

1660 - 1710 MHz

ITU Region 1 Allocations	South African Allocations	Typical Applications	Comments
1660 - 1660.5			
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)	MARITIME SATELLITE 1626.5-1645.5 MHz	GMDSS Paired with 1525 – 1544 MHz
5.351A	5.351A 5.364 5.365 5.368 5.372	MOBILE SATELLITE 1645.5-1646.5 MHz	GMDSS Paired with 1544 – 1545 MHz
		AERONAUTICAL MOBILE SATELLITE (R) 1646.5-1656.5 MHz	GMDSS Paired with 1545 - 1555 MHz
		LAND MOBILE SATELLITE 1656.5-1660.5 MHz	GMDSS Paired with 1555 1559 MHz
	5.351A 5.364 5.365 5.368 5.372		
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.341 5.351 5.354 5.376A	5.149 5.354 5.376A		
1 660.5 - 1 668			

RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A	RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.341 5.379A		
1 668 - 1 668.4 MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A 5.379D	 MOBILE SATELLITE (Earth-to-space) 5.348 5.348A 5.351A 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.341 5.379A 5.379D		IMT satellite component 1668 – 1675 MHz

1 668.4 - 1 670 METEOROLOGICAL AIDS FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to- space) 5.351A 5.379B 5.379C RADIO ASTRONOMY 5.149 5.341 5.379D	METEOROLOGICAL AIDS MOBILE SATELLITE (Earth --to- space) 5.348 5.348A 5.351A 5.379B 5.379C RADIO ASTRONOMY 5.149 5.341 5.379D		IMT satellite component 1668 – 1675 MHz
1670 – 1675 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL AIDS	Radiosondes 1668 -1700 MHz	

MOBILE	MOBILE		
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space) 5.348 5.348A 5.351A		IMT satellite component
5.351A 5.379B 5.341 5.379D 5.379E 5.380A	5.379B 5.379C 5.379D		1668 – 1675 MHz
1675 – 1690			
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Radiosondes 1668 -1700 MHz	
FIXED			
METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.341	5.341		
1690 – 1700			
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Radiosondes	Channels
		1668-1700MHz	1695.6938; 1695.7250;

METEOROLOGICAL- SATELLITE (space-to-Earth) Fixed Mobile except Aeronautical mobile 5.289 5.341 5.382	METEOROLOGICAL- SATELLITE (space-to-Earth) 5.289 5.341	1695.7562; 1695.7874; 1691; 1694.5MHz
1700 – 1710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except Aeronautical mobile 5.289 5.341	METEOROLOGICAL-SATELLITE (space-to-Earth) 5.289 5.341	

1710 - 2170 MHz

ITU Region 1 Allocations	South African Allocations	Typical Applications	Comments
1710 – 1930			
FIXED	FIXED	<p>DECT 1880 - 1900 MHz</p> <p>Cordless DECT phones</p> <p>Wireless Access Systems 1900 - 1920 MHz Extended DECT</p> <p>1785 – 1805 MHz Fixed Broadband data applications</p>	<p>The band 1880 – 1900 MHz is also used for DECT cordless telephones (Government Gazette No 26193, Notice 533 of 24 March 2004 refers.)</p>
MOBILE	<p>NF 23, NF 24, NF 25, NF 26</p> <p>MOBILE</p>	<p>Mobile 1800 MTX 1710 – 1785 MHz</p>	<p>Paired with BTX 1805 – 1880 MHz. CEPT T/R 22-07 refers</p>

5.149 5.341 5.384A 5.385 5.386 5.388 5.388A 5.388B	5.384A 5.385 5.388 5.388A		
1930 – 1970			
FIXED	FIXED		
MOBILE	MOBILE		Terrestrial component of IMT
5.388 5.388A 5.388B	5.388 5.388A	1920 – 1980 MHz	Paired with 2110 – 2170 MHz
	NF26		
1970 – 1980			
FIXED	FIXED		
MOBILE	MOBILE		Terrestrial component of IMT
5.388 5.338A 5.388B	5.388 5.338A	1920 – 1980 MHz	Paired with 2110 – 2170 MHz.
	NF26		
1980 – 2010			

