

**PCC.II/REC. 67 (XLIII-24)<sup>1</sup>**

**FREQUENCY ARRANGEMENTS FOR IMPLEMENTATION OF THE TERRESTRIAL COMPONENT OF INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT)**

The 43 Meeting of Permanent Consultative Committee II: Radiocommunications (PCC.II),

**CONSIDERING:**

- a) That the frequency bands, or portions thereof, 450-470 MHz, 470-960 MHz, 1 427-1 518 MHz, 1 710-2 200 MHz, 2 300-2 400 MHz, 2 500-2 690 MHz, 3 300-3 800 MHz, 4 800-4 990 MHz, 6 425-7 125 MHz, 10-10.5 GHz, 24.25-27.5 GHz, 37-43.5 GHz, 45.5-47 GHz, 47.2-48.2 GHz, and 66-71 GHz are identified for use by administrations wishing to implement IMT in accordance with the provisions of the ITU Radio Regulations;
- b) That International Mobile Telecommunications include IMT-2000, IMT-Advanced, IMT-2020, and IMT-2030, as specified in Resolution ITU-R 56-3;
- c) Recommendation PCC.II/REC. 7 (III-04) “Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunication 2000 (IMT-2000) in the bands of 2 500-2 690 MHz”;
- d) Recommendation PCC.II/REC. 8 (IV-04) “Frequency arrangements for IMT-2000 in the bands 806 to 960 MHz, 1 710 to 2 025 MHz, 2 110 to 2 200 MHz and 2 500 to 2 690 MHz”;
- e) Recommendation PCC.II/REC. 30 (XVIII-11) “Frequency arrangements of the 698-806 MHz band in the Americas for broadband mobile services”;
- f) Recommendation PCC.II/REC. 31 (XVIII-11) “Harmonized use of the 450-470 MHz band for fixed and mobile broadband wireless services particularly in underserved areas”;
- g) Recommendation PCC.II/REC. 32 (XIX-12) “Frequency arrangements for the bands identified for International Mobile Telecommunications at WRC-07”;
- h) Recommendation PCC.II/REC. 34 (XX-12) “Compatible frequency arrangements for terrestrial mobile systems in the bands 1 710-2 025 MHz and 2 110-2 200 MHz”;
- i) Recommendation PCC.II/REC. 54 (XXIX-17) “Frequency arrangements for the terrestrial component of IMT in the bands 3 300-3 400 MHz, 3 400-3 600 MHz and 3 600-3 700 MHz, or combinations thereof”;
- j) Recommendation PCC.II/REC. 55 (XXIX-17) “Recommendation on frequency arrangements for IMT in the band 1 427-1 518 MHz”;
- k) Recommendation PCC.II/REC. 56 (XXX-17) “Frequency arrangements for the terrestrial component of IMT in the band 614-698 MHz”;

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<sup>1</sup> CCP II-2024-43-6059r3

- l) Recommendation PCC.II/REC. 64 (XXXVII-21) “Frequency arrangements for the implementation of the terrestrial component of International Mobile Telecommunications (IMT) in the bands 24.25-27.5 GHz, 37-43.5 GHz, 45.5-47 GHz, 47.2-48.2 GHz, and 66-71 GHz, identified for IMT at WRC-19”;
- m) Recommendation CCP.II/REC. 46 (XXV-15) “Guidelines to establish agreements for spectrum use in coordination areas”;
- n) Recommendation CCP.II/REC. 44 (XXIII-14) “Guidelines for the harmonization of measurement procedures for the technical verification of spectrum use for coordination in border areas”;
- o) Recommendation ITU-R M.1036 “Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications in the bands identified for IMT in the Radio Regulations”;
- p) That harmonization of frequencies generally facilitates compatibility, thereby producing economies of scale and enabling global roaming;
- q) The compatibility and coexistence studies developed in the ITU-R between IMT systems and radiocommunication services allocated in the frequency bands listed in *considering a*);
- r) That technical and operational measures to facilitate coexistence between the terrestrial component of IMT in the mobile service and other services (e.g. the fixed satellite service) may need to be considered by those concerned countries,

**RECOGNIZING:**

- a) That the identification of the frequency bands listed in *considering a*) for IMT does not preclude the use of these bands for any application of the services to which they are allocated and does not establish priority in the Radio Regulations;
- b) That, on the basis of national realities, CITEL Member States may have different national priorities policies, criteria, or requirements with respect to the use of the diverse bands, or portions thereof, that are the subject of the present Recommendation;
- c) That the frequency band 6 425-7 125 MHz, or portions thereof, is identified for IMT in some CITEL Member States by No. **5.457F** of Article 5 of the Radio Regulations;
- d) That some CITEL Member States in the Region use the frequency bands 450-470 MHz, 902-960 MHz, 1920-1930 MHz, 6 425-7 125 MHz and 66-71 GHz, or portions thereof, for different license-exempt applications;
- e) That some CITEL Member States may have not finalized their decisions regarding spectrum to be made available for IMT and, consequently, further revisions to these frequency arrangements may be required in order to maximize the harmonization of spectrum within the Region,

