

**ANNEX 3-4**

**Table of Frequencies for the Maritime Mobile Radiocommunication Service**

**(In the 156.025-162.025MHz band)**

Channel No.	Notes	Transmitting Frequencies (MHz)		Inter-Ships	Port Operations and Ship Movement		Public Correspondence
		Ship Stations	Coast Stations		Single Frequency	Paired Frequency	
60	m)	156.025	160.625		x	x	x
01	m)	156.050	160.650		x	x	x
61	m)	156.075	160.675		x	x	x
02	m)	156.100	160.700		x	x	x
62	m)	156.125	160.725		x	x	x
03	m)	156.150	160.750		x	x	x
63	m)	156.175	160.775		x	x	x
04	m)	156.200	160.800		x	x	x
64	m)	156.225	160.825		x	x	x
05	m)	156.250	160.850		x	x	x
65	m)	156.275	160.875		x	x	x
06	f)	156.300		x			
2006	r)	160.900	160.900				
66	m)	156.325	160.925		x	x	x
07	m)	156.350	160.950		x	x	x
67	h)	156.375	156.375	x	x		
08		156.400		x			
68		156.425	156.425		x		
09	i)	156.450	156.450	x	x		
69		156.475	156.475	x	x		
10	h), q)	156.500	156.500	x	x		
70	f), j)	156.525	156.525	digital selective calling for distress, safety and calling			
11	q)	156.550	156.550		x		
71		156.575	156.575		x		
12		156.600	156.600		x		
72	i)	156.625		x			
13	k)	156.650	156.650	x	x		
73	h), i)	156.675	156.675	x	x		
14		156.700	156.700		x		
74		156.725	156.725		x		
15	g)	156.750	156.750	x	x		

Channel No.	Notes	Transmitting Frequencies (MHz)		Inter-Ships	Port Operations and Ship Movement		Public Correspondence
		Ship Stations	Coast Stations		Single Frequency	Paired Frequency	
75	n), s)	156.775			x		
16	f)	156.800	156.800	distress, safety and calling			
76	n), s)	156.825			x		
17	g)	156.850	156.850	x	x		
77		156.875		x			
18	m)	156.900	161.500		x	x	x
78	m)	156.925	161.525		x	x	x
1078		156.925	156.925		x		
2078	mm)		161.525		x		
19	m)	156.950	161.550		x	x	x
1019		156.950	156.950		x		
2019	mm)		161.550		x		
79	m)	156.975	161.575		x	x	x
1079		156.975	156.975		x		
2079	mm)		161.575		x		
20	m)	157.000	161.600		x	x	x
1020		157.000	157.000		x		
2020	mm)		161.600		x		
80	wa), y)	157.025	161.625		x	x	x
21	wa), y)	157.050	161.650		x	x	x
81	wa), y)	157.075	161.675		x	x	x
22	wa), y)	157.100	161.700		x	x	x
82	w), x), y)	157.125	161.725		x	x	x
23	w), x), y)	157.150	161.750		x	x	x
83	w), x), y)	157.175	161.775		x	x	x
24	w), ww), x), xx)	157.200	161.800		x	x	x
1024	w), ww), x), xx)	157.200					
2024	w), ww), x), xx)	161.800	161.800	x**			
84	w), ww), x), xx)	157.225	161.825		x	x	x
1084	w), ww), x), xx)	157.225					

*(continued)*

Channel No.	Notes	Transmitting Frequencies (MHz)		Inter-Ships	Port Operations and Ship Movement		Public Correspondence
		Ship Stations	Coast Stations		Single Frequency	Paired Frequency	
2084	w), ww), x), xx)	161.825	161.825	x**			
25	w), ww), x), xx)	157.250	161.850		x	x	x
1025	w), ww), x), xx)	157.250					
2025	w), ww), x), xx)	161.850	161.850	x**			
85	w), ww), x), xx)	157.275	161.875		x	x	x
1085	w), ww), x), xx)	157.275					
2085	w), ww), x), xx)	161.875	161.875	x**			
26	w), ww), x)	157.300	161.900		x	x	x
1026	w), ww), x)	157.300					
2026	w), ww), x)		161.900				
86	w), ww), x)	157.325	161.925		x	x	x
1086	w), ww), x)	157.325					
2086	w), ww), x)		161.925				
27	z), zx)	157.325	161.950			x	x
1027	z), zz)	157.350	157.350			x	
2027*	z)	161.950	161.950				
87	z), zz)	157.375	157.375		x		
28	z), zx)	157.400	162.000			x	x
1028	z), zz)	157.400	157.400		x		
2028*	z)	162.000	162.000				
88	zz)	157.425			x		
AIS 1	f), l), p)	161.975	161.975				
AIS 2	f), l), p)	162.025	162.025				

\* From 1 January 2019, channel 2027 will be designated ASM 1 and channel 2028 will be designated ASM 2.

\*\* The use of this channel is limited to digitally modulated emissions.

