

Channeling Plans

(Plan No - 1)

Channeling plan in the frequency band 146-147, 151-152, 165-166 and 171-172 MHz.

F [1]- Group of Frequencies

[1009]=146.6625 MHz / [2009]= 151.7125 MHz
[1010]=146.6875 MHz / [2010]= 151.7375 MHz
[1011]=146.7125 MHz / [2011]= 151.7625 MHz
[1012]=146.7375 MHz / [2012]= 151.7875 MHz
[1061]=164.5125 MHz / [2061]= 171.0125 MHz
[1062]=164.5375 MHz / [2062]= 171.0375 MHz
[1063]=164.5625 MHz / [2063]= 171.0625 MHz
[1064]=164.5875 MHz / [2064]= 171.0875 MHz
[1065]=164.6125 MHz / [2065]= 171.1125 MHz

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F [2]- Group of Frequencies

[1013]=146.7625 MHz / [2013]= 151.8125 MHz
[1014]=146.7875 MHz / [2014]= 151.8375 MHz
[1015]=146.8125 MHz / [2015]= 151.8625 MHz
[1016]=146.8375 MHz / [2016]= 151.8875 MHz
[1066]=164.7375 MHz / [2066]= 171.1375 MHz *
[1067]=164.6625 MHz / [2067]= 171.1625 MHz
[1068]=164.6875 MHz / [2068]= 171.1875 MHz
[1069]=164.7125 MHz / [2069]= 171.2125 MHz
[1070]=164.7375 MHz / [2070]= 171.2375 MHz

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F [3]- Group of Frequencies

[1017]=146.8625 MHz / [2017]= 151.9125 MHz
[1018]=146.8875 MHz / [2018]= 151.9375 MHz
[1019]=146.9125 MHz / [2019]= 151.9625 MHz
[1020]=146.9375 MHz / [2020]= 151.9875 MHz
[1071]=164.7675 MHz / [2071]= 171.2625 MHz
[1072]=164.7875 MHz / [2072]= 171.2875 MHz
[1073]=164.8125 MHz / [2073]= 171.3125 MHz
[1074]=164.8375 MHz / [2074]= 171.3375 MHz
[1075]=164.8625 MHz / [2075]= 171.3625 MHz

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F [4]- Group of Frequencies

[1021]=146.9625 MHz / [2021]= 152.0125 MHz **
[1022]=146.9875 MHz / [2022]= 152.0375 MHz **
[1023]=147.0125 MHz / [2023]= 152.0625 MHz **
[1024]=147.0375 MHz / [2024]= 152.0875 MHz **
[1076]=164.8875 MHz / [2076]= 171.3875 MHz
[1077]=164.9125 MHz / [2077]= 171.4125 MHz
[1078]=164.9375 MHz / [2078]= 171.4375 MHz
[1079]=164.9625 MHz / [2079]= 171.4625 MHz
[1080]=164.9875 MHz / [2080]= 172.4875 MHz

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F [5]- Group of Frequencies

[1025]=147.0625 MHz / [2025]= 152.1125 MHz **
[1026]=147.0875 MHz / [2026]= 152.1375 MHz **
[1027]=147.1125 MHz / [2027]= 152.1625 MHz **
[1028]=147.1375 MHz / [2028]= 152.1875 MHz **
[1081]=165.0125 MHz / [2081]= 171.5125 MHz
[1082]=165.0375 MHz / [2082]= 171.5375 MHz
[1083]=165.0625 MHz / [2083]= 171.5625 MHz
[1084]=165.0875 MHz / [2084]= 171.5875 MHz
[1085]=165.1125 MHz / [2085]= 171.6125 MHz

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F [6]- Group of Frequencies

[1029]=147.1625 MHz / [2029]= 152.2125 MHz **
[1030]=147.1875 MHz / [2030]= 152.2375 MHz **
[1031]=147.2125 MHz / [2031]= 152.2625 MHz **
[1032]=147.2375 MHz / [2032]= 152.2875 MHz **
[1086]=165.1375 MHz / [2086]= 171.6375 MHz
[1087]=165.1625 MHz / [2087]= 171.6625 MHz
[1088]=165.1875 MHz / [2088]= 171.6875 MHz
[1089]=165.2125 MHz / [2089]= 171.7125 MHz
[1030]=165.2375 MHz / [2090]= 171.7375 MHz

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F [7]- Group of Frequencies

[1033]=147.2625 MHz / [2033]= 152.3125 MHz **
[1034]=147.2875 MHz / [2034]= 152.3375 MHz **
[1035]=147.3125 MHz / [2035]= 152.3625 MHz **
[1036]=147.3375 MHz / [2036]= 152.3875 MHz **
[1091]=165.2825 MHz / [2091]= 171.7625 MHz
[1092]=165.2825 MHz / [2092]= 171.7875 MHz
[1093]=165.3125 MHz / [2093]= 171.8125 MHz
[1094]=165.3375 MHz / [2094]= 171.8375 MHz
[1095]=165.3625 MHz / [2095]= 171.8625 MHz

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F [8]- Group of Frequencies

[1037]=147.3625 MHz / [2037]= 152.4125 MHz **
[1038]=147.3875 MHz / [2038]= 152.4375 MHz **
[1039]=147.4125 MHz / [2039]= 152.4625 MHz **
[1040]=147.4375 MHz / [2040]= 152.4875 MHz **
[1096]=165.3875 MHz / [2096]= 171.8875 MHz
[1097]=165.4125 MHz / [2097]= 171.9125 MHz
[1098]=165.4375 MHz / [2098]= 171.9375 MHz
[1099]=165.4625 MHz / [2099]= 171.9625 MHz
[1100]=165.4875 MHz / [2100]= 171.9875 MHz

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F [5]- Group of Frequencies

[1041]=147.4625 MHz / [2041]= 152.5125 MHz **
[1042]=147.4875 MHz / [2042]= 152.5375 MHz **
[1043]=147.5125 MHz / [2043]= 152.5625 MHz **
[1044]=147.5375 MHz / [2044]= 152.5875 MHz **
[1101]=165.5125 MHz / [2101]= 172.0125 MHz
[1102]=165.5375 MHz / [2102]= 172.0375 MHz
[1103]=165.5625 MHz / [2103]= 172.0625 MHz
[1104]=165.5875 MHz / [2104]= 172.0875 MHz
[1105]=165.6125 MHz / [2105]= 172.1125 MHz

