ESWATINI COMMUNICATIONS COMMISSION

ESCCOM

GENERAL NOTICE NO. 3/2026:

Fixed Terrestrial Services Band Plan 2026 for Eswatini

ESWATINI DATA PROTECTION AUTHORITY

SZ CIRT ESWATINI COMPUTER INCIDENT RESPONSE TEAM

Eswatini Communications Commission UNIVERSAL ACCESS SERVICE FUND

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Abbreviations

CEPT: European Conference of Postal and Telecommunications Administrations

CRASA: Communications Regulators' Association of Southern Africa

FDD: Frequency Division Duplex

FS: Fixed Services

GHz: Gigahertz

HDFS: High Density Fixed Services

ITU-R: International Telecommunication Union – Radiocommunication Sector

MHz: Megahertz

NFAP: National Frequency Allocation Plan

PTMP: Point-to-Multipoint

PTP: Point-to-Point

Rx: Receive Frequency

SADC: Southern African Development Community

SDH: Synchronous Digital Hierarchy

TDD: Time Division Duplex

Tx: Transmit Frequency

BW: Bandwidth

BWA: Broadband Wireless Access

WRC: World Radiocommunication Conference

Definitions

Annex: Supplementary section in ITU-R Recommendations detailing technical arrangements.

Carrier Frequency: Frequency at which a signal is transmitted.

Centre Frequency: The central frequency of a channel.

Channel Number (Channel Nr): Identifier for a specific frequency channel.

Channel Spacing: Distance in frequency between adjacent channels in a band.

Channelling Arrangement: Structured plan for dividing a frequency band into channels with defined bandwidths and spacing.

Duplex Spacing (DS): Frequency separation between corresponding transmits and receive channels in a duplex system.

Fixed Services: Wireless communication services used for backhauling, broadcasting, and high-capacity data transmission between fixed points.

Frequency Re-farming: Reallocation of spectrum from one use to another to improve efficiency.

Go/Return Channels: Paired transmit and receive channels used in full-duplex communication.

Guard-band: A buffer frequency range at the edge of a band to prevent interference.

ITU-R Recommendation: Technical standards and guidelines issued by the ITU Radiocommunication Sector.

Per-link Assignment: Licensing approach where spectrum is assigned for individual links rather than nationwide use.

Spectrum Licensing: Regulatory process of granting permission to use specific frequency bands.

Spectrum Planning: Process of allocating and managing radio frequencies to optimize usage and minimize interference.

Sterilized Area: A geographic area where exclusive spectrum use is granted to avoid interference.

Technology Neutrality: Principle where the regulator does not prescribe specific technologies for use in allocated bands.

XS: radio frequency separation between the centre frequencies of adjacent radio frequency channels on the same polarisation and in the same direction of transmission.

YS: radio frequency separation between the centre frequencies of the go and return radio frequency channels which are nearest to each other (innermost channels.

ZS / *Z1S* / *Z2S*: radio frequency separation between the centre frequencies of the outermost radio frequency channels and the edge of the frequency band (also known as guard-band). Where the upper and lower guard-band differ in size, these are referred to as Z1S and Z2S for the lower and upper separations respectively. Where the go and return frequency, bands are not contiguous such that there are another allocation/s in the gap between the Tx and Rx band, ZSi will be defined for the innermost edges of both sub-bands and will be included in YS.

ZSi: Separation between innermost edges of non-contiguous sub-bands.

1 Introduction

1.1 Background

Fixed services play a critical role in supporting the communications infrastructure, particularly for backhaul, broadcasting, and high-capacity data transmission. They serve as the backbone of the digital economy, and optimizing the use of fixed service frequency bands is essential for driving growth and innovation within Eswatini's communications sector.

In Eswatini, the management and use of radio frequency spectrum is guided by the Electronic Communications Act, 2013 and the Electronic Communications (Radio Communications and Frequency Spectrum) Regulations, 2016. These instruments establish the legal foundation for spectrum planning, licensing, and enforcement.

The National Frequency Allocation Plan (NFAP), developed by the Eswatini Communications Commission (ESCCOM), provides a structured framework for allocating spectrum to various services. The latest NFAP aligns with international standards from the ITU and regional harmonization efforts under SADC. It identifies several spectrum bands designated for Terrestrial Fixed Service systems in Eswatini.

The Commission acknowledges its legal and regulatory obligation to develop band Channelling arrangements for various services, in alignment with national priorities and the National Frequency Allocation Plan (NFAP). In accordance with the principles outlined in the Electronic Communications Act, 2013, the Channelling plan for Fixed Service bands is founded on the concept of technology neutrality. This means the Commission does not prescribe the specific technologies to be used within these bands, thereby fostering innovation and enabling the efficient use of radio frequency spectrum to support Eswatini's socio-economic development.

The Fixed Services Band Plan promotes harmonisation of radio frequency channel arrangements across key bands allocated to fixed services. However, it does not address matters related to frequency sharing and coordination, spectrum licensing, or frequency migration and re-farming.

1.2 Intention of the Commission

In line with the Electronic Communications Act, 2013 and the Electronic Communications (Radiocommunications and Frequency Spectrum) Regulations, 2016 and following the outcomes of the World Radiocommunication Conference 2019 (WRC-19), the Commission developed and published the Fixed Terrestrial Services Band Plan in 2022. Taking into consideration the outcomes of the WRC-23, a review of the plan is necessary to incorporate the latest international developments and spectrum decisions which include the removal of the 10.5GHz band from the plan consideration IMT identification of adjacent band.

Accordingly, the Commission intends to publish an updated band plan for Terrestrial Fixed Services, which will provide a structured channelling framework for all bands currently allocated to fixed services. It also outlines the currently assigned spectrum and also recommends steps to be taken in order to ensure that all assignments are according to the proposed band plan The Radiocommunications and Frequency Spectrum Regulations 2016 state the following requirements in relation to radio frequency spectrum band plans.

The Radio Communications and Frequency Spectrum Regulations 2016 state the following requirements in relation to radio frequency spectrum band plans:

5. (1) The Commission may in accordance with section 34 of the Act, prepare a national frequency allocation plan.

(2) The National Frequency Allocation plan shall fall under the Radio Frequency Plan and shall be detailed and provide a description of how a band is allocated.

(3) Radio Frequency Spectrum Band Plans shall specify the purposes for which bands may be used, arising from Government policy initiatives or public demand.

(4) Radio Frequency Spectrum band plans may specify or propose:

(a) detailed frequency channelling arrangements,

(b) technical and other requirements; or

(c) principles or assignment and implementation for the detailed allocation of the radio frequency spectrum between types of services.

(5) Radio Frequency Band Plans shall be subject to consultation.

The document presents the different frequency bands allocated for Fixed Services in Eswatini as well as the channelling arrangements for the allocated bands. The following are decisions and plans for the different Terrestrial Fixed Services bands:

1.2.1 1.4GHz Band

The proposed channelling arrangement for this band is the band 1350 - 1375 MHz paired with 1492 - 1517 MHz as presented in the ITU-R Recommendation F.1242. In this band there are two options available for implementation in Eswatini.

Option 1: This arrangement provides for 12 fullduplex channels of 2 MHz paired, with a transmitter-receiver duplex spacing of 142 MHz, the channelling arrangement is as shown in Table 1.

Table 11: Channelling Arrangement in 1.4GHz Band with 2MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	1351,5	1'	1493,5
2	1353,5	2'	1495,5
3	1355,5	3'	1497,5
4	1357,5	4'	1499,5
5	1359,5	5'	1501,5
6	1361,5	6'	1503,5
7	1363,5	7’	1505,5
8	1365,5	8’	1507,5
9	1367,5	9’	1509,5
10	1369,5	10’	1511,5
11	1371,5	11’	1513,5
12	1373,5	12’	1515,5

Option 2: This arrangement provides for 12 full-duplex channels of 2 MHz paired, with a transmitter-receiver duplex spacing of 52 MHz is shown **Table 2**.

Table 2: Channelling Arrangement in 1.4GHz Band with 2MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	1351,5	1'	1493,5
2	1353,5	2'	1495,5
3	1355,5	3'	1497,5
4	1357,5	4'	1499,5
5	1359,5	5'	1501,5

6	1361,5	6'	1503,5
7	1363,5	7'	1505,5
8	1365,5	8'	1507,5
9	1367,5	9'	1509,5
10	1369,5	10'	1511,5
11	1371,5	11'	1513,5
12	1373,5	12'	1515,5

1.2.2 2GHz Band

The proposed channelling arrangement for this band is the band 2025 – 2110 MHz paired with 2200 – 2290 MHz as presented ITU-R Recommendation F.1098. This arrangement provides for 6 full-duplex channels of 14 MHz paired, with a transmitter-receiver duplex spacing of 175 MHz. The channelling arrangement is as shown in **Table 3**.

