

Government of India
Ministry of Communications
(Wireless Planning and Coordination Wing)

No. R-14016/01/2019-NT(Pt.)

New Delhi, the 23rd July, 2019

OFFICE MEMORANDUM

Considering requirements for emerging new radiocommunications technologies and to promote R&D activities in the field of wireless radiocommunications, specifically 5G technologies, the competent authority has decided the following to regulate Experimental and Technology trial licenses; Manufacturing and Testing licenses; and Demonstration licenses **with immediate effect**.

No.	License Category	Scope
I	A. Experimental and Technology Trial License	
A	Experimental (non-radiating) in doors, including license for spectrum	<p>A. Purpose: R&D, experimentation, Testing in all bands in indoors (non-radiating)</p> <p>B. Applicable to: Indian entities involved in R&D, incubation, experimentation, TSPs and also covers Public Access Testbeds</p> <p>C. License fees: Rs. 5000/- (one time) per License per Spectrum band. No royalty charges. One license for experimental setup in one indoor location/campus/building. All devices in the experiments in a given location/setup are covered in the license.</p> <p>D. Period: Up to One year; Public Access Testbeds up to Two years. Renewable on case to case basis by the payment of License fees as above.</p> <p>E. Spectrum: All bands including new, unallocated, unallotted, unassigned, unsold, unused bands and others as may be feasible enabling international market access opportunities for Indian entities.</p> <p>F. Mode: Self Declaration: On WPC portal or through intimation till portal gets developed - indicating the bands used and details of wireless products / assemblies / machines and associated accessories.</p> <p>G. Terms & Conditions:</p> <ol style="list-style-type: none"> 1. Non-interference and non-protection basis; restricted to indoor environment in non-radiating or very low power radiating mode (up to 100 mW). 2. No commercial services. 3. The license includes the necessary permissions for importing wireless products / assemblies / modules and associated accessories including antennae operating in both licensed and license-exempt bands. Such imported products shall not be for commercial use / sale. 4. The entities are also permitted for demo of their products developed /under development in other locations in indoor environment <u>under intimation to WPC</u> (for a maximum period of one month at one place) on non-interference and non-protection basis without a separate demo license.

B	Experimental (Radiating) including license for spectrum for Indoor and Outdoor testing	<p>A. Purpose: R&D, Experimentation</p> <p>B. Applicable to: Indian Entities involved in R&D, incubation, manufacturing, testing, TSPs and Academia</p> <p>C. License fees: Rs. 5000/- (License fee) per License per spectrum band; No royalty charges; All devices in the experiment are included under one license.</p> <p>D. Period: Up to Two years (Renewable on case to case basis by WPC) subject to truncation to prevent interference to licensed operations. Restricted power levels, coordination, relocation of the test site may be tried to complete the test.</p> <p>E. Spectrum: All bands including new, unallocated, unallotted, unassigned, unsold, unused bands and others as may be feasible enabling international market access opportunities for Indian entities.</p> <p>F. Mode: Application on WPC portal or through application process till portal gets developed.</p> <p>G. Terms & Conditions:</p> <ol style="list-style-type: none"> 1. Non-interference and non-protection basis; 2. No commercial services. 3. Review by an Expert Committee appointed by DoT on Quarterly basis to monitor and ascertain effective usage of spectrum. 4. The license includes the necessary permissions for importing wireless products / assemblies / modules and associated accessories including antennae operating in both licensed and license-exempt bands. Such imported products shall not be for commercial use / sale. <p>H. Response Timeline: 8 weeks from the date of receipt of application and de facto approval if no communication is received within the period indicating non-feasibility.</p> <p>After the expiry of response timeline, a notice shall be sent by the applicant to the Department mentioning that the response timeline is over. If no approval is given within two weeks of receipt of such notice, then it will be deemed approval.</p>
C	Technology Trials (Radiating): The Special case of 5G	<p>A. Purpose: Technology and Capability demonstration to enable network planning, usage case and ecosystem development and envisaged for functional level network test i.e. beyond RF link tests</p> <p>B. Applicable to: Indian entities viz. TSPs / Companies / Organizations/ Academia involved in Services, R&D, Experimentation, Manufacturing of Digital Communication Technologies (DCTs)</p> <p>Equipment: Typical numbers are upto 20 gNodeBs and upto 500 UEs.</p> <p>C. License Fee: Rs. 5000/- (one time) per license covering defined geographical areas in one Licensed Service Area. All devices under trial are included under one license.</p> <p>D. Period: 3 months for import, site preparation, deployment & testing and</p>