#### General notes

- Administration may designate frequencies in the intership, port operations and ship movement services for use by light aircraft and helicopters to communicate with ships or participating coast stations in predominantly maritime support operations under the coordination specified in Nos. **S51.69, S51.73, S51.74, S51.75, S51.76, S51.77** and **S51.78** of the RR. However, the use of the channels which are shared with public correspondence shall be subject to prior agreement between interested and affected administrations.
- The channels of the present Appendix, with the exception of channels 06, 13, 15, 16, 17, 70, 75 and 76, may also be used for high-speed data and facsimile transmissions, subject to special arrangement between interested and affected administrations.
- The channels of the present Appendix, with the exception of channels 06, 13, 15, 16, 17, 70, 75 and 76, may be used for direct-printing telegraphy and data transmission, subject to special arrangement between interested and affected administrations. (WRC-12)
- The frequencies in this table may also be used for radiocommunications on inland waterways in accordance with the conditions specified in No. **S5.226** of the RR.
- Administrations may apply 12.5 kHz channel interleaving on a non-interference basis to 25 kHz channels, in accordance with the most recent version of Recommendation ITU R M.1084, provided:
  - it shall not affect the 25 kHz channels of the present Appendix maritime mobile distress and safety, automatic identification system (AIS), and data exchange frequencies, especially the channels 06, 13, 15, 16, 17, 70, AIS 1 and AIS 2, nor the technical characteristics set forth in Recommendation ITU-R M.489-2 for those channels;
  - implementation of 12.5 kHz channel interleaving and consequential national requirements shall be subject to coordination with affected administrations. (WRC-12)

*Specific notes*

- f) The frequencies 156.300 MHz (channel 06), 156.525 MHz (channel 70), 156.800 MHz (channel 16), 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2) may also be used by aircraft stations for the purpose of search and rescue operations and other safety-related communication.
- g) Channels 15 and 17 may also be used for on-board communications provided the effective radiated power does not exceed 1W, and subject to the national regulations of the administration concerned when these channels are used in its territorial waters.
- h) Within the European maritime area and in Canada, these frequencies (channels 10, 67, 73) may also be used, if so required, by the individual administrations concerned, for communication between ship stations, aircraft stations and participating land stations engaged in coordinate search and rescue and anti-pollution operations in local areas, under the conditions specified in Nos. **S51.69, S51.73, S51.74, S51.75, S51.76, S51.77** and **S51.78** of the RR.
- i) The preferred first three frequencies for the purpose indicated in note a) are 156.450 MHz (channel 09), 156.625 MHz (channel 72) and 156.675 MHz (channel 73).
- j) Channel 70 is to be used exclusively for digital selective calling for distress, safety and calling.
- k) Channel 13 is designated for use on a worldwide basis as a navigation safety communication channel, primarily for intership navigation safety communications. It may also be used for the ship movement and port operations service subject to the national regulations of the administrations concerned.
- l) These channels (AIS 1 and AIS 2) are used for an automatic identification system (AIS) capable of providing worldwide operation, unless other frequencies are designated on a regional basis for this purpose. Such use should be in accordance with the most recent version of Recommendation ITU R M.1371.
- m) These channels may be operated as single frequency channels, subject to coordination with affected administrations. The following conditions apply for single frequency usage:
- The lower frequency portion of these channels may be operated as single frequency channels by ship and coaststations.
  - Transmission using the upper frequency portion of these channels is limited to coast stations.
  - If permitted by administrations and specified by national regulations, the upper frequency portion of these channels may be used by ship stations for transmission. All precautions should be taken to avoid harmful interference to channels AIS 1, AIS 2, 2027\* and 2028\*. (WRC-15)
- \* From 1 January 2019, channel 2027 will be designated ASM 1 and channel 2028 will be designated ASM 2.
- mm) Transmission on these channels is limited to coast stations. If permitted by administrations and specified by national regulations, these channels may be used by ship stations for transmission. All precautions should be taken to avoid harmful interference to channels AIS 1, AIS 2, 2027\* and 2028\*. (WRC-15)
- \* From 1 January 2019, channel 2027 will be designated ASM 1 and channel 2028 will be designated ASM 2.
- n) With the exception of AIS, the use of these channels (75 and 76) should be restricted to navigation-related communications only and all precautions should be taken to avoid harmful interference to channel 16, by limiting the output power to 1 W. (WRC-12)
- o) (SUP - WRC-12)
- p) Additionally, AIS 1 and AIS 2 may be used by the mobile-satellite service (Earth-to-space) for the reception of AIS transmissions from ships.
- q) When using these channels (10 and 11), all precautions should be taken to avoid harmful interference to channel 70.
- r) In the maritime mobile service, this frequency is reserved for experimental use for future applications or systems (e.g. new AIS applications, man over board systems, etc.). If authorized by administrations for experimental use, the operation shall not cause harmful interference to, or claim protection from, stations operating in the fixed and mobile services. (WRC-12)
- s) Channels 75 and 76 are also allocated to the mobile-satellite service (Earth-to-space) for the reception of long-range AIS broadcast messages from ships (Message 27; see the most recent version of Recommendation ITU-R M.1371). (WRC-12)
- t) Not used.
- u) Not used.
- v) Not used.
- w) In Regions 1 and 3:  
Until 1 January 2017, the frequency bands 157.200-157.325 MHz and 161.800-161.925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) may be used for digitally modulated emissions, subject to coordination with affected administrations. Stations using these channels or frequency bands for digitally modulated emissions shall not cause harmful interference to, or claim protection from, other stations operating in accordance with Article 5.  
From 1 January 2017, the frequency bands 157.200-157.325 MHz and 161.800-161.925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) are identified for the utilization of the VHF Data Exchange System (VDDES) described in the most recent version of Recommendation ITU-R M.2092. These frequency bands may also be used for analogue modulation described in the most recent version of Recommendation ITU-R M.1084 by an administration that wishes to do so, subject to not causing harmful interference to, or claiming protection from other stations in the maritime mobile service using digitally modulated emissions and subject to coordination with affected administrations. (WRC-15)
- wa) In Regions 1 and 3:  
Until 1 January 2017, the frequency bands 157.025-157.175 MHz and 161.625-161.775 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23 and 83) may be used for digitally modulated emissions, subject to coordination with affected administrations. Stations using these channels or frequency bands for digitally modulated emissions shall not cause harmful interference to, or claim protection from, other stations operating in accordance with Article 5.  
From 1 January 2017, the frequency bands 157.150-157.175 MHz and 161.750-161.775 MHz (corresponding to channels: 23 and 83) are identified for utilization of the digital systems described in the most recent version of Recommendation ITU-R M.1842 using multiple 25 kHz contiguous channels. Recommendation ITU-R M.1842 using two 25 kHz contiguous channels. From 1 January 2017, the frequencies 157.125 MHz and 161.725 MHz (corresponding to channel: 82) are identified for the utilization of the digital systems described in the most recent version of Recommendation ITU-R M.1842.  
The frequency bands 157.025-157.175 MHz and 161.625-161.775 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23 and 83) can also be used for analogue modulation described in the most recent version of Recommendation ITU-R M.1084 by an administration that wishes to do so, subject to not claiming protection from other stations in the maritime mobile service using digitally modulated emissions and subject to coordination with affected administrations. (WRC-15)

