

NOTICE 305 OF 2009**RADIO FREQUENCY SPECTRUM LICENCE FEES REGULATION****DRAFT RADIO FREQUENCY SPECTRUM LICENCE FEES REGULATION**

This draft regulation will replace Regulations E1 (Licence and Examination fees) of the Radio Regulations.

SCHEDULE

1. In exercise of the powers conferred on it **Section 4 (1) of the Electronic Communications Act 2005, (The Act)**, the Independent Communications Authority of South Africa (ICASA) hereby makes the following regulations.

2. Purpose of these regulations

(1) This Regulation is made to standardise Radio Frequency Spectrum Fees and Pricing in order to promote efficiency of spectrum use and conformity with international standards in the usage of spectrum in the Republic of South Africa.

3. The Objective of these regulations

(1) Is to establish a transparent, fair, competitive and non-discriminatory Radio Frequency Spectrum Pricing based on administrative incentive pricing and which does not preclude the use of auctions and other internationally accepted methods of determining Radio Frequency Spectrum Price;

(2) Is to encourage efficient and effective utilization of spectrum, encouraging, on an incentive basis, migration to lesser populated and low-demand bands;

(3) Is to ensure that the costs of managing and monitoring the radio frequency spectrum are at least covered by fee income;

(4) Is to promote efficiency and competition by simplifying and harmonizing the Radio Frequency Spectrum Pricing process; and

(5) To achieve government policy objectives of even development of telecommunications infrastructure across South Africa.

3. Definitions

In these Regulations, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Act has the meaning so assigned,

“the Act”	means the Electronic Communications Act, 2005 (Act No. 36 of 2005);
“ASTER”	means the Area Sterilized Factor that is applied to reflect the area that is denied to other users of a frequency assignment;
“Authority”	means the Independent Communications Authority of South Africa as defined in section 1 of the Act;
“BW”	means Bandwidth expressed in MHz paired;
“CG”	means the Congestion Factor that is applied to reflect where a frequency spectrum is congested and demand exceeds supply;

“FREQ”	means the Frequency Factor that is applied to reflect the frequency band (spectrum location) in which the frequency assignment is positioned;
“GEO”	means the Geographic Factor that is applied to reflect the geographic area of South Africa covered by a frequency spectrum assignment;
“GHz”	means Gigahertz of Radio Frequency Spectrum
“HOPMINI”	means the Minimum Hop Factor that is applied to a point to point frequency spectrum assignment when the hop length is shorter than the minimum hop length identified for the frequency band;
“Khz”	means Kiloherzt of Radio Frequency Spectrum;
“MHz”	means Megahertz of Radio Frequency Spectrum;
“Minimum Fee”	means the minimum fee paid for a radio frequency spectrum licence;
Republic of South Africa	means the entire geographical area, the territorial waters and air limits of South Africa and any area to which the provisions of the Act apply;
“SHR”	means the Sharing Factor that is applied when the frequency spectrum that is the subject of an assignment can be shared;
“UNIBI”	means the Uni-directional factor that is applied when a single link only is assigned;
“UNIT”	means the Unit Price per Megahertz paired that is applied when the radio frequency spectrum licence fee is calculated by means of a formula;
“VSAT”	means Very Small Aperture Terminal;

4. Fee Determination

- (a) The fees payable for each category of Frequency Spectrum must either be as determined by a pricing formula as described in these Regulations or by application of the minimum fee;
- (b) The unit price per MHz of Frequency Spectrum is as stated in the Annexure “A” to these regulations and may be reviewed from time to time as may be determined by the Authority; and
- (c) The minimum fee is as stated in these regulations and may be reviewed from time to time as may be determined by the Authority.

5. Exceptions

(1) Equipment that is licence-exempt is not subject to a radio frequency spectrum licence fee.

(2) Where the Authority determines that the assignment of frequency should be made on a competitive basis, the radio frequency spectrum licence fee may be determined on the basis of an auction.

(3) Unless the Authority determines otherwise, broadcast services are not subject to the radio frequency spectrum fees

6. Formulae

The following formulae will be used as indicated in the price schedules.

(a) Point-to-area formula

Applied to all point to area services except for Amateur, aeronautical and maritime with exclusive band allocations.

$$\text{Fee} = (\text{UNIT} * \text{FREQ} * \text{BW} * \text{CG} * \text{GEO} * \text{SHR} * \text{ASTER} * \text{UNIBI})$$

The fee is the multiplication of the unit price (UNIT) by the frequency factor (FREQ), the bandwidth in MHz, the congestion factor (CG), the Geographic factor (GEO) the sharing factor (SHR), the area sterilized factor (ASTER) and the unidirectional factor (UNIBI) where this is applicable for point to area.