Table 3: Channelling Arrangement in 2GHz Band with 14MHz BW

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	2032.5	1'	2207.5
2	2046.5	2'	2221.5
3	2060.5	3'	2235.5
4	2074.5	4'	2249.5
5	2088.5	5'	2263.5
6	2102.5	6'	2277.5

1.2.3 4GHz Band

The channelling arrangement for the 4GHz band is on the band 3600 – 4200 MHz and as presented in ITU-R Recommendation F.635-7. In this channel arrangement there are 9 full-duplex channels of 30 MHz paired, with a transmitter-receiver duplex spacing of 320 MHz. The channelling arrangement is as shown in **Table 4**.

Table 4: Channelling Arrangement in 4GHz Band with 30MHz BW

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	3 620	1'	3 940
2	3 650	2'	3 970
3	3 680	3'	4 000
4	3 710	4'	4 030

5	3 740	5’	4 060
6	3 770	6’	4 090
7	3 800	7’	4 120
8	3 830	8’	4 150
9	3 860	9’	4 180

1.2.4 5GHz Band

The 5 GHz band is reserved for Government Use according to the National Frequency Allocation Plan 2025. The channelling arrangement is on the band 4400 - 5000 MHz and is as presented in ITU-R Recommendation F.1099-5. The following options are available in the band:

Option 1: This arrangement provides for 7 full duplex channels of 40 MHz paired, with a transmitter-receiver duplex spacing of 300 MHz, the channelling arrangement is as shown in **Table 5** below.

Table 5: Channelling Arrangement in 5GHz Band with 40MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	4 430	1’	4 730
2	4 470	2’	4 770
3	4 510	3’	4 810
4	4 540	4’	4 850
5	4 590	5’	4 890
6	4 630	6’	4 930
7	4 670	7’	4 970

Option 2: This arrangement provides for 8 full duplex channels of 20 MHz paired, with a transmitter-receiver duplex spacing of 190 MHz, the channelling arrangement is as shown in **Table 6** below.

Table 6: Channelling Arrangement in 5GHz Band with 20MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	4555	1'	4745
2	4575	2'	4765
3	4595	3'	4785
4	4615	4'	4805
5	4635	5'	4825
6	4655	6'	4845

7	4675	7'	4865
8	4695	8'	4885

Option 3: This arrangement provides for 4 full duplex channels of 40 MHz paired, with a transmitter-receiver duplex spacing of 190 MHz, the channelling arrangement is as shown in **Table 7** below.

Table 7: Channelling Arrangement in 5GHz Band with 40MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	4565	1'	4755
2	4605	2'	4794
3	4645	3'	4833
4	4685	4'	4872

Option 4: This arrangement provides for 10 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 312 MHz, the channelling arrangement is as shown in **Table 8** below.

Table 8: Channelling Arrangement in 5GHz Band with 28MHz BW – Option 4

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	4418	1'	4730
2	4446	2'	4758
3	4474	3'	4786
4	4502	4'	4814
5	4530	5'	4842
6	4558	6'	4870
7	4586	7'	4898
8	4614	8'	4926
9	4642	9'	4954
10	4670	10'	4982

1.2.5 7GHz Band

The channelling arrangement in the 7GHz band is in the band 7 110 – 7 750 MHz and is as presented in ITU-R Recommendation F.385-10 which is the 10nth and latest version of ITU-R Recommendation F.385 which refines and expands the channel arrangements. Below options are provided:

Option 1: This arrangement provides for 5 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 168 MHz, the channelling arrangement is as shown in **Table 9** below.

Table 9: Channelling Arrangement in 7GHz Band with 28MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7457	1'	7625
2	7485	2'	7653
3	7513	3'	7681
4	7541	4'	7709
5	7569	5'	7737

Option 2: This arrangement provides for 2 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 168 MHz, the channelling arrangement is as shown in **Table 10** below.

Table 10: Channelling Arrangement in 7GHz Band with 56MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7471	1'	7639
2	7555	2'	7723

Option 3: This arrangement provides for 5 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 196 MHz, the channelling arrangement is as shown in **Table 11** below.

Table 11: Channelling Arrangement in 7GHz Band with 28MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7121	1'	7317
2	7149	2'	7345
3	7177	3'	7373
4	7205	4'	7401
5	7233	5'	7429

Option 4: This arrangement provides for 2 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 196 MHz, the channelling arrangement is as shown in **Table 12** below.

Table 12: Channelling Arrangement in 7GHz Band with 56MHz BW – Option 4

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7135	1'	7331
2	7191	2'	7387

Option 5: This arrangement provides for 8 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 245 MHz, the channelling arrangement is as shown in **Table 13** below.

Table 13: Channelling Arrangement in 7GHz Band with 28MHz BW – Option 5

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7442	1'	7687
2	7470	2'	7715
3	7498	3'	7743
4	7526	4'	7771
5	7554	5'	7799
6	7582	6'	7827
7	7610	7'	7855
8	7638	8'	7883

Option 6: This arrangement provides for 4 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 245 MHz, the channelling arrangement is as shown in **Table 14** below.

Table 14: Channelling Arrangement in 7GHz Band with 56MHz BW – Option 6

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7456	1'	7701
2	7512	2'	7757
3	7568	3'	7813
4	7624	4'	7869

1.2.6 Lower 8GHz Band

The channelling arrangement in the lower 8GHz band is in the band 7 725 – 8 275 MHz and is as presented in ITU-R Recommendation F.386-9.

Option 1: This arrangement provides for 8 full duplex channels of 29.65 MHz paired, with a transmitter-receiver duplex spacing of 311.32 MHz, the channelling arrangement is as shown in **Table 15** below.

Table 15: Channelling Arrangement in lower 8GHz Band with 29.65MHz BW– Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7 747.70	1’	8 059.02
2	7 777.35	2’	8 088.67
3	7 807.00	3’	8 118.32
4	7 836.65	4’	8 147.97

5	7 866.30	5'	8 177.62
6	7 895.95	6'	8 207.27
7	7 925.60	7'	8 236.92
8	7 955.25	8'	8 266.57

Option 2: This arrangement provides for 7 full duplex channels of 59.3 MHz paired, with a transmitter-receiver duplex spacing of 311.32 MHz, the channelling arrangement is as shown in **Table 16** below.

Table 16: Channelling Arrangement in lower 8GHz Band with 59.3MHz BW– Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7762.525	1'	8073.845
2	7792.175	2'	8103.495
3	7821.825	3'	8133.145
4	7851.475	4'	8162.795
5	7881.125	5'	8192.445
6	7910.775	6'	8222.095
7	7940.425	7'	8251.745

Option 3: This arrangement provides for 8 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 266 MHz, the channelling arrangement is as shown in **Table 17** below.

Table 17: Channelling Arrangement in the Upper 8GHz Band with 28MHz BW–Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7926	1'	8192
2	7954	2'	8220
3	7982	3'	8248
4	8010	4'	8276
5	8038	5'	8304
6	8066	6'	8332
7	8094	7'	8360
8	8122	8'	8388

Option 4: This arrangement provides for 4 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 266 MHz, the channelling arrangement is as shown in **Table 18** below.

Table 18: Channelling Arrangement in Upper 8GHz Band with 56MHz BW– Option 4

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	7940	1'	8206
2	7996	2'	8262

3	8052	3'	8318
4	8108	4'	8374

1.2.7 Upper 8GHz Band

The channelling arrangement in the upper 8GHz band is in the band 8 275 – 8 500 MHz and is as presented in ITU-R Recommendation F.386-9. This band has been designated for medium and low-capacity digital fixed wireless systems using 7 MHz and 14 MHz respectively. The arrangement is shown as below:

Option 1: This arrangement provides for 12 full duplex channels of 7 MHz paired, with a transmitter-receiver duplex spacing of 126 MHz, the channelling arrangement is as shown in **Table 19** below.

Table 19: Channelling Arrangement in upper 8GHz Band with 7MHz BW – Option1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	8286	1'	8412
2	8293	2'	8419
3	8300	3'	8426
4	8307	4'	8433
5	8314	5'	8440
6	8321	6'	8447
7	8328	7'	8454
8	8335	8'	8461
9	8342	9'	8468
10	8349	10'	8475
11	8356	11'	8482
12	8363	12'	8489

Option 2: This arrangement provides for 6 full duplex channels of 14 MHz paired, with a transmitter-receiver duplex spacing of 119 MHz, the channelling arrangement is as shown in **Table 20** below.

Table 20: Channelling Arrangement in Upper 8GHz Band with 14MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	8293	1'	8412
2	8307	2'	8426
3	8321	3'	8440

4	8335	4’	8454
5	8349	5’	8468
6	8363	6’	8482

1.2.8 11GHz Band

The channelling arrangement in the 11GHz band is in the band 10.7 – 11.7 GHz and is as presented in ITU-R Recommendation F.387-13. The channelling options in this band are as shown below:

Option 1: This arrangement provides for 17 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 490 MHz, the channelling arrangement is as shown in **Table 21** below.

