

<p><b>1613.8-1626.5</b></p> <p>MOBILE-SATELLITE (Earth-to-space)</p> <p>5.351A</p> <p>AERONAUTICAL- RADIONAVIGATION</p> <p>Mobile-satellite (space- to-Earth)</p> <p>5.347A</p> <p>5.341 5.355 5.359 5.363 5.364 5.365 5.366 5.367 5.368 5.369 5.371 5.372</p>	<p>MOBILE-SATELLITE (Earth-to-space)</p> <p>5.351A 5.364 5.365 5.368 5.372</p>	<p>MSS 1610 - 1626.5 MHz</p>	<p>Paired with 2483.5 - 2500 MHz for some systems</p>
<p><b>1626.5-1660</b></p> <p>MOBILE-SATELLITE (Earth-to-space)</p> <p>5.351A</p> <p>5.341 5.351 5.353A 5.354 5.355 5.357A 5.359 5.362A 5.374 5.375 5.376</p>	<p>MOBILE-SATELLITE (Earth-to-space)</p> <p>5.351A 5.364 5.365 5.368 5.372</p> <p>5.351 5.353A 5.354 5.357A 5.375</p>	<p>MARITIME 1626.5-1645.5 MHz</p> <p>MOBILE 1645.5-1646.5 MHz</p> <p>AERONAUTICAL (R) 1646.5-1656.5 MHz</p> <p>LAND MOBILE SERVICES 1656.5- 1660.5 MHz</p>	<p>GMDSS</p> <p>Paired with 1545 - 1555 MHz</p>

## 1660 - 1710 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>1660 - 1660.5</b> MOBILE-SATELLITE (Earth-to-space) 5.351A  RADIO ASTRONOMY 5.149 5.341 5.351 5.354 5.362A 5.376A	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.364 5.365 5.368 5.372  RADIO ASTRONOMY 5.149 5.354 5.376A	LAND MOBILE 1656.5- 1660.5 MHz	
<b>1 660.5 - 1 668</b> RADIO ASTRONOMY  SPACE RESEARCH (passive) Fixed  Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A	RADIO ASTRONOMY NF2  SPACE RESEARCH (passive)   5.149 5.341 5.379A		
<b>1 668 - 1 668.4</b> 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	RADIO ASTRONOMY NF2  SPACE RESEARCH (passive)		



<p>1690 – 1700</p> <p>METEOROLOGICAL AIDS</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>Fixed</p> <p>Mobile except aeronautical mobile</p> <p>5.289 5.341 5.382</p>	<p>METEOROLOGICAL AIDS</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>5.289 5.341</p>	<p>Radiosondes 1668-1700MHz</p>	<p>Channels 1695.6938; 1695.7250; 1695.7562; 1695.7874; 1691; 1694.5MHz</p>
<p>1700 – 1710</p> <p>FIXED</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>5.289 5.341</p>	<p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>5.289 5.341</p>		

## 1710 - 2170 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
1710 – 1930			
FIXED	FIXED NF1	1880 - 1900 MHz DECT exclusive	
		1900 - 1920 MHz Extended DECT	
	NF 23, NF 24, NF 25, NF 26	1785 – 1805 MHz Fixed Broadband data applications	
MOBILE	MOBILE	GSM 1800 MTX 1710 – 1785 MHz	Paired with 1805 – 1880 MHz. CEPT T/R 22-07 refers
5.149 5.341 5.384A 5.385 5.386 5.387 5.388 5.388A 5.388B	5.149 5.341 5.384A 5.385 5.388 5.388A	GSM 1800 BTX 1805 – 1880 MHz	Paired with 1710 - 1785 MHz. CEPT T/R 22-07 refers
		Terrestrial component of UMTS/IMT-2000	
		1920 – 1980 MHz (FDD)	Paired with 2110 – 2170 MHz
		1900 – 1920 MHz (TDD)	(4 x 5 MHz TDD)
		Cordless DECT phones	The band 1880 – 1900 MHz is also used for DECT cordless telephones (Government Gazette No 26193, Notice 533 of 24 March 2004 refers.)

<b>1930 – 1970</b> FIXED MOBILE 5.388 5.388A 5.388B	FIXED NF1 MOBILE 5.388 5.388A NF26	Terrestrial component of UMTS/IMT-2000 1920 – 1980 MHz (FDD)	Paired with 2110 – 2170 MHz
<b>1970 – 1980</b> FIXED MOBILE 5.388 5.388A 5.388B	FIXED NF1 MOBILE 5.388 5.388A NF26	Terrestrial component of UMTS/IMT 1920 – 1980 MHz (FDD)	Paired with 2110 – 2170 MHz.
<b>1980 – 2010</b> FIXED  MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.388 5.389A 5.389B 5.389F	FIXED NF1  - MOBILE-SATELLITE (Earth-to-space) 5.351A NF26 5.388 5.389A	Fixed links 1980 - 2010 MHz  Satellite component of UMTS/IMT	Paired with 2170 - 2200 MHz Use of this band for FS in line with USA FCC determination  Band also to be used for GMPCS systems
<b>2010 – 2025</b> FIXED  MOBILE 5.388 5.388A 5.388B	FIXED NF1  MOBILE 5.388 5.388A	Terrestrial component of UMTS/IMT-2000	3 x 5 MHz TDD

<p>2025 – 2110</p> <p>FIXED</p> <p>SPACE OPERATION (Earth-to-space) (space-to-space)</p> <p>EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)</p> <p>MOBILE 5.391</p> <p>SPACE RESEARCH (Earth-to-space) (space-to-space)</p> <p>5.392</p>	<p>FIXED NF1</p> <p>NF27</p>	<p>Fixed Links 2025 - 2110 MHz</p>	<p>Paired with 2200 - 2285 MHz. ITU-R F.1098 and CEPT T/R 13-01 Annex C refers</p>
<p>2110 – 2120</p> <p>FIXED</p> <p>MOBILE 5.388A 5.388B</p> <p>SPACE RESEARCH (deep space) (Earth-to-space)</p> <p>5.388</p>	<p>FIXED NF1</p> <p>MOBILE 5.388A</p> <p>NF27</p> <p>5.388</p>	<p>2110 – 2170 MHz (FDD)</p>	<p>Terrestrial component of UMTS/IMT-2000</p>
<p>2120 – 2160</p> <p>FIXED</p> <p>MOBILE 5.388A</p> <p>5.388 5.388 B</p>	<p>FIXED NF1</p> <p>MOBILE</p> <p>NF27</p> <p>5.388A</p> <p>5.388</p>	<p>2110 – 2170 MHz (FDD)</p>	<p>Terrestrial component of UMTS/IMT-2000</p>
<p>2160 – 2170</p> <p>FIXED</p> <p>MOBILE 5.388A 5.388B</p> <p>5.388</p>	<p>FIXED NF1</p> <p>MOBILE NF28</p> <p>5.388A</p> <p>5.388</p>	<p>2110 – 2170 MHz (FDD)</p>	<p>Terrestrial component of UMTS/IMT-2000</p>

## 2170 - 2520 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
2170 – 2200 FIXED  MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A 5.389F 5.392A	FIXED NF1  MOBILE-SATELLITE (space-to-Earth) 5.351A NF27 5.388 5.389A	PTP Backhaul  2170 - 2200 MHz  Satellite component of UMTS/IMT	Use of this band for FS in line with USA FCC determination  Paired with 1980 – 2010 MHz  Band also to be used for GMPCS systems
2200 – 2290 FIXED  SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space)	FIXED NF1  NF27	PTP Backhaul 2200 – 2285 MHz  WAS 2285 – 2290 MHz	Paired with 2025 - 2110, ITU-R F.1098 and CEPT T/R 13-01 Annex C refer
2290 – 2300 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)	FIXED NF1	PTP Backhaul	