FIXED	FIXED	Fixed links 1980 - 2010 MHz	Paired with 2170 - 2200 MHz
MOBILE			
MOBILE-SATELLITE (Earth-to-space) 5.351A	MOBILE-SATELLITE (Earth-to-space) 5.351A		Satellite component of IMT
	NF26		
5.388 5.389A 5.389F	5.388 5.389A		
2010 – 2025			
FIXED	FIXED		
MOBILE	MOBILE		Terrestrial component of IMT
5.388 5.388A 5.388B	5.388 5.388A		
2025 – 2110			
FIXED	FIXED NF27	Fixed Links 2025 - 2110 MHz	Paired with 2200 - 2285 MHz. ITU-R F.1098 and CEPT T/R 13-01 Annex C refers

SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION- SATELLITE (Earth-to-space) (space-to-space) MOBILE 5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) 5.392			
2110 – 2120 FIXED MOBILE 5.388A 5.388B SPACE RESEARCH (deep space) (Earth-to-space) 5.388	FIXED MOBILE 5.388A 5.388	2110 – 2170 MHz	Terrestrial component of IMT

1 January 2004. Any new assignment to these earth stations in this band shall also be protected from harmful interference from stations in the mobile-satellite service. (WRC-07)

5.384A The bands, or portions of the bands, 1 710-1 885 MHz, 2 300-2 400 MHz and 2 500-2 690 MHz, are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-07). This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-07)

5.385 *Additional allocation:* the band 1 718.8-1 722.2 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. (WRC-2000)

5.386 *Additional allocation:* the band 1 750-1 850 MHz is also allocated to the space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2, in Australia, Guam, India, Indonesia and Japan on a primary basis, subject to agreement obtained under No. 9.21, having particular regard to troposcatter systems. (WRC-03)

5.388 The bands 1 885-2 025 MHz and 2 110-2 200 MHz are intended for use, on a worldwide basis, by administrations wishing to implement International Mobile Telecommunications-2000 (IMT-2000). Such use does not preclude the use of these bands by other services to which they are allocated. The bands should be made available for IMT-2000 in accordance with Resolution 212 (Rev.WRC-97)*. (See also Resolution 223 (WRC-2000)*.) (WRC-2000)

5.388A In Regions 1 and 3, the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz and, in Region 2, the bands 1 885-1 980 MHz and 2 110-2 160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications-2000 (IMT-2000), in accordance with Resolution 221 (Rev.WRC-03)*. Their use by IMT-2000 applications using high altitude platform stations as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-03)

5.388B In Algeria, Saudi Arabia, Bahrain, Benin, Burkina Faso, Cameroon, Comoros, Côte d'Ivoire, China, Cuba, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, India, Iran (Islamic Republic of), Israel, the Libyan Arab Jamahiriya, Jordan, Kenya, Kuwait, Mali, Morocco, Mauritania, Nigeria, Oman, Uganda, Qatar, the Syrian Arab Republic, Senegal, Singapore, Sudan, Tanzania, Chad, Togo, Tunisia, Yemen, Zambia and Zimbabwe, for the purpose of protecting fixed and mobile services, including IMT-2000 mobile stations, in their territories from co-channel interference, a high altitude platform station (HAPS) operating as an IMT-2000 base station in neighbouring countries, in the bands referred to in No. 5.388A, shall not exceed a co-channel power flux-density of $-127 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ at the Earth's surface outside a country's borders unless explicit agreement of the affected administration is provided at the time of the notification of HAPS. (WRC-03)

5.389A The use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service is subject to coordination under No. 9.11A and to the provisions of Resolution 716 (Rev.WRC-2000). (WRC-07)

5.389E The use of the bands 2 010-2 025 MHz and 2 160-2 170 MHz by the mobile-satellite service in Region 2 shall not cause harmful interference to or constrain the development of the fixed and mobile services in Regions 1 and 3.