**RECOMMENDS:**

1. That this Recommendation supersedes those listed in *considerings c*) to *l*);

2. That CITELE Member States consider selecting frequency arrangements within this Recommendation that maximize global harmonization for IMT systems;

3. That for the purpose of economies of scale and to facilitate roaming, CITELE Member States that use only one part of a frequency band, ensure that the channel pairing is consistent with the duplex frequency separations of the full frequency arrangement;

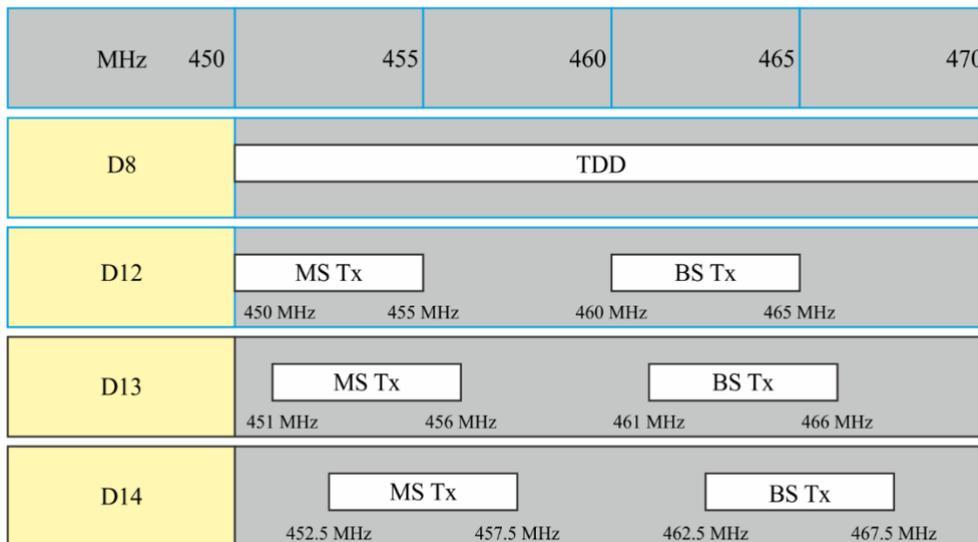
4. That CITELE Member States, when deploying IMT systems in the frequency bands within this Recommendation, ensure the coexistence with existing primary services in these bands, in accordance with the provisions of the ITU Radio Regulations, the applicable ITU Recommendations and their pertinent national regulations;

5. That CITELE Member States should take into account the present Recommendation, as well as the relevant technical provisions of the ITU Radio Regulations, when developing bilateral or multilateral border coordination strategies;

6. That CITELE Member States that plan to implement IMT in some or all the frequency bands listed in *considering a*), consider the following frequency arrangements for such implementation, as well as their respective ITU Radio Regulations footnotes identifying the band for IMT (as shown in parentheses below):

**a. 450-470 MHz (FN 5.286AA):**

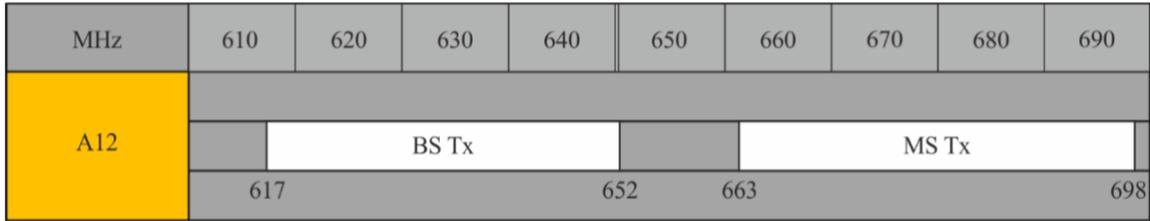
Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
D8	NOT APPLICABLE				450.0-470.0
D12	450.0-455.0	5.0	460.0-465.0	10	None
D13	451.0-456.0	5.0	461.0-466.0	10	None
D14	452.5-457.5	5.0	462.5-467.5	10	None



b. 470-960 MHz (FNs 5.295, 5.308A, 5.317A):

b1. 614-698 MHz (FN 5.308A):

