

CITC Technical Specification

Requirements for specific ICT Equipment

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Scope

This document specifies the requirements for the following product categories:

- Mobile Phones, Tablets and Mobile Computers
- Mobile Routers and Customer Premises Equipment CPEs
- Cellular IoT devices

Note: Limited exceptions from any of the listed requirements in this document may be made at the sole discretion of CITC on a case-by-case basis.

Enforcement

This technical specification shall enter into force on 20/07/2021.

Any previous version of this document is withdrawn.

Requirements for Mobile Phones, Tablets and Mobile Computers

General Requirements

- Each interface must comply with the applicable technical specifications issued by CITC.
- Applications for type approval of these devices are only accepted through the manufacturer of the device. Third parties are not permitted to apply for the approval of these devices.
- Samples of the device might be required by CITC for testing purposes upon request.
- It is the responsibility of the manufacturer to perform testing and provide confirmations from all Saudi mobile network operators that the device meets the listed requirements before applying for type approval.
- In order to ensure devices' compatibility with Saudi mobile networks, manufacturers must perform testing, provide declaration of major effect SW update and receive acceptance from all Saudi mobile network operators before deploying major software updates on their devices.
 - A major software update is any update made to the operating system of the device that changes the technical specifications and the connectivity features of the device or any other technical requirements, thus affecting the technical performance of the device and its connection with the infrastructure of communications and information technology networks for service providers., such as enabling, or modifying of current or new frequencies, transmission modes, or connectivity services.
 - Form of "Declaration of Major Software Update" can be found at CITC website www.citc.gov.sa
- Saudi mobile network operators shall perform the required tests and provide acceptance to manufacturers as well as CITC.

Technology Requirements:

- Devices are required to support LTE (4G) technology as a minimum requirement.
- CITC strongly encourages supporting the following technologies:
 - 1- 5G NR technology
 - 2- eSIM
 - 3- WiFi 6 and WiFi 6e (5.925 – 7.125 GHz).

Frequency Requirements:

- The following frequency bands are mandatory to be supported by devices per the technology supported:
 - LTE: B1, B3, B8, B20, B28, B40 and B41 (2540-2640MHz)
 - 5G NR: n1, n3, n8, n28, n40, n41, n71, n77 and n78

Note: n1, n3, n8, n28, n40, n71 and n77 frequency support requirement shall enter into force on 1/7/2022.

Voice Services Requirements:

- Devices shall support the following voice services:
 - VoLTE: Voice over LTE
 - VoWiFi: Voice over WiFi
- CITC also strongly encourages the support of the following services:
 - VoNR: Voice over New Radio
 - ViNR: Video over New Radio

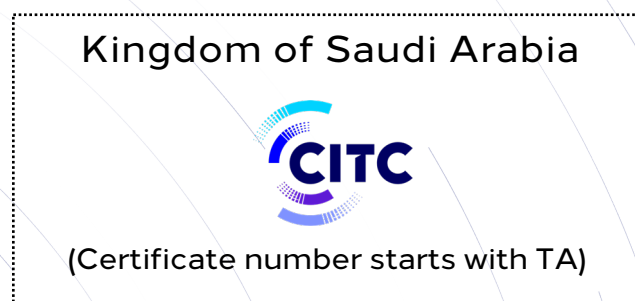
Emergency Communications Services Requirements:

- All handsets must support the Cell Broadcast Service (CBS) service as per CITC's technical requirements on mobile devices to enable cell broadcast service (CBS) alert:
https://www.citc.gov.sa/en/RulesandSystems/RegulatoryDocuments/EquipmentApproval/Documents/TA_704_E_CITC.pdf
- All handsets must also support the Advanced Mobile Location AML emergency communication service and testing should be carried out to ensure compliance with ETSI TR 103 393

Note: AML emergency communication service requirement shall enter into force on 1/10/2021.

E-Label Requirements:

- Devices are required to have CITC E-Label embedded in their software as a proof of compliance.
- E-Label must be accessible by users of the devices.
- It is the responsibility of the manufacturer to implement the E-Label design showing the certificate number issued by CITC.
- After having the approval from CITC, the issued type approval number (TA xxxx-y) must be inserted it in the E-Label.
- The E-Label must follow the following design:



- The E-Label design can be found on CITC's website www.citc.gov.sa

Requirements for Mobile Routers and CPEs

General Requirements

- Each interface must comply with the applicable technical specifications issued by CITC.
- Samples of the device might be required by CITC for testing purposes upon request.

Technology Requirements:

- All CPEs and Mobile Routers are required to support the following technologies as a minimum requirement.
 - LTE (4G)
 - WiFi 6

Note: WiFi 6 technology requirement shall enter into force on 1/7/2022.

- CITC also strongly encourages the support of the following technologies:
 - 5G NR
 - WiFi 6e (5.925-7.125 GHz)

Frequency Requirements:

- The following frequency bands are mandatory to be supported by devices per the technology supported:
 - LTE: B1, B3, B8, B20, B28, B40 and B41 (2540-2640MHz).
 - 5G NR: n1, n3, n8, n28, n40, n41, n71, n77 and n78.

Note: n1, n3, n8, n28, n40, n71 and n77 frequency support requirement shall enter into force on 1/7/2022.

Requirements for Cellular IoT devices

General Requirements

- Each interface must comply with the applicable technical specifications issued by CITC.
- Tracking devices usage and importation are only allowed through Tracking Services providers whom registered at CITC.
- All the requirements and conditions of the Internet of Things (IoT) Regulatory Framework must be met.
- Samples of the device might be required by CITC for testing purposes upon request.

Technology Requirements:

- Devices are required to support either LTE (4G), NB-IoT, or LTE-M technologies as a minimum requirement.

Frequency Requirements:

- The following frequency bands are mandatory to be supported by devices per the technology supported:
 - LTE/NB-IoT/LTE-M: B3, B8, B20, and B28.
- CITC also strongly encourages the support of the following frequency band:
 - LTE/NB-IoT/LTE-M: B71.

History

For reference, the latest versions of the technical specifications are published on the CITC website www.citc.gov.sa.

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