		<p>One year for trial. Further extendable by One more year (excluding the first three-months-period of site preparation and testing by paying a license of Rs. 5000) based on review of the trial by an Expert Committee of DoT. The period is subject to truncation to prevent interference to licensed operations. Restricted power levels, coordination, relocation of the test site may be tried to complete the test.</p> <p>E. Spectrum: Potential 5G bands;</p> <p>Quantum of spectrum as may be necessary and/or can be justified to demonstrate technological capabilities. For example, typical values may be up to 100 MHz in 3.5 GHz band; 400 MHz in 26 GHz band and other potential mm bands. Backhaul spectrum as necessary for the trials in E and V bands. However, depending on the proposal submitted by the proposer for trial and subject to availability, appropriate quantum of spectrum will be allocated in other potential bands to demonstrate 5G capabilities and usage cases. For Non-standalone (NSA) mode of trial for 5G, quantum of spectrum as may be necessary would be considered subject to availability.</p> <p>F. Mode: Application on WPC portal or through application process till portal gets developed.</p> <p>G. Terms & Conditions: :-</p> <ol style="list-style-type: none"> 1. No commercial services. 2. Non-protection and non-interference basis. 3. Assignment is only for technology trial and no claim for the same band during commercial assignments. 4. The license includes all the necessary permissions for importing wireless products/assemblies / modules and associated accessories including antennae operating in both licensed and license-exempt bands. Such imported products shall not be for commercial use / sale. 5. Indigenous products should also be tried as part of trials to develop and strengthen domestic ecosystem. 6. Review by an Expert Committee appointed by DoT on Quarterly basis to monitor and ascertain effective usage of spectrum. <p>H. Response Timeline: 8 weeks from the date of receipt of application and de facto approval if no communication is received within the period indicating non-feasibility.</p> <p>After the expiry of response timeline, a notice shall be sent by the applicant to the Department mentioning that the response timeline is over. If no approval is given within two weeks of receipt of such notice, then it will be deemed approval.</p>
D	Technology Trials (Radiating) (other than 5G trials)	<p>A. Purpose: Technology and Capability demonstration, Product stabilization, usage case and ecosystem development etc., in standalone or non-standalone modes.</p> <p>Technology trials for special projects of DoT/USOF will also be undertaken under this category.</p>

B. Applicable to: Indian entities viz. TSPs / Companies/ Organizations / Academia involved in Services, R&D, Experimentation, and Manufacturing of DCTs. Trial by any other Indian entity by importing products directly from a foreign manufacture shall also be permitted on equipment returnable basis.

For Special Projects of DoT/USOF, the entities engaged in the projects or as approved by DoT would be eligible for undertaking the trial.

C. License Fee: Rs. 5000/- (one time) per License covering defined geographical areas in one Licensed Service Area (LSA). All devices under trial are included under one license.

D. Period: 3 months for site preparation which may include deployment, Testing, logistics, imports (as may necessary) and One year for trial. Further extendable by one more year (by paying Rs. 5000 towards license fee) based on review by a DoT Expert committee. The period is subject to truncation to prevent interference to licensed operations. Restricted power levels, coordination, relocation of the test site may be tried to complete the test.

For Special Projects of DoT, the time period will be as per the period defined in DoT/USOF projects for which the trials are required to be conducted.

E. Spectrum: All bands including new, unallocated, unallotted, unassigned, unsold, unused bands and others as may be feasible enabling international market access opportunities for Indian entities.

Quantum of spectrum as may be necessary and as per feasibility.