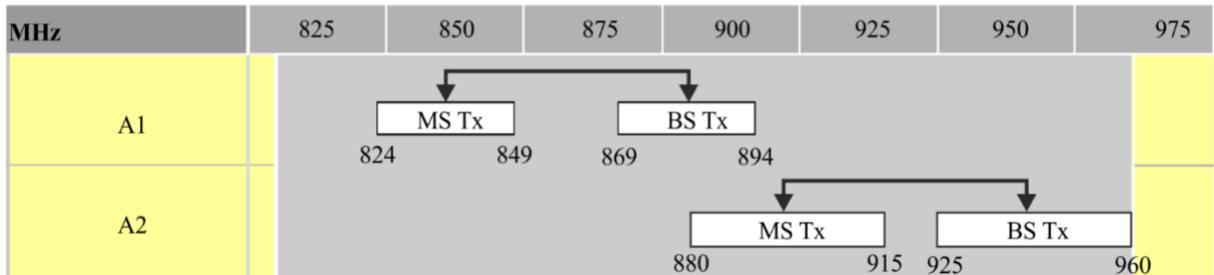
Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
A12	663-698	11	617-652	46	None



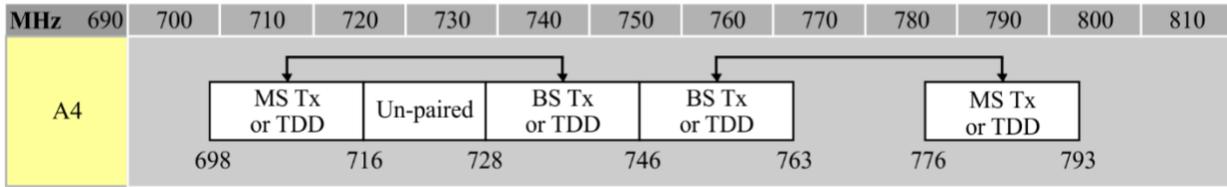
b2. 698-960 MHz (FN 5.317A):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
A1	824-849	20	869-894	45	None
A2	880-915	10	925-960	45	None
A4	698-716 776-793	12 13	728-746 746-763	30 30	716-728
A5	703-748	10	758-803	55	None