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F [10]- Group of Frequencies

[1045]=147.5625 MHz / [2045]= 152.6125 MHz **
[1046]=147.5875 MHz / [2046]= 152.6375 MHz **
[1047]=147.6125 MHz / [2047]= 152.6625 MHz **
[1048]=147.6375 MHz / [2048]= 152.6875 MHz **
[1106]=165.6375 MHz / [2106]= 172.1375 MHz
[1107]=165.6625 MHz / [2107]= 172.1625 MHz
[1108]=165.6875 MHz / [2108]= 172.1875 MHz
[1109]=165.7125 MHz / [2109]= 172.2112 MHz
[1110]=165.7375 MHz / [2110]= 172.2375 MHz

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F [11]- Group of Frequencies

[1049]=147.6625 MHz / [2049]= 152.7125 MHz **
[1050]=147.6875 MHz / [2050]= 152.7375 MHz **
[1051]=147.7125 MHz / [2051]= 152.7625 MHz **
[1052]=147.7375 MHz / [2052]= 152.7875 MHz **
[1111]=165.7625 MHz / [2111]= 172.2625 MHz
[1112]=165.7875 MHz / [2112]= 172.2875 MHz
[1113]=165.8125 MHz / [2113]= 172.3125 MHz
[1114]=165.8375 MHz / [2114]= 172.3375 MHz
[1115]=165.8625 MHz / [2115]= 172.3625 MHz

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F [12]- Group of Frequencies

[1053]=147.7625 MHz / [2053]= 152.8125 MHz **
[1054]=147.7875 MHz / [2054]= 152.8375 MHz **
[1055]=147.8125 MHz / [2055]= 152.8625 MHz **
[1056]=147.8375 MHz / [2056]= 152.8875 MHz **
[1116]=165.8875 MHz / [2116]= 172.3875 MHz
[1117]=165.9125 MHz / [2117]= 172.4125 MHz
[1118]=165.9375 MHz / [2118]= 172.4375 MHz
[1119]=165.9625 MHz / [2119]= 172.4625 MHz
[1120]=165.9875 MHz / [2120]= 172.4875 MHz

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F [13]- Group of Frequencies

[1057]=147.8625 MHz / [2057]= 152.9125 MHz **
[1058]=147.8875 MHz / [2058]= 152.9375 MHz **
[1059]=147.9125 MHz / [2059]= 152.9625 MHz **
[1060]=147.9375 MHz / [2060]= 152.9875 MHz **
[1121]=166.0125 MHz / [2121]= 172.5125 MHz
[1122]=166.0375 MHz / [2122]= 172.5375 MHz
[1123]=166.0625 MHz / [2123]= 172.5625 MHz
[1124]=166.0875 MHz / [2124]= 172.5875 MHz
[1125]=166.1125 MHz / [2125]= 172.6125 MHz

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Spare Frequencies

[1001]=146.4625 MHz / [2001]= 151.5125 MHz
[1002]=146.4875 MHz / [2002]= 151.5375 MHz
[1003]=146.5125 MHz / [2003]= 151.5625 MHz
[1004]=146.5375 MHz / [2004]= 151.5875 MHz
[1005]=146.5625 MHz / [2005]= 151.6125 MHz
[1006]=146.5875 MHz / [2006]= 151.6375 MHz
[1007]=146.6125 MHz / [2007]= 151.6625 MHz
[1008]=146.6375 MHz / [2008]= 151.6875 MHz
[1126]=166.1375 MHz / [2126]= 172.6375 MHz
[1127]=166.1625 MHz / [2127]= 172.6625 MHz
[1128]=166.1875 MHz / [2128]= 172.6875 MHz
[1129]=166.2125 MHz / [2129]= 172.7125 MHz
[1130]=166.2375 MHz / [2130]= 172.7375 MHz
[1131]=166.2625 MHz / [2131]= 172.7625 MHz
[1132]=166.2875 MHz / [2132]= 172.7875 MHz
[1133]=166.3125 MHz / [2133]= 172.8125 MHz
[1134]=166.3375 MHz / [2134]= 172.8375 MHz
[1135]=166.3625 MHz / [2135]= 172.8625 MHz
[1136]=166.3875 MHz / [2136]= 172.8875 MHz
[1137]=166.4125 MHz / [2137]= 172.9125 MHz
[1138]=166.4375 MHz / [2138]= 172.9375 MHz
[1139]=166.4625 MHz / [2139]= 172.9725 MHz
[1140]=166.4875 MHz / [2140]= 172.9875 MHz

LEGEND

- ** Means frequency not to be used within a radius of 400 Kms from Narayan-Gaon, Pune
TIFR-GMRT coordination for 152.0-153.0 MHz
- * Means frequency not to be used near Bombay in 50 Km radius from the Paging Transmitter.

Channeling Plans

(Plan No - 2)

R.F. CHANNEL ARRANGEMENT FOR MOBILE RADIO TRUNKING SERVICE FOR THE FREQUENCY BAND 338 - 340 MHz AND 348 - 350 MHz.

<u>Block No.</u>	<u>Channel - Arrangement (338 - 340 MHz / 348-350 MHz)</u>				
1	1	33	65	97	129 ----- 1A
	9	41	73	105	137 ----- 1C
	17	49	81	113	145 ----- 1B
	25	57	89	121	153 ----- 1D
2	2	34	66	98	130 ----- 2A
	10	42	74	106	138 ----- 2C
	18	50	82	114	146 ----- 2B
	26	58	90	122	154 ----- 2D
3	3	35	67	99	131 ----- 3A
	11	43	75	107	139 ----- 3C
	19	51	83	115	147 ----- 3B
	27	59	91	123	155 ----- 3D
4	4	36	68	100	132 ----- 4A
	12	44	76	108	140 ----- 4C
	20	52	84	116	148 ----- 4B
	28	60	92	124	156 ----- 3D
5	5	37	69	101	133 ----- 5A
	13	45	77	109	141 ----- 5C
	21	53	85	117	149 ----- 5B
	29	61	93	125	157 ----- 5D
6	6	38	70	102	134 ----- 6A
	14	46	78	110	142 ----- 6C
	22	54	86	118	150 ----- 6B
	30	62	94	126	158 ----- 6D
7	7	39	71	103	135 ----- 7A
	15	47	79	111	143 ----- 7C
	23	55	87	119	151 ----- 7B
	31	63	95	127	159 ----- 7D
8	8	40	72	104	136 ----- 8A
	16	48	80	112	114 ----- 8C
	24	56	88	120	152 ----- 8B
	32	64	96	128	160 ----- 8D

Note: Each set of 5 frequency pairs shall be assigned in the Order of A then B then C then D.

