



ANC Board of Directors

ANC Determination on Spectrum Fees – (Terrestrial) Fixed Services

Date: 07 April 2021



The Autoridade Nacional de Comunicações of Timor-Leste

1. Name of Determination

This Determination is the ANC Spectrum Fees – (Terrestrial) Fixed Services Determination 2021.

2. Commencement

This Determination is made on 07 April 2021 and commences on the day after it is officially published.

3. Definitions

In this Determination:

ANC means the Autoridade Nacional de Comunicações (National Communications Authority) of Timor-Leste.

Decree-Law 15/2012 means the Decree-Law No.15/2012 on the Regulation of Telecommunications Sector of 28 March 2012.

Public Consultation means the ANC Consultation on Spectrum Pricing conducted on 15 January 2020.

issue of a spectrum licence means the issuance of a spectrum licence in accordance with Decree-Law 15/2012 to a person in the frequency band for fixed services.

Fixed service is defined in the International Telecommunication Union (ITU) Radio Regulations as a radio-communication service between specified fixed points that includes point-to-point and point-to-multipoint radio systems used for the transmission of voice, video and data information. Fixed service radio systems generally operate in the microwave region of the spectrum of about 1 to 60 GHz. The microwave frequency bands below 12 GHz have traditionally been preferred for long haul radio-relay applications due to their favourable propagation characteristics. In addition, the frequency bands in the 1 - 3 GHz are increasingly being used and earmarked for terrestrial and satellite mobile communications (e.g. IMT-2000). As such, the ANC generally does not assign frequencies in the 1 - 3 GHz band for terrestrial fixed services.

4. Frequency Assignment Criteria

Frequency assignment for microwave fixed service links is subject to spectrum availability and successful frequency co-ordination with the bordering countries.

A point-to-point fixed service link is highly directional and the frequency assigned to such link often can be re-assigned for another link with sufficient spatial separation. As such, the ANC generally assigns frequencies for point-to-point fixed service links on a shared-use basis. Use of exclusive frequency assignment is discouraged. For the request for exclusive frequency assignment, the applicant will be required to provide justifications and only usage that warrant such assignment will be approved.

The lower frequency bands are known to have propagation characteristics suitable for longer links. To ensure the efficient use of frequencies in these bands, the ANC will decide the choice of frequency band based on the path length of the fixed service link.



5. Spectrum fees for a spectrum licence for fixed services

Pursuant to Section 63 of Decree-Law No. 15/2012 on Radio-frequency Spectrum Fees and having considered the submission received in the public consultation as well as references to practices in other countries, this Determination fixes the spectrum fees for fixed services for a spectrum license issued under Decree-Law No. 15/2012 to the amounts listed below:

- (i) **Application and Registration Fee (one-time fee)**
Application and Registration Fee payable per frequency: \$180.-
- (ii) **Annual Spectrum Fee**
Fees for the use of a radio frequency on an exclusive basis:

Service	Radio Frequency Bands	Occupied Bandwidth (X)	Fee payable per frequency per annum
Fixed	All Frequency Bands	$X \leq 25$ kHz	\$200
		25 kHz < $X \leq 500$ kHz	\$550
		500 kHz < $X \leq 10$ MHz	\$1,450
		10 MHz < $X \leq 20$ MHz	\$3,850
		$X \geq 20$ MHz	\$5,350

Fees for the use of a radio frequency on a shared basis:

Service	Radio Frequency Bands	Occupied Bandwidth (X)	Fee payable per frequency per annum
Fixed	Below 10GHz	$X \leq 25$ kHz	\$150
		25 kHz < $X \leq 500$ kHz	\$200
		500 kHz < $X \leq 10$ MHz	\$400
		10 MHz < $X \leq 20$ MHz	\$900
		$X \geq 20$ MHz	\$1,200
Fixed	10GHz – 15.7 GHz	$X \leq 25$ kHz	\$150
		25 kHz < $X \leq 500$ kHz	\$200
		500 kHz < $X \leq 10$ MHz	\$250
		10 MHz < $X \leq 20$ MHz	\$450
		$X \geq 20$ MHz	\$600



Fixed	15.7GHz – 21.2 GHz	$X \leq 25$ kHz	\$150
		25 kHz $< X \leq 500$ kHz	\$200
		500 kHz $< X \leq 10$ MHz	\$250
		10 MHz $< X \leq 20$ MHz	\$350
		$X \geq 20$ MHz	\$450
Fixed	Above 21.2 GHz	$X \leq 25$ kHz	\$150
		25 kHz $< X \leq 500$ kHz	\$200
		500 kHz $< X \leq 10$ MHz	\$250
		10 MHz $< X \leq 20$ MHz	\$300
		$X \geq 20$ MHz	\$350

Note:

(a) \$ = United States dollars;

(b) X = the bandwidth of spectrum authorised for use in a fixed service link;

For example, the spectrum fee for a shared fixed point-to-point link with 7 MHz of bandwidth in the 4 GHz spectrum band is calculated as: \$400/year.

For purpose of comparison, the spectrum fee for an exclusive fixed point-to-point link with 7 MHz of bandwidth in the 4GHz spectrum band will cost: \$1,450/year.

6. Expiry

The ANC will review and update the Determination on Spectrum Pricing on a regular basis. This Determination will have effect until such time when it has been repealed or superseded by another instrument.

Approved by the Board of Directors on 7 April 2021

Chairman of the Board,

Eng. João Olívio Freitas