(b) Point-to-point formula

Applied to all fixed links whether below or above 1GHz. The formula is as follows:

$$\text{Fee} = (\text{UNIT} * \text{FREQ} * \text{BW} * \text{CG} * \text{GEO} * \text{SHR} * \text{HOPMINI} * \text{UNIBI})$$

The fee is the multiplication of the unit price (UNIT) by the frequency factor (FREQ), the bandwidth (BW) in MHz, the congestion factor (CG), the Geographic factor (GEO), the sharing factor (SHR), the minimum hop length (HOPMINI) and the unidirectional factor (UNIBI).

(c) Satellite Hub Ground Station Formula

The fee for a principle hub station for uplink is determined by the following fee

$$\text{Hub ground station Fee} = \text{Max} (\$_{UL}; \text{UNIT} * \text{BW})$$

The fee is the multiplication of the unit price (UNIT) by the bandwidth (BW) in MHz, and $\$_{UL}$ is the minimum fee for satellite uplink connections.

(d) Satellite VSAT subordinate ground station Formula

The fee for subordinate Very Small Aperture Station for uplink is determined by the following fee

$$\text{VSAT Fee} = (\text{UNIT} * \text{BW})$$

The fee is the multiplication of the unit price (UNIT) by the bandwidth (BW) in MHz.

7. **Unit Price** – the Unit Price (UNIT) is applied per MHz paired of bandwidth. UNIT is as stated in the Annexure "A".

8. Factors and Look Up Tables

(a) Bandwidth (BW)

The Bandwidth factor is expressed per MHz paired.

(b) Frequency factor (FREQ)

(i) The following are the ranges and the relevant frequency band factor:

Area (km ²)		ASTER Factor
From	To	
0	1	0.6
1	10	2
10	100	6
100	1,000	18
1,000	10,000	56
10,000	100,000	180
100,000	500,000	400
100,000	1,000,000	600

(c) Geographic factor (GEO)

(i) The following is the table of geographic factors:

GEO Area	GEO Factor Value
High Density	1
Medium Density	0.75
Low Density	0.5

(ii) The definition of high, medium and low density is stated in the Annex to this regulation.

(iii) Where the geographic area that is covered by a licence includes more than one GEO area, the highest GEO factor will be applied.

(d) Congestion factor (CG)

(i) The following is the table of congestion factors:

CONGESTION	CG Factor Value
Congested	1.5
Not Congested	1

(ii) 'Congested' applies where there is a waiting list for the frequency spectrum that is the subject of the licence, while 'Not Congested' applies when there is no waiting list.

(e) Degree of sharing (SHR)

(i) The following is the table of Share factors

Sharing	Value of sharing factor
Exclusive	1
Shared	0.5

(ii) 'Shared' applies where two or more licensees share the frequency spectrum

(f) Area sterilized (ASTER)

- (i) The following is the table of ASTER factors

Area (km ²)		ASTER Factor
From	To	
0	1	0.6
1	10	2
10	100	6
100	1,000	18
1,000	10,000	56
10,000	100,000	180
100,000	500,000	400
100,000	1,000,000	600

(g) Minimum hop length (HOPMINI)

- (i) The following is a table of minimum path lengths by frequency. Frequencies not appearing specifically in this table shall be rounded to the next highest value in the table.

Frequency Band (MHz)	Min Path Length (Km)
400	100
800	60
1.4/1.6/2	30
4 and 5	16
7.5	14
10 and 11	10
13/14/15	9
17/18	4
22/23	3
25/26	3
28	2
31 and 32	1.5
38	1
Higher	0

- (ii) Where the actual path length of the licensee's link is shorter than the minimum path length for the frequency, the HOPMINI factor in the formula shall be calculated as the square root of the ratio between the minimum path length for the frequency requested and the actual path length of the licensee's link $\text{SQRT}(\text{Minimum Path Length for the Frequency} / \text{Actual Path Length})$.
- (iii) Where the actual path length is equal to the minimum path length for frequency spectrum or the length is not known, the value of HOPMINI in the formula will be 1.
- (h) Unidirectional factor (UNIBI)
- (i) The following is a table of UNIBI factors as applied in the respective Point to Point formula and the Point to Area formula.