Channeling Plans

R.F. CHANNELS (12.5 kHz Plan with 10 MHz Duplex Separation)

CHL.PAIR No.	BASE TRANSMIT (Frq. in kHz)	BASE RECEIVE (Frq. in kHz)
1	338006.25	348006.25
2	338018.75	348018.75
3	338031.25	348031.25
4	338043.75	348043.75
5	338056.25	348056.25
6	338068.75	348068.75
7	338081.25	348081.25
8	338093.75	348093.75
9	338106.25	348106.25
10	338118.75	348118.75
11	338131.25	348131.25
12	338143.75	348143.75
13	338156.25	348156.25
14	338168.75	348168.75
15	338181.25	348181.25
16	338193.75	348193.75
17	338206.25	348206.25
18	338218.75	348218.75
19	338231.25	348231.25
20	338243.75	348243.75
21	338256.25	348256.25
22	338268.75	348268.75
23	338281.25	348281.25
24	338293.75	348293.75
25	338306.25	348306.25
26	338318.75	348318.75
27	338331.25	348331.25
28	338343.75	348343.75
29	338356.25	348356.25
30	338368.75	348368.75
31	338381.25	348381.25
32	338393.75	348393.75
33	338406.25	348406.25
34	338418.75	348418.75
35	338431.25	348431.25
36	338443.75	348443.75
37	338456.25	348456.25
38	338468.75	348468.75
39	338481.25	348481.25
40	338493.75	348493.75
41	338506.25	348506.25
42	338518.75	348518.75
43	338531.25	348531.25
44	338543.75	348543.75
45	338556.25	348556.25
46	338568.75	348568.75
47	338581.25	348581.25
48	338593.75	348593.75
49	338606.25	348606.25
50	338618.75	348618.75
51	338631.25	348631.25
52	338643.75	348643.75
53	338656.25	348656.25
54	338668.75	348668.75
55	338681.25	348681.25
56	338693.75	348693.75
57	338706.25	348706.25
58	338718.75	348718.75
59	338731.25	348731.25
60	338743.75	348743.75
61	338756.25	348756.25
62	338768.75	348768.75
63	338781.25	348781.25
64	338793.75	348793.75
65	338806.25	348806.25
66	338818.75	348818.75
67	338831.25	348831.25
68	338843.75	348843.75

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69	338856.25	348856.25
70	338868.75	34868.75
71	338881.25	348881.25
72	338893.75	348893.75
73	338906.25	348906.25
74	338918.75	348918.75
75	338931.25	348931.25
76	338943.75	348943.75
77	338956.25	348956.25
78	338968.75	348968.75
79	338981.25	348981.25
80	338993.75	348993.75
81	339006.25	349006.25
82	339018.75	349018.75
83	339031.25	349031.25
84	339043.75	349043.75
85	339056.25	349056.25
86	339068.75	349068.75
87	339081.25	349081.25
88	339093.75	349093.75
89	339106.25	349106.25
90	339118.75	349118.75
91	339131.25	349131.25
92	339143.75	349143.75
93	339156.25	349156.25
94	339168.75	349168.75
95	339181.25	349181.25
96	339193.75	349193.75
97	339206.25	349206.25
98	339218.75	349218.75
99	339231.25	349231.25
100	339243.75	349243.75
101	339256.25	349256.25
102	339268.75	349268.75
103	339281.25	349281.25
104	339293.75	349293.75
105	339306.25	349306.25
106	339318.75	349318.75
107	339331.25	349331.25
108	339343.75	349343.75
109	339356.25	349356.25
110	339368.75	349368.75
111	339381.25	349381.25
112	339393.75	349393.75
113	339406.25	349406.25
114	339418.75	349418.75
115	339431.25	349431.25
116	339443.75	349443.75
117	339456.25	349456.25
118	339468.75	349468.75
119	339481.25	349481.25
120	339493.75	349493.75
121	339506.25	349506.25
122	339518.75	349518.75
123	339531.25	349531.25
124	339543.75	349543.75
125	339556.25	349556.25
126	339568.75	349568.75
127	339581.25	349581.25
128	339593.75	349593.75
129	339606.25	349606.25
130	339618.75	349618.75
131	339631.25	349631.25
132	339643.75	349643.75
133	339656.25	349656.25
134	339668.75	349668.75
135	339681.25	349681.25
136	339693.75	349693.75
137	339706.25	349706.25
138	339718.75	349718.75
139	339731.25	349731.25
140	339743.75	349743.75
141	339756.25	349756.25
142	339768.75	349768.75

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143	339781.25	349781.25
144	339793.75	349793.75
145	339806.25	349806.25
146	339818.75	349818.75
147	339831.25	349831.25
148	339843.75	349843.75
149	339856.25	349856.25
150	339868.75	349868.75
151	339881.25	349881.25
152	339893.75	349893.75
153	339906.25	349906.25
154	339918.75	349918.75
155	339931.25	349931.25
156	339943.75	349943.75
157	339956.25	349956.25
158	339968.75	349968.75
159	339981.25	349981.25
160	339993.75	349993.75

Channeling Plans

(Plan No - 3)

CHANNELING PLAN IN THE FREQUENCY BAND 367- 400 MHZ

[1]	368.65 MHz	[1']	385.15 MHz
[2]	371.95 MHz	[2']	388.45 MHz
[3]	375.25 MHz	[3']	391.75 MHz
[4]	378.55 MHz	[4']	395.05 MHz
[5]	381.85 MHz	[5']	398.35 MHz

Note:- New plans to be developed in the frequency bands 367-380 MHz and 380-400 MHz in view of remark IND24 in the National Frequency Allocation Table.