Table 21: Channelling Arrangement in the 11GHz Band with 28MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	10723	1’	11213
2	10751	2’	11241
3	10779	3’	11269
4	10807	4’	11297
5	10835	5’	11325
6	10863	6’	11353
7	10891	7’	11381
8	10919	8’	11409
9	10947	9’	11437
10	10975	10’	11465
11	11003	11’	11493
12	11031	12’	11521
13	11059	13’	11549
14	11087	14’	11577
15	11115	15’	11605
16	11143	16’	11633
17	11171	17’	11661

Option 2: This arrangement provides for 12 full duplex channels of 40 MHz paired, with a transmitter-receiver duplex spacing of 490 MHz, the channelling arrangement is as shown in **Table 22** below.

Table 22: Channelling Arrangement in the 11GHz Band with 40MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)

1	10 735	1’	11 225
2	10 775	2’	11 265
3	10 815	3’	11 305
4	10 855	4’	11 345
5	10 895	5’	11 385
6	10 935	6’	11 425
7	10 975	7’	11 465
8	11 015	8’	11 505
9	11 055	9’	11 545
10	11 095	10’	11 585
11	11 135	11’	11 625
12	11 175	12’	11 665

Option 3: This arrangement provides for 16 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 490 MHz, the channelling arrangement is as shown in **Table 23** below.

Table 23: Channelling Arrangement in the 11GHz Band 56MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	10737	1’	11227
2	10765	2’	11255
3	10793	3’	11283
4	10821	4’	11311
5	10849	5’	11339
6	10877	6’	11367
7	10905	7’	11395
8	10933	8’	11423
9	10961	9’	11451
10	10989	10’	11479
11	11017	11’	11507
12	11045	12’	11535
13	11073	13’	11563
14	11101	14’	11591
15	11129	15’	11619
16	11157	16’	11647

1.2.9 13GHz Band

The channelling arrangement in the 13GHz band is in the band 12.75 – 13.25 GHz and is as presented in ITU-R Recommendation F.497-7. The arrangement is shown as below.

Option 1: This arrangement provides for 16 full duplex channels of 14 MHz paired, with a transmitter-receiver duplex spacing of 266 MHz, the channelling arrangement is as shown in **Table 24** below.

Table 24: Channelling Arrangement in the 13GHz Band with 14MHz BW– Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	12758	1'	13024
2	12772	2'	13038
3	12786	3'	13052
4	12800	4'	13066
5	12814	5'	13080
6	12828	6'	13094
7	12842	7'	13108
8	12856	8'	13122
9	12870	9'	13136
10	12884	10'	13150
11	12898	11'	13164
12	12912	12'	13178
13	12926	13'	13192
14	12940	14'	13206
15	12954	15'	13220
16	12968	16'	13234

Option 2: This arrangement provides for 8 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 266 MHz, the channelling arrangement is as shown in **Table 25** below.

Table 25: Channelling Arrangement in the 13GHz Band with 28MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	12 765	1’	13 031
2	12 793	2’	13 059
3	12 821	3’	13 087
4	12 849	4’	13 115
5	12 877	5’	13 143
6	12 905	6’	13 171
7	12 933	7’	13 199
8	12 961	8’	13 227

Option 3: This arrangement provides for 7 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 266 MHz, the channelling arrangement is as shown in **Table 26** below.

Table 26: Channelling Arrangement in the 13GHz Band with 56MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	12779	1'	13045
2	12807	2'	13073
3	12835	3'	13101
4	12863	4'	13129
5	12891	5'	13157
6	12919	6'	13185
7	12947	7'	13213

1.2.10 14GHz Band

The channelling arrangement in the 14GHz band is in the band 14.25 – 14.5 GHz and is as presented in ITU-R Recommendation F.746-11 where there are 4 full-duplex channels of 28MHz paired, with a transmitter-receiver duplex spacing of 140MHz. The channelling arrangements are as shown in **Table 27.**

Table 27: Channelling Arrangement in the 14GHz Band

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	14 263	1’	14 403
2	14 291	2’	14 431
3	14 319	3’	14 459
4	14 347	4’	14 487

1.2.11 15GHz Band

The channelling arrangement in the 15GHz band is in the band 14.5 – 15.35 GHz and is as presented in ITU-R Recommendation F.636-5. The channelling arrangement options is shown as below:

Option 1: This arrangement provides for 30 full duplex channels of 14 MHz paired, with a transmitter-receiver duplex spacing of 616 MHz, the channelling arrangement is as shown in **Table 28** below.

Table 28: Channelling Arrangement in the 15GHz Band at 14MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	14515	1'	14935
2	14529	2'	14949
3	14543	3'	14963
4	14557	4'	14977
5	14571	5'	14991
6	14585	6'	15005
7	14599	7'	15019
8	14613	8'	15033
9	14627	9'	15047
10	14641	10'	15061
11	14655	11'	15075
12	14669	12'	15089
13	14683	13'	15103
14	14697	14'	15117
15	14711	15'	15131
16	14725	16'	15145
17	14739	17'	15159
18	14753	18'	15173
19	14767	19'	15187
20	14781	20'	15201
21	14795	21'	15215
22	14809	22'	15229
23	14823	23'	15243
24	14837	24'	15257
25	14851	25'	15271
26	14865	26'	15285
27	14879	27'	15299
28	14893	28'	15313
29	14907	29'	15327
30	14921	30'	15341

Option 2: This arrangement provides for 15 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 616 MHz, the channelling arrangement is as shown in **Table 29** below.

Table 29: Channelling Arrangement in the 15GHz Band at 28MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	14 515	1'	15 131
2	14 543	2'	15 159
3	14 571	3'	15 187
4	14 599	4'	15 215
5	14 627	5'	15 243
6	14 655	6'	15 271

7	14 683	7’	15 299
8	14 711	8’	15 327
9	14 739	9’	15 355
10	14 767	10’	15 383
11	14 795	11’	15 411
12	14 823	12’	15 439
13	14 851	13’	15 467
14	14 879	14’	15 495
15	14 907	15’	15 523

Option 2: This arrangement provides for 15 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 616 MHz, the channelling arrangement is as shown in **Table 30** below.

Table 30: Channelling Arrangement in the 15GHz Band at 56MHz BW– Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	14529	1'	14949
2	14585	2'	15005
3	14641	3'	15061
4	14697	4'	15117
5	14753	5'	15173
6	14809	6'	15229
7	14865	7'	15285

1.2.12 18GHz Band

The channelling arrangement in the 18GHz band is in the band 17.7 – 19.7 GHz and is as presented in ITU-R Recommendation F.595-11 where the arrangements are as shown below.

Option 1: This arrangement provides for 131 full duplex channels of 7.5 MHz paired, with a transmitter-receiver duplex spacing of 1010 MHz, the channelling arrangement is as shown in **Table 31** below.

Table 31: Channelling Arrangement in the 18GHz Band with 7.5 MHz BW– Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	17710.0	1’	18720.0
2	17717.5	2’	18727.5
3	17725.0	3’	18735.0
4	17732.5	4’	18742.5
5	17740.0	5’	18750.0
6	17747.5	6’	18757.5
7	17755.0	7’	18765.0
8	17762.5	8’	18772.5

9	17770.0	9’	18780.0
10	17777.5	10’	18787.5
11	17785.0	11’	18795.0
12	17792.5	12’	18802.5
13	17800.0	13’	18810.0
14	17807.5	14’	18817.5
15	17815.0	15’	18825.0
16	17822.5	16’	18832.5
17	17830.0	17’	18840.0
18	17837.5	18’	18847.5
19	17845.0	19’	18855.0
20	17852.5	20’	18862.5
21	17860.0	21’	18870.0
22	17867.5	22’	18877.5
23	17875.0	23’	18885.0
24	17882.5	24’	18892.5
25	17890.0	25’	18900.0
26	17897.5	26’	18907.5
27	17905.0	27’	18915.0
28	17912.5	28’	18922.5
29	17920.0	29’	18930.0
30	17927.5	30’	18937.5
31	17935.0	31’	18945.0
32	17942.5	32’	18952.5
33	17950.0	33’	18960.0
34	17957.5	34’	18967.5
35	17965.0	35’	18975.0
36	17972.5	36’	18982.5
37	17980.0	37’	18990.0
38	17987.5	38’	18997.5
39	17995.0	39’	19005.0
40	18002.5	40’	19012.5
41	18010.0	41’	19020.0
42	18017.5	42’	19027.5
43	18025.0	43’	19035.0
44	18032.5	44’	19042.5
45	18040.0	45’	19050.0
46	18047.5	46’	19057.5
47	18055.0	47’	19065.0
48	18062.5	48’	19072.5
49	18070.0	49’	19080.0
50	18077.5	50’	19087.5
51	18085.0	51’	19095.0
52	18092.5	52’	19102.5
53	18100.0	53’	19110.0