<p>2450 – 2483.5</p> <p>FIXED</p>	<p>FIXED NF1</p>	<p>Fixed links (PTMP and PTP)</p> <p>2307 - 2387 MHz</p> <p>OB links</p> <p>2377 MHz and 2471 MHz</p> <p>2321 MHz, 2349 MHz, 2415 MHz and 2443 MHz</p> <p>2400 – 2483.5 MHz RFID</p> <p>2400 – 2483.5 MHz</p>	<p>Paired with 2401 – 2481 MHz</p> <p>28 MHz OB links. Frequency co-ordination with fixed links on a case-by-case basis is mandatory for all OB links.</p> <p>Primary basis:</p> <p>Secondary basis:</p> <p>Government Gazette No. 31127, Notice No. 713 of 2008</p> <p>International ISM band for industrial, scientific and medical equipment (5.150 refers)</p>
<p>MOBILE</p> <p>Radiolocation</p> <p>5.150 5.397</p>	<p>Mobile</p> <p>NF29</p> <p>5.150 5.384A</p>		

<p><b>2483.5 – 2500</b></p> <p>FIXED</p>     <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to Earth) 5.351A</p>   <p>Radiolocation</p> <p>5.150 5.371 5.397 5.398 5.399 5.400 5.402</p>	<p>FIXED NF1</p>     <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.351A</p>   <p>NF 29</p> <p>5.150 5.402</p>	<p>Fixed video link channels</p>   <p>ISM 2400 – 2500 MHz</p>  <p>Aeronautical Mobile Video surveillance</p> <p>MSS</p>	<p>Forest Fire Detection Video Service 2483, 2490 &amp; 2497 MHz</p> <p>International ISM band for industrial, scientific and medical equipment (5.150 refers)</p> <p>Unmanned Aerial Vehicles only.</p> <p>Some systems are paired with 1610 - 1626.5 MHz).</p>
<p><b>2500 – 2520</b></p> <p>FIXED 5.410</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>5.405 5.412</p>	<p>FIXED NF1</p>    <p>NF30</p>	<p>Broadband WAS (TDD).</p>	<p>2500 – 2520 MHz</p>   <p>Potential future use: satellite component for UMTS/IMT-2000</p>

## 2520 - 2700 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>2520 – 2655</b> FIXED 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 5.339 5.405 5.412 5.417C 5.417D 5.418B 5.418C	FIXED NF1 NF30	Broadband WAS (TDD).	2520 – 2655 MHz  Potential future use: satellite component for UMTS/IMT-2000
<b>2655 – 2670</b> FIXED 5.409 5.410 5.411 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.412 5.420	FIXED NF1 NF30  Radio astronomy NF 2  5.149	Broadband WAS (TDD).	2655 – 2670 MHz  Potential future use: terrestrial component for UMTS/IMT-2000

<p><b>2670 – 2690</b></p> <p>FIXED 5.409 5.410 5.411</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>MOBILE-SATELLITE (Earth-to-space) 5.351</p> <p>Earth exploration-satellite (passive)</p> <p>Radio astronomy</p> <p>Space research (passive)</p> <p>5.149 5.412 5.419 5.420</p>	<p>FIXED NF1</p> <p>NF30</p> <p>Radio astronomy NF 2</p> <p>5.149</p>	<p>Broadband WAS (TDD).</p>	<p>2670 – 2690 MHz</p> <p>Potential future use: terrestrial component for UMTS/IMT-2000</p> <p>2520 – 2690 MHz</p>
<p><b>2690 – 2700</b></p> <p>EARTH EXPLORATION- SATELLITE (passive)</p> <p>RADIO ASTRONOMY</p> <p>SPACE RESEARCH (passive)</p> <p>5.340 5.422</p>	<p>RADIO ASTRONOMY NF 2</p> <p>NF 30</p> <p>SPACE RESEARCH (passive)</p> <p>5.340</p>	<p>Passive Sensing</p>	<p>Protected</p>

## 2700 - 4800 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>2700 – 2900</b> AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.424	AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423		2700 – 3000 MHz
<b>2900 – 3100</b> RADIONAVIGATION 5.426 RADIOLOCATION 5.425 5.424A 5.427	RADIONAVIGATION 5.426 RADIOLOCATION 5.425 5.424A 5.427		2700 – 3000 MHz
<b>3100 – 3300</b> RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.149 5.428	RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.149		GOVERNMENT RADIOLOCATION
<b>3300 – 3400</b> RADIOLOCATION 5.149 5.429 5.430	RADIOLOCATION		GOVERNMENT RADIOLOCATION
<b>3400 – 3600</b> FIXED FIXED-SATELLITE (space-to-Earth) Mobile 5.430A Radiolocation 5.431	FIXED NF1 NF31	Wireless Access Services	FDD segmentation
<b>3600 – 4200</b> FIXED FIXED-SATELLITE (space-to-Earth) Mobile	FIXED NF1 FIXED-SATELLITE (space-to-Earth) NF31, NF 32	PTP Links VSAT/SNG/Satellite PTP links	Sharing with FSS Known as C-band - Sharing with FS

4200 – 4400 AERONAUTICAL- RADIONAVIGATION 5.438 5.439 5.440	AERONAUTICAL RADIONAVIGATION 5.438		RADIO ALTIMETERS
4400 – 4500 FIXED  MOBILE 5.4B01	FIXED NF1 NF33	OB/ENG GOVERNMENT UTILIZATION	Broadcasting Mainly National Security Services
4500 – 4800 FIXED  FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE 5.4B01	FIXED NF1 NF33	OB/ENG GOVERNMENT UTILIZATION	Broadcasting Mainly National Security Services

## 4800 - 5570 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>4800 – 4990</b> FIXED  MOBILE 5.442 5.4801 Radio Astronomy  5.149 5.339 5.443	FIXED NF1  Radio Astronomy NF2  NF33 5.149 5.339	OB/ENG GOVERNMENT UTILIZATION  Radio Astronomy (4825 – 4835 & 4950 – 4990 MHz)	Broadcasting Mainly National Security Services
<b>4990 – 5000</b> FIXED  MOBILE except aeronautical mobile RADIO ASTRONOMY  Space Research (passive)  5.149	FIXED NF1  RADIO ASTRONOMY NF2  NF33 5.149	GOVERNMENT UTILIZATION  RADIO ASTRONOMY (4990 - 5000 MHz)	Mainly National Security Services
<b>5000 – 5010</b> AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space) 5.367	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space) 5.367		
<b>5010 – 5030</b> AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.443B 5.5328B 5.367	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.443B 5.367 5.5328B		

<p>5030 – 5091</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>5.367 5.444</p>	<p>AERONAUTICAL RADIONAVIGATION</p> <p>5.367 5.444</p>	<p>MICROWAVE LANDING SYSTEMS</p> <p>(5030-5091 MHz)</p> <p>NGSO MSS feeder links (5091 - 5150 MHz)</p>	<p>FSS operates in this band through footnote</p>
<p>5091 – 5150</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>AERONAUTICAL MOBILE 5.4B03 5.367 5.444 5.444A</p>	<p>AERONAUTICAL RADIONAVIGATION</p> <p>AERONAUTICAL MOBILE 5.4B03 5.367 5.444</p>		
<p>5150 – 5250</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>FIXED-SATELLITE SERVICE (Earth-to-space) 5.447A</p> <p>MOBILE except Aeronautical mobile 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</p> <p>MOBILE except Aeronautical mobile 5.446A 5.446B 5.447B 5.447C</p> <p>Fixed NF1</p>	<p>NGSO MSS feeder links</p>	<p>WAS/RLAN's. Indoors only (200mW EIRP) Dynamic Frequency Selection (DFS) &amp; Transmitter Power Control (TPC) Modulation Schemes obligatory</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 5.447E 5.447F  5.448 5.448A</p>	<p>SPACE RESEARCH 5.447D</p> <p>MOBILE except Aeronautical mobile 5.466 5.446A 5.447F  5.448A</p> <p>Fixed NF1</p>		<p>WAS/RLAN's. Indoors only (200mW EIRP) Dynamic Frequency Selection (DFS) &amp; Transmitter Power Control (TPC) Modulation Schemes obligatory</p>
<p>5255 – 5350</p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>MOBILE except Aeronautical mobile 5.446A 5.447F</p> <p>SPACE RESEARCH (active) 5.447E 5.448 5.448A</p>	<p>EARTH EXPLORATION-SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>MOBILE except Aeronautical mobile 5.446A 5.447F</p> <p>SPACE RESEARCH (active) 5.448 5.448A</p> <p>Fixed NF1</p>		<p>WAS/RLAN's. Indoors only (200mW EIRP) Dynamic Frequency Selection (DFS) &amp; Transmitter Power Control (TPC) Modulation Schemes obligatory</p>