Channeling Plans

(Plan No - 4)

CHANNELING PLAN IN THE FREQUENCY BANDS 420-436.5 MHz AND 445-461.5 MHz

[1]	421.65 MHz	[1']	446.65 MHz
[2]	424.95 MHz	[2']	449.95 MHz
[3]	428.25 MHz	[3']	453.25 MHz
[4]	431.55 MHz	[4']	456.55 MHz
[5]	434.85 MHz	[5']	459.85 MHz

Channeling Plans

(Plan No - 5)

CHANNELING PLAN IN THE FREQUENCY BAND 622-712 MHZ

	FREQUENCY		PAIRS	CHANNEL CAPACITY		
				10 CHL	30 CHL	120CHL
F[1]	=622.5	/	F[1'] =667.5	*	--	--
F[2]	=623.5	/	F[2'] =668.5	*	*	--
F[3]	=624.5	/	F[3'] =669.5	*	--	--
F[4]	=625.5	/	F[4'] =670.5	*	--	--
F[5]	=626.5	/	F[5'] =671.5	*	*	*
F[6]	=627.5	/	F[6'] =672.5	*	--	--
F[7]	=628.5	/	F[7'] =673.5	*	--	--
F[8]	=629.5	/	F[8'] =674.5	*	*	--
F[9]	=630.5	/	F[9'] =675.5	*	--	--
F[10]	=631.5	/	F[10'] =676.5	*	--	--
F[11]	=632.5	/	[F11'] =677.5	*	*	--
F[12]	=633.5	/	F[12'] =678.5	*	--	--
F[13]	=634.5	/	F[13'] =679.5	*	--	--
F[14]	=635.5	/	F[14'] =680.5	*	*	*
F[15]	=636.5	/	F[15'] =681.5	*	--	--
F[16]	=639.5	/	F[16'] =682.5	*	--	--
F[17]	=640.5	/	F[17'] =683.5	*	*	--
F[18]	=641.5	/	F[18'] =684.5	*	--	--
F[19]	=642.5	/	F[19'] =685.5	*	--	--
F[20]	=643.5	/	F[20'] =686.5	*	*	--
F[21]	=642.5	/	F[21'] =687.5	*	--	--
F[22]	=643.5	/	F[22'] =688.5	*	--	--
F[23]	=644.5	/	F[23'] =689.5	*	*	*
F[24]	=645.5	/	F[24'] =690.5	*	--	--
F[25]	=646.5	/	F[25'] =691.5	*	--	--
F[26]	=647.5	/	F[26'] =692.5	*	*	--
F[27]	=648.5	/	F[27'] =693.5	*	--	--
F[28]	=649.5	/	F[28'] =694.5	*	--	--
F[29]	=650.5	/	F[29'] =695.5	*	*	--
F[30]	=651.5	/	F[30'] =696.5	*	--	--
F[31]	=652.5	/	F[31'] =697.5	*	--	--
F[32]	=653.5	/	F[32'] =698.5	*	*	*
F[33]	=654.5	/	F[33'] =699.5	*	--	--
F[34]	=655.5	/	F[34'] =700.5	*	--	--
F[35]	=656.5	/	F[35'] =701.5	*	*	--

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F[36]	=657.5	/	F[36']	=702.5	*	--	--
F[37]	=658.5	/	F[37']	=703.5	*	--	--
F[38]	=659.5	/	F[38']	=704.5	*	*	--
F[39]	=660.5	/	F[39']	=705.5	*	--	--
F[40]	=661.5	/	F[40']	=706.5	*	--	--
F[41]	=662.5	/	F[41']	=707.5	*	*	*
F[42]	=663.5	/	F[42']	=708.5	*	--	--
F[43]	=664.5	/	F[43']	=709.5	*	--	--
F[44]	=665.5	/	F[44']	=710.5	*	*	--
F[45]	=666.5	/	F[45']	=711.5	*	--	--

Adjacent Channel Separation = 1 MHz
TX - RX Separation = 45 MHz

* Indicates Frequency Pairs that can be assigned to respective channel capacity systems against which it is shown.

Channeling Plans

(Plan No - 6)

R.F. CHANNEL ARRANGEMENT FOR MOBILE RADIO TRUNKING SERVICE FOR THE FREQUENCY OF 814-819 MHz AND 859-864 MHz

<u>S.No.</u>	<u>Channel Arrangement</u>					<u>Block No.</u>
1.	1	41	81	121	161	..... 1A
	21	61	101	141	181	..... 1B
	11	51	91	131	171	..... 1C
	31	71	111	151	191	..... 1D
2.	2	42	82	122	162	..... 2A
	22	62	102	142	182	..... 2B
	12	52	92	132	172	..... 2C
	32	72	112	152	192	..... 2D
3.	3	43	83	123	163	..... 3A
	23	63	103	143	183	..... 3B
	13	53	93	133	173	..... 3C
	33	73	113	153	193	..... 3D
4.	4	44	84	124	164	..... 4A
	24	64	104	144	184	..... 4B
	14	54	94	134	174	..... 4C
	34	74	114	154	194	..... 4D
5.	5	45	85	125	165	..... 5A
	25	65	105	145	185	..... 5B
	15	55	95	135	175	..... 5C
	35	75	115	155	195	..... 5D
6.	6	46	86	126	166	..... 6A
	26	66	106	146	186	..... 6B
	16	56	96	136	176	..... 6C
	36	76	116	156	196	..... 6D
7.	7	47	87	127	167	..... 7A
	27	67	107	147	187	..... 7B
	17	57	97	137	177	..... 7C
	37	77	117	157	197	..... 7D
8.	8	48	88	128	168	..... 8A
	27	68	108	148	188	..... 8B
	18	58	98	138	178	..... 8C
	38	78	118	158	198	..... 8D
9.	9	49	89	129	169	..... 9A
	29	69	109	149	189	..... 9B
	19	59	99	139	179	..... 9C
	39	79	119	159	199	..... 9D
10.	10	50	90	130	170	..... 10A
	30	70	110	140	190	..... 10B
	20	60	100	140	180	..... 10C
	40	80	120	160	200	..... 10D