ww) In Region 2, the frequency bands 157.200-157.325 and 161.800-161.925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions in accordance with the most recent version of Recommendation ITU-R M.1842. (WRC-12)

In Canada and Barbados, from 1 January 2019 the frequency bands 157.200-157.275 and 161.800-161.875 MHz (corresponding to channels: 24, 84, 25 and 85) may be used for digitally modulated emissions, such as those described in the most recent version of Recommendation ITU-R M.2092, subject to coordination with affected administrations. (WRC-15)

x) From 1 January 2017, in Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Democratic Republic of the Congo, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe, the frequency bands 157.125-157.325 and 161.725-161.925 MHz (corresponding to channels: 82, 23, 83, 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions.

From 1 January 2017, in China, the frequency bands 157.150-157.325 and 161.750-161.925 MHz (corresponding to channels: 23, 83, 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions. (WRC-12)

xx) From 1 January 2019, the channels 24, 84, 25 and 85 may be merged in order to form a unique duplex channel with a bandwidth of 100 kHz in order to operate the VDES terrestrial component described in the most recent version of Recommendation ITU-R M.2092. (WRC-15)

y) These channels may be operated as single or duplex frequency channels, subject to coordination with affected administrations. (WRC-12)

z) Until 1 January 2019, These channels may be used for possible testing of future AIS applications without causing harmful interference to, or claiming protection from, existing applications and stations operating in the fixed and mobile services. (WRC-12)

zx) In the United States, these channels are used for communication between ship stations and coast stations for the harmful purpose of public correspondence. (WRC-15)

zz) From 1 January 2019, channels 1027, 1028, 87 and 88 are used as single-frequency analogue channels for port operation and ship movement. (WRC-15)

### ANNEX 3-5

#### Table of Frequencies for Shipboard Communication Equipment at On-Board Communication Stations and Ship Stations

1. Table of frequencies for analog modulated emissions.

156.75 MHz	156.85 MHz	
457.525 MHz	457.55 MHz	457.575 MHz
467.6 MHz	467.6125 MHz	467.625 MHz

2. Table of frequencies for digital modulated emissions.

457.515625 MHz	457.521875 MHz	457.528125 MHz	457.534375 MHz
457.540625 MHz	457.546875 MHz	457.553125 MHz	457.559375 MHz
457.565625 MHz	457.571875 MHz	457.578125 MHz	457.584375 MHz
467.515625 MHz	467.521875 MHz	467.528125 MHz	467.534375 MHz
467.540625 MHz	467.546875 MHz	467.553125 MHz	467.559375 MHz
467.565625 MHz	467.571875 MHz	467.578125 MHz	467.584375 MHz

### ANNEX 4

#### Table of Frequencies for Ship Earth Station and Portable Mobile Earth Station

Transmitting	Receiving
1626.5 - 1660.5 MHz	1525 - 1559 MHz

### ANNEX 5

#### Table of Frequencies for Aircraft Earth Stations

Transmitting	Receiving
1626.5 - 1660.5 MHz	1525 - 1559 MHz

### ANNEX 6-1

#### Table of Frequencies for Premises Radio Stations (Telemeter, Telecontrol and Data Transmission)

1216.0125 MHz and higher frequencies in increments of 25 kHz in the range 1216.0125 MHz to 1216.9875 MHz inclusive, and also the frequencies added 36 MHz to those frequencies are included. Notice that 1216.0125 MHz, 1216.5125 MHz, and 1252.5125 MHz are frequency control channels.