F. Mode: Application on WPC portal or through application process till portal gets developed.

G. Terms & Conditions:

1. No commercial services.
2. Review by an Expert Committee appointed by DoT on Quarterly basis to monitor and ascertain effective usage of spectrum.
3. Assignment is only for technology trial and no claim for the same band during commercial allocation.
4. Non-protection and non-interference basis.
5. The entities are also permitted for demo of their products developed / under development in other locations (other than trial area) in indoor environment (for a maximum period of one month at one place) on non-interference and non-protection basis without a separate demo license.
6. The license includes the necessary permissions for importing wireless products / assemblies / modules and associated accessories including antennae operating in both licensed and license-exempt bands. Such imported products shall not be for commercial use / sale.

H. Response Timeline: 8 weeks from the date of receipt of application and de facto approval if no communication is received within the period indicating non-feasibility.

		<p>After the expiry of response timeline, a notice shall be sent by the applicant to the Department mentioning that the response timeline is over. If no approval is given within two weeks of receipt of such notice, then it will be deemed approval.</p> <p>For Special Projects of DoT, respective T&C of the DoT / USOF scheme or Program would be applicable as may be necessary</p> <p>Note:</p> <p>Considering the need for network connectivity, as may be necessary, DOT should facilitate coordination with Indian TSPs, IPs to enable the New product trials by enabling access to physical infrastructure (Tower, Space, Power, and Access) for setting up the trials and the connectivity to the operational network in a controlled fashion.</p>
2	B. Manufacturing & Testing license	<p>A. Purpose: Manufacturing & Testing of DCT products to encourage continuous economic activity</p> <p>B. Applicable to: Entities involved in manufacturing, Prototype Development, Testing;</p> <p>C. License fees: Rs. 5000/- (one time). All devices under testing will be covered in one License.</p> <p>D. Period: Five years (renewable further again for Five years by paying a license fee of Rs. 5000)</p> <p>E. Spectrum: All bands including new, unallocated, unallotted, unassigned, unsold, unused bands and others as may be feasible enabling international market access opportunities for Indian entities.</p> <p>F. Mode: Self Declaration: On WPC portal or through intimation till portal gets developed - indicating the bands used and details of wireless products / assemblies / machines and associated accessories.</p> <p>G. Terms & Conditions:</p> <ol style="list-style-type: none"> 1. Non-interference and non-protection basis; 2. restricted to indoor environment in non-radiating mode or very low power radiating mode; 3. The license includes the necessary permissions for importing wireless products / assemblies / modules and associated accessories including antennae operating in both licensed and license-exempt bands. 4. Possession and Sale of wireless products falling under license bands: Compliance to stocking and reporting requirements as required under DPL. No separate DPL required and no need for any purchase order requirement from end customers. 5. Possession and Sale of wireless products falling under license-exempt bands: Obtain ETA as per the process. 6. The entities are also permitted for demo of their manufactured products in

		other locations (other than manufacturing place) in indoor environment (for a maximum period of one month at one place) on non-interference and non-protection basis without a separate demo license upon intimation to WPC.
3	C. Demonstration License	
A	Demo Indoor for finished products Including license for spectrum Non-radiating / very low power radiating	<p>A. Purpose: Product demonstration in exhibitions, indoors, customer premises</p> <p>B. Applicable to: Indian entities <i>(Note: Entities already holding a valid 'Experimental and Technology Trials License / Manufacturing & Testing License / Authorized Indian traders having valid DPL DON'T need a separate demo license for indoor demos on non-interference and non-protection basis for a maximum period of one month at one place.)</i></p> <p>Demo license for imported products directly from a foreign manufacture shall be permitted on returnable basis without the need for a separate DPL.</p> <p>C. License fees: Rs. 5000/- (License fee) per License;</p> <p>No Royalty charges, all devices working in a spectrum band will be covered under one License.</p> <p>D. Period: 3 months (No extension). Need to reapply.</p> <p>E. Spectrum: All bands including new, unallocated, unallotted, unassigned, unsold, unused bands and others as may be feasible enabling international market access opportunities for Indian entities.</p> <p>F. Mode: Case 1: Self Declaration: On WPC portal or through intimation till portal gets developed - indicating the bands used and details of wireless products / assemblies / machines and associated accessories; Case 2: Application on WPC portal or through application process till portal gets developed - for exhibitions i.e. where multiple agencies may participate and there is a contention for the spectrum;</p> <p>G. Terms & Conditions: 1. Non-interference and non-protection basis; 2. Restricted to indoor environment in 'non-radiating' or very low power radiating mode. 3. The license includes all the necessary permissions for importing wireless products / assemblies / modules and associated accessories operating in both licensed and license-exempt bands. Such imported products shall not be for commercial use / sale. 4. Compliance to stocking and reporting requirements. No separate DPL required.</p> <p>H. Response Timeline: 4 weeks from the date of receipt of application and de facto approval if no communication is received within the period indicating</p>