Note:- Each set of 5 frequency pairs shall be assigned in the order of A then B then C and then D

Channeling Plans

R.F. CHANNEL ARRANGEMENT FOR MOBILE RADIO TRUNKING SERVICE FOR THE FREQUENCY OF 814-819 MHz AND 859-864 MHz

25 KHz PLAN WITH 45 MHz DUPLEX SEPERATION

CHL.PAIR NO.	BASE TRANSMIT (KHz)	BASE RECEIVE (KHz)
200	814012.5	859012.5
199	814037.5	859037.5
198	814062.5	859062.5
197	814087.5	859087.5
196	814112.5	859112.5
195	814137.5	859137.5
194	814162.5	859162.5
193	814187.5	859187.5
192	814212.5	859212.5
191	814237.5	859237.5
190	814262.5	859262.5
189	814287.5	859287.5
188	814312.5	859312.5
187	814337.5	859337.5
186	814362.5	859362.5
185	814387.5	859387.5
184	814412.5	859412.5
183	814437.5	859437.5
182	814462.5	859462.5
181	814487.5	859487.5
180	814512.5	859512.5
179	814537.5	859537.5
178	814562.5	862537.5
177	814587.5	859587.5
176	814612.5	859612.5
175	814637.5	859637.5
174	814662.5	859662.5
173	814687.5	859687.5
172	814712.5	859712.5
171	814737.5	859737.5
170	814762.5	859762.5
169	814787.5	859787.5
168	814812.5	859812.5
167	814837.5	859837.5
166	814862.5	859862.5
165	814887.5	859887.5
164	814912.5	859912.5
163	814937.5	859937.5
162	814962.5	859962.5
161	814987.5	859987.5
160	815012.5	860012.5
159	815037.5	860037.5
158	815062.5	860062.5
157	815087.5	860087.5
156	815112.5	860112.5
155	815137.5	860137.5
154	815162.5	860162.5
153	815187.5	860187.5
152	815212.5	860212.5
151	815237.5	860237.5
150	815262.5	860212.5
149	815287.5	860287.5
148	815312.5	860312.5
147	815337.5	860337.5
146	815362.5	860362.5
145	815387.5	860387.5

Channeling Plans

144	815412.5	860412.5
143	815437.5	860437.5
142	815462.5	860462.5
141	815487.5	860487.5
140	815512.5	860512.5
139	815537.5	860537.5
138	815562.5	860562.5
137	815587.5	860687.5
136	815612.5	860612.5
135	815637.5	860637.5
134	815662.5	860662.5
133	815687.5	860687.5
132	815712.5	860712.5
131	815737.5	860737.5
130	815762.5	860762.5
129	815787.5	860787.5
128	815812.5	860812.5
127	815837.5	860837.5
126	815862.5	860862.5
125	815887.5	860887.5
124	815912.5	860912.5
123	815937.5	860937.5
122	815962.5	860962.5
121	815987.5	860987.5
120	816012.5	861012.5
119	816037.5	861037.5
118	816062.5	861062.5
117	816087.5	861087.5
116	816112.5	861112.5
115	816137.5	861137.5
114	816162.5	861162.5
113	816187.5	861187.5
112	816212.5	861212.5
111	816237.5	861237.5
110	816262.5	861262.5
109	816287.5	861287.5
108	816312.5	861312.5
107	816337.5	861337.5
106	816362.5	861362.5
105	816387.5	861387.5
104	816412.5	861412.5
103	816437.5	861437.5
102	816462.5	861462.5
101	816487.5	861487.5
100	816512.5	861512.5
99	816537.5	861537.5
98	816562.5	861562.5
97	816587.5	861587.5
96	816612.5	861612.5
95	816637.5	861637.5
94	816662.5	861662.5
93	816687.5	861687.5
92	816712.5	861712.5
91	816737.5	861737.5
90	816762.5	861762.5
89	816787.5	861787.5
88	816812.5	861812.5
87	816837.5	861837.5
86	816862.5	861862.5
85	816887.5	861887.5
84	816912.5	861912.5
83	816937.5	861937.5
82	816962.5	861962.5
81	816987.5	861987.5
80	817012.5	862012.5
79	817037.5	862037.5

Channeling Plans

78	817062.5	862062.5
77	817087.5	862087.5
76	817112.5	862112.5
75	817137.5	862137.5
74	817162.5	862162.5
73	817187.5	862187.5
72	817212.5	862212.5
71	817237.5	862237.5
70	817262.5	862262.5
69	817287.5	862287.5
68	817312.5	862312.5
67	817337.5	862337.5
66	817362.5	862362.5
65	817387.5	862387.5
64	817412.5	862412.5
63	817437.5	862437.5
62	817462.5	862462.5
61	817487.5	862487.5
60	817512.5	862512.5
59	817537.5	862537.5
58	817562.5	862562.5
57	817587.5	862587.5
56	817612.5	862612.5
55	817637.5	862637.5
54	817662.5	862662.5
53	817687.5	862687.5
52	817712.5	862712.5
51	817737.5	862737.5
50	817762.5	862762.5
49	817787.5	862787.5
48	817812.5	862812.5
47	817837.5	862837.5
46	817862.5	862862.5
45	817887.5	862887.5
44	817912.5	862912.5
43	817937.5	862937.5
42	817962.5	862962.5
41	817987.5	862987.5
40	818012.5	863012.5
39	818037.5	863037.5
38	818062.5	863062.5
37	818087.5	863087.5
36	818112.5	863112.5
35	818137.5	863137.5
34	818162.5	863162.5
33	818187.5	863187.5
32	818212.5	863212.5
31	818237.5	863237.5
30	818262.5	863262.5
29	818287.5	863287.5
28	818312.5	863312.5
27	818337.5	863337.5
26	818362.5	863362.5
25	818387.5	863387.5
24	818412.5	863412.5
23	818437.5	863437.5
22	818462.5	863462.5
21	818487.5	863487.5
20	818512.5	863512.5
19	818537.5	863537.5
18	818562.5	863562.5
17	818587.5	863587.5
16	818612.5	863612.5
15	818637.5	863637.5
14	818662.5	863662.5
13	818687.5	863687.5

