LPWAN-Application Form

Application No. (to be filled by PTA)

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PAKISTAN TELECOMMUNICATION AUTHORITY

Headquarters, F-5/1, Islamabad

[www.pta.gov.pk](http://www.pta.gov.pk)

Application Form for License of LPWAN based IoT Services

Please read the application Guidelines given after the end of the following form to be filled by the applicant.

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| --- | --- |
| 1 | Corporate Information Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | 1. Applicant/ Licensee Legal Entity Type
 | 1. Government Entity
2. Private Entity
 | 1. Other(s), Specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |
| 1. Name of Applicant

Organization: |  |
| 1. Postal Address:
 |  |
|  |
|  |
| 1. Contact Information
 | Web Site: Fax No.: Telephone No:   |
|  | 1. SECP`s Certificate of Incorporation Memorandum and Articles of Association
 |  Attached (as per Checklist) |
| 2 | Authorized Person and Application |
|   | 1. Name & Designation
 | Name: Designation: |
| 1. CNIC No.
 |  |
| 1. Contact Information
 | Mobile No.: Telephone No:Email: Willing to receive all information electronically at the above email address (Yes/No):  |
|  | iv. Application on the letter head of applicant company as per Checklist. | Attached (as per Checklist)  |
|  | v. Authorization Letter |  Attached (as per Checklist) |
| 3 | Application Details  |
|  | 1. Application Type:
 | New Application | Modification in Existing LicenseIn case of modification, provide existing License no: |
|  | 1. Area of Service details (Bounded by Power limit)
 |  Power limit = I Watt EIRP. Confirm by Tick in the check box |
|  | 1. Frequency Range:
 | 433.05 - 434.79 | 920-925 MHz |
|  | 1. Brief Application description (e.g

[Smart Agriculture](https://lora-alliance.org/agriculture-vertical-market/),[Smart Buildings](https://lora-alliance.org/buildings-vertical-market/),[Smart Cities](https://lora-alliance.org/cities-vertical-market/),[Smart Industry](https://lora-alliance.org/industry-vertical-market/), smart home[Smart Logistics](https://lora-alliance.org/logistics-vertical-market/),[Smart Utilities](https://lora-alliance.org/utilities-vertical-market/) or any other related application) along with network diagram | A brief explanation of the IoT Application along with the network topology (end to end network connectivity diagram) Attached  |
|  | v. Area of Service (AoS): Initial AoS and future AoS expected to be covered (Latitude & Longitude & name of cities  |  |
|  | vi. Range of emission (in Kms) |  |
|  | vii. Name of PTA licensee for Connectivity (Connectivity between Gateway and Network Server) | Note: Any connectivity with unlicensed operator will tantamount to cancelation of license |
|  | viii. Wireless Communication Network Protocol (LoRaWAN, Sigfox etc)  |  |
|  | ix. Application Fee (Bank draft or Demand Draft of Rs. 1000)  | Attached  |

|  |
| --- |
| 4. Equipment Data |
|  | 1. Equipment Manufacturer
 |  |
| 1. Equipment Frequency Range (MHz)
 |  |
| 1. Transmitter Operating Output Power EIRP in Watts
 |  |
| 1. Coverage (in Km)
 |  |
| 1. Does the network server manage the RF output power for each end-device individually by means of an Adaptive Data Rate (ADR) scheme? (Yes/No). If yes, then mention the range of output power (EIRP in Watts)
 |  |
|  | 1. (a) Security between end devices and Gateway

(b) Security between Gateway and server (core network)(c) Security between core and data platform (d) Security between data platform and Application | Since the security is critical in IoT based applications, applicant is required to attach brief on end-to-end security between various components of network (end devices, Gateways, data Platform and Application)Attached  |
|  | 1. Number of Devices in each category (End devices, Gateways)
 | No. of IoT end devices: No. of Gateways: |
| 5 | Specimen Undertaking (given in the Checklist) to be submitted on Judicial Stamp Paper, and signed by Organization Head/ CEO/Authorized Represented Individual etc. | Attached  |
| 6 | Duly Notarized Scanned copy of CNIC of CEO or Authorized person(Both sides of CNIC to be scanned on one A4 size page and attached) | Attached  |
| 7 | Complete scanned copy of application to be send to IOTLPWAN@pta.gov.pk | Sent to given email  |

**Application Guidelines:**

1. In accordance with the Framework, Type Approval is a mandatory requirement in accordance with the in-vogue Type Approval Regulations. Process for type approval is available at link <https://www.pta.gov.pk/en/industry-support/industry-services/type-approval/type-approval>

\*Note: *For LPWAN, Type Approval shall be applied upon obtaining the LPWAN license from PTA.*

1. PTA’s Framework for SRDs/IoTs is available at: <https://www.pta.gov.pk/assets/media/srd_iot_regulatory_framework_14022022.pdf>). Applicants are required to comply with this framework. It covers following four (4) types of use cases:
2. SRD/UWB use case: This form is not applicable for this use case. No License is required for this use case. However, type approval of IoT Devices is mandatory. Applicants are required to contact Type Approval Directorate of PTA.
3. IoT LPWAN (shared frequency bands: (i) 433.05-434.79 MHz (ii) 920-925 MHz): This form is applicable and required to be filled for this use case. The Type Approval of IoT Devices is mandatory for which applicants are required to contact Type Approval directorate of PTA. The License, if provided, will be valid for 5 years after which it will be mandatory to renew the License, if required by the applicant. Please note that if any of the following condition is met, then please do not submit your application. Your applications will not be considered:
	1. Max Output power (EIRP) of the transmitter exceeds 1 Watt, or
	2. Frequency range of end IoT devices is beyond the LPWAN frequency bands mentioned above
4. IoT use case requiring exclusive use of frequency spectrum.: For this use case, the applicants are required to fill the PTA Form for ‘’Private Radio Network license’’. In addition to this, Type Approval is also mandatory.
5. IoT use through connectivity from the Cellular Mobile operators. No License is required for this use case, however Type Approval is mandatory. Further details can be found in the PTA IoT framework.

2. This form is to be filled in BLOCK CAPITALS.

3. You are advised not to purchase the equipment until you have obtained your License.

4. Any installation / operation of any wireless network or devices, where License / license is required, is an offence under section 31 of the Pakistan Telecommunication (Re-organization) Act, 1996 and with other enabling provision provided in the Prevention of Electronic Crimes Act, 2016.

5. Typically, the IoT solution providers use the connectivity of existing Cellular Mobile operators and therefore they are not required to deploy any new base station. However, if the new base station is required to be deployed by the applicant for any technical reason, then this base station will be registered with Frequency Allocation Board (FAB) through PTA. Applicant, in this case, is required to fill the site registration form (R-01 forms for BTS;) available at PTA website (<https://www.pta.gov.pk/media/land-mobile.pdf>).

6. This complete Application Form should be accompanied with Bank draft or Demand Draft of Rs. 1000/- payable to Pakistan Telecommunication Authority, A/C NIDA 11, National Bank of Pakistan, Marriot Hotel Branch, Islamabad (This is application processing fee). After application is approved, applicant will be required to submit the PKR 100,000/- as initial License fee and Annual License fee equal to PKR 5000 per Gateway.

7. In case of addition in the Gateways, the company is under obligation to seek approval of the same from PTA before installation of new Gateways.

8. LPWAN License for academic research purpose shall be exempted from the above mentioned fee(s), for research purposes only.

9. All original documents (This Application Form and attachments) are required to be sent to Director RBS, PTA HQ, F-5/1 Islamabad. A scanned copy of complete package is required to be sent to: IOTLPWAN@pta.gov.pk