

IAFI's Input Document to Working Group (WG)-2 of NFAP 2022 Review Committee

Contribution for updating National Frequency Allocation Table-2022 (1-6 GHz band)		
1	Name of Individual/Organization etc	ITU-APT Foundation of India (IAFI)
2	Address	504, 5th Floor, World Trade Center (Behind Lalit Hotel) Barakhamba Road New Delhi- 110001
3	Mail ID	info@iafi.in
4	Phone/Mobile no.	
5(a)*	Nature of business	Telecommunication
5 (b)	Type of Organisation (Pvt industry, Association, academia, PSU, government departments etc.)	Industry Association
6	Frequency band (kHz/MHz)	5725 MHz -5875 MHz & 5150 MHz – 5250 MHz
7*	Applications of service	Fixed Wireless Applications (FWA)
8	Minimum & Maximum power with unit	<ul style="list-style-type: none"> • Transmit power upto 1W per Radio Unit (30 dBm for BS & CPE). • Suggestion to Enhance PMP CPE EIRP to 47 dBm in the frequency bands 5.725 to 5.875 GHz and 53 dBm in the 5.150 to 5.250 GHz respectively. <p>IFAI recommends maintaining the same EIRP level which is allowed for PTP radios for the PMP subscriber unit (CPE). Up to 47 dBm in the frequency bands 5.725 to 5.875 GHz and 53 dBm in the 5.150 to 5.250 GHz respectively.</p> <p>The given recommendation would safeguard the link performance necessary to deliver enterprise-grade service levels and uphold customer satisfaction.</p>
9	Purpose	PTP radios act as a PMP subscriber unit (CPE) in the UBR network which have similar hardware characteristics. We believe that the same EIRP levels up to 47 dBm and 53 dBm which is permissible for Point-to-Point (PTP) radios can be applied to PMP subscriber unit (CPE) in the frequency bands 5.725 to 5.875 GHz and 5.150 to 5.250 GHz respectively
10 (a)	Countries in which similar applications are used along with web link (if known)	NA
10 (b)	Provisions in frequency allocation table along with footnote of the country along with web link (if known)	NA
11	Radio Regulations provisions (if known)	NA

12*	Type of Radiocommunication service	Fixed/Land/Mobile/Space
13	Compatible Wireless Standard for the device likely to work in the proposed band (ETSI, 3GPP, IEEE, EC, FCC ,TEC etc or any proprietary standard)	NA
14	Benefit for public	NA
15	If modification in NFAP-2022 footnote then quote relevant footnote no. of NFAP-22	Yes, addition of a new IND remark IND 28A IND 28A Use of frequency bands 5150-5250 MHz, and 5725- 5875 MHz for point-to-point (PMP) Wireless Access Services (WAS) with Transmit power up to 1W (30dBm) per base and CPE Radio Unit. Higher EIRP of 47 dBm in the frequency band 5.725 to 5.875 GHz and 53 dBm in the frequency band 5.150 to 5.250 GHz will be allowed only for CPEs only
16	Remarks	Propose to clarify the application of FWA PTP APPLICATIONS WITH HIGHER POWER

Note.

5* . Construction service / Manufacturing service/ Shipping Service/Aeronautical Service etc

7*. Specify the operation of service (e.g Hand held radio/ Vehicle mobile radio/ point to point links/FM/Community Radio/Aeromobile/Short Rang Device etc

12* Amateur/Fixed/Land mobile/Aeronautical mobile/Maritime Mobile/Aeronautical radio navigation/FM broadcast/Community Radio Service etc

Date and Signature

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5(a)*	Nature of business	Telecommunication
5 (b)	Type of Organisation (Pvt industry, Association, academia, PSU, government departments etc.)	Industry Association

6	Frequency band (kHz/MHz)	2700-2900 MHz
7*	Applications of service	Fixed Wireless Applications (FWA), Enterprises Use cases and Last mile connectivity purposes
8	Minimum & Maximum power with unit	Transmit power up to 1W per Radio Unit (30 dBm)
9	Purpose	<p>Presently, the 2.7 -2.9 GHz frequency band in India has been earmarked for Aeronautical Radionavigation purposes and used for navigation purposes across Airports in India by Airport Authority of India, in accordance with the National Frequency Allocation Plan 2022.</p> <p>In the purview of that globally 2.7 GHz (2.7-2.9 GHz) band is not an IMT band, it is recommended DoT to earmark the band (2.7GHz - 2.9GHz) for Enterprise services. It is requested to administratively allocate the spectrum for Enterprise applications considering the fact that Enterprise use cases would be point to point and for Enterprise customers. Similarly, this frequency band can also be used for last mile connectivity purposes for Enterprises.</p> <p>Further, FWA for Enterprise services will be key enabler to bridge the digital divides by providing reliable, high-speed services to underserved areas cost-effectively which are commercially unfeasible to deploy fiber infrastructure.</p>
10 (a)	Countries in which similar applications are used along with web link (if known)	This is India specific Requirement
10 (b)	Provisions in frequency allocation table along with footnote of the country along with web link (if known)	IND 27 Subject to ensuring protection to Aeronautical radionavigation service and Radio locationservice, the band 2700-2900 MHz may also be used for Microwave Multipoint Distribution System (MMDS), including broadband