UNIBI	Value for Point to Point	Value for Point to Area
Unidirectional	0.75	0.5
Bi-directional	1	1

- (ii) In the Point to Point formula, the Unidirectional factor is applied when a single (unidirectional link) is the subject of the licence.
- (iii) In the Point to Area formula, the Uni-directional factor is applied when an unpaired frequency is the subject of the licence.

9. Minimum Fees

- (a) The Minimum Fees are as stated in the Annexure "A".
- (b) The Minimum fees are applicable to the services as defined in the Table of Fees by Type of Radio Communications Service.
- (c) Where the Radio Frequency Spectrum Licence fee is defined by formula and the result is lower than the minimum fee, then the minimum fee shall apply.
- (d) For satellite hub uplink stations, the minimum fee for satellite hub uplink stations shall apply.

10. Multi Year Licences

- (a) The fee for a multi-year licence can be determined by the following table where the annual fee as calculated by formula is multiplied by the relevant factor for the number of years.

Years	1	2	3	4	5	6	7	8	9	10
Factor	1	1.91	2.74	3.49	4.17	4.79	5.36	5.87	6.33	6.76

- (b) The fee should be rounded up to the nearest whole Rand.
- (c) For licensees in the Amateur, Aeronautical and Ship Station category, the minimum period for obtaining a multi-year licence is 5 years.
- (d) For licensees other than the Amateur, Aeronautical and Ship Station category, the maximum period for obtaining a multi-year licence is 5 years.
- (e) If a licensee wishes to obtain a further frequency during the term of the multi-year licence, then he/she should obtain an additional licence and pay the fees for the additional frequency that are current. Any changes to the fee structure will not affect a multi-year licence during its period of validity.

11. Table of Fees by Type of Radiofrequency Licence

	Existing Fee Rand	Proposed Fee or Basis - Rand
1. Amateur Radio		
(i) All classes of licence (including CEPT Format)	27	Minimum Fee
(ii) Beacon	48	Minimum Fee
(iii) Change of call sign on request	27	Minimum Fee
(iv) Guest or special event licence	27	Minimum Fee
(v) Listener	27	Minimum Fee
(vi) Repeater station including radio link	48	Minimum Fee
(vii) Digipeater/Bulleting Board	48	Minimum Fee
(viii) Experimental station for weather satellite reception and Re transmission	27	Minimum Fee
2. Aeronautical		
(i) Aircraft station	48	Minimum Fee
(ii) Beacon	48	Minimum Fee
(iii) Ground station	48	Minimum Fee
(iv) Relay station	48	Minimum Fee
(v) Radio Link		
3. Land Mobile Service		
3.1 Alarm station (see also item 5.1 for alarm systems)	18	see item 5.1 for alarm systems
3.2 Base Station General Base/Mobile		
(i) Citizen band	33	Minimum Fee
(ii) Civil Defence/Marnet		
(a) Station without private frequency	33	Minimum Fee
(b) Station with private frequency	42	Point to Area Formula
(iii) 27/29 MHz frequency band		
(a) Station with one frequency channel	33	Minimum Fee
(b) Station with more than one frequency channel (Including station for use at sea and inland waters)	42	Minimum Fee
(iv) Other		
(a) Station with one single frequency channel	42	Point to Area Formula
(b) Station with more than one single frequency channel	48	Point to Area Formula
(c) Station with one or more double frequency channels	48	Point to Area Formula
(d) High frequency band:		
(i) First Base station	48	Point to Area Formula
(ii) Each additional base station	906	Point to Area Formula
(iii) Civil defence station	48	Point to Area Formula
3.3 Experimental station	27	Minimum Fee

