to be agreed with RA on a case-by-case basis.

99.9% for all other services.

NOTE: Throughout this document availability will be taken to mean propagation availability.

3.7 Fade Margin

3.7.1 Fade Margin Calculation

The total fade margin, M depends on path length, service availability required and geographic/climatic factors. Calculation of the total fade margin is dependent upon the frequency band to be used and is detailed in the relevant section of the digital equipment assignment criteria for the same (or similar) band as detailed below:

7.5 GHz band	Multipath clear air fade as detailed in MPT 1407 Part 4.
13/14 GHz band	Multipath clear air fade and rain fade utilising the apportionment method and calculations detailed in MPT 1403 Part 4.
23 GHz band	Rain fade calculation as detailed in MPT 1409 Part 4.
28 GHz band	Rain fade calculation as detailed in MPT 1420 Part 4.(see NOTE below).
38 GHz band	Rain fade calculation as detailed in MPT 1414 Part 4.

In this publication, atmospheric gaseous attenuation due to oxygen and water vapour is taken into account for all frequency bands except the 7.5 GHz band.

NOTE: MPT 1420 Part 4 covers only the 26 GHz frequency band for digital systems. The rain fade margin calculation is the same for the 28 GHz band but the following regression coefficients k and a should be substituted:

$k = 0.1485$ $a = 1.009$ for vertical polarisation.

$k = 0.165$ $a = 1.033$ for horizontal polarisation.

3.7.2 Minimum Fade Margin

A minimum fade margin will be allowed as indicated in Table 3.3 below.

Table 3.3 Minimum Fade Margin

Band	Minimum Fade Margin	ref: MPT
7.5 GHz	20 dB	1407
13/14 GHz	15 dB	1403
23 GHz	10 dB	1409
28 GHz	15 dB	1420
38 GHz	10 dB	1414

3.8 Frequency assignment.

The Radiocommunications Agency will, as far as possible, assign frequencies on the basis that the estimated level of interference for a single unwanted source at the receiver input should not exceed the values shown in Table 3.4 and Table 3.5 for 99.9% of the time.

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The ratios are given for an unwanted interferer when the wanted signal is at the reference sensitivity input level of MPT 1418 Part 2, Table 2.7. W/U ratios for single-entry interferers, for all systems (mixed capacities) are given in the matrices of Annex B for various channel separations.

3.9 W/U ratios.

The W/U ratios for co-channel (0.0XS) interferers shown in Annex B have been derived on the assumption that a single unwanted interferer will be suppressed in the wanted channel to a level relative to the reference sensitivity level. The W/U co-channel (0.0XS) ratios for the permissible UK link types and video bandwidths are as follows.

- Surveillance systems <3.5 MHz: 35 dB
- Surveillance systems <10 MHz : 31 dB
- Distribution systems <10 MHz : 31 dB
- Trunk systems <10 MHz, <14 MHz : 45 dB

The co-channel, (0.0XS) W/U levels of Annex B are modified for other picture grades as follows:

- for Picture Grade 4 : subtract 4 dB
- For Picture Grade 3 : subtract 7 dB

3.10 Interference limits.

The interference limits of Tables 3.4 and 3.5 are derived as follows:

Interference Limit = Reference Sensitivity Input Level (Part 2, Table 2.7) - W/U

The resultant Noise to Interference (N/I) level for Picture Grade 5 is 9 dB (Annex A). The levels of Table 4.2 are modified for other picture grades as follows:-

For Picture Grade 4 :- add 2 dB (N/I = 11 dB)

For Picture Grade 3 :- add 3 dB (N/I = 12 dB)

3.11 Single entry W/U allowances.

In Tables 4.4 and 4.5 and Annex B, the single entry digital W/U ratios include allowances for multiple interferers. The allowances are 4 dB for co-channel interferers and 6 dB for adjacent channel interferers relative to the test levels of MPT 1418 Part 2, Table 2.9 and MPT 1418 Part 2, Sub-Clause 3.2.2.2.

3.12 Adjacent channel interference limits.

The adjacent channel interference limits given in Table 3.5 do not apply to links with correlated fading (such as links operating over the same hops). These links may be planned using un-faded levels.

NOTE: Planning requirements for partially correlated links are under study.