Channeling Plans

12	818712.5	863712.5
11	818737.5	863737.5
10	818762.5	863762.5
9	818787.5	863787.5
8	818812.5	863812.5
7	818837.5	863837.5
6	818862.5	862862.5
5	818887.5	863887.5
4	818912.5	863912.5
3	818937.5	863937.5
2	818962.5	863962.5
1	818987.5	863987.5

Channeling Plans

(Plan No - 7)

CHANNELING PLAN IN THE FREQUENCY BAND 1427 - 1525 MHz

1. TX - RX Separation = 49 MHz

CHANNEL CAPACITY	MODULATION METHOD	BIT RATE (MAX) Kb/s	RF CHN SEPRATION(MHz)	NO. OF RF CHNL	CHANNEL NOS.
12	FM/FDM	-	0.5	93	1,2,3,4....
24	FM/FDM	-	1.0	24	1,3,5,7....
24	PCM(2PSK)	1544	2.0	24	1,5,9,13...
24	PCM(4PSK)	1544	1.5	30	1,4,7,10....
30	PCM(4PSK)	2048	2.0	31	1,5,9,13....
60	PCM(QPSK)	4096 (4 Mb/s)	3.0	15	3,9,15,21...
120	PCM(QPSK)	8000 (8 Mb/s)	5.0	6	8,24,40,56.

$$F1 = FO - X + 0.5X = 1476 - 48 + 0.5 N$$

$$F2 = FO + X + 0.5X = 1476 + 48 + 0.5 N$$

	F1		F2
1	1428.50	-	1477.50
2	1429.00	-	1478.00
3	1429.50	-	1478.50
4	1430.00	-	1479.00
5	1430.50	-	1479.50
6	1431.00	-	1480.00
7	1431.50	-	1480.50
8	1432.00	-	1481.00
9	1432.50	-	1481.50
10	1433.00	-	1482.00
11	1433.50	-	1482.50
12	1434.00	-	1483.00
13	1434.50	-	1483.50
14	1435.00	-	1484.00
15	1435.50	-	1484.50

Channeling Plans

16	1436.00	-	1485.00
17	1436.50	-	1485.50
18	1437.00	-	1486.00
19	1437.50	-	1486.50
20	1438.00	-	1487.00
21	1438.50	-	1487.50
22	1439.00	-	1488.00
23	1439.50	-	1488.50
24	1440.00	-	1489.00
25	1440.50	-	1489.50
26	1441.00	-	1490.00
27	1441.50	-	1490.50
28	1442.00	-	1491.00
29	1442.50	-	1491.50
30	1443.00	-	1492.00
31	1443.50	-	1492.50
32	1444.00	-	1493.00
33	1444.50	-	1493.50
34	1445.00	-	1494.00
35	1445.50	-	1494.50
36	1446.00	-	1495.00
37	1446.50	-	1495.50
38	1447.00	-	1496.00
39	1447.50	-	1496.50
40	1448.00	-	1497.00
41	1448.50	-	1497.50
42	1449.00	-	1498.00
43	1449.50	-	1498.50
44	1450.00	-	1499.00
45	1450.50	-	1499.50
46	1451.00	-	1500.00
47	1451.50	-	1500.50
48	1452.00	-	1501.00
49	1452.50	-	1501.50
50	1453.00	-	1502.00
51	1453.50	-	1502.50
52	1454.00	-	1503.00
53	1454.50	-	1503.50
54	1455.00	-	1504.00
55	1455.50	-	1504.50
56	1456.00	-	1505.00
57	1456.50	-	1505.50
58	1457.00	-	1506.00
59	1457.50	-	1506.50
60	1458.00	-	1507.00
61	1458.50	-	1507.50
62	1459.00	-	1508.00

Channeling Plans

63	1459.50	-	1508.50
64	1460.00	-	1509.00
65	1460.50	-	1509.50
66	1461.00	-	1510.00
67	1461.50	-	1510.50
68	1462.00	-	1511.00
69	1462.50	-	1511.50
70	1463.00	-	1512.00
71	1463.50	-	1512.50
72	1464.00	-	1513.00
73	1464.50	-	1513.50
74	1465.00	-	1514.00
75	1465.50	-	1514.50
76	1466.00	-	1515.00
77	1466.50	-	1515.50
78	1467.00	-	1516.00
79	1467.50	-	1516.50
80	1468.00	-	1517.00
81	1468.50	-	1517.50
82	1469.00	-	1518.00
83	1469.50	-	1518.50
84	1470.00	-	1519.00
85	1470.50	-	1519.50
86	1471.00	-	1520.00
87	1471.50	-	1520.50
88	1472.00	-	1521.00
89	1472.50	-	1521.50
90	1473.00	-	1522.00
91	1473.50	-	1522.50
92	1474.00	-	1523.00
93	1474.50	-	1523.50

Channeling Plans

(Plan No - 8)

CHANNELING PLAN IN THE FREQUENCY BAND 2 - 2.3 GHz

	Adjacent Channel Separation	= 3.5 MHz		
	TX - RX Separation	=161 MHz		
F[1]	=2003.0	/	F[1']	=2164.0
F[2]	=2006.5	/	F[2']	=2167.5 *
F[3]	=2010.0	/	F[3']	=2171.0
F[4]	=2013.5	/	F[4']	=2175.5 *
F[5]	=2017.0	/	F[5']	=2178.0
F[6]	=2020.5	/	F[6']	=2181.5 *
F[7]	=2024.0	/	F[7']	=2185.0
F[8]	=2027.5	/	F[8']	=2188.5 *
F[9]	=2031.0	/	F[9']	=2192.0
F[10]	=2034.5	/	F[10']	=2195.5 *
F[11]	=2038.0	/	F[11']	=2199.0
F[12]	=2041.5	/	F[12']	=2202.5 *
F[13]	=2044.5	/	F[13']	=2206.0
F[14]	=2048.5	/	F[14']	=2209.5*
F[15]	=2052.0	/	F[15']	=2213.0
F[16]	=2055.5	/	F[16']	=2116.5 *
F[17]	=2059.0	/	F[17']	=2220.0
F[18]	=2062.5	/	F[18']	=2223.5 *
F[19]	=2066.0	/	F[19']	=2227.0
F[20]	=2069.5	/	F[20']	=2230.5 *
F[21]	=2073.0	/	F[21']	=2234.0
F[22]	=2076.5	/	F[22]	=2237.5 *
F[23]	=2080.0	/	F[23']	=2241.0