5.389F In Algeria, Benin, Cape Verde, Egypt, Iran (Islamic Republic of), Mali, Syrian Arab Republic and Tunisia, the use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service shall neither cause harmful interference to the fixed and mobile services, nor hamper the development of those services prior to 1 January 2005, nor shall the former service request protection from the latter services. (WRC-2000)

5.390 (SUP - WRC-07)

5.391 In making assignments to the mobile service in the bands 2 025-2 110 MHz and 2 200-2 290 MHz, administrations shall not introduce high-density mobile systems, as described in Recommendation ITU-R SA.1154, and shall take that Recommendation into account for the introduction of any other type of mobile system. (WRC-97)

5.392 Administrations are urged to take all practicable measures to ensure that space-to-space transmissions between two or more non-geostationary satellites, in the space research, space operations and Earth exploration-satellite services in the bands 2 025-2 110 MHz and 2 200-2 290 MHz, shall not impose any constraints on Earth-to-space, space-to-Earth and other space-to-space transmissions of those services and in those bands between geostationary and non-geostationary satellites.

5.395 In France and Turkey, the use of the band 2 310-2 360 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service. (WRC-03)

5.396 Space stations of the broadcasting-satellite service in the band 2 310-2 360 MHz operating in accordance with No. 5.393 that may affect the services to which this band is allocated in other countries shall be coordinated and

* *Note by the Secretariat:* This Resolution was revised by WRC-07.

2120 – 2160			
FIXED	FIXED		
MOBILE 5.388A 5.388B	MOBILE 5.388A	2110 – 2170 MHz	Terrestrial component of IMT
5.388	5.388		
2160 – 2170			
FIXED	FIXED NF1		
MOBILE 5.388A 5.388B	MOBILE 5.388A 5.388B	2110 – 2170 MHz	Terrestrial component of IMT
5.388	5.388		

2170 - 2520 MHz

ITU Region 1 Allocations	South African Allocations	Typical Applications	Comments
<p>2170 – 2200</p> <p>FIXED</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>5.351A</p> <p>5.388 5.389A 5.389F</p>	<p>FIXED</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.351A</p> <p>NF27</p> <p>5.388 5.389A</p>	<p>Fixed links 2170 - 2200 MHz</p> <p>Satellite component of IMT</p>	<p>Paired with 1980 – 2010 MHz</p> <p>Band also to be used for GMPCS systems</p>
<p>2200 – 2290</p> <p>FIXED</p>	<p>FIXED N27</p>	<p>Fixed links 2200 – 2285 MHz</p> <p>WAS 2285 – 2290 MHz</p>	<p>Paired with 2025 - 2110, ITU-R F.1098 and CEPT T/R 13-01 Annex C refer</p>

SPACE OPERATION (space-to-Earth) (space-to-space) EARTH SATELLITE EXPLORATION- (space-to-space) (space-to-Earth) MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392	SPACE OPERATION (space-to-Earth) (space-to-space)	TT&C, receive from space	
2290 – 2300 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)	FIXED	Fixed links	
2300 – 2450			IMT 2300 – 2400 MHz

FIXED	FIXED	Fixed links	(PtP & PtMP)
		2307 - 2387 MHz	Paired with 2401 – 2481 MHz
		Outside Broadcasting links	28 MHz channelling OB links. Frequency co-ordination with fixed links on a case-by-case basis is mandatory for all OB links. Primary basis: 2377 MHz and 2471 MHz. Secondary basis: 2321 MHz, 2349 MHz, 2415 MHz and 2443 MHz
		WLAN & RFID 2400 – 2483.5 MHz.	Government Gazette No 31127, Notice No 713 Of 2008 and Government Gazette No 31290, Notice No 926 of 2008 refer
		Non-specific SRD's and low power video surveillance 2400 – 2483.5 MHz	
		ISM 2400 – 2500 MHz	International ISM band for Industrial, scientific and medical equipment (5.150 refers).
			All fixed services in the band 2300