Table 3.4: Single-entry co-channel interference limits, dBW, picture Grade 5

Video Bandwidth (MHz)	Band GHz				
	7.5	13/14	23	28	38
(S) <3.5	---	---	-137	---	-135
(S) <10;(35 MHz)	---	---	---	-131	---
(S) <10;(42 MHz)	---	---	-131	-131	-130
(D) <10	---	---	---	-132	---
(T) <10	-133	-132	-130	---	---
(T) <14	-132	-131	-131	---	---

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Table 3.5: Single-entry adjacent-channel interference limits, dBW, picture Grade 5

Video Bandwidth (MHz)	Band GHz				
	7.5	13/14	23	28	38
(S) <3.5	---	---	-105	---	-103
(S) <10;(35 MHz)	---	---		-92	---
(S) <10;(42 MHz)	---	---	-106	-106	-105
(D) <10	---	---	---	-107	---
(T) <10	-91	-90	-88	---	---
(T) <14	-90	-89	-89	---	---

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Annex A : Receiver input levels and maximum permitted interference levels for analogue fm video systems.

The maximum allowable co-channel interfering level (I) is that which, when added to a wanted signal at the specified Reference Sensitivity level, results in a C/N ratio no more than 1 dB below the values specified in Tables A1-A5. The interfering level for Picture Grade 5 (see Note 2 below) is calculated as follows:-

$$\text{Interfering level (I)} = \text{Specified Receiver Noise Level (N)} - 9 \text{ dB}$$

Tables A1 to A5 below show the calculations for each band:

Notes for Tables A1 to A5:-

NOTE 1: Trunk systems have a multi-hop allowance of 8 dB per hop included in the C/N (i.e. assumes six equal hops). Surveillance and Distribution systems assume a single hop, however, a multi-hop allowance can be added to broadcast TV distribution assignments up to a maximum of 8 dB.

NOTE 2: Broadcast TV systems (Trunk and Distribution) show a C/N for Picture Grade 5 (or equivalent C/N for radar).

For Picture Grade 4:

C/N, Reference sensitivity: subtract 6 dB
Interference level: subtract 2 dB (N/I = 11 dB).

For Picture Grade 3:

C/N, Reference sensitivity.: subtract 10 dB
Interference level: subtract 3 dB (N/I = 12 dB).

Table A1: Link Budget for 7.5 GHz (NOTE 1)

System	Broadcast Trunk	Radar Remoting	Radar Remoting
		Trunk Baseband <10 MHz	Trunk Baseband <14 MHz
Channel Spacing (MHz)	28	28	28
XS Value (MHz)	28	42	56
Transmitter mask (Fig.no.)	2.4	2.3	2.4
Video Base-band (MHz)	<14	<10	<14
Thermal Noise KT (dBW/Hz)	-204	-204	-204
Receiver Bandwidth (MHz)	40	30	40
Receiver Bandwidth B (dBHz)	76	75	76
System Noise Figure F (dB)	9	9	9
Receiver Noise N = KT+B+F (dBW)	-110	-120	-119
Minimum C/N (dB) (NOTE 2)	32	32	32
Reference sensitivity (NOTE 2) N+C/N (dBW)	-87	-88	-87
Median input level (dBW)	-87+ M	-88 + M	-87 + M
N/I (dB) (NOTE 2)	9	9	9
Interfering level I = KTBF - N/I (dBW)	-128	-129	-128

Table A 2: Link Budget for 13/14 GHz (NOTE 1)

System	Broadcast Trunk	Radar Remoting Trunk Baseband <10 MHz	Radar Remoting Trunk Baseband <14 MHz
Channel Spacing (MHz)	28	28	28
XS Value (MHz)	28	42	56
Transmitter mask (Fig. no.)	2.4	2.3	2.4
Video Base-band (MHz)	<14	<10	<14
Thermal Noise KT (dBW/Hz)	-204	-204	-204
Receiver Bandwidth (MHz)	40	30	40
Receiver Bandwidth B (dBHz)	76	75	76
System Noise Figure F (dB)	10	10	10
Receiver Noise N = KT+B+F (dBW)	-118	-119	-118
Minimum C/N (dB) (NOTE 2)	32	32	32
Reference sensitivity (NOTE 2) N+C/N (dBW)	-86	-87	-86
Median input level (dBW)	-86 + M	-87 + M	-86 + M
N/I (dB) (NOTE 2)	9	9	9
Interfering level I = KTBF - N/I (dBW)	-127	-128	-127

