DSA SUMMIT 2021

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2021
JUNE 8-10

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AGENDA

1) National Frequency Allocation Plan (PNAF) Update Process
2) Unlicensed spectrum in Costa Rica
3) Equipment Homologation Procedure
4) IMT and HAPS Spectrum
5) ESIMs

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NATIONAL FREQUENCY ALLOCATION PLAN (PNAF) UPDATE PROCESS

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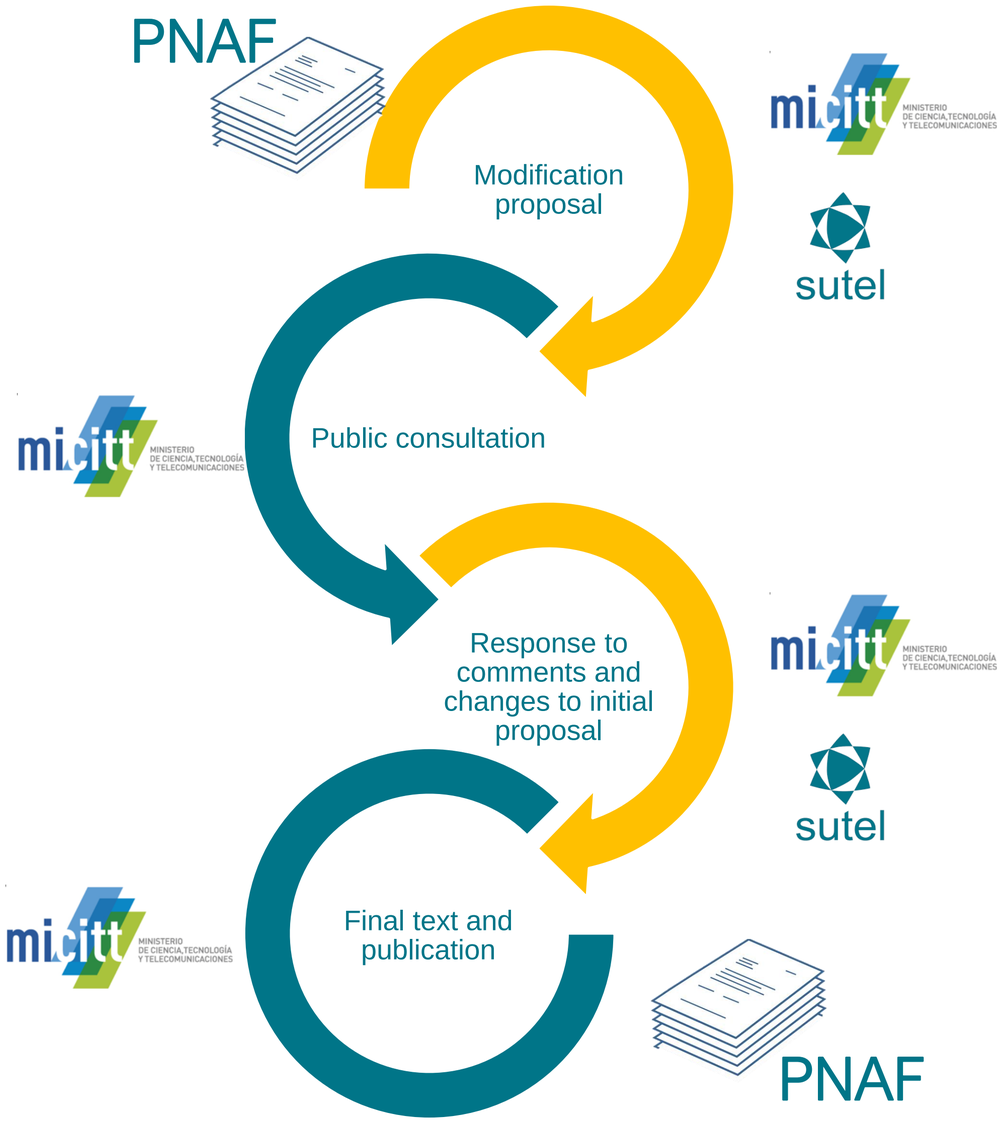
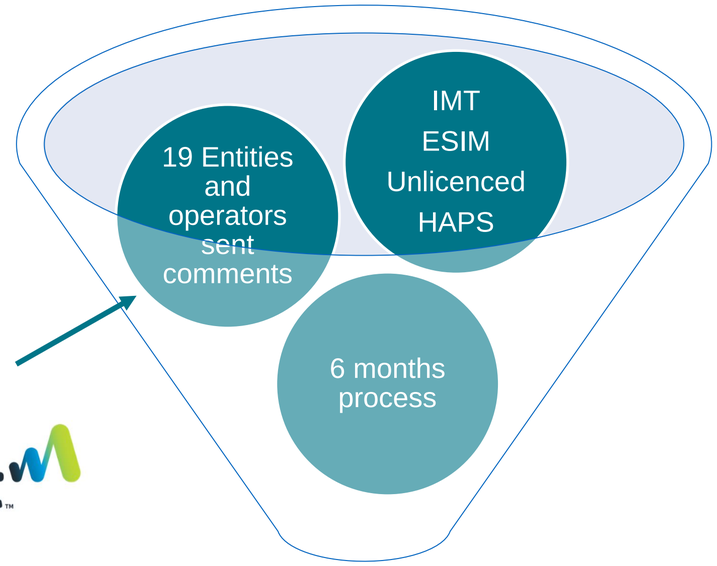