<p><b>5350 – 5460</b></p> <p>EARTH EXPLORATION-SATELLITE (active) 5.448B</p> <p>AERONAUTICAL-RADIONAVIGATION 5.449</p> <p>RADIOLOCATION 5.448D</p> <p>SPACE RESEARCH (active) 5.448C</p>	<p>EARTH EXPLORATION-SATELLITE (active) 5.448B</p> <p>AERONAUTICAL-RADIONAVIGATION 5.449</p> <p>RADIOLOCATION 5.448D</p> <p>SPACE RESEARCH (active) 5.448C</p>		
<p><b>5460 – 5470</b></p> <p>RADIONAVIGATION 5.449</p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>SPACE RESEARCH (active)</p> <p>RADIOLOCATION 5.448D 5.448B</p>	<p>RADIONAVIGATION 5.449</p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>SPACE RESEARCH (active)</p> <p>RADIOLOCATION 5.448D 5.448B</p>		
<p><b>5470 – 5570</b></p> <p>MARITIME RADIONAVIGATION</p> <p>MOBILE except aeronautical mobile 5.446A 5.450A</p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>SPACE RESEARCH (active)</p> <p>RADIOLOCATION ADD 5.450B 5.450 5.451 5.452 5.448B</p>	<p>MARITIME RADIONAVIGATION</p> <p>MOBILE except aeronautical mobile 5.446A 5.450A</p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>SPACE RESEARCH (active)</p> <p>RADIOLOCATION 5.450B 5.452 5.448B</p> <p>Fixed NF1</p>	<p>Maritime Radionavigation and Location (Radar)</p>	<p>WAS/RLAN's with conditions. Refer to SRD Gazette.</p>

## 5570 - 7250 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>5570 – 5650</b> MARITIME-RADIONAVIGATION  MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B 5.450 5.451 5.452	MARITIME-RADIONAVIGATION   RADIOLOCATION 5.450B 5.452 Fixed NF1	Maritime Radionavigation and Location (Radar)   Ground-based meteorological radars  5600 – 5650 MHz	WAS/RLAN's with conditions. Refer to SRD Gazette.
<b>5650 – 5725</b> RADIOLOCATION MOBILE except aeronautical mobile 5.446A 5.450A  Amateur Space Research (deep space) 5.282 5.451 5.453 5.454 5.455	RADIOLOCATION MOBILE except aeronautical mobile 5.446A 5.450A  Amateur Space Research (deep space) 5.282 5.455 Fixed NF1		WAS/RLAN's with conditions. Refer to SRD Gazette.
<b>5725 – 5830</b> FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur  5.150 5.451 5.453 5.455 5.456	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur NF34 5.150 Fixed NF1	ISM (5725 - 5875 MHz)  PTP/PTMP wireless LAN	TICS 5805 - 5815MHz) (future) WLAN see conditions

<p><b>5830 – 5850</b></p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Amateur-satellite (space-to-Earth) 5.150 5.451 5.453 5.455 5.456</p>	<p>FIXED-SATELLITE (Earth-to-space)</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Amateur-satellite (space-to-Earth) 5.150 5.451</p> <p>NF34</p> <p>Fixed NF1</p>	<p>ISM (5725 - 5875 MHz)</p> <p>PTP/PTMP wireless LAN</p>	<p>WLAN see conditions</p>
<p><b>5850 – 5925</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE</p> <p>5.150</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>NF 34, NF35, NF36</p> <p>Mobile</p> <p>5.150</p>	<p>PTP links/OB ENG</p> <p>VSAT/SNG/Satellite PTP links</p> <p>ISM (5725 - 5875 MHz)</p> <p>PTP/PTMP wireless LAN</p>	<p>WLAN see conditions</p>
<p><b>5925 – 6700</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B</p> <p>MOBILE</p> <p>5.149 5.440 5.458</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (Earth-to-space) 5.457A</p> <p>NF 34, NF35, NF36</p>	<p>PTP links</p> <p>VSAT/SNG/FSS feeder links</p>	
<p><b>6700 – 7075</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441</p> <p>MOBILE</p> <p>5.458 5.458A 5.458B 5.458C</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441</p> <p>NF38</p>	<p>PTP links</p> <p>S-DAB feeder links (uplinks)</p> <p>NGSO MSS feeder links (downlinks)</p>	

<b>7075 – 7145</b> FIXED MOBILE 5.458 5.459	FIXED NF1 NF38	PTP links OB ENG links	
<b>7145 – 7235</b> FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458 5.459	FIXED NF1 NF38 SPACE RESEARCH (Earth-to-space) 5.460	PTP links OB ENG links	
<b>7235 – 7250</b> FIXED MOBILE 5.458	FIXED NF1 NF38	PTP links OB ENG links	

## 7250 - 8500 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
7 250-7 300 FIXED  FIXED-SATELLITE (space-to-Earth) MOBILE 5.461	FIXED NF1 NF38  FIXED-SATELLITE (space-to-Earth)	PTP links  OB ENG links	
7300-7450 FIXED  FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461	FIXED NF1 NF38 NF39, NF40  FIXED-SATELLITE (space-to-Earth)	PTP links  OB ENG links	
7450 – 7550 FIXED  FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461A	FIXED NF1 NF40  FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461A	PTP links  OB ENG links  Downlink of medium raw data from GSO MetSat to main earth station	
7550 – 7750 FIXED  FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	FIXED NF1 NF40  FIXED-SATELLITE (space-to-Earth)	PTP links  OB ENG links	

<p>7750 – 7850</p> <p>FIXED</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B</p> <p>MOBILE except aeronautical mobile</p>	<p>FIXED NF1</p> <p>NF41</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B</p>	<p>PTP links</p> <p>Downlink of raw data from NGSO MetSat to main earth station and dissemination</p>	
<p>7850 – 7900</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p>	<p>FIXED NF1</p> <p>NF41</p>	<p>PTP links</p>	
<p>7900 – 8025</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE</p> <p>5.461</p>	<p>FIXED NF1</p> <p>NF41</p> <p>FIXED-SATELLITE (Earth-to-space)</p>	<p>PTP links</p>	
<p>8025 – 8175</p> <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE 5.463</p>	<p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED NF1</p> <p>NF41</p> <p>FIXED-SATELLITE (Earth-to-space)</p>	<p>PTP links</p>	

<p>8175 – 8215</p> <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>METEOROLOGICAL-SATELLITE (Earth-to-space)</p> <p>MOBILE 5.463</p>	<p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED NF1</p> <p>NF41</p> <p>METEOROLOGICAL-SATELLITE (Earth-to-space)</p>	<p>PTP links</p> <p>Downlink of sensor data from GSO and NGSO MetSat to main Earth station</p>	
<p>8215 – 8400</p> <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE 5.463</p>	<p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED NF1</p> <p>NF41, NF42</p> <p>FIXED-SATELLITE (Earth-to-space)</p>	<p>PTP links</p>	
<p>8400 – 8500</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (space-to-Earth) 5.465 5.466</p>	<p>FIXED NF1</p> <p>NF2</p> <p>SPACE RESEARCH (space-to-Earth) 5.465</p>	<p>PTP links</p>	

## 8500 - 10 000 MHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
8500 – 8550 RADIOLOCATION 5.468 5.469	RADIOLOCATION		
8550 – 8650 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.468 5.469 5.469A	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.469A		
8650 – 8750 RADIOLOCATION 5.468 5.469	RADIOLOCATION		
8750 – 8850 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470 5.471	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470		
8850 – 9000 RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.473	RADIOLOCATION MARITIME RADIONAVIGATION 5.472		
9000 – 9200 AERONAUTICAL-RADIONAVIGATION 5.337 RADIOLOCATION 5.471 5.475A	AERONAUTICAL-RADIONAVIGATION 5.337 RADIOLOCATION 5.475A	APPROACH RADARS	