		applications. International recognition for such purpose is not affordable.
11	Radio Regulations provisions (if known)	
12*	Type of Radiocommunication service	Fixed Service
13	Compatible Wireless Standard for the device likely to work in the proposed band (ETSI, 3GPP, IEEE, EC, FCC ,TEC etc or any proprietary standard)	
14	Benefit for public	
15	If modification in NFAP-2022 footnote then quote relevant footnote no. of NFAP-22	Yes proposed modification of IND 27 Subject to ensuring protection to Aeronautical radionavigation service and Radio location service, the band 2700-2900 MHz may also be used for Microwave Multipoint Distribution System (MMDS), including <u>Fixed Wireless Access, and</u> broadband applications. International recognition for such purpose is not affordable.
16	Remarks	<u>Propose to clarify the application of FWA</u>

Note.

5* . Construction service / Manufacturing service/ Shipping Service/Aeronautical Service etc

7*. Specify the operation of service (e.g Hand held radio/ Vehicle mobile radio/ point to point links/FM/Community Radio/Aeromobile/Short Rang Device etc

12* Amateur/Fixed/Land mobile/Aeronautical mobile/Maritime Mobile/Aeronautical radio navigation/FM broadcast/Community Radio Service etc

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**IAFI's Input Document to Working Group (WG)-2 of NFAP 2022 Review
Committee – Simplification of IND Remark IND16**

Contribution for updating National Frequency Allocation Table-2022 (upto1 GHz band)		
1	Name of Individual/Organization etc.	ITU-APT Foundation of India (IAFI)
2	Address	504, 5th Floor, World Trade Center (Behind Lalit Hotel) Barakhamba Road New Delhi- 110001
3	Mail ID	info@iafi.in
4	Phone/Mobile no.	
5(a)*	Nature of business	Telecommunication
5 (b)	Type of Organization (Pvt industry, Association, academia, PSU, government departments etc.)	Industry Association

6	Frequency band (kHz/MHz)	612-960, 1427-1518 MHz, 1710-2200 MHz, 2300-2450 MHz, 2500-2690 MHz, 3300-3670 MHz , 24.25-27.5 GHz, 37-43.5 GHz, 47.2-48.2 GHz, 66-71 GHz
7*	Applications of service	IMT
8	Minimum & Maximum power with unit	As per 3GPP
9	Purpose	Mobile Services
10 (a)	Countries in which similar applications are used along with web link (if known)	As per ITU-R Recommendation M.1036
10 (b)	Provisions in frequency allocation table along with footnote of the country along with web link (if known)	
11	Radio Regulations provisions (if known)	
12*	Type of Radiocommunication service	Mobile service - IMT
13	Compatible Wireless Standard for the device likely to work in the proposed band (ETSI, 3GPP, IEEE, EC, FCC, TEC etc. or any proprietary standard)	4G, 5G – 3GPP specifications
14	Benefit for public	For Public Mobile Services
15	If modification in NFAP-2022 footnote, then quote relevant footnote no. of NFAP-22	IAFI proposes the following Revised text for a new India footnote: " <i>IND 16</i> " <i>The frequency bands 612-960, 1427-1518 MHz, 1710-2200 MHz, 2300-2450 MHz, 2500-2690 MHz, 3300-3670 MHz,</i>

		24.25-27.5 GHz, 37-43.5 GHz, 47.2-48.2 GHz, 66-71 GHz or parts thereof, have been identified for implementation of International Mobile Telecommunications (IMT)
16	Remarks	<p>The following Remarks are to be added</p> <p>Note 1: The frequency range 612-698 MHz may be used for IMT except that certain point to point links, subject to population being less, may be protected initially at few locations. Such sporadic non-IMT users shall vacate the band in near future.</p> <p>Note 2: The frequency band 3300-3400 MHz may be used for implementation of IMT except that initially some usages towards high seas-beyond 50 kms from the coast- and some links in very less populated areas may be permitted for non-IMT usages. Such non-IMT usages shall be shifted to other bands in near future.</p> <p>Note 3: The frequency range 3400-3425 MHz may be used for implementation of IMT except that in six DoS (Department of Space) locations at Thiruvanthapuram, Hassan, Bhopal, Jodhpur, Shillong and A&N Islands, a suitable keep-off distance shall be maintained by the IMT stations.</p> <p>Note 4: The frequency range 3600-3670 MHz may be used for implementation of IMT. The Satellite services may use the C band frequencies beyond 3670 MHz after leaving a guard band of 10 MHz.</p> <p>Note 5: The frequency range 24.25-27.5 GHz may be used for implementation of IMT except that in 25.5-27 GHz frequency range the IMT stations will be required to maintain a keep-off distance of 2.7 kms around five DoS locations at Delhi, Shadnagar, Khambaliya, Hut Bay and Tirunelveli.</p> <p>Note 6: While considering the bands 37-43.5 GHz, 47.2-48.2 GHz and 66-71 GHz for the implementation of International Mobile Telecommunications (IMT), the requirements of Satellite based and other services to which these bands might have been allocated in the RR, may be taken due care of.</p>

Note.

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