Continental
HUAWEI
GSMA
GVF
CISCO
Viasat
QUALCOMM
OneWeb
BOEING
intel
DSA
ICE



Decreto 42924-MICITT
April 30th, 2021

MAIN UNLICENSED SPECTRUM BANDS IN COSTA RICA

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Frequency range (MHz)	Maximum output power (dBm)	Maximum EIRP (dBm)
902 – 940	---	30
947 – 960	24	30

900 MHz Band

IMT FDD
895 – 902 MHz

Unlicensed
902 – 928 MHz

Licensed Fixed links
928 – 940 MHz

Unlicensed
928 – 940 MHz

IMT FDD
940 – 947 MHz

Licensed Fixed links
947 – 960 MHz

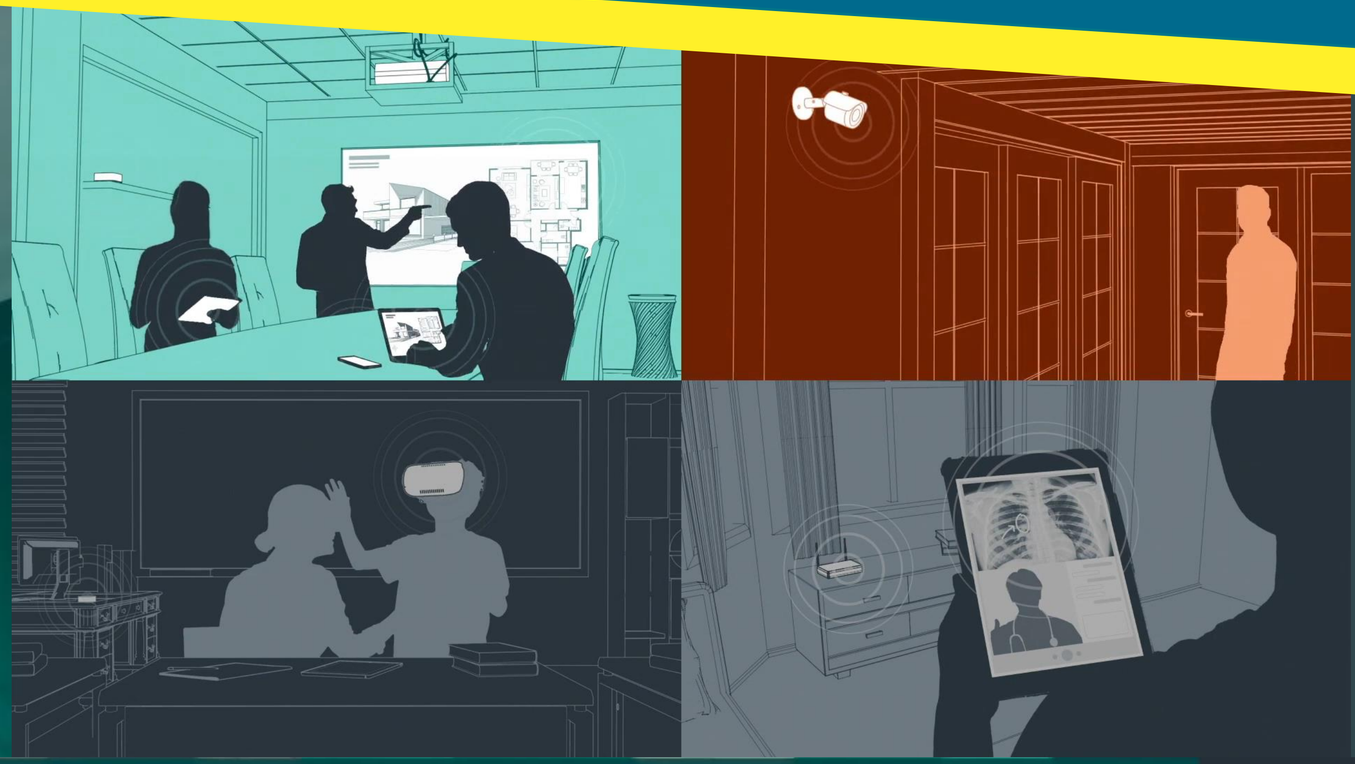
Unlicensed
947 – 960 MHz

2.4 GHz/5.8 GHz Bands

Frequency range (MHz)	Maximum output power (dBm)	Maximum EIRP (dBm)
2400 – 2500	30	36
5150 – 5725	24	30
5725 – 5875	30	36
5875 – 5925	24	30