MOBILE	MOBILE 5.384A NF28		MHz – 2400 MHz are earmarked for future migration
Amateur	Amateur		
Radiolocation			
5.150 5.282 5.384A 5.395	5.150		
2450 – 2483.5			
FIXED	FIXED	Fixed links on 2401 – 2481 MHz	(PTMP and PTP) Paired with 2307 - 2387 MHz
		Outside Broadcasting links	28 MHz channelling OB links. Frequency co-ordination with fixed links on a case-by-case basis is mandatory for all OB links. Primary basis: 2377 MHz and 2471 MHz. Secondary basis: 2321 MHz, 2349 MHz, 2415 MHz and 2443 MHz

MOBILE	MOBILE	WLAN & RFID 2400 – 2483.5 MHz	Government Gazette No 31127, Notice No 713 of 2008 and Government Gazette No 31290, Notice No 926 of 2008 refer
Radiolocation	NF29	ISM 2400 – 2500 MHz	
5.150 5.397	5.150 5.384A		
2483.5 – 2500			
FIXED	FIXED	ISM 2400 – 2500 MHz	
MOBILE	MOBILE	Aeronautical surveillance Mobile Video	Unmanned Aerial Vehicles only.
MOBILE-SATELLITE (space-to Earth) 5.351A	MOBILE-SATELLITE (space-to-Earth) 5.351A		Some systems are paired with 1610 - 1626.5 MHz).

Radiolocation 5.150 5.371 5.397 5.398 5.399 5.400 5.402	NF 29 5.150 5.402		
2500 – 2520 FIXED 5.410 MOBILE except Aeronautical mobile 5.384A 5.405	FIXED MOBILE except aeronautical mobile 5.384A		IMT 2500 – 2690 MHz

2520 - 2700 MHz

ITU Region 1 Allocations	South African Allocations	Typical Applications	Comments
<p>2520 – 2655</p> <p>FIXED 5.410</p> <p>MOBILE except aeronautical mobile</p> <p>5.384A</p> <p>BROADCASTING-SATELLITE</p> <p>5.413 5.416</p> <p>5.339 5.405 5.412 5.417C 5.417D 5.418B 5.418C</p>	<p>FIXED 5.410</p> <p>MOBILE except aeronautical mobile</p> <p>5.384A</p>		<p>IMT 2500 – 2690 MHz</p>

2655 – 2670			IMT 2500 – 2690 MHz
FIXED 5.410	FIXED 5.410		
MOBILE except Aeronautical mobile 5.384A	MOBILE except aeronautical mobile 5.384A		
BROADCASTING-SATELLITE			
5.413 5.416			
Earth exploration-satellite (passive)			
Radio astronomy	Radio astronomy		
Space research (passive)			
5.149 5.420	5.149		
2670 – 2690			IMT 2500 – 2690 MHz

FIXED 5.410	FIXED 5.410		
MOBILE except Aeronautical mobile 5.384A	MOBILE except aeronautical mobile 5.384A		
Earth exploration-satellite (passive)			
Radio astronomy	Radio astronomy		
Space research (passive)			
5.149 5.419 5.420	5.149		
2690 – 2700			
EARTH EXPLORATION- SATELLITE (passive)			
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)	Passive Sensing	

5.340 5.422	5.340		
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2700 - 4800 MHz

ITU Region 1 Allocations	South African Allocations	Typical Applications	Comments
2700 – 2900 AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation	AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423		
2900 – 3100 RADIONAVIGATION 5.426 RADIOLOCATION 5.424A 5.425 5.427	RADIONAVIGATION 5.426 RADIOLOCATION 5.424A 5.425 5.427		

3100 – 3300			
RADIOLOCATION	RADIOLOCATION	Government Services	
Earth exploration-satellite (active)	Earth exploration-satellite (active)		
Space research (active)	Space research (active)		
5.149 5.428	5.149		
3300– 3400			
RADIOLOCATION	RADIOLOCATION	Government Services	
5.149 5.429 5.430			
3400 – 3600			IMT 3400 – 3600 MHz
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth)			