		<p>non-feasibility.</p> <p>After the expiry of response timeline, a notice shall be sent by the applicant to the Department mentioning that the response timeline is over. If no approval is given within two weeks of receipt of such notice, then it will be deemed approval.</p> <p>DoT to facilitate spectrum availability from sources, inter alia, new bands, bands unsold, secondary basis from other users & unused areas, sharing basis as may be necessary.</p>
B	Demonstration (outdoor) for finished products including license for spectrum radiating	<p>A. Purpose: Product demonstration in outdoor environment</p> <p>B. Applicable to: Indian entities</p> <p><i>(Note: Entities already holding either a valid 'Experimental and Technology Trials License, MANUFACTURING & TESTING LICENSE or Authorized Indian traders having valid DPL may apply for outdoor demo license for the products covered under respective licenses)</i></p> <p>C. License fees: Rs. 5000/- (License fee) per License;</p> <p>No Royalty charges, All devices working in a spectrum band will be covered under one License.</p> <p>D. Period: 3 months (No extension). Need to reapply.</p> <p>E. Spectrum: All bands as permitted under Region 3 (ITU RR) shall be permitted for demo including new, unallocated, unallotted, unassigned, unsold, unused bands and others as may be feasible. Bands available for other regions (ITU) shall also be permitted to enable access to international market for Indian entities.</p> <p>Quantum of spectrum as may be necessary and as per feasibility. The period is subject to truncation to prevent interference to licensed operations.</p> <p>F. Mode: Application on WPC portal or through application process till portal gets developed.</p> <p>G. Terms & Conditions:</p> <ol style="list-style-type: none"> 1. Non-interference and non-protection basis; 2. No commercial services. 3. The license includes the necessary permissions for importing wireless products / assemblies / modules and associated accessories including antennae operating in both licensed and license-exempt bands. Such imported products shall not be for commercial use / sale. 4. Compliance to stocking and reporting requirements. No separate DPL required. <p>H. Response Timeline: 4 weeks from the date of receipt of application and de facto approval if no communication is received within the period on non-feasibility.</p> <p>After the expiry of response timeline, a notice shall be sent by the applicant to</p>

		the Department mentioning that the response timeline is over. If no approval is given within two weeks of receipt of such notice, then it will be deemed approval.
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2. The Spectrum proposed to be assigned for above cases will be subject to the condition that such spectrum, if subsequently assigned through auction, or otherwise, for commercial use, will entail termination of any radiating license in outdoor environment, so that such spectrum can be assigned to the entity which has acquired it through auction. When there is an application/requirement for such spectrum for commercial use, and there is subsequent need to assign the spectrum, such development will entail termination of any radiating license in outdoor environment. Regarding licenses for indoor / non radiating operations for Experimental/Manufacturing & testing/ Demonstration purposes, the assignment is purely on non-inference and non-protection basis and should not affect any licensed operations.

3. The above provisions under item 1, substitute the respective provisions of notifications viz. GSR No. 160(E) dated 12 January, 1988; GSR No. 324(E) dated 14 May 2009; GSR No. 159(E) dated 12 March, 1988; GSR No. 325(E) dated 14 May 2009; Indian Wireless Telegraphy (Experimental Service) Rules, 1962 and subsequent amendments, Indian Wireless Telegraphy (Demonstration License) Rules, 1962 and subsequent amendments thereto.