54	18107.5	54’	19117.5
55	18115.0	55’	19125.0
56	18122.5	56’	19132.5
57	18130.0	57’	19140.0
58	18137.5	58’	19147.5
59	18145.0	59’	19155.0
60	18152.5	60’	19162.5
61	18160.0	61’	19170.0
62	18167.5	62’	19177.5
63	18175.0	63’	19185.0
64	18182.5	64’	19192.5
65	18190.0	65’	19200.0
66	18197.5	66’	19207.5
67	18205.0	67’	19215.0
68	18212.5	68’	19222.5
69	18220.0	69’	19230.0
70	18227.5	70’	19237.5
71	18235.0	71’	19245.0
72	18242.5	72’	19252.5
73	18250.0	73’	19260.0
74	18257.5	74’	19267.5
75	18265.0	75’	19275.0
76	18272.5	76’	19282.5
77	18280.0	77’	19290.0
78	18287.5	78’	19297.5
79	18295.0	79’	19305.0
80	18302.5	80’	19312.5
81	18310.0	81’	19320.0
82	18317.5	82’	19327.5
83	18325.0	83’	19335.0
84	18332.5	84’	19342.5
85	18340.0	85’	19350.0
86	18347.5	86’	19357.5
87	18355.0	87’	19365.0
88	18362.5	88’	19372.5
89	18370.0	89’	19380.0
90	18377.5	90’	19387.5
91	18385.0	91’	19395.0
92	18392.5	92’	19402.5
93	18400.0	93’	19410.0
94	18407.5	94’	19417.5
95	18415.0	95’	19425.0
96	18422.5	96’	19432.5
97	18430.0	97’	19440.0
98	18437.5	98’	19447.5
99	18445.0	99’	19455.0

100	18452.5	100’	19462.5
101	18460.0	101’	19470.0
102	18467.5	102’	19477.5
103	18475.0	103’	19485.0
104	18482.5	104’	19492.5
105	18490.0	105’	19500.0
106	18497.5	106’	19507.5
107	18505.0	107’	19515.0
108	18512.5	108’	19522.5
109	18520.0	109’	19530.0
110	18527.5	110’	19537.5
111	18535.0	111’	19545.0
112	18542.5	112’	19552.5
113	18550.0	113’	19560.0
114	18557.5	114’	19567.5
115	18565.0	115’	19575.0
116	18572.5	116’	19582.5
117	18580.0	117’	19590.0
118	18587.5	118’	19597.5
119	18595.0	119’	19605.0
120	18602.5	120’	19612.5
121	18610.0	121’	19620.0
122	18617.5	122’	19627.5
123	18625.0	123’	19635.0
124	18632.5	124’	19642.5
125	18640.0	125’	19650.0
126	18647.5	126’	19657.5
127	18655.0	127’	19665.0
128	18662.5	128’	19672.5
129	18670.0	129’	19680.0
130	18677.5	130’	19687.5
131	18685.0	131’	19695.0

Option 2: This arrangement provides for 69 full duplex channels of 13.75 MHz paired, with a transmitter-receiver duplex spacing of 1010 MHz, the channelling arrangement is as shown in **Table 32** below.

Table 32: Channelling Arrangement in the 18GHz Band with 13.75 MHz BW– Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	17727.50	1'	18737.50
2	17741.25	2'	18751.25
3	17755.00	3'	18765.00
4	17768.75	4'	18778.75

5	17782.50	5'	18792.50
6	17796.25	6'	18806.25
7	17810.00	7'	18820.00
8	17823.75	8'	18833.75
9	17837.50	9'	18847.50
10	17851.25	10'	18861.25
11	17865.00	11'	18875.00
12	17878.75	12'	18888.75
13	17892.50	13'	18902.50
14	17906.25	14'	18916.25
15	17920.00	15'	18930.00
16	17933.75	16'	18943.75
17	17947.50	17'	18957.50
18	17961.25	18'	18971.25
19	17975.00	19'	18985.00
20	17988.75	20'	18998.75
21	18002.50	21'	19012.50
22	18016.25	22'	19026.25
23	18030.00	23'	19040.00
24	18043.75	24'	19053.75
25	18057.50	25'	19067.50
26	18071.25	26'	19081.25
27	18085.00	27'	19095.00
28	18098.75	28'	19108.75
29	18112.50	29'	19122.50
30	18126.25	30'	19136.25
31	18140.00	31'	19150.00
32	18153.75	32'	19163.75
33	18167.50	33'	19177.50
34	18181.25	34'	19191.25
35	18195.00	35'	19205.00
36	18208.75	36'	19218.75
37	18222.50	37'	19232.50
38	18236.25	38'	19246.25
39	18250.00	39'	19260.00
40	18263.75	40'	19273.75
41	18277.50	41'	19287.50
42	18291.25	42'	19301.25
43	18305.00	43'	19315.00
44	18318.75	44'	19328.75
45	18332.50	45'	19342.50
46	18346.25	46'	19356.25
47	18360.00	47'	19370.00
48	18373.75	48'	19383.75
49	18387.50	49'	19397.50
50	18401.25	50'	19411.25
51	18415.00	51'	19425.00

52	18428.75	52'	19438.75
53	18442.50	53'	19452.50
54	18456.25	54'	19466.25
55	18470.00	55'	19480.00
56	18483.75	56'	19493.75
57	18497.50	57'	19507.50
58	18511.25	58'	19521.25
59	18525.00	59'	19535.00
60	18538.75	60'	19548.75
61	18552.50	61'	19562.50
62	18566.25	62'	19576.25
63	18580.00	63'	19590.00
64	18593.75	64'	19603.75
65	18607.50	65'	19617.50
66	18621.25	66'	19631.25
67	18635.00	67'	19645.00
68	18648.75	68'	19658.75
69	18662.50	69'	19672.50

1.2.13 23GHz Band

The channelling arrangement in the 23GHz band is in the band 21.2 – 23.6 GHz and is as presented in ITU-R Recommendation F.637-5 where the arrangements are shown as below.

Option 1: This arrangement provides for 64 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 1232 MHz, the channelling arrangement is as shown in **Table 33** below.

Table 33: Channelling Arrangement in the 23GHz Band with 28MHz BW– Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	21238	1'	22470
2	21266	2'	22498
3	21294	3'	22526
4	21322	4'	22554
5	21350	5'	22582
6	21378	6'	22610
7	21406	7'	22638
8	21434	8'	22666
9	21462	9'	22694
10	21490	10'	22722
11	21518	11'	22750
12	21546	12'	22778

13	21574	13'	22806
14	21602	14'	22834
15	21630	15'	22862
16	21658	16'	22890
17	21686	17'	22918
18	21714	18'	22946
19	21742	19'	22974
20	21770	20'	23002
21	21798	21'	23030
22	21826	22'	23058
23	21854	23'	23086
24	21882	24'	23114
25	21910	25'	23142
26	21938	26'	23170
27	21966	27'	23198
28	21994	28'	23226
29	22022	29'	23254
30	22050	30'	23282
31	22078	31'	23310
32	22106	32'	23338
33	22134	33'	23366
34	22162	34'	23394
35	22190	35'	23422
36	22218	36'	23450
37	22246	37'	23478
38	22274	38'	23506
39	22302	39'	23534
40	22330	40'	23562
41	25116	41'	26124
42	25130	42'	26138
43	25144	43'	26152
44	25158	44'	26166
45	25172	45'	26180
46	25186	46'	26194
47	25200	47'	26208
48	25214	48'	26222
49	25228	49'	26236
50	25242	50'	26250
51	25256	51'	26264
52	25270	52'	26278
53	25284	53'	26292
54	25298	54'	26306
55	25312	55'	26320
56	25326	56'	26334
57	25340	57'	26348
58	25354	58'	26362
59	25368	59'	26376

60	25382	60'	26390
61	25396	61'	26404
62	25410	62'	26418
63	25424	63'	26432
64	25438	64'	26446

Option 2: This arrangement provides for 20 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 1232 MHz, the channelling arrangement is as shown in **Table 34** below.

Table 34: Channelling Arrangement in the 23GHz Band with 56MHz BW– Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	21252	1'	22484
2	21308	2'	22540
3	21364	3'	22596
4	21420	4'	22652
5	21476	5'	22708
6	21532	6'	22764
7	21588	7'	22820
8	21644	8'	22876
9	21700	9'	22932
10	21756	10'	22988
11	21812	11'	23044
12	21868	12'	23100
13	21924	13'	23156
14	21980	14'	23212
15	22036	15'	23268
16	22092	16'	23324
17	22148	17'	23380
18	22204	18'	23436
19	22260	19'	23492
20	22316	20'	23548

Option 3: This arrangement provides for 10 full duplex channels of 112 MHz paired, with a transmitter-receiver duplex spacing of 1232 MHz, the channelling arrangement is as shown in **Table 35** below.