Mobile 5.430A	MOBILE except Aeronautical Mobile 5.430A		
Radiolocation			
5.431			
3600 – 4200			
FIXED	FIXED	Fixed links	PtP links sharing with FSS
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)	VSAT/SNG/Satellite PTP links	Known as C-band - Sharing with FS
Mobile	NF 32 NF35		
4200 – 4400			
AERONAUTICAL-RADIONAVIGATION 5.438	AERONAUTICAL RADIONAVIGATION 5.438		
5.440			

4400 – 4500 FIXED MOBILE 5.440A	FIXED NF33	Outside Broadcasting (OB) / Electronic News Gathering (ENG) Government Services	
4500 – 4800 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE 5.440A	FIXED NF33	Outside Broadcasting (OB) / Electronic News Gathering (ENG) Government Services	

4800 - 5570 MHz

ITU Region 1 Allocations	South African Allocations	Typical Applications	Comments
<p>4800 – 4990</p> <p>FIXED</p> <p>MOBILE 5.442 5.4B01</p> <p>Radio Astronomy</p> <p>5.149 5.339</p>	<p>FIXED NF33</p> <p>Radio Astronomy</p> <p>5.149</p>	<p>Outside Broadcasting (OB) / Electronic News Gathering (ENG)</p> <p>Government Services</p> <p>Radio Astronomy on 4825 – 4835 & 4950 – 4990 MHz</p>	
<p>4990 – 5000</p> <p>FIXED</p>	<p>FIXED NF33</p>	<p>Outside Broadcasting (OB) / Electronic News Gathering (ENG)</p> <p>Government Services</p>	

MOBILE except aeronautical mobile			
RADIO ASTRONOMY	RADIO ASTRONOMY		
Space Research (passive)			
5.149	5.149		
5000 – 5010			
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
RADIONAVIGATION-SATELLITE (Earth-to-space)	RADIONAVIGATION-SATELLITE (Earth-to-space)		
5.367	5.367		
5010 – 5030			
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		

RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.443B 5.328B 55.367	RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.443B 5.328B 5.367		
5030 – 5091			
AERONAUTICAL RADIONAVIGATION 5.367 5.444	AERONAUTICAL RADIONAVIGATION 5.367 5.444	MICROWAVE SYSTEMS	LANDING
5091 – 5150			
AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE 5.367 5.444 5.444A	AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE 5.444	NGSO MSS feeder links (5091 - 5150 MHz)	
5150 – 5250			

<p>AERONAUTICAL RADIONAVIGATION</p> <p>FIXED-SATELLITE SERVICE (Earth-to-space) 5.447A</p> <p>MOBILE except Aeronautical mobile</p> <p>5.446A 5.446B 5.446 5.447 5.447B 5.447C 5.4B04</p>	<p>AERONAUTICAL RADIONAVIGATION</p> <p>FIXED-SATELLITE SERVICE (Earth-to-space) 5.447A NF35</p> <p>MOBILE except Aeronautical mobile</p> <p>5.446A 5.446B 5.447B 5.447C</p>	<p>NGSO MSS feeder links 5091 – 5150 MHz</p> <p>WAS / RLAN (indoor use only)</p>	<p>Government Gazette No. 31321 Notice No. 944 of 8 August 2008 refers.</p>
<p>5250 – 5255</p> <p>EARTH EXPLORATION- SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>SPACE RESEARCH 5.447D</p> <p>MOBILE except Aeronautical mobile 5.446A 5.447F</p>	<p>SPACE RESEARCH 5.447D</p> <p>MOBILE except Aeronautical mobile 5.446A</p>	<p>WAS / RLAN</p>	<p>Government Gazette No. 31321 Notice No. 944 of 8 August 2008 refers.</p>

5.448A			
5255 – 5350			
EARTH EXPLORATION- SATELLITE (active)	EARTH EXPLORATION- SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION		
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
MOBILE except Aeronautical mobile 5.446A 5.447F 5.448A	MOBILE except Aeronautical mobile 5.446A	WAS / RLAN	Government Gazette No. 31321 Notice No. 944 of 8 August 2008 refers,
5350 – 5460			
EARTH EXPLORATION- SATELLITE (active) 5.448B	EARTH EXPLORATION- SATELLITE (active) 5.448B		