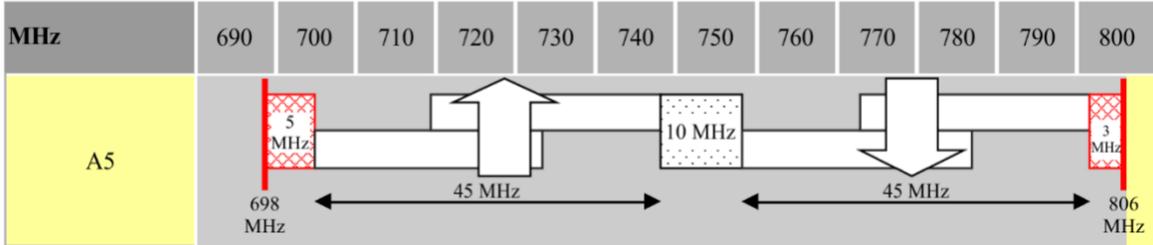
Arrangements A1, A2



Arrangement A4



Arrangement A5



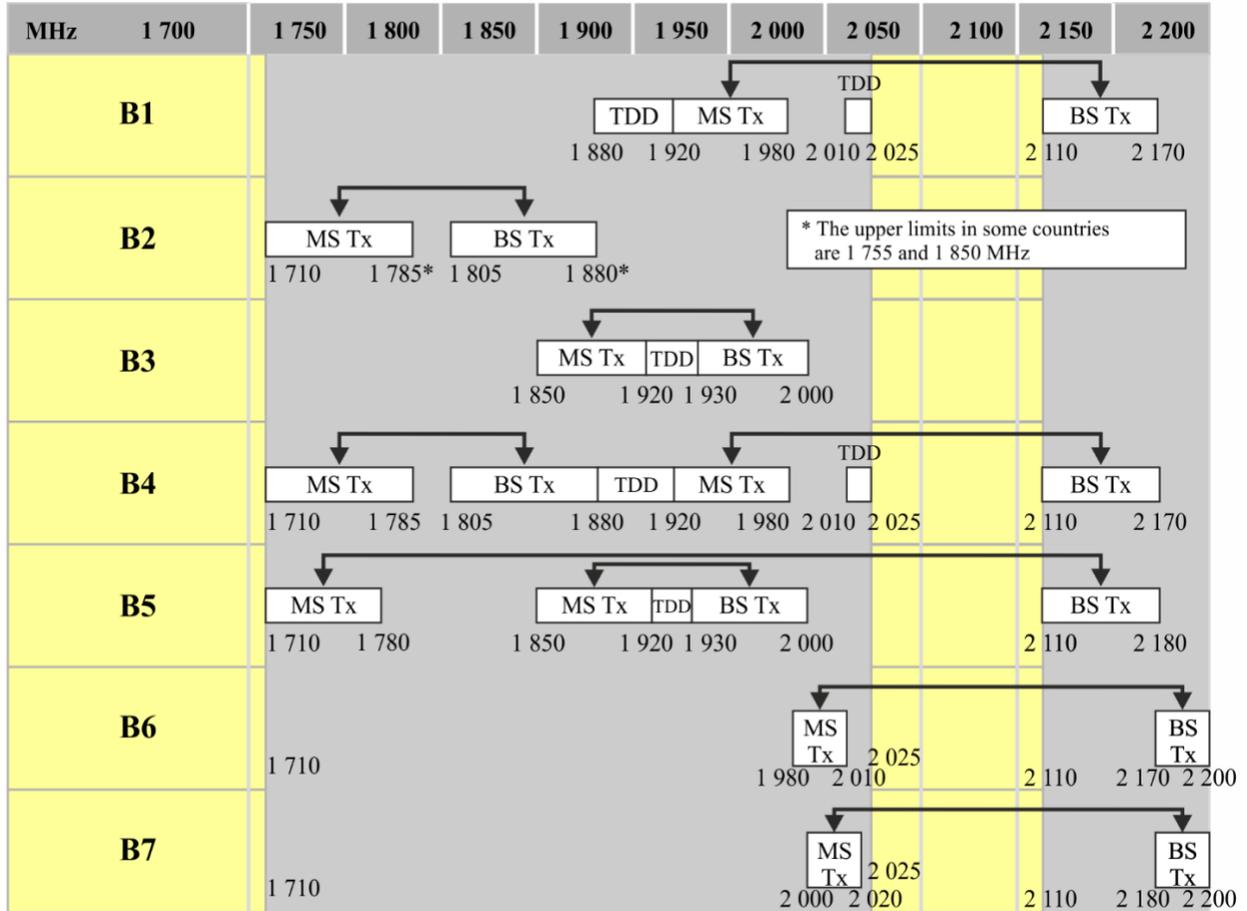
c. 1 427-1 518 MHz (FN 5.341B):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
G1	External	–	1 427-1 517	–	None
G3	NOT APPLICABLE				1 427-1 517

MHz	1 427	1 518
G1	BS Tx	
	1 427	1 517
G3	TDD	
	1 427	1 517

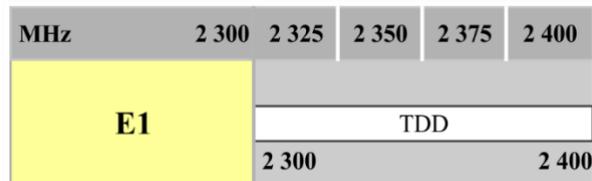
d. 1 710-2 200 MHz (FNs 5.384A, 5.388):

Frequency arrangements	Paired arrangements (FDD)				Unpaired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
B1	1 920-1 980	130	2 110-2 170	190	1 880-1 920; 2 010-2 025
B2	1 710-1 785	20	1 805-1 880	95	None
B3	1 850-1 920	10	1 930-2 000	80	1 920-1 930
B4 (harmonized with B1 and B2)	1 710-1 785 1 920-1 980	20 130	1 805-1 880 2 110-2 170	95 190	1 880-1 920; 2 010-2 025
B5 (harmonized with B3 and partially harmonized with the downlink of B1 and the uplink of B2)	1 850-1 920 1 710-1 780	10 330	1 930-2 000 2 110-2 180	80 400	1 920-1 930
B6	1 980-2 010	160	2 170-2 200	190	None
B7	2 000-2 020	160	2 180-2 200	180	None



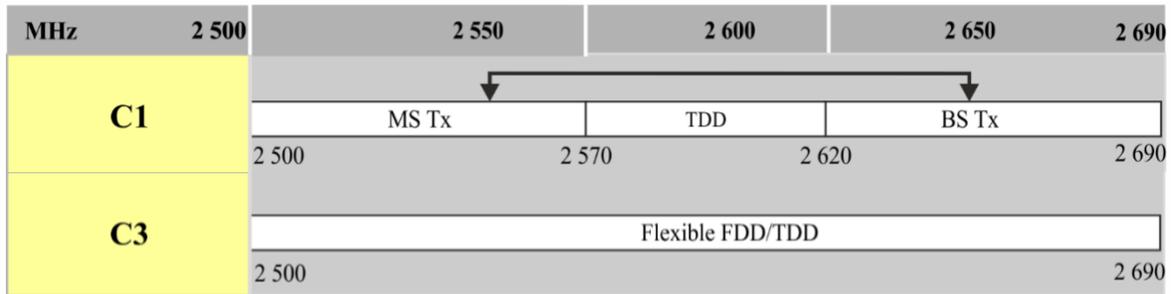
e. 2 300-2 400 MHz (FN 5.384A):