<b>9200 – 9300</b> RADIOLOCATION MARITIME RADIONAVIGATION  5.472 5.473 5.474	RADIOLOCATION MARITIME RADIONAVIGATION 5.472  5.474	HARBOUR RADARS	
<b>9300 – 9500</b> RADIONAVIGATION EARTH EXPLORATION- SATELLITE (Active) SPACE RESEARCH (Active) RADIOLOCATION 5.427 5.474 5.475 5.475B 5.476A 5.4B07	RADIONAVIGATION EARTH EXPLORATION- SATELLITE (Active) SPACE RESEARCH (Active) RADIOLOCATION 5.427 5.474 5.475 5.475B 5.476A 5.4B07	Shore based radars          FDDA 9200 – 9975 MHz	9380 – 9440 MHz          Latest Government Gazette on SRD's refers
<b>9500 – 9800</b> EARTH EXPLORATION- SATELLITE (active) RADIOLOCATION  RADIONAVIGATION SPACE RESEARCH (active) 5.476A	EARTH EXPLORATION- SATELLITE (active) RADIOLOCATION  RADIONAVIGATION SPACE RESEARCH (active) 5.476A	MOVEMENT DETECTION RADARS          FDDA 9200 – 9975 MHz	Latest Government Gazette on SRD's refers

<p><b>9800 – 9900</b></p> <p><b>RADIOLOCATION</b></p> <p>Earth exploration-satellite (Active)</p> <p>Space research (Active)</p> <p>Fixed</p> <p>5.477 5.478 5.478A 5.478B</p>	<p><b>RADIOLOCATION</b></p> <p>Earth exploration-satellite (Active)</p> <p>Space research (Active)</p> <p>Fixed NF1</p> <p>5.478A 5.478B</p>	<p><b>MOVEMENT DETECTION (Low Power)</b></p> <p>FDDA 9200 – 9975 MHz</p>	<p>Latest Government Gazette on SRD"s refers</p>
<p><b>9900 – 10000</b></p> <p><b>RADIOLOCATION</b></p> <p>Fixed</p> <p>5.477 5.478 5.479</p>	<p><b>RADIOLOCATION</b></p> <p>Fixed NF1</p> <p>5.479</p>		

## 10.0 – 11.7 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>10.00 – 10.45</b> FIXED  MOBILE RADIOLOCATION Amateur 5.479, 5.482	FIXED NF1  RADIOLOCATION	Low Power Video PTP/PTMP 10.15 – 10.3 GHz  Motion Sensors	10.0 – 10.15 GHz  Paired with 10.5 – 10.65 GHz
<b>10.45 – 10.50</b> RADIOLOCATION Amateur Amateur-Satellite 5.481	RADIOLOCATION	Motion Sensors	
<b>10.50 – 10.55</b> FIXED  MOBILE Radiolocation	FIXED NF1  Radiolocation	PTP/PTMP 10.5 – 10.65 GHz  Motion Sensors	Paired with 10.15 – 10.3 GHz
<b>10.55 – 10.60</b> FIXED  MOBILE except aeronautical mobile Radiolocation	FIXED NF1  Radiolocation	PTP/PTMP 10.5 – 10.65 GHz  Motion Sensors	Paired with 10.15 – 10.3 GHz

<p><b>10.60 – 10.68</b>                  EARTH EXPLORATION-SATELLITE (passive)                  FIXED                  MOBILE except aeronautical mobile                  RADIO ASTRONOMY                  SPACE RESEARCH (passive)                  Radiolocation                  5.149 5.482 5.BA01</p>	<p>EARTH EXPLORATION-SATELLITE (passive)                  FIXED NF1                  RADIO ASTRONOMY NF2                  SPACE RESEARCH (passive)                  Radiolocation                  5.149 5.BA01</p>	<p>PTP/PTMP 10.5 – 10.65 GHz                  Motion Sensors</p>	<p>Paired with 10.15 – 10.3 GHz</p>
<p><b>10.68 – 10.7</b>                  EARTH EXPLORATION-SATELLITE (passive)                  RADIO ASTRONOMY                  SPACE RESEARCH (passive)                  5.340 5.483</p>	<p>EARTH EXPLORATION-SATELLITE (passive)                  RADIO ASTRONOMY NF2                  SPACE RESEARCH (passive)                  5.34</p>	<p>Passive Sensing</p>	
<p><b>10.7 – 11.7</b>                  FIXED                  FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484                  MOBILE except aeronautical mobile</p>	<p>FIXED NF1                  NF 43                  FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484</p>	<p>PTP links                  VSAT/SNG/DTH (secondary) / BSS feeder links</p>	<p>Sharing with BSS                  Government Gazette No. 19343, dated 09 October 1998</p>

## 11.70 - 14 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
11.70 – 12.50 FIXED BROADCASTING BROADCASTING-SATELLITE MOBILE except aeronautical mobile 5.487 5.487A 5.492	FIXED NF1 BROADCASTING BROADCASTING-SATELLITE 5.487 5.487A 5.492	ENG/OB BSS feeder links	
12.5 – 12.75 FIXED-SATELLITE (space-to-Earth) S484A (Earth-to-space) 5.494 5.495 5.496	FIXED SATELLITE (space-to-Earth) 5.484A	VSAT/SNG/DTH	
12.75 – 13.25 FIXED FIXED-SATELLITE (Earth-to-space) 5.441 MOBILE Space Research (deep space) (space-to-Earth)	FIXED NF1 NF44	PTP links	
13.25 – 13.4 EARTH EXPLORATION-SATELLITE (active) AERONAUTICAL-RADIONAVIGATION 5.497 SPACE RESEARCH (active) 5.498A 5.499	EARTH EXPLORATION-SATELLITE (active) AERONAUTICAL-RADIONAVIGATION 5.497 SPACE RESEARCH (active) 5.498A		

<p>13.40 – 13.75</p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>SPACE RESEARCH 5.501A</p> <p>Standard frequency and time signal satellite (Earth-to-space)</p> <p>5.499 5.500 5.501 5.501B</p>	<p>RADIOLOCATION</p>	<p>Low Power Microwave Fences (13.4 - 14 GHz) NIB, FDDA</p>	<p>Government Gazette No 26193, Notice 533 of 24 March 2004 refers..</p>
<p>13.75 – 14.</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A</p> <p>RADIOLOCATION</p> <p>Standard frequency and time signal satellite (Earth-to-space)</p> <p>Space research</p> <p>Earth exploration – satellite</p> <p>5.499 5.500 5.501 5.502 5.503</p>	<p>FIXED SATELLITE (Earth-to-space)5.484A</p> <p>RADIOLOCATION</p> <p>Standard frequency and time signal satellite (Earth-to-space)</p> <p>Space research</p> <p>Earth exploration – satellite</p> <p>5.502 5.503</p>	<p>VSAT/SNG/FSS feeder links</p> <p>Low Power Microwave Fences (13.4 - 14 GHz) NIB, FDDA</p>	<p>Government Gazette No 26193, Notice 533 of 24 March 2004 refers..</p>

## 14.00 – 15.40 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>14.00 – 14.25</b> FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.504C 5.506A Space Research 5.505 5.504A	FIXED SATELLITE (Earth-to-space)  NF45  5.484A 5.506 5.457A	VSAT/SNG/FSS feeder links	
<b>14.25 – 14.30</b> FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.506A 5.509A Space Research 5.505 5.508 5.509 5.504A	FIXED SATELLITE (Earth-to-space)  NF45  5.484A 5.506 5.457A	VSAT/SNG/FSS feeder links	
<b>14.30 – 14.40</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) except aeronautical mobile satellite 5.506A 5.509A Radionavigation-satellite 5.504A	FIXED SATELLITE (Earth-to-space)  NF45  5.484A 5.506 5.457A	VSAT/SNG/FSS feeder links	