Table A 3: Link Budget for 23 GHz (NOTE 1)

System	Surveillance <3.5 MHz	Surveillance <10 MHz 42 MHz spacing	Broadcast Trunk	Radar Remoting Trunk Baseband <10 MHz	Radar Remoting Trunk Baseband <14 MHz
Channel Spacing (MHz)	21	42	28	28	28
XS Value (MHz)	21	42	28	42	56
Transmitter mask (Fig. no.)	2.1	2.2	2.4	2.2	2.4
Video Base-band (MHz)	<3.5	<10	<14	<10	<14
Thermal Noise KT (dBW/Hz)	-204	-204	-204	-204	-204
Receiver Bandwidth (MHz)	10	40	40	30	40
Receiver Bandwidth B (dBHz)	70	76	76	75	76
System Noise Figure F (dB)	10	10	10	12	10
Receiver Noise N (dBW)	-124	-118	-118	-117	-118
Minimum C/N (dB) (NOTE 2)	22	18	32	32	32
Ref sens. (NOTE 2) (dBW)	-102	-100	-86	-85	-86
Median input level (dBW)	-102 + M	-100+M	-86 + M	-85 + M	-86 + M
N/I (dB) (NOTE 2)	9	9	9	9	9
Interfering level I (dBW)	-133	-127	-127	-126	-127

Table A 4: Link Budget for 28 GHz (NOTE 1)

System	Surveillance <10 MHz 35 MHz spacing	Surveillance <10 MHz 42 MHz spacing	Distribution
Channel Spacing (MHz)	35	42	42
Transmitter mask (Fig. no.)	2.3	2.2	2.2
Video Base-band (MHz)	<10	<10	<10
Thermal Noise KT (dBW/Hz)	-204	-204	-204
Receiver Bandwidth (MHz)	40	40	30
Receiver Bandwidth B (dBHz)	76	76	75
System Noise Figure F (dB)	10	10	10
Receiver Noise N (dBW)	-118	-118	-119
Minimum C/N (dB) (NOTE 2)	32	18	18
Ref sens. (NOTE 2) (dBW)	-86	-100	-101
Median input level (dBW)	-86+M	-100+M	-101 + M
N/I (dB) (NOTE 2)	9	9	9
Interfering level I (dBW)	-127	-127	-128

Table A 5: Link Budget for 38 GHz (NOTE 1)

System	Surveillance	Surveillance
Channel Spacing (MHz)	21	42
Transmitter mask (Fig. no.)	2.1	2.2
Video Base-band (MHz)	<3.5	<10
Thermal Noise KT (dBW/Hz)	-204	-204
Receiver Bandwidth (MHz)	10	30
Receiver Bandwidth B (dBHz)	70	75
System Noise Figure F (dB)	12	12
Receiver Noise N = KT+B+F (dBW)	-122	-117
Minimum C/N (dB) (NOTE 2)	22	18
Reference sensitivity (NOTE 2) N+C/N (dBW)	-100	-99
Median input level (dBW)	-100 + M	-99 + M
N/I (dB) (NOTE 2)	9	9
Interfering level I = KTBF - N/I (dBW)	-131	-126

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Annex B : Wanted-to-Unwanted single -entry assignment levels against normalised frequency for analogue FM -video receivers.

Table B1: Wanted RX Channel: FM-Video Distribution 42 MHz, 28 GHz
Co-channel single entry C/I = -31 dB

Unwanted TX Channel		XS (MHz)	b (dB)	W/U (dB) vs. Normalised Frequency XS						
Type	MHz			<0.5	^s 0.5	^s 1.0	^s 1.5	^s 2.0	^s 2.5	^s 3.0
≤4PSK	3.5	22.75	0	31	25	6	-8	-18	-30	-40
	7.0	24.5	0	31	25	6	-8	-18	-30	-40
	14.0	28.0	0	31	25	6	-8	-18	-30	-40
	28.0	35.0	0	31	25	6	-8	-18	-30	-40
64QAM	42.0	42.0	0	31	31	6	-8	-18	-30	-40
	56.0	49.0	1	30	30	5	-9	-19	-30	-40
Video	35.0	38.5	0	31	25	6	-17	-40	---	---
	42.0	42.0	0	31	25	6	-17	-40	---	---

Table B2: Wanted RX Channel: FM-Video Radar Remoting Trunk (<10 MHz Baseband) 28 MHz,
7.5/13/14/23 GHz
Co-channel single entry C/I = -45 dB

(B/C) BROADCAST.