1216 MHz and higher frequencies in increments of 50 kHz in the range 1216 MHz to 1217 MHz inclusive, and also the frequencies added 36 MHz to those frequencies are included. Notice that 1216 MHz and 1252 MHz are frequency control channels.

**ANNEX 6-2**

**Table of Frequencies for Radio Stations (Mobile Terminal Identification)**

Radio equipment using	Radio equipment with occupied bandwidth of 200kHz and lower	916.8MHz 920.4MHz	918MHz 920.6MHz	919.2MHz 920.8MHz
916.7-920.9MHz band	Radio equipment with occupied bandwidth higher than 200kHz and up to and including 400kHz	920.5MHz	920.7MHz	
	Radio equipment with occupied bandwidth higher than 400kHz and up to and including 600kHz	920.6MHz		
Radio equipment using	2448.875MHz			
2450MHz band				

**ANNEX 7-1**

**Table of Frequencies for Simplified Radio Stations in the 150 MHz or 400 MHz Band**

154.44375MHz	154.45MHz	154.45625MHz	154.4625MHz	154.46875MHz	154.47MHz
154.475MHz	154.48125MHz	154.4875MHz	154.49MHz	154.49375MHz	154.5MHz
154.50625MHz	154.51MHz	154.5125MHz	154.51875MHz	154.525MHz	154.53MHz
154.53125MHz	154.5375MHz	154.54375MHz	154.55MHz	154.55625MHz	154.5625MHz
154.56875MHz	154.57MHz	154.575MHz	154.58125MHz	154.5875MHz	154.59MHz
154.59375MHz	154.6MHz	154.60625MHz	154.61MHz	154.6125MHz	
465.0375 MHz	465.05 MHz	465.0625 MHz	465.075 MHz	465.0875 MHz	465.1 MHz
465.1125 MHz	465.125 MHz	465.1375 MHz	465.15 MHz	468.55 MHz	468.5625 MHz
468.575 MHz	468.5875 MHz	468.6 MHz	468.6125 MHz	468.625 MHz	468.6375 MHz
468.65 MHz	468.6625 MHz	468.675 MHz	468.6875 MHz	468.7 MHz	468.7125 MHz
468.725 MHz	468.7375 MHz	468.75 MHz	468.7625 MHz	468.775 MHz	468.7875 MHz
468.8 MHz	468.8125 MHz	468.825 MHz	468.8375 MHz	468.85 MHz	

**ANNEX 7-2**

**Table of Frequencies for Simplified Radio Stations in the 347.7 – 351.9 MHz Band**

348.5625 MHz	348.575 MHz	348.5875 MHz	348.6 MHz	348.6125 MHz	348.625 MHz
348.6375 MHz	348.65 MHz	348.6625 MHz	348.675 MHz	348.6875 MHz	348.7 MHz
348.7125 MHz	348.725 MHz	348.7375 MHz	348.75 MHz	348.7625 MHz	348.775 MHz
348.7875 MHz	348.8 MHz				

**ANNEX 7-3**

**Table of Frequencies for Simplified Radio Stations in the 400 MHz Band**

351.16875 MHz and higher frequencies in increments of 6.25 kHz in the range 351.16875 MHz to 351.38125 MHz inclusive, and 467 MHz and higher frequencies in increments of 6.25 kHz in the range 467 MHz to 467.4 MHz inclusive
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**ANNEX 7-4**

**Table of Frequencies for Simplified Radio Stations in the 50 GHz Band**

50.44 GHz	50.45 GHz	50.46 GHz	50.47 GHz	50.48 GHz	50.49 GHz	50.5 GHz	50.51 GHz
50.52 GHz	50.53 GHz	50.54 GHz	50.55 GHz	50.56 GHz	50.57 GHz	50.58 GHz	50.59 GHz
50.6 GHz	50.61 GHz	50.62 GHz					
50.94 GHz	50.95 GHz	50.96 GHz	50.97 GHz	50.98 GHz	50.99 GHz	51 GHz	51.01 GHz
51.02 GHz	51.03 GHz	51.04 GHz	51.05 GHz	51.06 GHz	51.07 GHz	51.08 GHz	51.09 GHz
51.1 GHz	51.11 GHz	51.12 GHz					

**ANNEX 8-1**

**Table of Frequencies for Radio Control Transmitters and Radio Microphones**

1. Table of Frequencies for Radio Control Transmitters and Radio Microphones

27.12 MHz	40.68 MHz
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2. Table of Frequencies for Radio Control Transmitters