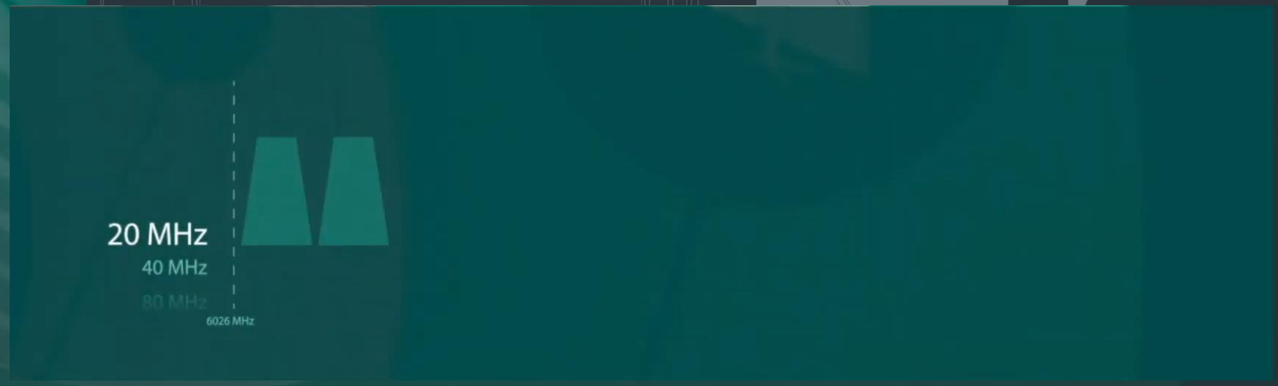
6 GHz Band

Frequency range (MHz)	Maximum output power (dBm)	Maximum EIRP (dBm)
5925 – 7125	24	30



Low Power Indoor (LPI): power limits detailed in table.

Very Low Power (VLP): indoor and outdoor, with maximum EIRP 14 dBm.



REF: https://www.youtube.com/watch?v=oOZLhkaehzU

57-71 GHz Band

Frequency range (MHz)	Maximum output power (dBm)	Maximum EIRP (dBm)
57000 – 71000	---	43

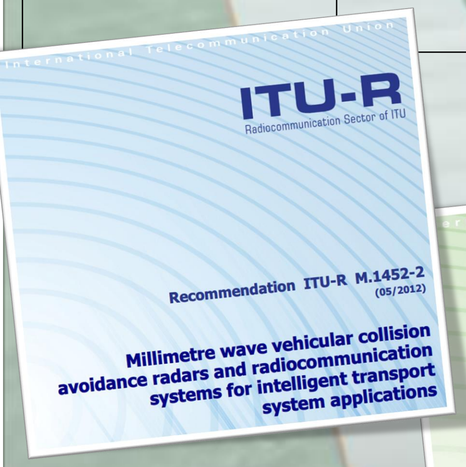
Wireless Gigabit Alliance

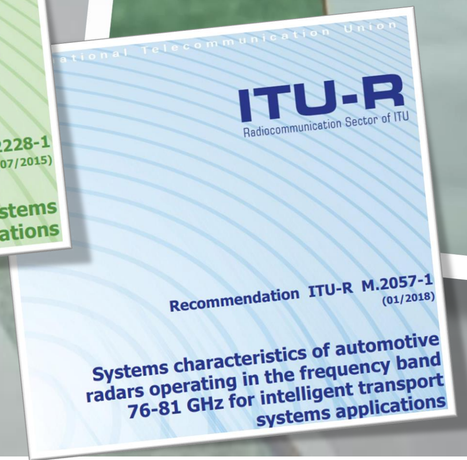
According to CITEL IAP for WRC-19

NOC – 66-71 GHz

76-81 GHz Band

Frequency range (MHz)	Maximum output power (dBm)	Maximum EIRP (dBm)
76000 – 81000	--	According UIT-R M.1452 and UITR M.2057 (≈55 dBm)





