

FREQUENCY SPECTRUM FEE SCHEDULE – UP TO 30th JUNE 2012

| | SERVICE | DESCRIPTION | ANNUAL FEES PER STATION PER FREQUENCY IN Kshs. | |
|---|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------|
| | | | MF/HF | VHF/UHF |
| 1 | AERONAUTICAL STATION LICENSE | A license to establish a radio station for carrying radiocommunication with aircraft station. | Kshs . 4,800 | Kshs . 4,800 |
| 2 | AIRCRAFT STATION LICENSE | A license to establish a mobile station aboard an aircraft, to operate in the aeronautical mobile service. | Kshs . 4,800 | Kshs.4,800 |
| 3 | LICENSE FOR FIXED STATION OPERATING IN MOBILE SERVICE | A license to establish a radiocommunication station at a fixed location for carrying on a Mobile Radiocommunication Service. | Kshs.18,700. | Kshs. 5,000 |
| 4 | MOBILE STATION LICENSE | A license to install and use radio apparatus for transmitting and receiving aboard a vehicle, aircraft, or a ship. | Kshs . 5,610 | Kshs. 2,900 |
| 5 | PORTABLE STATION LICENSE | A license to a portable radio communication apparatus to operate in the mobile service. | Kshs . 5,610 | Kshs. 2,900 |
| 6 | COAST STATION LICENSE | A license to establish a station and land for carrying on a service with ship stations. | Kshs. 5,610 | Kshs. 2,900 |
| 7 | SHIP STATION LICENSE | A license to install and use radio apparatus aboard ships. | Kshs . 5,610 | Kshs. 2,900 |
| 8 | RADIO AMATEUR LICENSE | A license to install and operate an amateur radio station. | Kshs. 2,000 | Kshs. 2,000 |

| | | | | |
|----|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|
| 9 | CITIZEN BAND RADIO LICENSE | A license to operate a low power radio apparatus operating in the frequency bands 26925 kHz to 27403 kHz. | Kshs . 1,000 | Not applicable. |
| 10 | PRIVATE PAGING SERVICE | A license to operate a radio paging service for private use. | N/A | Kshs . 25,000 |
| 11 | PUBLIC PAGING SERVICE | A license to operate a radio paging service for public use (base station) | N/A | Kshs . 140,000 |
| 12 | RADIO PRESS RECEPTION LICENSE | A license to a radio station to receive press messages from stations transmitting multi-destination radio press messages. | Kshs . 10,000. | Kshs . 10,000. |

13. Alarm Systems

The basic charge for each alarm unit is Kshs 1250, but the specific charges for each particular customer is determined by using the maximum value in each grouping of 5; 5 for 1-5, 10 for 6-10, 15 for 11-15 etc.

14. Fixed satellite earth stations

The fee payable for fixed satellite earth stations is commensurate with the power and the occupied bandwidth, and calculated on the basis of these parameters using the following formula:

Fees per transmitter or carrier in Kenya shillings is:

$$= K1 \log_{10} [(P_{nom} \text{ (watts)}) / 25 \text{ watts}) + (K2 \times \log_{10} (P_{tot} - 1000) / 25 \text{ watts})] \times [BW(\text{kHz}) / 8.5 \text{ kHz}] \times 574.10$$

Where,

K1 for the first 1 kW of radiated carrier power

K2 = 0.2 for additional power above 1 kW.

25 watts is the maximum power allowable for VHF base stations.

8.5 kHz is maximum allowable RF bandwidth for VHF base stations.

P_{nom} is the nominal transmitter power.

P_{tot} is the effective isotropically radiated power

Bandwidth is the width, of frequency band that is just sufficient to ensure the transmission of information at a rate and with the quality acceptable under specific conditions'

15. Broadcasting stations

The fee payable for broadcasting stations will be charged as per the table below depending on the amount of ERP power. The flat rate fees for each category of ERP power are specified for ERP powers upto 10KW. For ERP powers greater than 10KW, the formula below will be used subject to the applicable minimum amount as specified in the table below.

The fee payable for this license is based on the occupied bandwidth, and is calculated using the following formula:-

The formula for the fee payable for broadcasting stations is commensurate with the power and the occupied bandwidth, and calculated on the basis of these parameters using the following formula:

Fees per transmitter or carrier in Kenya shillings is:

| SERVICE | AMOUNT in Kshs. | ERP POWER CONDITIONS |
|---------------------------|------------------------------------------------------------|-------------------------|
| TV BROADCASTING | 360,000.00 | ERP Power <= 10KW |
| | As per formula below subject to a minimum of KShs. 360,000 | ERP Power > 10KW |
| RADIO BROADCASTING | 30,000.00 | ERP Power <= 2KW |
| | 65,000.00 | 2KW < ERP Power <= 5KW |
| | 130,000.00 | 5KW < ERP Power <= 10KW |
| | As per formula below subject to a minimum of KShs. 130,000 | ERP Power > 10KW |

$$= [K1 \log_{10} (P \text{ nom in watts}/25\text{watts}) + K2 \log_{10} (P \text{ tot} - 1000/25 \text{ watts})] \times (BW(\text{kHz}) \times 574.10 \times K3) / 8.5 \text{ kHz}$$

Where

K1 = 1 for the first 1 kW of radiated carrier power

K2 = 0.2 for additional power above 1 kW.

25 watts is the maximum power allowable for VHF base stations.

8.5 kHz is maximum allowable RF bandwidth for VHF base stations.

Pnom is the first 1 KW of the effective radiated power (ERP).