40.61MHz	40.63MHz	40.65MHz	40.67MHz	40.69MHz	40.71MHz	40.73MHz	40.75MHz
40.77MHz	40.79MHz	40.81MHz	40.83MHz	40.85MHz			
72.13MHz	72.15MHz	72.17MHz	72.19MHz	72.21MHz	72.75MHz	72.76MHz	72.77MHz
72.79MHz	72.81MHz	72.83MHz	72.85MHz	72.87MHz	73.22MHz	73.23MHz	73.24MHz
73.25MHz	73.26MHz	73.27MHz	73.28MHz	73.29MHz	73.30MHz	73.31MHz	73.32MHz

**ANNEX 8-2**

**Table of Frequencies for Radio Stations for Citizen Band (CB) Radio**

26.968MHz	26.976MHz	27.04MHz	27.08MHz	27.088MHz	27.112MHz	27.12MHz	27.144MHz
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**ANNEX 8-3**

**Table of Frequencies for Radio Stations for Cordless Telephones**

253.8625MHz and higher frequencies in increments of 12.5kHz in the range 253.8625MHz to 254.9525MHz inclusive
380.2125MHz and higher frequencies in increments of 12.5kHz in the range 380.2125MHz to 381.3125MHz inclusive

**ANNEX 8-4**

**Table of Frequencies for Radio Stations for Low-Power Security Systems**

Radio equipment with occupied bandwidth of 8.5kHz and lower	426.25MHz and higher frequencies in increments of 12.5kHz in the range 426.25MHz to 426.8375MHz inclusive
Radio equipment with occupied bandwidth higher than 8.5kHz and up to and including 16kHz	426.2625MHz and higher frequencies in increments of 25kHz in the range 426.25MHz to 426.8375MHz inclusive

**ANNEX 8-5**

**Table of Frequencies for Radio Stations for 5.2GHz High-Power Data Transmission Systems and Low-Power Data Transmission Systems**

Radio equipment using 2400MHz band	2441.75MHz 2484MHz				
Radio equipment using higher than 5150MHz and up to and including 5350MHz	Radio equipment with occupied bandwidth of 19MHz and lower	5170MHz*	5180MHz	5190MHz*	5200MHz
		5210MHz*	5220MHz	5230MHz*	5240MHz
		5260MHz	5280MHz	5300MHz	5320MHz
	Radio equipment with occupied bandwidth higher than 19MHz and up to and including 38MHz	5190MHz	5230MHz	5270MHz	5310MHz
	Radio equipment with occupied bandwidth higher than 38MHz and up to and including 78MHz	5210MHz	5290MHz		
	Radio equipment with occupied bandwidth higher than 78MHz and up to and including 158MHz	5250MHz			
Radio equipment using higher than 5470MHz and up to and including 5725MHz	Radio equipment with occupied bandwidth of 19.7MHz and lower	5500MHz	5520MHz	5540MHz	5560MHz
		5580MHz	5600MHz	5620MHz	5640MHz
		5660MHz	5680MHz	5700MHz	
	Radio equipment with occupied bandwidth higher than 19.7MHz and up to and including 38MHz	5510MHz	5550MHz	5590MHz	5630MHz
	Radio equipment with occupied bandwidth higher than 38MHz and up to and including 78MHz	5670MHz			
	Radio equipment with occupied bandwidth higher than 38MHz and up to and including 78MHz	5530MHz	5610MHz		
	Radio equipment with occupied bandwidth higher than 78MHz and up to and including 158MHz	5570MHz			
Radio equipment using 24GHz band	24.77GHz and higher frequencies in increments of 10MHz in the range 24.77GHz to 25.23GHz inclusive				
Radio equipment using 60GHz band	61.5GHz				

\* This frequency should be migrated to other frequency as soon as practicable.

**ANNEX 8-6**

**Table of Frequencies for Radio Stations for Digital Cordless Telephones**

1893.65MHz and higher frequencies in increments of 300kHz in the range 1893.65MHz to 1905.95MHz inclusive
1895.616MHz and higher frequencies in increments of 1728kHz in the range 1895.616MHz to 1904.256MHz inclusive
1897.4MHz, 1899.1MHz, 1899.2MHz, 1901MHz

**ANNEX 8-7**

**Table of Frequencies for Land Mobile Stations of Personal Handy-phone System (PHS)**

1884.65MHz and higher frequencies in increments of 300kHz in the range 1884.65MHz to 1915.55MHz inclusive

**ANNEX 8-8**

**Table of Frequencies for Land Mobile Stations of Dedicated Short Range Communication Systems**

5.815GHz 5.820GHz 5.825GHz 5.830GHz 5.835GHz 5.840GHz 5.845GHz

**ANNEX 8-9**

**Table of Frequencies for Land Mobile Stations for Testing Radio Stations of Dedicated Short Range Communication Systems**