Table 35: Channelling Arrangement in the 23GHz Band with 112MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)

1	21 280	1'	22 512
2	21 392	2'	22 624
3	21 504	3'	22 736
4	21 616	4'	22 848
5	21 728	5'	22 960
6	21 840	6'	23 072
7	21 952	7'	23 184
8	22 064	8'	23 296
9	22 176	9'	23 408
10	22 288	10'	23 520

1.2.14 26GHz Band

The channelling arrangement in the 26GHz band is in the band 24.5-26.5 GHz and is as presented in ITU-R Recommendation F.748-4 where the arrangements are shown as below.

Option 1: This arrangement provides for 64 full duplex channels of 14 MHz paired, with a transmitter-receiver duplex spacing of 1008 MHz, the channelling arrangement is as shown in **Table 36** below.

Table 36: Channelling Arrangement in the 26GHz Band with 14MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	24556	1'	25564
2	24570	2'	25578
3	24584	3'	25592
4	24598	4'	25606
5	24612	5'	25620
6	24626	6'	25634
7	24640	7'	25648
8	24654	8'	25662
9	24668	9'	25676
10	24682	10'	25690
11	24696	11'	25704
12	24710	12'	25718
13	24724	13'	25732
14	24738	14'	25746
15	24752	15'	25760
16	24766	16'	25774
17	24780	17'	25788
18	24794	18'	25802
19	24808	19'	25816
20	24822	20'	25830
21	24836	21'	25844

22	24850	22'	25858
23	24864	23'	25872
24	24878	24'	25886
25	24892	25'	25900
26	24906	26'	25914
27	24920	27'	25928
28	24934	28'	25942
29	24948	29'	25956
30	24962	30'	25970
31	24976	31'	25984
32	24990	32'	25998
33	25004	33'	26012
34	25018	34'	26026
35	25032	35'	26040
36	25046	36'	26054
37	25060	37'	26068
38	25074	38'	26082
39	25088	39'	26096
40	25102	40'	26110
41	25116	41'	26124
42	25130	42'	26138
43	25144	43'	26152
44	25158	44'	26166
45	25172	45'	26180
46	25186	46'	26194
47	25200	47'	26208
48	25214	48'	26222
49	25228	49'	26236
50	25242	50'	26250
51	25256	51'	26264
52	25270	52'	26278
53	25284	53'	26292
54	25298	54'	26306
55	25312	55'	26320
56	25326	56'	26334
57	25340	57'	26348
58	25354	58'	26362
59	25368	59'	26376
60	25382	60'	26390
61	25396	61'	26404
62	25410	62'	26418
63	25424	63'	26432
64	25438	64'	26446

Option 2: This arrangement provides for 32 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 1008 MHz, the channelling arrangement is as shown in **Table 37** below.

Table 37: Channelling Arrangement in the 26GHz Band with 28MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	24563	1'	25571
2	24591	2'	25599
3	24619	3'	25627
4	24647	4'	25655
5	24675	5'	25683
6	24703	6'	25711
7	24731	7'	25739
8	24759	8'	25767
9	24787	9'	25795
10	24815	10'	25823
11	24843	11'	25851
12	24871	12'	25879
13	24899	13'	25907
14	24927	14'	25935
15	24955	15'	25963
16	24983	16'	25991
17	25011	17'	26019
18	25039	18'	26047
19	25067	19'	26075
20	25095	20'	26103
21	25123	21'	26131
22	25151	22'	26159
23	25179	23'	26187
24	25207	24'	26215
25	25235	25'	26243
26	25263	26'	26271
27	25291	27'	26299
28	25319	28'	26327
29	25347	29'	26355
30	25375	30'	26383
31	25403	31'	26411
32	25431	32'	26439

Option 3: This arrangement provides for 16 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 1008 MHz, the channelling arrangement is as shown in **Table 38** below.

Table 38: Channelling Arrangement in the 26GHz Band with 56MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)

1	24577	1'	25585
2	24633	2'	25641
3	24689	3'	25697
4	24745	4'	25753
5	24801	5'	25809
6	24857	6'	25865
7	24913	7'	25921
8	24969	8'	25977
9	25025	9'	26033
10	25081	10'	26089
11	25137	11'	26145
12	25193	12'	26201
13	25249	13'	26257
14	25305	14'	26313
15	25361	15'	26369
16	25417	16'	26425

Option 4: This arrangement provides for 8 full duplex channels of 112 MHz paired, with a transmitter-receiver duplex spacing of 1008 MHz, the channelling arrangement is as shown in **Table 39** below.

Table 39: Channelling Arrangement in the 26GHz Band with BW 112MHz – Option 4

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	24605	1'	25613
2	24717	2'	25725
3	24829	3'	25837
4	24941	4'	25949
5	25053	5'	26061
6	25165	6'	26173
7	25277	7'	26285
8	25389	8'	26397

1.2.15 28GHz Band

The channelling arrangement in the 28GHz band is in the band 27.5-29.5 GHz and is as presented in ITU-R Recommendation F.748-4 where the arrangements are shown as below.

Option 1: This arrangement provides for 32 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 1008 MHz, the channelling arrangement is as shown in **Table 40** below.

Table 40: Channelling Arrangement in the 28GHz Band with 28MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	27562.5	1'	28570.5
2	27590.5	2'	28598.5
3	27618.5	3'	28626.5
4	27646.5	4'	28654.5
5	27674.5	5'	28682.5
6	27702.5	6'	28710.5
7	27730.5	7'	28738.5
8	27758.5	8'	28766.5
9	27786.5	9'	28794.5
10	27814.5	10'	28822.5
11	27842.5	11'	28850.5
12	27870.5	12'	28878.5
13	27898.5	13'	28906.5
14	27926.5	14'	28934.5
15	27954.5	15'	28962.5
16	27982.5	16'	28990.5
17	28010.5	17'	29018.5
18	28038.5	18'	29046.5
19	28066.5	19'	29074.5
20	28094.5	20'	29102.5
21	28122.5	21'	29130.5
22	28150.5	22'	29158.5
23	28178.5	23'	29186.5
24	28206.5	24'	29214.5
25	28234.5	25'	29242.5
26	28262.5	26'	29270.5
27	28290.5	27'	29298.5
28	28318.5	28'	29326.5
29	28346.5	29'	29354.5
30	28374.5	30'	29382.5
31	28402.5	31'	29410.5
32	28430.5	32'	29438.5

Option 2: This arrangement provides for 16 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 1008 MHz, the channelling arrangement is as shown in **Table 41** below.

Table 41: Channelling Arrangement in the 28GHz Band with 56MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	27576.5	1'	28584.5
2	27632.5	2'	28640.5
3	27688.5	3'	28696.5
4	27744.5	4'	28752.5
5	27800.5	5'	28808.5
6	27856.5	6'	28864.5
7	27912.5	7'	28920.5
8	27968.5	8'	28976.5
9	28024.5	9'	29032.5
10	28080.5	10'	29088.5
11	28136.5	11'	29144.5
12	28192.5	12'	29200.5
13	28248.5	13'	29256.5
14	28304.5	14'	29312.5
15	28360.5	15'	29368.5
16	28416.5	16'	29424.5

Option 3: This arrangement provides for 8 full duplex channels of 112 MHz paired, with a transmitter-receiver duplex spacing of 1008 MHz, the channelling arrangement is as shown in **Table 42** below.

Table 42: Channelling Arrangement in the 28GHz Band with 112MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	27604.5	1'	28612.5
2	27716.5	2'	28724.5
3	27828.5	3'	28836.5
4	27940.5	4'	28948.5
5	28052.5	5'	29060.5
6	28164.5	6'	29172.5
7	28276.5	7'	29284.5
8	28388.5	8'	29396.5

1.2.16 31GHz Band

The channelling arrangement in the 31GHz band is in the band 31.0 -31.3 GHz and is as presented in ITU-R Recommendation F.746-11 Annex 5 where there are 6 full-

duplex channels of 50 MHz paired, with a transmitter-receiver duplex spacing of 150MHz. The channelling arrangement is as shown in **Table 43**.

Table 43: Channelling Arrangement in the 31GHz Band

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	31 025	1'	31 175
2	31 075	2'	31 225
3	31 125	3'	31 275
4	31 175	4'	31 025
5	31 225	5'	31 075
6	31 275	6'	31 125

For two-way operation in either radio-frequency channel arrangement, the go return separation is 150 MHz.

1.2.17 32GHz Band

The channelling arrangement in the 32GHz band is in the band 31.8- 33.4 GHz and is as presented in ITU-R Recommendation F.1520-4. The arrangement is shown as below with a transmitter-receiver duplex spacing of 812MHz.

Option 1: This arrangement provides for 27 full duplex channels of 28 MHz paired, with a transmitter-receiver duplex spacing of 812 MHz, the channelling arrangement is as shown in **Table 44** below.