Channeling Plans

F[24]	=2083.5	/	F[24']	=2244.5 *
F[25]	=2087.0	/	F[25]	=2248.0
F[26]	=2090.5	/	F[26]	=2251.5 *
F[27]	=2094.0	/	F[27]	=2255.0
F[28]	=2097.5	/	F[28']	=2258.5 *
F[29]	=2101.0	/	F[29']	=2262.0
F[30]	=2104.5	/	F[30']	=2265.5 *
F[31]	=2108.0	/	F[31']	=2269.0
F[32]	=2111.5	/	F[32']	=2272.5 *
F[33]	=2115.0	/	F[33']	=2276.0
F[34]	=2118.5	/	F[34']	=2279.5 *
F[35]	=2122.0	/	F[35']	=2283.0
F[36]	=2125.5	/	F[36']	=2286.5 *
F[37]	=2129.0	/	F[37']	=2290.0
F[38]	=2132.5	/	F[38']	=2293.5 *
F[39]	=2136.0	/	F[39']	=2297.0

* 8 Mb/s 120 channel systems
Adjacent channel Separation = 7.0 MHz
Alternate channels to be on opposite polarisation.

Notes:-

- (l) Assignment of channels will need to take into account assignments for other services in the allocation table.

Channeling Plans

(Plan No - 9)

CHANNELING PLAN IN THE FREQUENCY BAND 3.8 - 4.2 GHz

29 MHz PLAN

$$f_n = f_0 - 208 + 29 \times n$$

$$f_{n'} = f_0 + 5 + 29 \times n$$

where $f_0 = 4003.5$ MHz

$$n = 1, 2, 3, \dots, 6$$

Adjacent Channel separation = 29 MHz

Trans-Receive frequency separation = 213 MHz

Frequency(MHz)

Frequency (MHz)

$$f_1 = 3824.5$$

$$f_{1'} = 4037.5$$

$$f_2 = 3853.5$$

$$f_{2'} = 4066.5$$

.

.

.

.

.

.

$$f_6 = 3969.5$$

$$f_{6'} = 4182.5$$

Channeling Plans

(Plan No - 10)

CHANNELING PLAN IN THE FREQUENCY BAND 5925-6425 MHz and 6425-7111 MHz

Plan for 5925-6425 MHz

TX-Rx separation = 252.04 MHz

Adjacent Channel Separation = 29.65 MHz

Frequency (MHz)	Frequency(MHz)
F1= 5945.20	F1'= 6197.24
F2= 5974.85	F2'= 6226.89
F3 = 6004.50	F3' = 6256.54
F4 = 6034.15	F4' = 6286.19
F5 = 6063.80	F5' = 6315.84
F6 = 6093.45	F6' = 6345.49
F7 = 6123.10	F7' = 6375.14
F8 = 6152.75	F8' = 6404.79

Plan for 6425 -7110 MHz

TX - RX Separation - 340 MHz

Adjacent Channel Separation - 40 MHz

Frequency(MHz)	Frequency(MHz)
F1 = 6460	F1' = 6800
F2 = 6500	F2' = 6840
F3 = 6540	F3' = 6880
F4 = 6580	F4' = 6920
F5 = 6620	F5' = 6960
F6 = 6660	F6' = 7000
F7 = 6700	F7' = 7040
F8 = 6740	F8' = 7080

Note:- 1st and 8th channel of the plan in the frequency band 6425-7110 MHz would not be available in future.

Channeling Plans

(Plan No - 11)

CHANNELING PLAN IN THE FREQUENCY BAND 7425 - 7725 MHz

(1) 28 MHz PLAN

$$f_n = f_o - 161 + 28 \times n$$

$$f_{n'} = f_o - 7 + 28 \times n$$

Where $f_o = 7575$ MHz

$$n = 1, 2, 3, 4, 5$$

Adjacent Channel Separation = 28 MHz
Trans- Receive frequency Separation = 154 MHz

Frequency (MHz) Frequency (MHz)

$f_1 = 7442$	$f_{1'} = 7596$
$f_2 = 7470$	$f_{2'} = 7624$
$f_3 = 7498$	$f_{3'} = 7652$
$f_4 = 7526$	$f_{4'} = 7680$
$f_5 = 7554$	$f_{5'} = 7708$

(2) 7 MHz PLAN

$$f_n = f_o - 154 + 7 \times n$$

$$f_{n'} = f_o + 7 + 7 \times n$$

$f_o = 7575$ MHz

$$n = 1, 2, 3, \dots, 20$$

Adjacent Channel Separation = 7 MHz
Trans. - receive Frequency Separation = 161 MHz

Frequency (MHz) Frequency (MHz)

$f_1 = 7428$	$f_{1'} = 7589$
$f_2 = 7535$	$f_{2'} = 7596$
.	.
.	.
.	.
$f_{20} = 7561$	$f_{20'} = 7722$

Channeling Plans

(3) 28 MHz PLAN (For high capacity links e.g. 140 Mb/s)

$$f_{nh} = f_{oh} - 168 + 28 \times n$$

$$f'_{nh} = f_{oh} + 28 \times n$$

where $n = 1, 2, 3, 4, 5$. & $f_{oh} = 7597$ MHz

Trans-Receive Separation = 168 MHz
Adjacent channel Separation = 28 MHz

Frequency(MHz) Frequency(MHz)

$$f_{1h} = 7457 \qquad f'_{1h} = 7625$$

$$f_{2h} = 7485 \qquad f'_{2h} = 7653$$

$$f_{3h} = 7513 \qquad f'_{3h} = 7681$$

$$f_{4h} = 7541 \qquad f'_{4h} = 7709$$

Channeling Plans

(Plan No - 12)

CHANNELING PLAN IN THE FREQUENCY BAND 13 GHz
(12750 - 13250MHz)