REF: https://www.youtube.com/watch?v=Q8Cn47L8FRQ

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EQUIPMENT HOMOLOGATION PROCEDURE

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Online platform to request for type approval process in SUTEL

https://homologacion.sutel.go.cr/zf_ConsultaPublica/Index/indexprincipal

Mobile devices

- RCS-358-2018
- Detailed information regarding the device
- Local testing procedures for the devices
- Extended approval for new software or hardware versions

Unlicensed bands devices

- RCS-154-2018
- Required in Addendum VII of PNAF
- Must comply with operation conditions detailed in the PNAF, for the specific frequency bands, before the equipment commercialization

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IMT, HAPS and ESIMs (Latest PNAF update)

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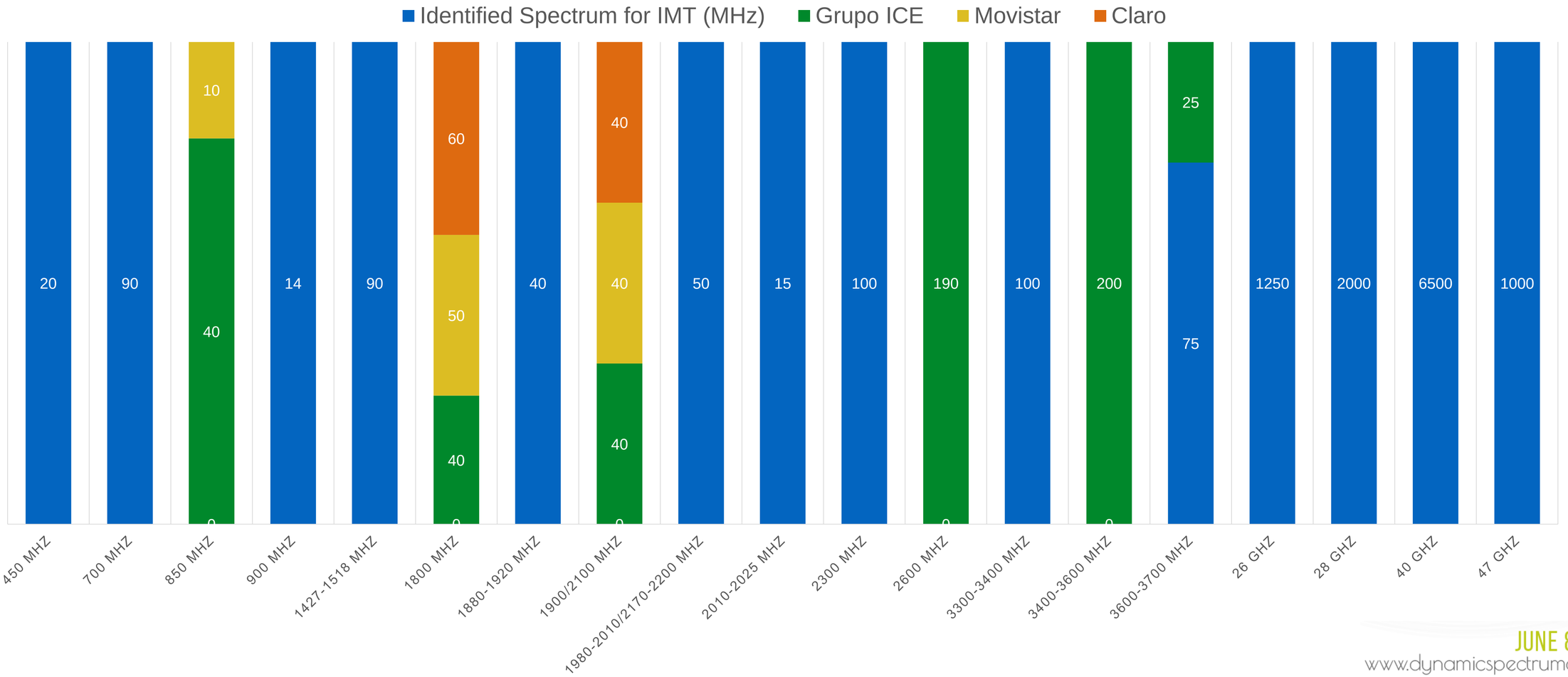
IMT Spectrum in CTR