(R/R) RADAR REMOTING

Unwanted TX Channel		XS (MHz)	b (dB)	W/U (dB) vs. Normalised Frequency XS						
Type	MHz			<0.5	^s 0.5	^s 1.0	^s 1.5	^s 2.0	^s 2.5	^s 3.0
≤4PSK	1.75	21.875	0	45	39	3	-11	-21	-31	-40
	3.5	22.75	0	45	39	3	-11	-21	-31	-40
	7.0	24.5	0	45	39	3	-11	-21	-31	-40
	14.0	28.0	0	45	39	3	-11	-21	-31	-40
	28.0	35.0	0	45	39	3	-11	-21	-31	-40
64QAM	28.0	35.0	0	45	39	3	-11	-21	-31	-40
128 TCM	28.0	35.0	0	45	39	3	-11	-21	-31	-40
Video	21.0	31.5	0	45	36	3	-19	-40	---	---
(B/C)	28	35	0	45	36	3	-19	-40	----	----
(R/R,<10)	28.0	42.0	0	45	36	3	-19	-40	---	---
(R/R,<14)	28.0	49.0	1	44	35	2	-20	-40	---	---

Table B3: Wanted RX Channel: FM-Video Radar Remoting Trunk (<14 MHz Baseband) 28 MHz,
7.5/13/14/23 GHz
Co-channel single entry C/I = -45 dB

Unwanted TX Channel		XS (MHz)	b (dB)	W/U (dB) vs. Normalised Frequency XS						
Type	MHz			<0.5	^s 0.5	^s 1.0	^s 1.5	^s 2.0	^s 2.5	^s 3.0
≤4PSK	1.75	28.875	0	45	39	3	-11	-21	-31	-40
	3.5	29.75	0	45	39	3	-11	-21	-31	-40
	7.0	31.5	0	45	39	3	-11	-21	-31	-40
	14.0	35.0	0	45	39	3	-11	-21	-31	-40
	28.0	42.0	0	45	39	3	-11	-21	-31	-40
64 QAM	28.0	42.0	0	45	39	3	-11	-21	-31	-40
128 TCM	28.0	42.0	0	45	39	3	-11	-21	-31	-40
Video	21.0	38.5	0	45	39	3	-19	-40	---	---
(B/C)	28.0	42.0	0	45	39	3	-19	-40	----	----
(R/R,<10)	28.0	49.0	0	45	39	3	-19	-40	---	---
(R/R,<14)	28.0	56.0	0	45	39	3	-19	-40	---	---

Table B4: Wanted RX Channel: FM-Video Broadcast Trunk 28 MHz, 7.5/13/14/23 GHz
Co-channel single entry C/I = -45 dB

Unwanted TX Channel		XS (MHz)	W/U (dB) vs. Normalised Frequency XS										
Type	MHz		<0.5	^s 0.5	^s 1.0	^s 1.5	^s 2.0	^s 2.5	^s 3.0	^s 3.5	^s 4.0	^s 4.5	^s 5.0
≤4PSK	1.75	14.875	45	45	39	12	-10	-10	-18	-18	-32	-32	-40
	3.5	15.75	45	45	39	19	-2	-2	-12	-21	-21	-31	-40
	7.0	17.5	45	45	39	28	9	-8	-8	-21	-31	-40	-40
	14.0	21.0	45	45	34	19	-4	-9	-21	-31	-40	-40	-40
	28.0	28.0	45	39	30	3	-21	-31	-40	-40	-40	-40	-40
64 QAM	28.0	28.0	45	39	30	3	-21	-31	-40	-40	-40	-40	-40
128 TCM	28.0	28.0	45	39	30	3	-21	-31	-40	-40	-40	-40	-40
Video	21.0	38.5	45	39	3	-19	-40	-40	-40	-40	-40	-40	-40
(B/C)	28.0	28.0	45	40	12	-20	-20	-20	-40	-40	-40	-40	-40
(R/R,<10)	28.0	35.0	45	39	3	-19	-40	-40	-40	-40	-40	-40	-40
(R/R,<14)	28.0	42.0	45	39	3	-19	-40	-40	-40	-40	-40	-40	-40