3.4 Load Management station (see also item 5.2)	1.2	See load management systems
3.5 Mobile Two Way Station		
(i) Citizen band	33	Minimum Fee
(ii) Civil Defence/Marnet		
(a) Station without private frequency	33	Minimum Fee
(b) Station with private frequency	42	Point to Area Formula
(iii) Portable (low power)		
(a) 26/27 MHz frequency band with apparatus not exceeding 100 mW	27	Minimum Fee
(b) Station in the UHF for onsite communication, not exceeding 2W	27	Point to Area Formula
(iv) 27/29 MHz frequency band (Including station for use at sea and inland waters)		
(a) Station with one frequency channel	33	Minimum Fee
(b) Station with more than one single frequency channel (Including station for use at sea and inland waters)	33	Minimum Fee
(v) Other		
(a) Station with one single frequency channel	42	Point to Area Formula
(b) Station with more than one single frequency channel	48	Point to Area Formula
(c) Station with one or more double frequency channels	48	Point to Area Formula
(d) High frequency band:		Point to Area Formula
i. Per Station	906	Point to Area Formula
ii. Civil Defence Station	48	Point to Area Formula
3.6 Paging Station which is used in a system other than that indicated under item 5.4 per page		
(i) One way	18	Point to Area Formula
(ii) Two way	42	Point to Area Formula
3.7 Relay Station		
(i) Station with one single frequency channel	42	Point to Area Formula
(ii) Station with more than one single frequency channel	48	Point to Area Formula
(iii) Station with one or more double frequency channels	48	Point to Area Formula
3.8 Repeater Station (See item 5.6)	48	Point to Area Formula
3.9 Special radio service: Per license	30	Minimum Fee
3.10 Telemetry Station	18	Point to Area Formula
3.11 Licence fee payable by the SADF, SAPS, Telkom and Transnet per MHz	1,540	Point to Point Formula for each link
3.12 Radio Link Station		
(i) Single Frequency Link below 1000 MHz (per control and/or interconnect point)	42	Point to Point Formula

(ii) Double Frequency Link below 1000 MHz (per control and/or interconnect point)	48	Point to Point Formula
(iii) Radio Link above 1000 MHz calculated on the assigned bandwidth per frequency (per control and/or interconnect point)	770	Point to Point Formula
4. Maritime		
4.1 Beacon	48	Minimum Fee
4.2 Coast station:		
(i) Non-commercial	48	Minimum Fee
(ii) Commercial		
a) In the medium and HF bands, per base station with:		
1 to 20 Mobile Stations		Minimum Fee X 20
over 20 Mobile Stations		Minimum Fee X 40
b) In the VHF bands, per base station with:		
1 to 5 mobile stations	1,238	Minimum Fee X 5
6 to 10 mobile stations	2,424	Minimum Fee X 10
11 to 15 mobile stations	3,612	Minimum Fee X 15
16 to 20 mobile stations	4,800	Minimum Fee X 20
21 and more mobile stations	5,988	Minimum Fee X 40
4.3 Ship station: Maritime frequency band	48	Minimum Fee
4.4 Ships operating on land mobile frequencies (See item 3.2 (iii) (b) and 3.5 (iv) (b))	42	Minimum Fee
5. Electronic Communications Network Service		
5.1 Alarm systems		
(i) Urban complexes (Durban and Pietermaritzburg, Cape Peninsula and surroundings, the greater Johannesburg, Pretoria and Vereeniging areas):		
Per control room and per frequency channel: Minimum licence fee as for 240 alarm stations	4,320	void see above
(ii) All other areas:		
Per control room and per frequency channel: Minimum licence fee as for 100 alarm stations	1,800	void see above
(iii) Extensions: Minimum licence fee as for 20 alarm stations	360	void see above
5.2 Load management system (Minimum licence fee as for 200 load management stations)	240	Point to Area Formula
5.3 Message handling (two way)		
(i) Urban complexes (Durban and Pietermaritzburg, Cape Peninsula and surroundings, the greater Johannesburg, Pretoria and Vereeniging areas):		