<p>14.40 – 14.47</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B</p> <p>MOBILE except aeronautical mobile</p> <p>Mobile-satellite (Earth-to- space) 5.506A 5.509A</p> <p>Space Research (space- to-Earth) 5.504A</p>	<p>FIXED SATELLITE (Earth-to-space)</p> <p>NF45</p> <p>5.484A 5.506 5.457A</p>	<p>VSAT/SNG/FSS feeder links</p>	
<p>14.47 – 14.50</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B</p> <p>MOBILE except aeronautical- mobile</p> <p>Mobile-satellite (Earth-to- space) 5.506A 5.509A 5.504B</p> <p>Radio Astronomy 5.149 5.504A</p>	<p>FIXED SATELLITE (Earth-to-space)</p> <p>NF45</p> <p>5.484A 5.506 5.457A</p>	<p>VSAT/SNG/FSS feeder links</p>	
<p>14.50 – 14.80</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.510</p> <p>MOBILE</p> <p>Space Research</p>	<p>FIXED</p> <p>NF46</p>	<p>PTP links</p> <p>ENG OB</p> <p>BSS feeder links</p>	
<p>14.80 – 15.35</p> <p>FIXED</p> <p>MOBILE</p> <p>Space Research 5.339</p>	<p>FIXED NF1</p> <p>NF46</p>	<p>PTP links</p> <p>ENG OB links</p>	

15.35 – 15.4 EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.511	EARTH EXPLORATION- SATELLITE (passive)  SPACE RESEARCH (passive) 5.340	VILBIRA OBSERVATIONS  Passive Sensing	
--	---	--	--

## 15.40 – 18.40 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
15.40 – 15.43 AERONAUTICAL RADIONAVIGATION 5.511D	AERONAUTICAL RADIONAVIGATION 5.511C 5.511D	RADIO ALTIMETERS/RADARS	ICAO: ASDE Annex 10
15.43 – 15.63 FIXED-SATELLITE (Earth-to-space) 5.511A AERONAUTICAL RADIONAVIGATION 5.511C	AERONAUTICAL RADIONAVIGATION 5.511C 5.511D	RADIO ALTIMETERS/RADARS	ICAO: ASDE Annex 10
15.63 – 15.70 FIXED-SATELLITE (Earth-to-space) 5.511A AERONAUTICAL RADIONAVIGATION 5.511C	AERONAUTICAL RADIONAVIGATION 5.511C 5.511D	RADIO ALTIMETERS/RADARS	ICAO: ASDE Annex 10
15.70 – 16.60 RADIOLOCATION 5.512 5.513	RADIOLOCATION		ALTIMETERS / DISTANCE MEASURING EQUIPMENT
16.60 – 17.1 RADIOLOCATION Space Research (deep space) (Earth-to-space) 5.512 5.513	RADIOLOCATION Space Research (deep space) (Earth-to-space)		
17.10 – 17.20 RADIOLOCATION 5.512 5.513	RADIOLOCATION		WAS links (future)

<b>17.20 – 17.30</b> EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.512 5.513 5.513A	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.513A		WAS links (future)
<b>17.30 – 17.70</b> FIXED-SATELLITE (Earth-to-space) (space to Earth) 5.516 5.516A 5.516B Radiolocation 5.514	FIXED-SATELLITE (Earth-to-space) (space to Earth) 5.516 5.516A 5.516B Radiolocation		
<b>17.70 – 18.10</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE	FIXED NF1 FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 NF47	PTP links BSS feeder links (future)	
<b>18.10 – 18.40</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520 MOBILE 5.519 5.521	FIXED NF1 FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520 NF47	PTP links (17.7 - 19.7 GHz) GSO/FSS	

## 18.40 – 22.00 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>18.40 – 18.60</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE	FIXED NF1 FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B NF47	PTP links GSO/FSS	
<b>18.60 – 18.80</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.522B MOBILE except aeronautical mobile EARTH EXPLORATION-SATELLITE (passive) Space research (passive) 5.522A 5.522C	FIXED NF1 FIXED-SATELLITE (space-to-Earth) 5.522B NF47 EARTH EXPLORATION-SATELLITE (passive) Space research (passive) 5.522A	PTP links GSO/FSS Passive Sensing	
<b>18.80 – 19.30</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.523A 5.516B MOBILE	FIXED NF1 FIXED-SATELLITE (space-to-Earth) 5.523A 5.516B NF47	PTP links NGSO/FSS	NGSO FSS (18.8 - 19.3 GHz) (future)
<b>19.30 – 19.70</b> FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E MOBILE	FIXED NF1 FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E NF47	PTP links NGSO MSS (19.3 - 19.7 GHz)	NGSO MSS feeder links (future)

<p>19.70 – 20.10</p> <p>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B</p> <p>Mobile-Satellite (space-to-Earth)</p> <p>5.524</p>	<p>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B</p>	<p>GSO/FSS</p>	
<p>20.10 – 20.20</p> <p>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>5.524 5.525 5.526 5.527 5.528</p>	<p>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B</p>	<p>GSO/FSS</p>	
<p>20.20 – 21.20</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>Standard frequency and time signal- satellite (space-to-Earth)</p> <p>5.524</p>	<p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>Standard frequency and time signal- satellite (space-to-Earth)</p>		
<p>21.20 – 21.40</p> <p>EARTH EXPLORATION- SATELLITE (passive)</p> <p>FIXED</p> <p>SPACE RESEARCH (passive)</p> <p>MOBILE</p>	<p>EARTH EXPLORATION- SATELLITE (passive)</p> <p>FIXED NF1 NF48</p> <p>SPACE RESEARCH (passive)</p>	<p>PTP links</p> <p>Passive Sensing</p>	

21.40 – 22.00 FIXED  MOBILE BROADCASTING- SATELLITE 5.530	FIXED NF1 NF48  BROADCASTING- SATELLITE 5.530	PTP links	Possible HDTV (future)
---	--	-----------	------------------------

## 22.00 – 24.75 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
22.00 – 22.21 FIXED MOBILE except aeronautical mobile 5.149	FIXED NF1 NF48	PTP links	
22.21 – 22.50 EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.532	EARTH EXPLORATION- SATELLITE (passive) FIXED NF1 NF48 RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.149 5.532	PTP links  Passive Sensing	
22.50 – 22.55 FIXED MOBILE	FIXED NF1 NF48	PTP links	
22.55 – 23.55 FIXED INTER-SATELLITE 5.338A MOBILE 5.149	FIXED NF1 NF48 INTER-SATELLITE 5.338A	PTP links	
23.55 – 23.60 FIXED MOBILE	FIXED NF1 NF48		

23.60 – 24.00 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	Passive Sensing	
24.00 – 24.05 AMATEUR AMATEUR-SATELLITE 5.150	AMATEUR AMATEUR-SATELLITE 5.150		ISM (24 - 24.25 GHz)
24.05 – 24.25 RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150	RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150		ISM (24 - 24.25 GHz)
24.25 – 24.45 FIXED	FIXED NF1		Licensed video surveillance (future) ENG/OB (future)
24.45 – 24.65 FIXED INTER-SATELLITE	FIXED NF1 NF49		Broadband PTP and PTMP systems
24.65 – 24.75 FIXED INTER-SATELLITE	FIXED NF1 NF49		Broadband PTP and PTMP systems

## 24.75 – 29.9 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
24.75 – 25.25 FIXED	FIXED NF1 NF49		Broadband PTP and PTMP systems
25.25 – 25.50 FIXED INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal- satellite (Earth-to-space)	FIXED NF1 NF49		Broadband PTP and PTMP systems
25.50 – 27.00 EARTH EXPLORATION – SATELLITE (space-to-Earth) 5.536A 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536A 5.536C Standard frequency and time signal- satellite (Earth-to-space)	EARTH EXPLORATION – SATELLITE (space-to-Earth) 5.536A FIXED NF1 NF49		National Polar-orbiting Operational Environmental Satellite System (NPOESS) Broadband PTP and PTMP systems
27.00 – 27.50 FIXED INTER-SATELLITE 5.536 MOBILE	FIXED NF1		