5.775GHz 5.780GHz 5.785GHz 5.790GHz 5.795GHz 5.800GHz 5.805GHz

**ANNEX 8-10**

**Table of Frequencies for Land Mobile Stations of 700 MHz Intelligent Transport Systems**

760MHz

**ANNEX 9-1**

**Table of Frequencies for Specified Low-Power Radio Stations (Telemeter, Telecontrol and Data Transmissions)**

Radio equipment using 315MHz band		313.625MHz
Radio equipment using 400MHz band	Radio equipment with occupied bandwidth of 5.8kHz and lower	426.028125MHz and higher frequencies in increments of 6.25kHz in the range 426.028125MHz to 426.134375MHz inclusive.
		429.178125MHz and higher frequencies in increments of 6.25kHz in the range 429.178125MHz to 429.734375MHz inclusive.
		429.815625MHz and higher frequencies in increments of 6.25kHz and the frequencies added 19.9MHz to this frequency in the range 429.815625MHz to 429.921875MHz inclusive. In this case, 429.921875MHz and 449.821875MHz are the frequency control channels.
		449.840625MHz and higher frequencies in increments of 6.25kHz and the frequencies added 19.6MHz to this frequency in the range 449.840625MHz to 449.884375MHz inclusive. In this case, 449.884375MHz and 469.484375MHz are the frequency control channels.
Radio equipment with occupied bandwidth higher than 5.8kHz and up to and including 8.5kHz	Radio equipment with occupied bandwidth higher than 5.8kHz and up to and including 8.5kHz	426.025MHz and higher frequencies in increments of 12.5kHz in the range 426.025MHz to 426.1375MHz inclusive.
		429.175MHz and higher frequencies in increments of 12.5kHz in the range 429.175MHz to 429.7375MHz inclusive.
		429.8125MHz and higher frequencies in increments of 12.5kHz and the frequencies added 19.9MHz to this frequency in the range 429.8125MHz to 429.925MHz inclusive. In this case, 429.925MHz and 449.825MHz are the frequency control channels.
		449.8375MHz and higher frequencies in increments of 12.5kHz and the frequencies added 19.6MHz to this frequency in the range 449.8375MHz to 449.8875MHz inclusive. In this case, 449.8875MHz and 469.4875MHz are the frequency control channels.
Radio equipment with occupied bandwidth higher than 8.5kHz and up to and including 16kHz	Radio equipment with occupied bandwidth higher than 8.5kHz and up to and including 16kHz	426.0375MHz 426.0625MHz 426.0875MHz 426.1125MHz
		Radio equipment with occupied bandwidth higher than 8.5kHz and up to and including 16kHz
Radio equipment using 915.9-928.1 MHz band	Radio equipment that use one unit channel	916MHz and higher frequencies in increments of 200kHz in the range 916MHz to 928MHz inclusive
	Radio equipment that use two continuous unit channels at the same time	916.1MHz and higher frequencies in increments of 200kHz in the range 916.1MHz to 927.9MHz inclusive

	Radio equipment that use three continuous unit channels at the same time	916.2MHz and higher frequencies in increments of 200kHz in the range 916.2MHz to 927.8MHz inclusive
	Radio equipment that use four continuous unit channels at the same time	916.3MHz and higher frequencies in increments of 200kHz in the range 916.3MHz to 927.7MHz inclusive
	Radio equipment that use five continuous unit channels at the same time	916.4MHz and higher frequencies in increments of 200kHz in the range 916.4MHz to 927.6MHz inclusive
Radio equipment using 928.1-929.7 MHz band	Radio equipment that use one unit channel	928.15MHz and higher frequencies in increments of 100kHz in the range 928.15MHz to 929.65MHz inclusive
	Radio equipment that use two continuous unit channels at the same time	928.2MHz and higher frequencies in increments of 100kHz in the range 928.2MHz to 929.6MHz inclusive
	Radio equipment that use three continuous unit channels at the same time	928.25MHz and higher frequencies in increments of 100kHz in the range 928.25MHz to 929.55MHz inclusive
	Radio equipment that use four continuous unit channels at the same time	928.3MHz and higher frequencies in increments of 100kHz in the range 928.3MHz to 929.5MHz inclusive
	Radio equipment that use five continuous unit channels at the same time	928.35MHz and higher frequencies in increments of 100kHz in the range 928.35MHz to 929.45MHz inclusive
Radio equipment using 1200MHz band	Radio equipment with occupied bandwidth of 8.5kHz and lower	1216.00625MHz and higher frequencies in increments of 12.5kHz and the frequencies added 36MHz to this frequency in the range 1216.00625MHz to 1216.99375MHz inclusive. In this case, 1216.00625MHz, 1216.01875MHz, 1216.50625MHz, 1216.51875MHz, 1252.00625MHz, 1252.01875MHz, 1252.50625MHz and 1252.51875MHz are the frequency control channels.
	Radio equipment with occupied bandwidth higher than 8.5kHz and up to and including 16kHz	1216.0125MHz and higher frequencies in increments of 25kHz and the frequencies added 36MHz to this frequency in the range 1216.0125MHz to 1216.9875MHz inclusive. In this case, 1216.0125MHz, 1216.5125MHz, 1252.0125MHz and 1252.5125MHz are the frequency control channels.
	Radio equipment with occupied bandwidth higher than 16kHz and up to and including 32kHz	1216MHz and higher frequencies in increments of 50kHz and the frequencies added 36MHz to those frequencies in the range 1216MHz to 1217MHz inclusive. <i>Note: 1216MHz and 1252MHz are the frequency control channels.</i>