Trans-Receive Separation = 266 MHz
Adjacent channel Separation = 28 MHz

[1]	12765 MHz	[1']	13031 MHz
[2]	12793 MHz	[2']	13059 MHz
[3]	12821 MHz	[3']	13087 MHz
[4]	12849 MHz	[4']	13115 MHz
[5]	12877 MHz	[5']	13143 MHz
[6]	12905 MHz	[6']	13171 MHz
[7]	12933 MHz	[7']	13199 MHz
[8]	12961 MHz	[8']	13227 MHz

Channeling Plans

(Plan No - 13)

CHANNELING PLAN IN THE FREQUENCY BAND 17.7-19.7 GHz

TX-RX Separation = 1010 MHz

Center Frequency = 18700 MHz

Adjacent Channel Spacing = 13.75 MHz

Ch. No.	TX (MHz)	RX (MHz)
1	17727.50	18737.50
2	17741.25	18751.25
3	17755.00	18765.00
4	17768.75	18778.75
5	17782.50	18792.50
6	17796.25	18806.25
7	17810.00	18820.00
8	17823.75	18833.75
9	17837.50	18847.50
10	17851.25	18861.25
11	17865.00	18875.00
12	17878.75	18888.75
13	17892.50	18902.50
14	17906.25	18916.25
15	17920.00	18930.00
16	17933.75	18943.75
17	17947.50	18957.50
18	17961.25	18971.25
19	17975.00	18985.00
20	17988.75	18998.75
21	18002.50	19012.50
22	18016.25	19026.25
23	18030.00	19040.00
24	18043.75	19053.75
25	18057.50	19067.50
26	18071.25	19081.25
27	18085.00	19095.00
28	18098.75	19108.75
29	18112.50	19122.50
30	18126.25	19136.25
31	18140.00	19150.00
32	18153.75	19163.75
33	18167.50	19177.50
34	18181.25	19191.25
35	18195.00	19205.00
36	18208.75	19218.75
37	18222.50	19232.50
38	18236.25	19246.25
39	18250.00	19260.00
40	18263.75	19273.75

Channeling Plans

41	18277.50	19287.50
42	18291.25	19301.25
43	18305.00	19315.00
44	18318.75	19328.75
45	18332.50	19342.50
46	18346.25	19356.25
47	18360.00	19370.00
48	18373.75	19383.75
49	18387.50	19397.50
50	18401.25	19411.25
51	18415.00	19425.00
52	18428.75	19438.75
53	18442.50	19452.50
54	18456.25	19466.25
55	18470.00	19480.00
56	18483.75	19493.75
57	18497.50	19507.50
58	18511.25	19521.25
59	18525.00	19535.00
60	18538.75	19548.75
61	18552.50	19562.50
62	18566.25	19576.25
63	18580.00	19590.00
64	18593.75	19603.75
65	18607.50	19617.50
66	18621.25	19631.25
67	18635.00	19645.00
68	18648.75	19658.75
69	18662.50	19672.50

Channeling Plans

(Plan No - 14)

CHANNELING PLAN IN THE FREQUENCY BAND 10.5- 10.68 GHz

Duplex Separation =91 MHz

7 MHz plan:

Channel No.	TX frequency(MHz)	RX frequency(MHz)
1	10504	10595
2	10511	10602
3	10518	10609
4	10525	10616
5	10532	10623
6	10539	10630
7	10546	10637
8	10553	10644
9	10560	10651
10	10567	10658
11	10574	10665
12	10581	10672

Channeling Plans

(Plan No - 15)

CHANNELING PLAN IN THE FREQUENCY BAND 10.7-11.7 GHz

TX-RX Separation = 490 MHz

Adjacent Channel Separation = 40 MHz

Channel No.	TX Frequency(MHz)	RX Frequency(MHz)
1	10735	11225
2	10775	11265
3	10815	11305
4	10855	11345
5	10895	11385
6	10935	11425
7	10975	11465
8	11015	11505
9	11055	11545
10	11095	11585
11	11135	11625
12	11175	11665

Channeling Plans

(Plan No - 16)

CHANNELING PLAN IN THE FREQUENCY BAND 14.5-15.5 GHz

Duplex Separation = 420 MHz

1. 28 MHz plan:

F1	14515 MHz	F1'	14935 MHz
F2	14543 MHz	F2'	14963 MHz
F3	14571 MHz	F3'	14991 MHz
-	-	-	-
-	-	-	-
-	-	-	-
F15	14907 MHz	F15'	15327 MHz

2. 14 MHz plan:

F1	14515 MHz	F2	14935 MHz
F2	14529 MHz	F2'	14949 MHz
-	-	-	-
-	-	-	-
-	-	-	-
F30	14921	F30'	15341 MHz

3. 07 MHz plan:

F1	14508 MHz	F1	14928 MHz
F2	14515 MHz	F2'	14935 MHz
-	-	-	-
-	-	-	-
-	-	-	-
F60	14921 MHz	F60'	15341 MHz

4. 3.5 MHz plan

F1	14504.5 MHz	F1'	14924.5 MHz
F2	14508	F2'	14928 MHz
-	-	-	-
-	-	-	-
F120	14921 MHz	F120'	15341 MHz

Channeling Plans

(Plan No - 17)

CHANNELING PLAN IN THE FREQUENCY BAND 21.2-23.6 GHz

Duplex Separation = 1232 MHz

1. 28 MHz plan:

F1	21238 MHz	F1'	22470 MHz
F2	21266 MHz	F2'	22498 MHz
-	-	-	-
-	-	-	-
-	-	-	-
F40	22330 MHz	F40'	23562 MHz

2. 14 MHz plan:

F1	21231 MHz	F1'	22463 MHz
F2	21245 MHz	F2'	22477 MHz
-	-	-	-
-	-	-	-
-	-	-	-
F80	22337 MHz	F80'	23569 MHz

3. 07 MHz plan:

F1	21227.5 MHz	F1'	22459.5 MHz
F2	21234.5 MHz	F2'	22466.5 MHz
-	-	-	-
-	-	-	-
-	-	-	-
F160	22340.5 MHz	F160'	23572.5 MHz