Table 44: Channelling Arrangement in the 32GHz Band with 28MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	31829	1'	32641
2	31857	2'	32669
3	31885	3'	32697
4	31913	4'	32725
5	31941	5'	32753
6	31969	6'	32781
7	31997	7'	32809
8	32025	8'	32837
9	32053	9'	32865
10	32081	10'	32893
11	32109	11'	32921
12	32137	12'	32949
13	32165	13'	32977
14	32193	14'	33005

15	32221	15'	33033
16	32249	16'	33061
17	32277	17'	33089
18	32305	18'	33117
19	32333	19'	33145
20	32361	20'	33173
21	32389	21'	33201
22	32417	22'	33229
23	32445	23'	33257
24	32473	24'	33285
25	32501	25'	33313
26	32529	26'	33341
27	32557	27'	33369

Option 2: This arrangement provides for 12 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 812 MHz, the channelling arrangement is as shown in **Table 45** below.

Table 45: Channelling Arrangement in the 32GHz Band with 56MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	31 899	1'	32 711
2	31 955	2'	32 767
3	32 011	3'	32 823
4	32 067	4'	32 879
5	32 123	5'	32 935
6	32 179	6'	32 991
7	32 235	7'	33 047
8	32 291	8'	33 103
9	32 347	9’	33 159
10	32 403	10’	33 215
11	32 459	11‘	33 271
12	32 515	12’	33 327

Option 3: This arrangement provides for 6 full duplex channels of 112 MHz paired, with a transmitter-receiver duplex spacing of 812 MHz, the channelling arrangement is as shown in **Table 46** below.

Table 46: Channelling Arrangement in the 32GHz Band with 112MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	31927	1'	32739
2	32039	2'	32851
3	32151	3'	32963

4	32263	4'	33075
5	32375	5'	33187
6	32487	6'	33299

Option 4: This arrangement provides for 5 full duplex channels of 224 MHz paired, with a transmitter-receiver duplex spacing of 812 MHz, the channelling arrangement is as shown in **Table 47** below.

Table 47: Channelling Arrangement in the 32GHz Band with 224MHz BW – Option 4

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	31983	1'	32795
2	32095	2'	32907
3	32207	3'	33019
4	32319	4'	33131
5	32431	5'	33243

1.2.18 38GHz Band

The channelling arrangement in the 38GHz band is in the band 37.0 – 39.5 GHz and is as presented in ITU-R Recommendation F.749-4. The arrangements are shown as below.

Option 1: This arrangement provides for 20 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 1260 MHz, the channelling arrangement is as shown in **Table 48** below.

Table 48: Channelling Arrangement in the 38GHz Band with 56MHz BW

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	37 086	1’	38 346
2	37 142	2’	38 402
3	37 198	3’	38 458
4	37 254	4’	38 514
5	37 310	5’	38 570
6	37 366	6’	38 626
7	37 422	7’	38 682
8	37 478	8’	38 738
9	37 534	9’	38 794
10	37 590	10’	38 850

11	37 646	11’	38 906
12	37 702	12’	38 962
13	37 758	13’	39 018
14	37 814	14’	39 074
15	37 870	15’	39 130
16	37 926	16’	39 186
17	37 982	17’	39 242
18	38 038	18’	39 298
19	38 094	19’	39 354
20	38 150	20’	39 410

Option 2: This arrangement provides for 10 full duplex channels of 112 MHz paired, with a transmitter-receiver duplex spacing of 1260 MHz, the channelling arrangement is as shown in **Table 49** below.

Table 49: Channelling Arrangement in the 38GHz Band with 112MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	37114	1'	38374
2	37226	2'	38486
3	37338	3'	38598
4	37450	4'	38710
5	37562	5'	38822
6	37674	6'	38934
7	37786	7'	39046
8	37898	8'	39158
9	38010	9'	39270
10	38122	10'	39382

Option 3: This arrangement provides for 9 full duplex channels of 224 MHz paired, with a transmitter-receiver duplex spacing of 1260 MHz, the channelling arrangement is as shown in **Table 50** below.

Table 50: Channelling Arrangement in the 38GHz Band with 224MHz BW – Option 3

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	37170	1'	38430
2	37282	2'	38542
3	37394	3'	38654
4	37506	4'	38766

5	37618	5'	38878
6	37730	6'	38990
7	37842	7'	39102
8	37954	8'	39214
9	38066	9'	39326

1.2.19 42 GHz Band

The channelling arrangement in the 42GHz band is in the band 40.5 - 43.5 GHz and is as presented in ITU-R Recommendation F.2005-1. The arrangements are shown as below.

Option 1: This arrangement provides for 25 full duplex channels of 56 MHz paired, with a transmitter-receiver duplex spacing of 1500 MHz, the channelling arrangement is as shown in **Table 51** below.

Table 51: Channelling Arrangement in the 42GHz Band with 56MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	40578	1'	42078
2	40634	2'	42134
3	40690	3'	42190
4	40746	4'	42246
5	40802	5'	42302
6	40858	6'	42358
7	40914	7'	42414
8	40970	8'	42470
9	41026	9'	42526
10	41082	10'	42582
11	41138	11'	42638
12	41194	12'	42694
13	41250	13'	42750
14	41306	14'	42806
15	41362	15'	42862
16	41418	16'	42918
17	41474	17'	42974
18	41530	18'	43030
19	41586	19'	43086
20	41642	20'	43142

21	41698	21'	43198
22	41754	22'	43254
23	41810	23'	43310
24	41866	24'	43366
25	41922	25'	43422

Option 2: This arrangement provides for 12 full duplex channels of 112 MHz paired, with a transmitter-receiver duplex spacing of 1500 MHz, the channelling arrangement is as shown in **Table 52** below.

Table 52: Channelling Arrangement in the 42GHz Band with 112MHz BW – Option 2

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	40 606	1'	42 106
2	40 718	2'	42 218
3	40 830	3'	42 330
4	40 942	4'	42 442
5	41 054	5'	42 554
6	41 166	6'	42 666
7	41 278	7'	42 778
8	41 390	8'	42 890
9	41 502	9'	43 002
10	41 614	10'	43 114
11	41 726	11'	43 226
12	41 838	12'	43 338

1.2.20 52 GHz Band

The Channelling arrangement in the 52GHz band is in the band 51.4 - 52.6 GHz and is as presented in ITU-R Recommendation F.1496-1 Annex 1 where there are 9 full-duplex channels of 56 MHz paired. The arrangement is shown as below with a transmitter-receiver duplex spacing of 112MHz.

Table 53: Channelling Arrangement in the 52GHz Band with 56MHz BW

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	51 468	1'	52 084
2	51 524	2'	52 140
3	51 580	3'	52 196

4	51 636	4’	52 252
5	51 692	5’	52 308
6	51 748	6’	52 364
7	51 804	7’	52 420
8	51 860	8’	52 476
9	51 916	9’	52 532

1.2.21 70/80 GHz Band

The channelling arrangement in the 70/80GHz band is in the band 71-76 GHz and 81-86 GHz and is as presented in ITU-R F.2006. The arrangements are shown as below.

Option 1: This arrangement provides for 19 full duplex channels of 250 MHz paired, with a transmitter-receiver duplex spacing of 10 GHz, the channelling arrangement is as shown in **Table 54** below.

Table 54: Channelling Arrangement in the 70/80GHz Band with 250MHz BW – Option 1

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	71 250	1’	81 250
2	71 500	2’	81 500
3	71 750	3’	81 750
4	72 000	4’	82 000
5	72 250	5’	82 250
6	72 500	6’	82 500
7	72 750	7’	82 750
8	73 000	8’	83 000
9	73 250	9’	83 250
10	73 500	10’	83 500
11	73 750	11’	83 750
12	74 000	12’	84 000
13	74 250	13’	84 250
14	74 500	14’	84 500
15	74 750	15’	84 750
16	75 000	16’	85 000
17	75 250	17’	85 250
18	75 500	18’	85 500
19	75 750	19’	85 750

Option 2: This arrangement provides for 9 full duplex channels of 500 MHz paired, with a transmitter-receiver duplex spacing of 10 GHz, the channelling arrangement is as shown in **Table 55** below.

Table 55: Channelling Arrangement in the 70/80GHz Band with 500MHz BW – Option 2

Channel Nr	Centre frequency	Channel Nr	Centre frequency
1	71375	1'	81375
2	71875	2'	81875
3	72375	3'	82375
4	72875	4'	82875
5	73375	5'	83375
6	73875	6'	83875
7	74375	7'	84375
8	74875	8'	84875
9	75375	9'	85375

1.2.22 94 GHz Band

The channelling arrangement in the 94GHz band is in the band 92.0 - 95.0 GHz and is as presented in ITU-R F.2004, where there are 29 and 14 full-duplex channels of 100 MHz paired for TDD and FDD respectively, with a transmitter-receiver duplex spacing of 1500 MHz. The channelling arrangement is as shown below.