## ANNEX 9-2

**Table of Frequencies for Specified Low-Power Radio Stations (Medical Telemeter)**

Radio equipment with occupied bandwidth of 8.5kHz and lower	420.05MHz and higher frequencies in increments of 12.5kHz in the range 420.05MHz to 421.0375MHz inclusive
	424.4875MHz and higher frequencies in increments of 12.5kHz in the range 424.4875MHz to 425.975MHz inclusive
	429.25MHz and higher frequencies in increments of 12.5kHz in the range 429.25MHz to 429.7375MHz inclusive
	440.5625MHz and higher frequencies in increments of 12.5kHz in the range 440.5625MHz to 441.55MHz inclusive
	444.5125MHz and higher frequencies in increments of 12.5kHz in the range 444.5125MHz to 445.5MHz inclusive
	448.675MHz and higher frequencies in increments of 12.5kHz in the range 448.675MHz to 449.6625MHz inclusive
Radio equipment with occupied bandwidth higher than 8.5kHz and up to and including 16kHz	420.0625MHz and higher frequencies in increments of 25kHz in the range 420.0625MHz to 421.0125MHz inclusive
	424.5MHz and higher frequencies in increments of 25kHz in the range 424.5MHz to 425.95MHz inclusive
	429.2625MHz and higher frequencies in increments of 25kHz in the range 429.2625MHz to 429.7125MHz inclusive
	440.575MHz and higher frequencies in increments of 25kHz in the range 440.575MHz to 441.525MHz inclusive
Radio equipment with occupied bandwidth higher than 16kHz and up to and including 32kHz	444.525MHz and higher frequencies in increments of 25kHz in the range 444.525MHz to 445.475MHz inclusive
	448.6875MHz and higher frequencies in increments of 25kHz in the range 448.6875MHz to 449.6375MHz inclusive
	420.075MHz and higher frequencies in increments of 50kHz in the range 420.075MHz to 420.975MHz inclusive
	424.5125MHz and higher frequencies in increments of 50kHz in the range 424.5125MHz to 425.9125MHz inclusive
	429.275MHz and higher frequencies in increments of 50kHz in the range 429.275MHz to 429.675MHz inclusive
	440.5875MHz and higher frequencies in increments of 50kHz in the range 440.5875MHz to 441.4875MHz inclusive
Radio equipment with occupied bandwidth higher than 32kHz and up to and including 64kHz	444.5375MHz and higher frequencies in increments of 50kHz in the range 444.5375MHz to 445.4375MHz inclusive
	448.7MHz and higher frequencies in increments of 50kHz in the range 448.7MHz to 449.6MHz inclusive
	420.1MHz and higher frequencies in increments of 100kHz in the range 420.1MHz to 420.9MHz inclusive
	424.5375MHz and higher frequencies in increments of 100kHz in the range 424.5375MHz to 425.8375MHz inclusive
	429.3MHz and higher frequencies in increments of 100kHz in the range 429.3MHz to 429.6MHz inclusive
	440.6125MHz and higher frequencies in increments of 100kHz in the range 440.6125MHz to 441.4125MHz inclusive
Radio equipment with occupied bandwidth higher than 64kHz and up to and including 320kHz	444.5625MHz and higher frequencies in increments of 100kHz in the range 444.5625MHz to 445.3625MHz inclusive
	448.725MHz and higher frequencies in increments of 100kHz in the range 448.725MHz to 449.525MHz inclusive
	420.3MHz 420.8MHz 424.7375MHz 425.2375MHz 425.7375MHz 429.5MHz 440.8125MHz 441.3125MHz 444.7625MHz 445.2625MHz 448.925MHz 449.425MHz



**ANNEX 9-3**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Self-contained Medical Data Transmission and Medical Implant Telemetry System)**

1. Self-contained Medical Data Transmission

401.5MHz    403.5MHz    405.5MHz
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2. Medical Implant Telemetry System

403.65MHz
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**ANNEX 9-4**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Data Transmissions for international transportation)**

433.92MHz
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**ANNEX 9-5**

**Table of Frequencies for Specified Low-Power Radio Stations (Radio Paging)**

429.75MHz    429.7625MHz    429.775MHz    429.7875MHz    429.8MHz
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**ANNEX 9-6**

**Table of Frequencies for Specified Low-Power Radio Stations (Radio Microphone)**

74.58MHz    74.64MHz    74.70MHz    74.76MHz
322.025MHz and higher frequencies in increments of 25kHz in the range 322.025MHz to 322.15 MHz inclusive
322.25MHz and higher frequencies in increments of 25kHz in the range 322.25MHz to 322.4MHz inclusive
806.125MHz and higher frequencies in increments of 125kHz in the range 806.125MHz to 809.75MHz inclusive

**ANNEX 9-7**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Radio Microphone as Hearing Aid)**

Radio equipment with occupied bandwidth of 20kHz and lower	75.2125MHz and higher frequencies in increments of 12.5kHz in the range 75.2125MHz to 75.5875MHz inclusive
Radio equipment with occupied bandwidth higher than 20kHz and up to and including 30kHz	75.225MHz and higher frequencies in increments of 25kHz in the range 75.225MHz to 75.575MHz inclusive
	169.4125MHz and higher frequencies in increments of 25kHz in the range 169.4125MHz to 169.7875MHz inclusive
Radio equipment with occupied bandwidth higher than 30kHz and up to and including 80kHz	75.2625MHz and higher frequencies in increments of 62.5kHz in the range 75.2625MHz to 75.5125MHz inclusive
	169.4375MHz and higher frequencies in increments of 62.5kHz in the range 169.4375MHz to 169.75MHz inclusive