(a) Per single frequency channel: Minimum licence fee as for 80 two-way mobile stations	3,360	void see above
(b) Per double frequency channel: Minimum licence fee as for 80 two-way mobile stations	3,840	void see above
(ii) All other areas:		
(a) Per single frequency channel: Minimum licence fee as for 40 two-way mobile stations		void see above
(b) Per double frequency channel: Minimum licence fee as for 40 two-way mobile stations		void see above
(iii) Extensions: Minimum licence fee as for 10 two-way mobile stations, single or double frequency, whichever licence fee is applicable.		
Per double frequency channel: minimum licence fee as for 100 two-way mobile stations		void see above
5.4 Paging system		Point to Area Formula
(i) Urban complexes (Durban and Pietermaritzburg, Cape Peninsula and surroundings, the greater Johannesburg, Pretoria and Vereeniging areas):		
Per control room and per frequency channel: Minimum licence fee as for 240 one way paging stations	4,320	void see above
(ii) All other areas:		void see above
Per control room and per frequency channel: Minimum licence fee as for 100 one way paging stations	1,800	void see above
(iii) Extensions: Minimum licence fee as for 20 one way paging stations		void see above
5.5 Radio trunking;		Point to Area Formula
All Areas		
(a) for a maximum of one control channel per base station	48	void see above
(b) for each additional double frequency channel or if only one channel is used at a base station	3,840	void see above
5.6 Repeater system (communal and private):		Point to Area Formula
(i) Urban complexes (Durban and Pietermaritzburg, Cape Peninsula and surroundings, the greater Johannesburg, Pretoria and Vereeniging areas):		
Minimum licence fee as for 80 two way stations	3,840	void see above
(ii) All other areas: Minimum licence fee as for 40 two way stations	1,920	void see above
(iii) Extensions: Minimum licence fee as for 10 two way stations		void see above
5.8 Electronic Communications Network		Point to Area Formula using maximum ASTER factor value
(i) C450		Void
(ii) GSM		
(a) Basic Fee	5,000,000	Void
(b) Additional fee per 200 kHz frequency pair	20,000	Void
(c) A further annual licence fee of 5% of the nett operational income of the licensee		Subject of ECNS Licence

5.10 Wireless data telecommunication services:		Point to Area Formula
5.12 Broadcasting band sub carrier system - per frequency of subcarrier used	8,000	Point to Area Formula
5.13 Video conference system	50,000	Void
5.14 Microwave Multipoint Distribution Systems (MMDS)	50,000	Point to Area Formula
5.15 Wide Area Network	5,000	Point to Area Formula
5.16 Digital Enhanced Cordless Telecommunication system (DECT) per megahertz frequency system	1,540	Point to Area Formula
5.17 Wireless Local Loop (WLL)	10,000	Point to Area Formula
5.18 National mobile data telecommunications services		Point to Area Formula
(i) National mobile data telecommunications network		
(a) Telecommunications fee payable		
• on date of issue of the telecommunications licence; or	1,500,000	void see above
• on date of issue of the telecommunications licence, plus	500,000	void see above
• on the first anniversary of the Commercial Date	632,500	void see above
• on the second anniversary of the Commercial Date	739,500	void see above
(b) Annual income related licence fee of		
• 0.2% of Turnover in the first two financial years		Subject of ECNS Licence
• 2% of Turnover for the remainder of the licence period		Subject of ECNS Licence
(c) Annually per first assignment of a specific 12.5 kHz frequency pair within the RSA	25,000	void see above
6. Satellite		
6.1 Inmarsat Terminals		Minimum Fee
i) Land mobile service:		
(a) A terminal	396	Void
(b) B terminal	396	Minimum Fee
(c) C terminal	168	Minimum Fee
(d) M terminal	396	Minimum Fee
(ii) Maritime:		

(a) A terminal	396	Void
(b) B terminal	396	Minimum Fee
(c) C terminal	168	Minimum Fee
(d) M terminal	396	Minimum Fee
6.2 Uplink broadcasting signal distribution fixed satellite earth station	50,000	Hub Satellite Formula
6.2 Mobile or fixed satellite news gathering station	50,000	Hub Satellite Formula
VSAT		VSAT Satellite Formula

12. Licensees must furnish all information concerning the equipment they deploy as required by the Authority.

13. Assignment of Radio Frequency Spectrum and the issuance of licences to use Radio Frequency Spectrum is at the discretion of the Authority and applicants for Radio Frequency Spectrum must furnish all information to support their application as required by the Authority.

14. Contraventions and penalties

Any person who contravenes or fails to comply with the provisions of these regulations is liable to a fine prescribed in terms of section 17H of the ICASA Act, 2000 (Act No. 13 of 2000).

15. Short title and commencement

These Regulations are called the Radio Frequency Spectrum Licence Fees Regulations, 2009, and will come into operation on the date of publication in the Gazette.

16. Repeal and amendment

The E1 licence fees contained in Chapter 6 of the Radio Regulations published in Government Gazette number 2862 of 1979 is hereby repealed.

Annexure "A"

- A. The Unit Price per MHz paired is R2,000
 - B. The Minimum Fee is R 120
 - C. The Minimum fee for a Satellite Hub Station is R 50,000
 - D. The GEO Areas are
 - High Density includes Gauteng province, and the municipal areas of Cape Town, Durban and Port Elizabeth.
 - Medium Density – other urban areas as may be determined from time to time.
 - Low Density – includes all parts of South Africa that does not fall under high density or medium density.
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