Frequency arrangement	Paired arrangements (FDD)				Unpaired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
E1	NOT APPLICABLE				2 300-2 400



f. 2 500-2 690 MHz (FN 5.384A):

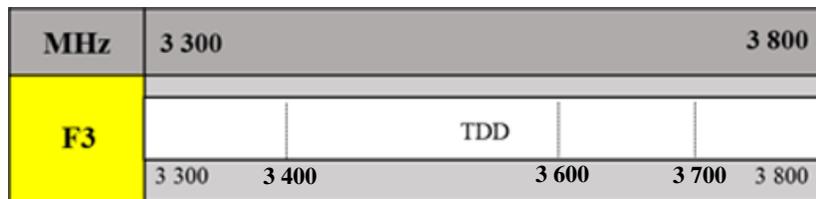
Frequency arrangements	Paired arrangements (FDD)					Unpaired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)		
C1	2 500-2 570	50	2 620-2 690	120		2 570-2 620
C3	Flexible FDD/TDD					



**g. 3 300-3 800 MHz (FNs 5.429D, 5.431B, 5.434, 5.435B):**

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
F3	NOT APPLICABLE				3 300-3 800

Note that the frequency arrangement F3 could provide the possibility for administrations to implement IMT in the whole or parts of the bands identified in the ITU Radio Regulations (3 300-3 400 MHz, 3 400-3 600 MHz, 3 600-3 700 MHz, 3 600-3 800 MHz, and 3 700-3 800 MHz), with any possible frequency separation, if required, taking into account the use of the bands by other services and applications.



**h. 4 800-4 990 MHz (FNs 5.441A, 5.441B):**

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
H1	NOT APPLICABLE				4 800-4 990

MHz	4 800	4 990
H1	TDD	
	4 800	4 990

i. 6 425-7 125 MHz (FN 5.457F):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
N1	NOT APPLICABLE				6 425-7 125

MHz	6 425	7 125
N1	TDD	
	6 425	7 125

j. 10-10.5 GHz (FN 5.480A):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (GHz)
	Mobile station transmitter (GHz)	Centre gap (GHz)	Base station transmitter (GHz)	Duplex separation (GHz)	
O1	NOT APPLICABLE				10-10.5

GHz	10	10.5
O1	TDD	
	10	10.5

k. 24.25-27.5 GHz (FN 5.532AB):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (GHz)
	Mobile station transmitter (GHz)	Centre gap (GHz)	Base station transmitter (GHz)	Duplex separation (GHz)	
I1	NOT APPLICABLE				24.25-27.5

GHz	24.25	27.5
I1		
	TDD	
	24.25	27.5

l. 37-43.5 GHz (FN 5.550B):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (GHz)
	Mobile station transmitter (GHz)	Centre gap (GHz)	Base station transmitter (GHz)	Duplex separation (GHz)	
J1	NOT APPLICABLE				37-43.5

GHz	37	43.5
J1		
	TDD	
	37	43.5

m. 45.5-47 GHz (FN 5.553A):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (GHz)
	Mobile station transmitter (GHz)	Centre gap (GHz)	Base station transmitter (GHz)	Duplex separation (GHz)	
K1	NOT APPLICABLE				45.5-47

GHz	45.5	47
<b>K1</b>		
	TDD	
	45.5	47

n. 47.2-48.2 GHz (FN 5.553B):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (GHz)
	Mobile station transmitter (GHz)	Centre gap (GHz)	Base station transmitter (GHz)	Duplex separation (GHz)	
L1	NOT APPLICABLE				47.2-48.2

GHz	47.2	48.2
<b>L1</b>		
	TDD	
	47.2	48.2

o. 66-71 GHz (FN 5.559AA):

Frequency arrangements	Paired arrangements (FDD)				Un-paired arrangements (TDD) (GHz)
	Mobile station transmitter (GHz)	Centre gap (GHz)	Base station transmitter (GHz)	Duplex separation (GHz)	
M1	NOT APPLICABLE				66-71

GHz	66	71
<b>M1</b>		
	TDD	
	66	71