**ANNEX 9-8**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Radiotelephone except Radio Microphone)**

Radio equipment with occupied bandwidth of 5.8kHz and lower	421.578125MHz and higher frequencies in increments of 6.25kHz and the frequencies added 18.45MHz to this frequency in the range 421.578125MHz to 421.803125MHz inclusive. In this case, 421.796875MHz, 421.803125MHz, 440.246875MHz and 440.253125MHz are the frequency control channels.
	421.809375MHz and higher frequencies in increments of 6.25kHz and the frequencies added 18.45MHz to this frequency in the range 421.809375MHz to 421.909375MHz inclusive.
	422.053125MHz and higher frequencies in increments of 6.25kHz in the range 422.053125MHz to 422.190625MHz inclusive. In this case, 422.184375MHz and 422.190625MHz are the frequency control channels.
	422.196875MHz and higher frequencies in increments of 6.25kHz in the range 422.196875MHz to 422.296875MHz inclusive.
Radio equipment with occupied bandwidth higher than 5.8kHz and up to and including 8.5kHz	421.575MHz and higher frequencies in increments of 12.5kHz and the frequencies added 18.45MHz to this frequency in the range 421.575MHz to 421.8MHz inclusive. In this case, 421.8MHz and 440.25MHz are the frequency control channels.
	421.8125MHz and higher frequencies in increments of 12.5kHz and the frequencies added 18.45MHz to this frequency in the range 421.8125MHz to 421.9125MHz inclusive. In this case, 421.8MHz and 440.25MHz are the frequency control channels.
	422.05MHz and higher frequencies in increments of 12.5kHz in the range 422.05MHz to 422.1875MHz inclusive. In this case, 422.05MHz and 422.1875MHz are the frequency control channels.
	422.2MHz and higher frequencies in increments of 12.5kHz in the range 422.2MHz to 422.3MHz inclusive.
413.7MHz and higher frequencies in increments of 6.25kHz in the range 413.7MHz to 414.14375MHz inclusive	
454.05MHz and higher frequencies in increments of 6.25kHz in the range 454.05MHz to 454.19375MHz inclusive	

**ANNEX 9-9**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Radiotelephone as Landmark)**

75.8MHz
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**ANNEX 9-10**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Mobile Terminal Identification)**

1. Stations using frequency hopping

2441.75 MHz
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2. Stations not using frequency hopping

Radio equipment using 916.7-923.5MHz band	Radio equipment with occupied bandwidth of 200 kHz and lower	916.8MHz, 918MHz, 919.2MHz, 920.4MHz and higher frequencies in increments of 200kHz in the range 920.4MHz to 923.4MHz inclusive
	Radio equipment with occupied bandwidth higher than 200 kHz and up to and including 400 kHz	920.5MHz and higher frequencies in increments of 200kHz in the range 920.5MHz to 923.3MHz inclusive
	Radio equipment with occupied bandwidth higher than 400 kHz and up to and including 600 kHz	920.6MHz and higher frequencies in increments of 200kHz in the range 920.6MHz to 923.2MHz inclusive
	Radio equipment with occupied bandwidth higher than 600 kHz and up to and including 800 kHz	920.7MHz and higher frequencies in increments of 200kHz in the range 920.7MHz to 923.1MHz inclusive
	Radio equipment with occupied bandwidth higher than 800 kHz and up to and including 1 MHz	920.8MHz and higher frequencies in increments of 200kHz in the range 920.8MHz to 923MHz inclusive
Radio equipment using 952-955MHz band	954.8MHz	
Radio equipment using 2425-2475MHz band	2448.875MHz	

**ANNEX 9-11**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Millimeter-Wave Radar)**

60.5GHz	76.5GHz
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**ANNEX 9-12**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Sensor for Detecting or Measuring Mobile Objects)**

10.525GHz*	24.15GHz
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\* This frequency is allowed to be used only indoor.

**ANNEX 9-13**

**Table of Frequencies for Specified Low-Power Radio Stations  
(Human and Animal Tracking System)**

142.94MHz	142.95MHz	142.96MHz	142.97MHz	142.98MHz
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Radio equipment with occupied bandwidth of 5.8kHz and lower	142.934375MHz and higher frequencies in increments of 6.25kHz and the frequencies added 4MHz to this frequency in the range 142.934375MHz to 142.984375MHz inclusive.
Radio equipment with occupied bandwidth higher than 5.8kHz and up to and including 11.6kHz	142.9375MHz and higher frequencies in increments of 6.25kHz and the frequencies added 4MHz to this frequency in the range 142.9375MHz to 142.98125MHz inclusive.
Radio equipment with occupied bandwidth higher than 11.6kHz and up to and including 17.4kHz	142.940625MHz and higher frequencies in increments of 6.25kHz in the range 142.940625MHz to 142.978125MHz inclusive