NOTE: Table B4 values derived from results of RTCG measurement Project 414.

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Table B5: Wanted RX Channel: FM-Video Surveillance 21 MHz, 23 GHz
Co-channel single entry C/I = -35 dB

Unwanted TX Channel		XS (MHz)	b (dB)	W/U (dB) vs. Normalised Frequency XS						
Type	MHz			<0.5	≈0.5	≈1.0	≈1.5	≈2.0	≈2.5	≈3.0
≤4PSK	3.5	12.25	0	35	29	6	-8	-18	-30	-40
	7.0	14.0	0	35	29	6	-8	-18	-30	-40
	14.0	17.5	0	35	29	6	-8	-18	-30	-40
	28.0	24.5	1	34	28	5	-9	-19	-30	-40
64 QAM	28.0	24.5	1	34	28	5	-9	-19	-30	-40
Video	21.0	21.0	0	35	29	3	-19	-40	---	---
	42.0	31.5	0	35	29	6	-17	-40	---	---
	56.0	38.5	1	34	28	5	-18	-40	---	---

Table B6: Wanted RX Channel: FM-Video Surveillance 42 MHz, 23/28/38 GHz
Co-channel single entry C/I = -31 dB

Unwanted TX Channel		XS (MHz)	b (dB)	W/U (dB) vs. Normalised Frequency XS						
Type	MHz			<0.5	≈0.5	≈1.0	≈1.5	≈2.0	≈2.5	≈3.0
≤4PSK	3.5	22.75	0	31	25	6	-8	-18	-30	-40
	7.0	24.5	0	31	25	6	-8	-18	-30	-40
	14.0	28.0	0	31	25	6	-8	-18	-30	-40
	28.0	35.0	0	31	25	6	-8	-18	-30	-40
Video	21.0	31.5	0	31	25	6	-17	-40	---	---
	35.0	38.5	0	31	25	6	-17	-40	---	---
	42.0	42.0	0	31	25	6	-17	-40	---	---
	56.0	49.0	1	30	24	5	-18	-40	---	---

Table B7: Wanted RX Channel: FM-Video Surveillance, 21 MHz, 38 GHz
Co-channel single entry C/I = -35 dB

Unwanted TX Channel		XS (MHz)	b (dB)	W/U (dB) vs. Normalised Frequency XS						
Type	MHz			<0.5	≈0.5	≈1.0	≈1.5	≈2.0	≈2.5	≈3.0
≤4 PSK	3.5	12.25	0	35	29	6	-8	-18	-30	-40
	7.0	14.0	0	35	29	6	-8	-18	-30	-40
	14.0	17.5	0	35	29	6	-8	-18	-30	-40
	28.0	24.5	1	34	28	5	-9	-19	-30	-40
Video	21.0	21.0	0	35	29	3	-19	-40	---	---
	42.0	31.5	0	35	29	6	-17	-40	---	---

Table B8: Wanted RX Channel: FM-Video Surveillance, 35 MHz, 28 GHz
Co-channel single entry C/I = -35 dB

Unwanted TX Channel		XS (MHz)	b (dB)	W/U (dB) vs. Normalised Frequency XS						
Type	MHz			<0.5	≈0.5	≈1.0	≈1.5	≈2.0	≈2.5	≈3.0
≤4PSK	3.5	19.25	0	45	39	3	-11	-21	-31	-40
	7.0	21	0	45	39	3	-11	-21	-31	-40
	14.0	24.4	0	45	39	3	-11	-21	-31	-40
	28.0	31.5	0	45	39	3	-11	-21	-31	-40
Video	42.0	38.5	1	45	36	3	-19	-40	---	---