<p>27.50 – 28.50</p> <p>FIXED 5.537A</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.539 5.516B</p> <p>MOBILE 5.538 5.540</p>	<p>FIXED NF1</p> <p>NF50</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.523A 5.539 5.516B 5.538 5.540</p>		<p>LMDS (27.5 - 28.35 GHz)</p> <p>FSS/BSS feeder links (28.35 - 28.6 GHz)</p>
<p>28.50 – 29.10</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.523A 5.539 5.516B 5.538</p> <p>MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.523A 5.539 5.516B 5.538 5.540</p>		<p>NGSO FSS (28.6 - 29.1 GHz) and FSS/ BSS feeder links (28.35 - 28.6 GHz)</p>
<p>29.10 – 29.50</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.523C 5.523E 5.535A 5.539 5.541A 5.516B</p> <p>MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.523A 5.539 5.516B 5.538 5.540</p>		<p>LMDS (29.1 - 29.25 GHz)</p> <p>FSS/BSS feeder links (29.25 - 30 GHz)</p>

<p>29.50 – 29.90</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A 5.539 5.516B</p> <p>Earth exploration-satellite (Earth-to- space) 5.541</p> <p>Mobile-satellite (Earth-to- space) 5.540 5.542</p>	<p>FIXED-SATELLITE (Earth-to- space) 5.484A 5.523A 5.539 5.516B 5.538 5.540</p>		<p>FSS/BSS feeder links ( 29.25 - 30 GHz)</p>
---	---	--	---

## 29.90 – 34.20 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>29.90 – 30.00</b> FIXED-SATELLITE (Earth-to-space) 5.484A 5.539 5.516B MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (Earth-to-space) 5.541 5.543 5.525 5.526 5.527 5.538 5.540 5.542	FIXED-SATELLITE (Earth-to-space) 5.484A 5.523A 5.539 5.516B 5.538 5.540 MOBILE-SATELLITE (Earth-to-space) 5.525 5.526 5.527 5.538 5.540 5.542		FSS/BSS feeder links (29.25 - 30 GHz)
<b>30.00 – 31.00</b> FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal - satellite (space-to-Earth) 5.542	FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE-SATELLITE (Earth-to-space)		
<b>31.00 – 31.30</b> FIXED 5.543A 5.338A MOBILE Standard frequency and time signal - satellite (space-to-Earth) Space research 5.544 5.545 5.149	FIXED NF1 5.338A	LPVS (31.0 - 31.056 GHz) HAPS (31.1 - 31.3 GHz)	Government Gazette 20087 (Notice 939, 15 May 1999) LPVS expansion in the band 31.056 - 31.3 GHz (future)

<b>31.30 – 31.50</b> EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY 5.340		
<b>31.50 – 31.80</b> EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.546	RADIO ASTRONOMY NF2 Fixed NF1 5.149 5.546	HPVS (31.5 - 31.8 GHz) Passive Sensing	
<b>31.80 – 32.00</b> FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547B 5.548	FIXED NF1 5.547A RADIONAVIGATION 5.547		HDFS (31.8 - 33.4 GHz) (future)
<b>32.00 – 32.30</b> FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547C 5.548	FIXED NF1 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.548		HDFS (31.8 - 33.4 GHz) (future)

<b>32.30 - 33.00</b> FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.547D 5.548	FIXED NF1 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.548		HDFS (31.8 - 33.4 GHz) (future)
<b>33.00 – 33.40</b> FIXED 5.547A RADIONAVIGATION 5.547 5.547E	FIXED NF1 5.547A RADIONAVIGATION 5.547		HDFS (31.8 - 33.4 GHz) (future)
<b>33.40 – 34.20</b> RADIOLOCATION 5.549	RADIOLOCATION		

## 34.20 – 40.00 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
34.20 – 34.70 RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space) 5.549	RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space) 5.549		
34.70 – 35.20 RADIOLOCATION Space Research 5.550 5.549	RADIOLOCATION Space Research 5.550 5.549		
35.20 – 35.50 METEROLOGICAL AIDS RADIOLOCATION 5.549	METEROLOGICAL AIDS RADIOLOCATION 5.549		
35.50 – 36.00 METEROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.549 5.549A	METEROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.549 5.549A		
36.00 – 37.00 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149 5.BA02	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149 5.BA02	Passive Sensing	RADIO ASTRONOMY (36.43 - 36.5 GHz)

<b>37.00 – 37.50</b> FIXED  MOBILE SPACE RESEARCH (space-to-Earth) 5.547	FIXED NF1 NF51  5.547	PTP links	HDFS (37 - 40 GHz)
<b>37.50 – 38.00</b> FIXED  FIXED – SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (space-to-Earth) Earth exploration-satellite (space-to Earth) 5.547	FIXED NF1 NF51  5.547	PTP links	HDFS (37 - 40 GHz)
<b>38.00 – 39.50</b> FIXED  FIXED-SATELLITE (space-to-Earth) MOBILE Earth exploration-satellite (space-to Earth) 5.547	FIXED NF1 NF51  5.547	PTP links	HDFS (37 - 40 GHz)

<p>39.50 – 40.00</p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.516B</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>Earth exploration-satellite (space-to Earth) 5.551AA</p> <p>5.547</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (space-to-Earth) 5.516B</p> <p>5.547</p>		<p>HDFS (37 - 40 GHz)</p> <p>High Density application in the FSS (39.5 - 40 GHz)</p>
--	--	--	--

## 40.00 – 47.50 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>40.00 – 40.50</b> EARTH EXPLORATION SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth exploration-satellite (space-to Earth)	EARTH EXPLORATION SATELLITE (Earth-to-space) FIXED NF1 FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth exploration-satellite (space-to Earth)		
<b>40.50 – 41.00</b> FIXED FIXED-SATELLITE (space-to-Earth) BROADCASTING BROADCASTING-SATELLITE Mobile 5.547	FIXED NF1 FIXED-SATELLITE (space-to-Earth) BROADCASTING BROADCASTING-SATELLITE Mobile 5.547		MWS/MVDS (future) HDFS (40.5 - 43.5 GHz) High Density application in the FSS ( 40.5 - 42 GHz) (future)
<b>41.00 – 42.50</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile 5.547 5.551F 5.551H 5.551I	FIXED NF1 FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile 5.547 5.551H 5.551I		MWS/MVDS (future) HDFS (40.5 - 43.5 GHz) BSS feeder links (future)

42.50 – 43.50 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149 5.547	FIXED NF1 FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile RADIO ASTRONOMY NF2 5.149 5.547		MWS/MVDS (future) HDFS (40.5 - 43.5 GHz) BSS feeder links (future)
43.50 – 47.00 MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION- SATELLITE 5.554	MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION- SATELLITE 5.554		
47.00 – 47.20 AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITE		
47.20 – 47.50 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A	FIXED NF1 FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A		

## 47.50 – 51.40 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>47.50 – 47.90</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A MOBILE	FIXED NF1 FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A MOBILE		
<b>47.90 – 48.20</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A	FIXED NF1 FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A		
<b>48.20 – 48.54</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE	FIXED NF1 FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE		
<b>48.54 - 49.44</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.149 5.340 5.555	FIXED NF1 FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.149 5.340 5.555		
<b>49.44 - 50.20</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 5.338A (space-to-Earth) 5.516B 5.554A 5.555B MOBILE	FIXED NF1 FIXED-SATELLITE (Earth-to-space) 5.552 5.338A (space-to-Earth) 5.516B 5.554A 5.555B MOBILE		HAPS (47.2 - 47.5 & 47.9 - 48.2 GHz(future) BSS feeder links (future)

<p>50.20 – 50.40</p> <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>SPACE RESEARCH (passive)</p> <p>5.340</p>	<p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>SPACE RESEARCH (passive)</p> <p>5.340</p>	<p>Passive Sensing</p>	
<p>50.40 – 51.40</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.338A</p> <p>MOBILE</p> <p>Mobile-Satellite (Earth-to-space)</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (Earth-to-space) 5.338A</p> <p>MOBILE</p> <p>Mobile-Satellite (Earth-to-space)</p>		