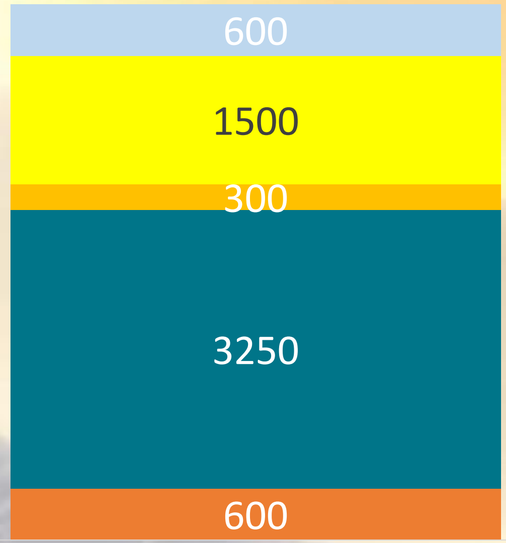
14089 MHz

Total identified spectrum for IMT



HAPS Spectrum in CTR

REF: https://www.youtube.com/watch?v=zxWODb6Uqgs

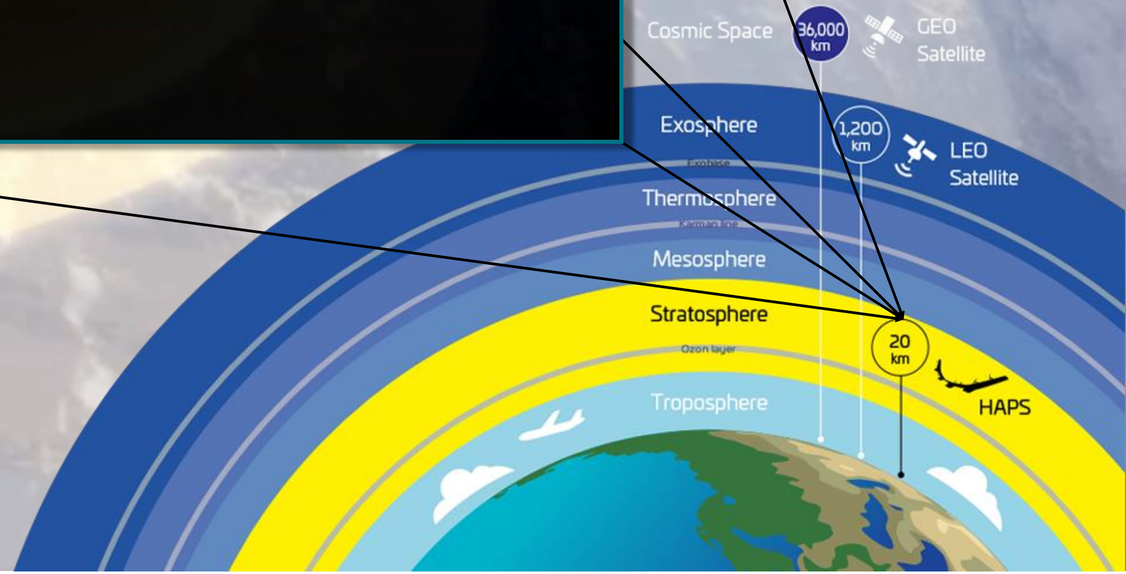


HAPS (MHz)

21 GHz 26 GHz 31 GHz 38 GHz 47 GHz

6250 MHz

Total spectrum for HAPS



ESIMs Operation

ESIMs operating frequency extended according to WRC-19 agreements in Resolution 169

REF: https://www.youtube.com/watch?v=xtC2UdONWRw

RESOLUTION 169 (WRC-19)

Use of the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz by earth stations in motion communicating with geostationary space stations in the fixed-satellite service

RESOLUTION 156 (WRC-15)

Use of the frequency bands 19.7-20.2 GHz and 29.5-30.0 GHz by earth stations in motion communicating with geostationary space stations in the fixed-satellite service[1]

2021

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Thank you for your attention

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