Table 56: TDD Channelling Arrangement in the 94GHz Band

Channel Nr	Centre frequency (MHz)
1	92 100
2	92 200
3	92 300
4	92 400
5	92 500
6	92 600
7	92 700
8	92 800
9	92 900
10	93 000
11	93 100
12	93 200
13	93 300
14	93 400
15	93 500
16	93 600
17	93 700
18	93 800
19	93 900
22	94 200
23	94 300
24	94 400

25	94 500
26	94 600
27	94 700
28	94 800
29	94 900

Table 57: FDD Channelling Arrangement in the 94GHz Band

Channel Nr	Centre frequency (MHz)	Channel Nr	Centre frequency (MHz)
1	92 100	1'	93 600
2	92 200	2'	93 700
3	92 300	3'	93 800
4	92 400	4'	93 900
7	92 700	7'	94 200
8	92 800	8'	94 300
9	92 900	9'	94 400
10	93 000	10'	94 500
11	93 100	11'	94 600
12	93 200	12'	94 700
13	93 300	13'	94 800
14	93 400	14'	94 900

2 Development of the Band Plan for Fixed Services Bands

2.1 Introduction

In developing the band plan, the Commission prioritized regional harmonization and collaboration both within Eswatini and across the SADC region. This was guided by the SADC Frequency Allocation Plan (Edition 2025), developed by CRASA, which aims to harmonize not only frequency allocations but also radio-frequency channel arrangements in key point-to-point (PTP), point-to-multipoint (PTMP), and access bands. The plan also considers the current usage and growing demand for fixed services. Additionally, the latest ITU-R Recommendations were considered to determine the technical parameters applicable to the various fixed service bands**.**

2.2 List of Frequency bands and adopted Recommendations

The Eswatini National Frequency Allocation Plan 2025, which was developed in line with the SADC Radio Frequency Allocation Plan (edition 2025) and the ITU Region 1 Radio Frequency Allocation Plan, allocates and earmarks the following frequency bands for fixed services, particularly fixed links, in Eswatini.

Table 58: List of Frequency bands and Recommendations

Section	Frequency Band	Frequency band channelling arrangement	Bandwidth (MHz)	ITU-R Recommendation or Reports	Typical use cases and comments
2.4.1	1.4 GHz	1 350 – 1 375// 1 492 – 1 517 MHz	25	ITU-R F.1242	Best suited for low and medium capacity systems operating over long distances
2.4.2	2 GHz	2 025-2 110 MHz// 2 200-2 290 MHz	85//90	ITU-R F.1098	
2.4.3	4 GHz	3 600 – 4 200 MHz	600	ITU-R F.635-7, Annex 1	Rural Long-haul Backhaul (connecting remote towns, backbone links). Prioritize low bands due to long distance and rain resilience
2.4.4	5 GHz	4 400 – 5 000 MHz	600	ITU-R F.1099-5, Annex 1	
2.4.5	7 GHz	7 110 – 7 750 MHz	640	ITU-R F385-10, Annex 3	
2.4.6	Lower 8 GHz	7 725– 8 275 MHz	525	IT-R F.386-9, Annex 3	
2.4.7	Upper 8 GHz	8 275 – 8 500 MHz	225	ITU-R F.386-9, Annex 1	
2.4.8	10.5 GHz	10.15-10.3 GHz//10.5-10.65 GHz	150 or 150	ITU-R F.1568-1, Annex 1	Sub-urban / Medium Haul (linking regional sites, mobile towers).
2.4.9	11 GHz	10.7 – 11.7 GHz	1000	ITU-R F.387-13	
2.4.10	13 GHz	12.75 – 13.25 GHz	500	ITU-R F.497-7	
2.4.11	14 GHz	14.25 – 14.5 GHz	250	ITU-R F.746-11, Annex 3	
2.4.12	15 GHz	14.5 – 15.35 GHz	850	ITU-R F.636-5	
2.4.13	18 GHz	17.7 – 19.7 GHz	2000	ITU-R F.595-11, Annex 1	Dense Urban Backhaul (city-wide, metro rings, high capacity). Key bands for 4G/5G mobile backhaul. Allow wider channels for capacity
2.4.14	23 GHz	21.2-23.6 GHz or 22.0-23.6 GHz	2400 or 1600	ITU-R Rec. F.637-5 Annex 1 or Annex 3.	
2.4.15	26 GHz	24.5 – 26.5 GHz	2000	ITU-R F.748-4, Annex 1	5G Small Cell Backhaul (short links, high density areas).

2.4.16	28 GHz	27.5 – 29.5 GHz	2000	ITU-R F.748-4, Annex 2	Ideal for urban 5G rollout. Higher rain fade, use short distances.
2.4.17	31 GHz	31.0 – 31.3 GHz	300	ITU-R F.746-11, Annex 5	
2.4.18	32 GHz	31.8 – 33.4 GHz	1600	ITU-R F.1520-4, Annex 1	
2.4.19	38 GHz	37.0 – 39.5 GHz	2500	ITU-R F.749-4, Annex 1	
2.4.20	42 GHz	40.5 – 43.5 GHz	3000	ITU-R F.2005-1, Annex 1	High-Capacity, Fiber Alternative (5G, FTTx), Enables multi-Gbps throughput.
2.4.21	52 GHz	51.4 – 52.6 GHz	1200	ITU-R F.1496-1, Annex 1	
2.4.22	70/80 GHz	71 – 76 GHz and 81 – 86 GHz	5000	ITU-R F.2006	
2.4.23	94 GHz	92.0 – 94 GHz	2000	ITU-R F.2004	

3 Usage in the Fixed Services Bands

An assessment of frequency assignment registers reveals that there are current terrestrial fixed services assignments deployed in the bands presented in this plan. It is observed that some of the assignments are still not according to the ITU recommendations. This discrepancy was also observed and noted in the previous Band Plan for Terrestrial Fixed Services Eswatini 2022. Therefore, this section presents all the non-conforming assignments in the fixed services bands. The assessment of the non-conforming bands is prepared with respect to the channelling arrangements options presented in the previous band plan, the Band Plan for Terrestrial Fixed Services Bands in Eswatini 2022. A summary of the frequency bands and bandwidth options of the bands is also presented in Annex A.

Note: Channels highlighted:

- **green: align with ITU standard but using different channel spacing as previously recommended.**
- **red: identified not conforming to any ITU recommendations**
- **blue: aligning with CEPT standards**

3.1 7GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 59: Channel Usage in 7GHz Band

Transmit frequency	Receive frequency	User	Comments
7 156	7 310	MTN Eswatini	T/R 154MHz, BW 56MHz
7 456	7 701	MTN Eswatini	T/R 245MHz, BW 56MHz
7 512	7 757	MTN Eswatini	T/R 245MHz, BW 56MHz
7 596	7 841	MTN Eswatini	
7121	7317	Eswatini Mobile	T/R 196MHz, BW 28MHz
7135	7331	Eswatini Mobile	T/R 196MHz, BW 56MHz
7149	7345	Eswatini Mobile	T/R 196MHz, BW 28MHz
7177	7373	Eswatini Mobile	T/R 196MHz, BW 28MHz
7191	7387	Eswatini Mobile	T/R 196MHz, BW 56MHz
7205	7401	Eswatini Mobile	T/R 196MHz, BW 28MHz
7457	7625	Eswatini Mobile	T/R 168MHz, BW 28MHz
7485	7653	Eswatini Mobile	T/R 168MHz, BW 28MHz
7569	7737	Eswatini Mobile	T/R 168MHz, BW 28MHz
7639	7471	Eswatini Mobile	T/R 168MHz, BW 56MHz
7723	7555	Eswatini Mobile	T/R 168MHz, BW 56MHz

3.2 Lower 8GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 60: Channel Usage in lower 8GHz Band

Transmit frequency	Receive frequency	User	Comments
7 926	8 192	MTN Eswatini	T/R 266MHz, BW 28MHz
7 940	8 206	MTN Eswatini	T/R 266MHz, BW 56MHz
7 954	8 220	MTN Eswatini	T/R 266MHz, BW 28MHz
7 982	8 248	MTN Eswatini	T/R 266MHz, BW 28MHz
7 996	8 262	MTN Eswatini	T/R 266MHz, BW 56MHz
8 010	8 276	MTN Eswatini	T/R 266MHz, BW 28MHz
8 030	8 296	Eswatini Electricity company	
8 052	8 318	MTN Eswatini	T/R 266MHz, BW 56MHz
8 066	8 332	MTN Eswatini	T/R 266MHz, BW 28MHz
8 071	8 337	MTN Eswatini	
8 094	8 360	Eswatini Electricity company	T/R 266MHz, BW 28MHz
8 098	8 364	Eswatini Electricity company	
8 108	8 374	MTN Eswatini	T/R 266MHz, BW 56MHz
8 112	8 378	Eswatini Electricity company	
8 122	8 388	Eswatini Electricity company	T/R 266MHz, BW 28MHz
7881.125	8192.445	Eswatini Mobile	T/R 311.32MHz, BW 59.3MHz