## 51.40 – 58.20 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>51.4 – 52.60</b> FIXED 5.338A  MOBILE 5.547 5.556	FIXED NF1 5.338A  MOBILE 5.547 5.556		HDFS (51.4 - 52.6 GHz) (future)
<b>52.60 – 54.25</b> EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340 5.556	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340 5.556	Passive Sensing at 53.6 - 59.3 GHz	
<b>54.25 – 55.78</b> EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive) 5.556B	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive)		
<b>55.78 – 56.90</b> EARTH EXPLORATION-SATELLITE (passive) FIXED 5.557A  INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557	EARTH EXPLORATION-SATELLITE (passive) FIXED NF1 5.557A  INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547		HDFS (55.78 - 59 GHz) (future)

<p><b>56.90 – 57.00</b></p> <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED</p> <p>INTER-SATELLITE 5.558A</p> <p>MOBILE 5.558</p> <p>SPACE RESEARCH (passive) 5.547 5.557</p>	<p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED NF1</p> <p>INTER-SATELLITE 5.558A</p> <p>MOBILE 5.558</p> <p>SPACE RESEARCH (passive) 5.547</p>		<p>HDFS (55.78 - 59 GHz) (future)</p>
<p><b>57.00 – 58.20</b></p> <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED</p> <p>INTER-SATELLITE 5.556A</p> <p>MOBILE 5.558</p> <p>SPACE RESEARCH (passive) 5.547 5.557</p>	<p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED NF1</p> <p>INTER-SATELLITE 5.556A</p> <p>MOBILE 5.558</p> <p>SPACE RESEARCH (passive) 5.547</p>		<p>HDFS (55.78 - 59 GHz) (future)</p>
<p><b>58.20 – 59.00</b></p> <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED</p> <p>MOBILE</p> <p>SPACE RESEARCH (passive) 5.547 5.556</p>	<p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED NF1</p> <p>MOBILE</p> <p>SPACE RESEARCH (passive) 5.547 5.556</p>		<p>HDFS (55.78 - 59 GHz) (future)</p>

<b>59.00 – 59.30</b> EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559	EARTH EXPLORATION-SATELLITE (passive) FIXED NF1 INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559		
<b>59.30 – 64.00</b> FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138	FIXED NF1 INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138		TRANSPORTATION – APPLICATIONS ISM (61 - 61.5 GHz) (future)
<b>64.00 – 65.00</b> FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.547 5.556	FIXED NF1 INTER-SATELLITE MOBILE except aeronautical mobile 5.547 5.556		HDFS (64 - 66 GHz) (future)

65.00 – 66.00			
EARTH EXPLORATION-SATELLITE	EARTH EXPLORATION-SATELLITE		
FIXED	FIXED NF1		HDFS (64 - 66 GHz) (future)
INTER-SATELLITE	INTER-SATELLITE		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
SPACE RESEARCH	SPACE RESEARCH		
5.547	5.547		

## 66.00 – 81.00 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>66.00 – 71.00</b> INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554	INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554		
<b>71.00 – 74.00</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)	FIXED NF1 FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) NF52 EU27	Point to point Fixed Wireless Systems: 71 – 76 GHz	Paired with 81-86 GHz
<b>74.00 – 76.00</b> FIXED FIXED-SATELLITE (Earth-to-space) MOBILE BROADCASTING BROADCASTING-SATELLITE Space Research (space-to-Earth) 5.561	FIXED NF1 FIXED-SATELLITE (Earth-to-space) MOBILE BROADCASTING BROADCASTING-SATELLITE NF52 Space Research (space-to-Earth) 5.561	Point to point Fixed Wireless Systems: 71 – 76 GHz	Paired with 81-86 GHz

<p>76.00 - 77.50</p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE</p> <p>BROADCASTING</p> <p>BROADCASTING-SATELLITE</p> <p>Space Research (space-to-Earth)</p> <p>5.561 5.569A</p>	<p>FIXED NF1</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE</p> <p>BROADCASTING</p> <p>BROADCASTING-SATELLITE</p> <p>Space Research (space-to-Earth)</p> <p>5.561</p>	<p>76 – 77 GHz Road Transport and Traffic Telematics</p>	<p>Road Transport and Traffic Telematics Radar (76 – 77 GHz)</p>
<p>77.50 – 78.00</p> <p>AMATEUR</p> <p>AMATEUR-SATELLITE</p> <p>Radio astronomy</p> <p>Space research (space-to-Earth)</p> <p>5.149</p>	<p>AMATEUR</p> <p>AMATEUR-SATELLITE</p> <p>Radio astronomy NF2</p> <p>Space research (space-to-Earth)</p> <p>5.149</p>		
<p>78.00 – 79.00</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Amateur-satellite</p> <p>Radio astronomy</p> <p>Space research (space-to-Earth)</p> <p>5.149 5.560</p>	<p>RADIOLOCATION</p> <p>Amateur</p> <p>Amateur-satellite</p> <p>Radio astronomy</p> <p>Space research (space-to-Earth)</p> <p>5.149 5.560</p>	<p>Civil and non civil radiolocation</p>	

79.00 – 81.00	RADIO ASTRONOMY RADIOLOCATION	RADIO ASTRONOMY RADIOLOCATION	Civil and non civil radiolocation	
Amateur	Amateur	Amateur		
Amateur-satellite	Amateur-satellite	Amateur-satellite		
Space research (space- to-Earth)	Space research (space- to-Earth)	Space research (space- to-Earth)		
5.149	5.149			

## 81.00 – 111.8 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>81.00 – 84.00</b> FIXED  FIXED-SATELLITE (Earth-to-space) MOBILE  MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space Research (space-to-Earth)  5.149 5.560A	FIXED NF1  FIXED-SATELLITE (Earth-to-space) MOBILE  MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space Research (space-to-Earth) NF52  5.149 5.560A	Point to point Fixed Wireless Systems: 81 – 86 GHz	Paired with 71-76 GHz  Candidate band for future HDFSS systems.  Any deployment of HDFSS must ensure the protection of the Radio Astronomy Service
<b>84.00 – 86.00</b> FIXED  FIXED-SATELLITE (Earth-to-space) 5.561A MOBILE  RADIO ASTRONOMY  5.149	FIXED NF1  FIXED-SATELLITE (Earth-to-space) 5.561A MOBILE  RADIO ASTRONOMY NF52  5.149	Point to point Fixed Wireless Systems: 81 – 86 GHz	Paired with 71-76 GHz  Candidate band for future HDFSS systems.  Any deployment of HDFSS must ensure the protection of the Radio Astronomy Service
<b>86.00 – 92.00</b> EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)  5.340	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)  5.340	Passive applications	

92.00 – 94.00			
FIXED	FIXED NF1		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY NF2		
RADIOLOCATION	RADIOLOCATION		
5.149 5.556	5.149 5.556		

<b>94.00 – 94.10</b> EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) Radio astronomy 5.562 5.562A	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) Radio astronomy 5.562 5.562A	Short range radar. Cloud profiler radar	
<b>94.10 – 95.00</b> FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	FIXED NF1 MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	Short range radar.	
<b>95.00 – 100.00</b> FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554	FIXED NF1 MOBILE RADIO ASTRONOMY NF2 RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554		
<b>100.00 - 102.00</b> EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	Passive Sensing	

<b>102.00 - 105.00</b> FIXED MOBILE RADIO ASTRONOMY 5.149 5.341	FIXED NF1 MOBILE RADIO ASTRONOMY NF2 5.149 5.341		
<b>105.00 - 109.50</b> FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341	FIXED NF1 MOBILE RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.562B 5.149 5.341		
<b>109.50 - 111.8</b> EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340 5.341	Passive Sensing	

## 111.8 - 119.98 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>111.8 - 114.25</b> FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341	FIXED NF1 MOBILE RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.562B 5.149 5.341		
<b>114.25 - 116</b> EARTHEXPLORATION- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	EARTHEXPLORATION- SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340 5.341	Passive Sensing at 114.25 - 122.25	
<b>116 - 119.98</b> EARTHEXPLORATION- SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341	EARTHEXPLORATION- SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341		