Ptot is the total effective radiated power in watts

BW is the bandwidth of the frequency band that is just sufficient to ensure the transmission of information at a rate and with the quality acceptable under specific conditions'

K3 = 0.4 for TV broadcasting stations
= 5 for Radio broadcasting stations

16. Terrestrial Links (Fixed Station license)

A license to establish a radiocommunication station at a fixed location for carrying on a Fixed Radiocommunication Service to provide a public service.

This category of license is drawn for radio stations used to interconnect two specified fixed points.

The fee payable for this license is based on the occupied bandwidth, and is calculated using the following formula:

The fee, F (Kshs.), per transmitter per location is:

$$= \text{[(RF bandwidth (kHz)/8.5 kHz) x (Number of RF channels x K1 x Unit fee)]}$$

Where:

Unit fee = 574.10, as Kshs.574.10 is the unit spectrum fee for a 8.5 kHz band.

K1 = 0.6 for frequency band < 1700 MHz
= 0.5 for frequency band 1700 to 10000 MHz
= 0.4 for frequency band > 10000 MHz

RF means Radio Frequency, and other parameters are as defined above.

Transmitter shall include terminal and repeater stations.

The formula is applicable to point-to-point links, microwave radio relay equipment, studio-to-transmitter links etc.

17. Cellular Networks

license to establish a fixed radio station to operate Mobile Cellular Radio service.

17.1 Exclusive Spectrum Assignment Bandwidth

This is applicable to cases that have been assigned exclusive use of a specific bandwidth countrywide.

This standing fee is to be paid annually for exclusive use of the bandwidth, in addition to the usage fee that is detailed in item 17.2 below.

Annual Fee for exclusive spectrum bandwidth assignment

$$[F_n \text{ (KShs)} = \text{Assigned bandwidth (kHz)} \times \text{Weighting factor} \times 1043.65] / 8.5 \text{ kHz}$$

Where:

Weighting factor to be used = 6

Unit fee = Kshs. 1043.65

17.2 Spectrum usage fees

This is based on actual usage of the spectrum, and depends on the number of TRXs in the network.

$$\text{Fee } F_u \text{ (KShs.)} = 43,000 \times n$$

Where,

(i) n is the actual or equivalent number of 200kHz duplex TRXs estimated to be in use at the end of the year in review

(ii) Annual Spectrum Management cost of one TRX is Kshs. 43,000

18. Fixed Wireless Access Networks

license to establish a fixed radio station to operate Fixed Wireless Access.

18.1 Exclusive Spectrum Assignment Bandwidth

This is applicable to cases that have been assigned exclusive use of a specific bandwidth countrywide.

This standing fee is to be paid annually for exclusive use of the bandwidth, in addition to the usage fee that is detailed in item 18.2 below.

Annual Fee for exclusive spectrum bandwidth assignment

$$[F_n \text{ (KShs)} = \text{Assigned bandwidth (kHz)} \times \text{Weighting factor} \times 1043.65] / 8.5 \text{ kHz}$$

Where:

Weighting factor to be used = 6

Unit fee = Kshs. 1043.65

18.2 Spectrum usage fees

This is based on actual usage of the spectrum, and depends on the number of TRXs in the network.

$$\text{Fee } F_u \text{ (KShs.)} = 100,000 \times n \times K1$$

Where,

(i) n is the actual or equivalent number of 1.75MHz duplex TRXs estimated to be in use at the end of the year in review

(ii) Annual Spectrum Management cost of one TRX is KShs. 100,000

(iii) Weighting factor, $K1 = 0.8$, for $f < 1$ GHz
= 0.7, for $1 \text{ GHz} \leq f < 6 \text{ GHz}$
= 0.6, for $6 \text{ GHz} \leq f < 10 \text{ GHz}$
= 0.5, for $10 \text{ GHz} \leq f < 20 \text{ GHz}$
= 0.4, for $f \geq 20 \text{ GHz}$

19. Trunked Network (Mobile Trunked Radio license)

A license to operate a trunked radio network

19.1 Exclusive Spectrum Assignment Bandwidth

This is applicable to cases that have been assigned exclusive use of a specific bandwidth countrywide.

This standing fee is to be paid annually for exclusive use of the bandwidth, in addition to the usage fee that is detailed in item 19.2 below.

Annual fee for exclusive spectrum bandwidth assignment

$$[F_n \text{ (KShs)} = \text{Assigned bandwidth (kHz)} \times \text{Weighting factor} \times 1043.65] / 8.5 \text{ kHz}$$

Where:

Weighting factor to be used = 6

Unit fee = KShs. 1043.65

19.2 Spectrum usage fees

This is based on the actual usage of the spectrum, and depends on the number of TRXs in the network.

$$\text{Fee } F_u \text{ (KShs.)} = 43,000 \times n \times K1$$

Where,

(i) n is the actual or equivalent number of 25KHz duplex TRXs estimated to be in use at the end of the year in review

(ii) Annual Spectrum Management cost of one 25KHz duplex transmitter is KShs. 43,000

(iii) $K1 = 1$ for trunked Public access mobile radio (PAMR) systems
= 3.5 for trunked Private mobile radio (PMR) systems

20. Single channel radios

The fee, F per transmitter per location is:

$$F \text{ (Ksh)} = [(\text{RF Bandwidth (kHz)}) / 8.5 \text{ kHz}] \times 1043.65$$

21. The Commission is not bound to use any or all of the above formulas if in its opinion the service involved require technical or other considerations. Spectrum fees for radio equipment not covered in the above schedule shall be determined at the time of application.