4. The applications for Experimental & Technology Trials Licenses and Demonstration licenses shall continue to be submitted to the respective Regional Licensing Offices (RLOs) as listed in **Annex-I**. The applications for Manufacturing and Testing Licenses shall also be submitted to respective RLOs. Application formats for various categories are as per **Annex-II**. The documents to be attached with the applications are as per **Annex-III**.

5. The gazette notification on the above licenses shall follow.

To,
All concerned,

Copy for information to:

- (i) PS to Hon'ble MoC
- (ii) PS to Hon'ble MoSC
- (iii) PPS to Secretary (Telecom)
- (iv) PPS to Member (Technology)
- (v) PPS to Member (Finance)
- (vi) PS to Wireless Adviser


(L D Meghwal)
Deputy Wireless Adviser
Ph.- 011 2303 6508
 (एल. डी. मेघवाल)
(L. D. MEGHWAL)
 उप बेतार सलाहकार, भारत सरकार
 Dy. Wireless Adv. to the Govt. of India
 डब्ल्यू. पी. सी. विंग/W.P.C. Wing
 दूरसंचार विभाग/Deptt. of Telecom
 नई दिल्ली/New Delhi

Annex-I

The Regional Licensing Offices and their jurisdiction are as follows

S.NO	Address of Regional Licencing Office	Territorial Jurisdiction (where location of experiment/demonstration/manufacturing falls)
1	North, New Delhi Joint Wireless Adviser WPC Wing Regional Licensing Office, Ministry of Communications, Northern Regional Wireless Monitoring HQRS Campus, (PO) Ghitorni, New Delhi-30. Tel.No.+ 91 11 2650 2671/1712 FAX. No. +91 11 2650 2860 Email:- singh.sukhpal@nic.in	Delhi, Rajasthan, Punjab, Haryana, Chandigarh, J & K, Himachal Pradesh, Uttar Pradesh, Uttaranchal
2	Eastern, Kolkata Joint Wireless Adviser WPC Wing Regional Licensing Office, Ministry of Communications, International Wireless Monitoring Station Campus, (PO) Sarkarpool, Gopalpur, Kolkata -700143. Tel. No. +91 33 2401 1431/2401 8801 FAX. No.+ 91 33 2401 4473 Email:- dinesh.jha62@nic.in	West Bengal, Bihar, Jharkhand, Orissa, Sikkim, Andaman & Nicobar
3	Western, Mumbai Joint Wireless Adviser WPC Wing Regional Licensing Office, Ministry of Communications , 3rd Floor, MTNL Telephone Exchange Bldg, Charkop, Sector-5, Kandivali (W), Mumbai-400 067 Tel No. +91 22 2868 3202/28672351, Fax No. +91 22 2867 3214 Email:- vj.christopher@nic.in	Maharashtra, Gujrat, Goa, Daman and Diu, Dadar & Nagar Haveli, Madhya Pradesh & Chattisgarh
4	Southern, Chennai Joint Wireless Adviser WPC Wing Regional Licensing Office, Ministry of Communications, International Wireless monitoring Station Campus, (PO) Perungudi, Kandanchavadi, Chennai- 600 096. Tel.No.+ 91 44 2496 2070/ 2496 0172, FAX. No. +91 44 2496 4000 Email:- sk.chauhan69@gov.in	Andhra Pradesh, Karnataka, Kerala, Tamilnadu, Minicoy, Pondicherry and Lakshadweep
5	North East, Shillong Sr. Deputy Wireless Adviser WPC Wing Regional Licensing Office, Ministry of Communications Wireless Monitoring Station Campus, Lapalangk, Ryngah, Shillong-793006 Tel.No.+ 91 364 2537613, FAX. No. +91 364 2230893 Email: munesh.kumar@nic.in	Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland and Tripura

NOTE:- Applications may be submitted to above emails also till portal gets developed.

23/7/19
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(L. D. MEGHWAL)
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