## 119.98 - 151.5 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>119.98 - 122.25</b> EARTHEXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.138 5.341	EARTHEXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.138 5.341		
<b>122.25 – 123</b> FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138	FIXED NF 1 0 INTER-SATELLITE MOBILE 5.558 Amateur 5.138		
<b>123 – 130</b> FIXED- SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio Astronomy 5.562D 5.149 5.554	FIXED- SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio Astronomy 5.562D 5.149 5.554		
<b>130 – 134</b> EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149 5.562A	EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED NF1 INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY NF2 5.149 5.562A		

134 – 136 AMATEUR AMATEUR-SATELLITE Radio astronomy	AMATEUR AMATEUR-SATELLITE Radio astronomy		
136 – 141 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149	RADIO ASTRONOMY NF2 RADIOLOCATION Amateur Amateur-satellite 5.149		
141 - 148.5 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	FIXED NF1 MOBILE RADIO ASTRONOMY NF2 RADIOLOCATION 5.149		
148.5 - 151.5 EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340	Passive Sensing	

## 151.5 - 158.5GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
<b>151.5 - 155.5</b> FIXED MOBILE RADIO ASTRONOMY RADIO LOCATION 5.149	FIXED NF1 MOBILE RADIO ASTRONOMY NF2 RADIO LOCATION 5.149		
<b>155.5 - 158.5</b> EARTH EXPLORATION- SATELLITE (passive) 5.562F FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.562G	EARTH EXPLORATION- SATELLITE (passive) 5.562F FIXED NF1 MOBILE RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.562B 5.149 5.562G	Passive Sensing	

## 158.5 - 202 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
158.5 – 164 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)	FIXED NF1 FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)		
164 – 167 EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340	Passive Sensing	
167 - 174.5 FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE 5.558 5.149 5.562D	FIXED NF1 FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE 5.558 5.149 5.562D		
174.5-174.8 FIXED INTER-SATELLITE MOBILE 5.558	FIXED NF1 INTER-SATELLITE MOBILE 5.558		
174.8-182 EARTH EXPLORATION- SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)	EARTH EXPLORATION- SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)	Passive Sensing at 174.8 - 191.8 GHz	

<b>182-185</b> EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340		
<b>185-190</b> EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)		
<b>190-191.8</b> EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340		
<b>191.8-200</b> FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554	FIXED NF1 INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554		

<p>200-202                  EARTH EXPLORATION-SATELLITE (passive)                  RADIO ASTRONOMY                  SPACE RESEARCH (passive)                  5.340 5.341 5.563A</p>	<p>EARTH EXPLORATION-SATELLITE (passive)                  RADIO ASTRONOMY NF2                  SPACE RESEARCH (passive)                  5.340 5.341 5.563A</p>		
--	---	--	--

## 202 - 248 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
202-209 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341 5.563A	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340 5.341 5.563A	Passive Sensing	
209-217 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.341	FIXED NF1 FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY NF2 5.149 5.341		
217-226 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341	FIXED NF1 FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.562B 5.149 5.341		
226-231.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340	Passive Sensing at 226 - 232 GHz	

231.5-232 FIXED MOBILE Radiolocation	FIXED NF1 MOBILE Radiolocation		
232-235 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation	FIXED NF1 FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation		
235-238 EARTH EXPLORATION- SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (passive) 5.563A 5.563B	EARTH EXPLORATION- SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (passive) 5.563A 5.563B	Passive Sensing	
238-240 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION- SATELLITE	FIXED NF1 FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION- SATELLITE		
240-241 FIXED MOBILE RADIOLOCATION	FIXED NF1 MOBILE RADIOLOCATION		

241-248			
RADIO ASTRONOMY	RADIO ASTRONOMY NF2		
RADIOLOCATION	RADIOLOCATION		
Amateur	Amateur		
Amateur-satellite	Amateur-satellite		
5.138 5.149	5.138 5.149		

## 248 - 1000 GHz

ITU Region 1 Allocations	South African Allocations	Applications	Comments
248 – 250 AMATEUR AMATEUR-SATELLITE Radio astronomy 5.149	AMATEUR AMATEUR-SATELLITE RADIO ASTRONOMY NF2 5.149		
250-252 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.563A	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY NF2 SPACE RESEARCH (passive) 5.340 5.563A	Passive Sensing	
252-265 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554	FIXED NF1 MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY NF2 RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554		
265-275 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.563A	FIXED NF1 FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY NF2 5.149 5.563A		
275-1 000 (Not allocated) 5.565			

## **ANNEX A: SOUTH AFRICAN NATIONAL FOOTNOTES**

A

South African Table of Frequency Allocations

**NF 1*****Fixed Links***

In the Republic of South Africa, fixed radio links are frequently used for various purposes within the telecommunications and broadcast networks, on either a permanent or temporary basis (exclusive or shared). Usually the justification for using a radio link instead of a wired or optical fibre link relates to active national regulations, policies, geography or economics. They are used to provide fixed communication links between stations in a network supporting a different service (e.g. such as mobile telephony), whereas such an application is known as 'infrastructure' or 'backhaul'. The fixed radio links applications are also frequently referred to as Fixed Wireless Systems (FWS), a term recently adopted by ITU-R SG 9.

**NF 2*****Relevant to all Radio Astronomy Allocations***

In making assignments to stations of other services to which the bands are allocated; the Republic of South Africa takes all practicable steps to protect the radio astronomy services from harmful interference. Emissions from space borne or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos 4.5 and 4.6 and Article 29) (WRC-2000). ITU-R Footnote No. 5.149 refers.

**NF 3*****29.7 - 30 MHz***

This portion of the spectrum is allocated to the amateur service on a secondary basis for use during disaster exercises and emergency situations. This is in addition to the existing exclusive amateur band 28 - 29.7 MHz, which retains its primary status. The additional spectrum is used for single frequency mobile applications.

**NF 4*****70 - 70.3 MHz***

This sub-band is allocated to the amateur service on a secondary basis in order to undertake experimental work on propagation. The channels 70.025 – 70.150 MHz are used for civil defence purposes.

**NF 5*****138 - 174 MHz***

The land mobile sub-bands within the VHF High band are now in line with the rest of ITU Region 1.

**NF 6****140.5 - 141 and 152.05 - 152.5 MHz**

These frequency bands are allocated for use by alarm systems. Demand has continued to be primarily for single frequency systems.

**NF 7****148 - 149.9 MHz**

This band was allocated internationally at WARC 92 for the mobile satellite systems (MSS). The band is allocated for the Earth-to-space direction, and is extended up to 150.05 MHz. The space-to-Earth link is generally provided at either 137 - 138 MHz or 400.15 - 401 MHz, depending on the system. In South Africa the band 148 - 149.9 MHz (and the other relevant MSS bands also) is allocated to MSS. MSS cannot cause or claim interference from other stations in this band in accordance with ITU-R Footnote 5.221 (WRC 03).

**NF 8****150.05 - 151 MHz (Electricity Load shedding and alarm systems)**

This band is no longer allocated to paging systems. Since there is a decline in the use of paging, the band is now allocated to load shedding and burglar alarm systems. The channels 150.550 MHz and 150.5625 MHz are used for load shedding countrywide.

**NF 9****161.875 - 173.875 MHz**

Frequencies between 161.875 and 173.875 MHz are currently unavailable for other uses up to a distance of 200 km inland from the coast. It is generally agreed that there should be scope for increased sharing of these frequencies compared with what is allowed at present which is sonobouy.

**NF 10****216 - 246 MHz**

T-DAB is temporarily allocated in order to allow field testing of Eureka 147 (the GE06 broadcast plan should be consulted) standard. The use of wireless microphones for services ancillary to Broadcasting (SAB) and services ancillary to programme (SAP) making will continue. Users of wireless microphones will have to approach the Authority for co-ordination and licensing.

The term SAB covers the use of radio by established terrestrial broadcasters in the making of their programmes. The term SAP has been introduced to cover the use of radio by independent programme makers and other commercial non broadcast entities to support the activities carried out in the making of