3.3 Upper 8GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 61: Channel Usage in upper 8GHz Band

Transmit frequency	Receive frequency	User	Comments
8 293	8 412	Eswatini Electricity Company.	T/R 119MHz, BW 28/14MHz
8 307	8 426	Eswatini Electricity Company.	T/R 119MHz, BW 28/14MHz
8 321	8 440	Eswatini Electricity Company.	T/R 119MHz, BW 28/14MHz
8 335	8 454	Eswatini Electricity Company.	T/R 119MHz, BW 28/14MHz

3.4 13GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 62: Channel Usage in 13GHz Band

Transmit frequency	Receive frequency	User	Comments
12779	13045	MTN Eswatini	CEPT, T/R 266MHz, BW 56MHz
12859	13125	MTN Eswatini	T/R 266MHz, BW 7MHz, 0.5 diff
13097	12831	MTN Eswatini	T/R 266MHz, BW 7MHz, 0.5 diff
13101	12835	MTN Eswatini	CEPT, T/R 266MHz, BW 56MHz
13157	12891	MTN Eswatini	CEPT, T/R 266MHz, BW 56MHz
13186	12920	MTN Eswatini	T/R 266MHz, BW3.5MHz,0.5 dif
13213	12947	MTN Eswatini	CEPT, T/R 266MHz, BW 56MHz

3.5 15GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 63: Channel Usage in 15GHz Band

Transmit frequency	Receive frequency	User	Comments
14543	14963	Eswatini Mobile	T/R 420MHz, BW 28MHz
14683	15103	Eswatini Mobile	T/R 420MHz, BW 28MHz
14711	15131	Eswatini Mobile	T/R 420MHz, BW 28MHz
14739	15159	Eswatini Mobile	T/R 420MHz, BW 28MHz
14753	15173	Eswatini Mobile	T/R 420MHz, BW 56MHz
14767	15187	Eswatini Mobile	T/R 420MHz, BW 28MHz
14795	15215	Eswatini Mobile	T/R 420MHz, BW 28MHz
14851	15271	Eswatini Mobile	T/R 420MHz, BW 28MHz
14879	15299	Eswatini Mobile	T/R 420MHz, BW 28MHz
14697	15117	Eswatini Mobile	T/R 420MHz, BW 56MHz
14809	15229	Eswatini Mobile	T/R 420MHz, BW 56MHz
14865	15285	Eswatini Mobile	T/R 420MHz, BW 56MHz

3.6 18GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 64: Channel Usage in 18GHz Band

Transmit frequency	Receive frequency	User	Comments
18071.25	19081.25	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18098.75	19108.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18153.75	19163.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18202	19212	MTN Eswatini	
18208.75	19218.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18263.75	19273.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18277.5	19287	MTN Eswatini	T/R 1010MHz, BW 13.75MHz diff 0.5
18277.5	19287.5	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18317	19327	MTN Eswatini	
18318.75	19328.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18332	19342	MTN Eswatini	T/R 1010MHz, BW 13.75MHz diff 0.5
18360	19370	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18373	19383	MTN Eswatini	T/R 1010MHz, BW 13.75MHz diff 0.5

18373.75	19383.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18387.5	19397.5	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18428.75	19438.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18450	19460	MTN Eswatini	
18483.75	19493.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
18723	17713	MTN Eswatini	T/R 1010MHz, BW 13.75MHz diff 0.75
19040	18030	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19095	18085	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19122.5	18112.5	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19150	18140	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19177.5	18167	MTN Eswatini	
19205	18195	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19220	18210	MTN Eswatini	
19273	18263.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz diff 0.75
19315	18305	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19342.5	18332.5	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19452.5	18442.5	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19480	18470	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19507	18497	MTN Eswatini	T/R 1010MHz, BW 13.75MHz diff 0.5
19507.5	18497.5	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19535	18525	MTN Eswatini	T/R 1010MHz, BW 13.75MHz
19548.75	18538.75	MTN Eswatini	T/R 1010MHz, BW 13.75MHz

3.7 23GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. These affect all the other channels and renders them un-usable. The assignments are shown below:

Table 65: Channel Usage in 23GHz Band

Transmit frequency	Receive frequency	User	Comments
21793	23025	MTN Eswatini	
22134	23366	MTN Eswatini	T/R 1232MHz, BW 28MHz
22162	23394	MTN Eswatini	T/R 1232MHz, BW 28MHz
19370	22162	MTN Eswatini	
23316	22084	MTN Eswatini	
22100	23332	MTN Eswatini	
22127	23359	MTN Eswatini	T/R 1232MHz, BW 14MHz
22131	23363	MTN Eswatini	
22163	23394	MTN Eswatini	

3.8 26GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 66: Channel Usage in 26GHz Band

Transmit frequency	Receive frequency	User	Comments
24598	25606	Eswatini Mobile	T/R 1008MHz, BW 14MHz
24801	25809	Eswatini Mobile	T/R 1008MHz, BW 56MHz
24969	25977	Eswatini Mobile	T/R 1008MHz, BW 56MHz
24857	25865	Eswatini Mobile	T/R 1008MHz, BW 56MHz
25921	24913	Eswatini Mobile	T/R 1008MHz, BW 56MHz

3.9 32GHz Band

There is the following usage in this band which is not according to the assignments made to these licensees. The assignments are shown below:

Table 67: Channel Usage in 32GHz Band

Transmit frequency	Receive frequency	User	Comments
31829	32641	Eswatini Mobile	T/R 812MHz, BW 28MHz
32137	32949	Eswatini Mobile	T/R 812MHz, BW 28MHz
32823	32011	Eswatini Mobile	T/R 812MHz, BW 56MHz
32991	32179	Eswatini Mobile	T/R 812MHz, BW 56MHz

4 Spectrum Assignment

The Commission in implementing this plan is using the regime of per link assignment where each link is considered individually as opposed to a nationwide assignment of spectrum in the terrestrial fixed services band. However, in the event that a particular licensee makes extensive use of a particular frequency range for the deployment of fixed links and feels it may be more cost effective to apply for the exclusive use of that particular range over a geographical area that encompasses all current and planned fixed link deployments, the licensee may be allowed to apply for the exclusive use based on the sterilized area.

5 Recommendations and Conclusion

The Commission has reviewed the Fixed Terrestrial Services Band Plan (2022) to align with national priorities, regional harmonisation, and international developments, including the outcomes of the World Radiocommunication Conference 2023 (WRC-23). The 2026 Band Plan introduces revised channelling arrangements and updated technical references to support evolving communications requirements. The 2026 Fixed Services Band Plan is hereby adopted as a mandatory national framework governing the use of terrestrial fixed service frequency bands in Eswatini. All new frequency assignments shall comply with the channelling arrangements specified in this plan and shall be subject to prior coordination and approval by the Commission.

Migration to the 2026 Band Plan shall be mandatory and shall be coordinated by the Commission. This shall apply to assignments not aligned with the revised channelling arrangements. No fixed national migration timeline is prescribed; however, migration shall be implemented progressively in coordination with licensees, taking into account interference management, spectrum efficiency, network requirements, and implementation considerations. The Commission shall engage with licensees to facilitate an orderly and cost-effective transition and shall seek to minimise undue regulatory burden. Notwithstanding this, the Commission reserves the right to require migration where necessary to ensure compliance with this Band Plan.

Appendix A

Summary of Channel Assignments in the Fixed Services Bands

Service	Frequency Bands and bandwidth options
Point-to-Point links	1.4 GHz (BW: 2 MHz)
	2 GHz (BW: 14MHz)
	2.4 GHz (BW: 1 MHz)
	4 GHz (BW: 30MHz)
	5 GHz (BW: 20MHz, 28MHz, 40MHz)
	7 GHz (BW: 28MHz, 56MHz)
	Lower 8 GHz (BW: 29.65MHz, 28MHz, 56MHz, 59.3MHz)
	Upper 8 GHz (BW: 7MHz, 14MHz)
	10.5 GHz (BW: 28MHz)
	11 GHz (BW: 28MHz, 40MHz, 56MHz)
	13 GHz (BW: 14MHz, 28MHz, 56MHz)
	14 GHz (BW: 28 MHz)
	15 GHz (BW: 14MHz, 28MHz, 56MHz)
	18 GHz (BW: 7.5 MHz, 13.75MHz)
	23 GHz (BW: 28MHz, 56MHz, 112MHz)
	26 GHz (BW: 14MHz, 28MHz, 56MHz, 112MHz)
	28 GHz (BW: 28MHz, 56MHz ,112MHz)
	31 GHz (BW: 50 MHz)
	32 GHz (BW: 28MHz, 56MHz, 112MHz, 224MHz)
	38 GHz (BW: 56MHz, 112MHz, 224MHz)
	42 GHz (BW: 56MHz, 112 MHz)
	52 GHz (BW: 56 MHz)
	70/80 GHz (BW: 250MHz, 500MHz)
	94 GHz (BW: 100 MHz)

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