

Federal Communications Commission Office of Engineering and Technology Laboratory Division

April 2, 2019

#### TCB PROGRAM TECHNICAL ASSESSMENT ISO/IEC 17065:2012 CHECKLIST

**Instructions to the Assessor:** This checklist provides a common set of questions to be addressed as part of the ISO/IEC 17065:2012 assessment of a Telecommunication Certification Body (TCB), to determine the capability and competence of the TCB to approve equipment subject to the certification requirements contained in the FCC Rules and Regulations (47 CFR Parts 0 through 101). It is intended for use during the assessment phase of the accreditation process as a guide to evaluate the competence of the TCB and its personnel to perform the required evaluations for certification. It is not intended to replace the good engineering judgment of the technical assessor, or a thorough evaluation of the facility As such, other related items not shown in this checklist may be evaluated and documented by the assessor(s). The accreditation body shall attest that all responses in this checklist are complete and accurate. The completed checklist for each laboratory is submitted to the FCC, and is made publicly available.<sup>1</sup>

Mark all items the assessor observed and verified at the TCB. Mark the box with the letter "Y," representing "acceptable" to show conformance with the criteria. Mark the box with the letter "N," representing "Not Acceptable," to show a deficiency. If an item is "Not Applicable," mark the box with the letter "N/A" beside the item.

Certification Body	
Accreditation Body	
Date Completed	
Date of Assessment	
Completed by (Assessor Name(s) printed)	
Type of Assessment (Check One)	<ul> <li>Initial Assessment (complete checklist in full)</li> <li>Surveillance Assessment</li> <li>Renewal Assessment</li> </ul>

<sup>&</sup>lt;sup>1</sup> ISO/IEC 17065:2012 replaces ISO/IEC Guide 65:1996 as of September 15, 2015.

Ge	General TCB Requirements			
Y	N	N/A	Question	Comments
			1. Is knowledgeable of its responsibilities and limitations for certifying products subject to certification under the FCC Rules and Regulations. Documentation governing a TCB are available for reference (e.g., R&O in FCC ET Docket 98-68, Public Notice DA 99-1640, FCC 14-208, and TCB Roles and Responsibilities KDB Publication 641163).	
			<ol> <li>Has a testing laboratory accredited to ISO/IEC 17025:2005 with the appropriate scope. See <u>KDB</u> <u>Publication 974614</u> for the list of scopes.</li> </ol>	
			<ol> <li>Has a testing laboratory accredited to ISO/IEC 17025:2017 with the appropriate scope. See <u>KDB</u> <u>Publication 974614</u> for the list of scopes.</li> </ol>	
			4. Procedure is in place to accept test data from an external testing laboratory, ensure that device was properly tested, and ensure that the external testing laboratory is properly recognized.	
			5. Procedure is in place that complies with <u>KDB</u> <u>Publication 610077</u> , and is being followed for performing post market surveillance audits of equipment that the TCB has certified.	
			6. TCB has responded and satisfactorily addressed FCC correspondence relating to applications for certification. ( <i>Note: This question is not applicable for initial assessment.</i> )	
			7. Demonstrates an understanding of overall structure of the FCC Rules, and is capable of locating specific rule sections.	
			8. Demonstrates an understanding of administrative and technical guidance provided in KDB Publications.	
			<ol> <li>Demonstrates an understanding of rules governing confidentiality (47 CFR Section 0.457, <u>KDB</u> <u>Publication 726920</u>, et al.), and capable of making the appropriate filing for confidential material.</li> </ol>	

10. Can explain the difference between Supplier's Declaration of Conformity, and Certification, and explain when Certification is required.	
11. Understands and has working knowledge of 47 CFR Part 2 Subparts I, J, and K.	
12. Can explain and document what equipment the TCB is authorized to certify.	
<ol> <li>Understands and has a working knowledge of the Pre-Approval Guidance (PAG) Procedure and PAG List in <u>KDB Publication 388624</u>.</li> </ol>	
<ol> <li>Understands and has a working knowledge of permissive change procedures and <u>KDB Publication</u> <u>178919</u>.</li> </ol>	
15. Understands and has a working knowledge of the FCC equipment authorization electronic filing system (EAS).	
16. Has procedures and evaluation checklists for each type of product it certifies.	
17. Understands and has working knowledge of FCC note codes, grant comments and conditions, and equipment specification Form 731 grant line entries.	
<ol> <li>Understands and has a working knowledge of FCC Grantee codes and <u>KDB Publication 204515</u>.</li> </ol>	
19. Has access to all FCC Rules for which it will approve equipment.	
20. Has access to all measurement standards, bulletins, and procedures related to all equipment that it will approve.	
<ol> <li>Understands and has a working knowledge of Software Defined Radio (SDR) requirements and <u>KDB Publication 442812</u>.</li> </ol>	
<ol> <li>Understands and has a working knowledge of Software Configuration and Control and <u>KDB</u> <u>Publication 594280</u>.</li> </ol>	

	<ul> <li>23. Understands and has a working knowledge of RF Exposure requirements for the specific types of equipment covered by the TCB's scope of accreditation (A and B) performed by the TCB. See: 47 CFR Sections 1.1307, 2.1091 and 2.1093 and the following KDB publications: <u>248227</u>, <u>447498</u>, <u>615223</u>, <u>616217</u>, <u>643646</u>, <u>648474</u>, <u>680106</u>, <u>690783</u>, <u>865664</u>, and <u>941225</u>.</li> </ul>	
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## Scope A – Unlicensed Radio Frequency Devices

### **General Part 15 Requirements**

Y	Ν	N/A	Question	Comments
			24. Testing Capability and Core Test Facilities Note: A TCB shall have the following minimum facilities and equipment. It shall also demonstrate that it has a procedure in place and is capable of performing tests for each of the products it will certify.	
			<ul> <li>An accredited and recognized radiated emissions test site that is compliant with ANSI C63.4-2014. Calibrated EMI receivers or spectrum analyzers covering 9 kHz to 40 GHz for radiated emission measurements.</li> <li>Loop antenna(s) for 9 MHz to 30 MHz, and linearly polarized antennas for 30 MHz to 40 GHz.</li> <li>A conducted emissions test site that is compliant with ANSI C63.4-2014. <i>Note: The site should include at least two calibrated LISNs rated at 115V/60 Hz, and the test site should have 115V/60 Hz power available.</i></li> <li>A spectrum analyzer for power density and RF bandwidth measurements.</li> <li>A temperature chamber covering the temperature range of -20 °C to +50 °C.</li> <li>A frequency counter with an upper range of at least 40 GHz or other means to measure transmitter frequencies accurately.</li> </ul>	
			25. Understands and has a working knowledge of 47 CFR Part 15.	
			26. Understands the requirements and has a working knowledge of restricted band requirements of 47 CFR Section 15.205.	

27. Understands the requirements and has working knowledge of <u>KDB Publication 996369</u> and FCC policy for modular transmitters.	
28. Understands the requirements for equipment subject to both certification and Supplier's Declaration of Conformity (SDoC) (e.g., Consumer ISM, CB receiver, super-regenerative and other receivers, TV interface device, Personal Computers and associated equipment).	
29. Understands the requirements and has a working knowledge of 47 CFR Part 15 Subpart F Ultra Wide-Band devices, <u>KDB Publication 393764</u> , and the procedures of ANSI C63.10-2013.	
<ol> <li>Understands the requirements and has a working knowledge of 47 CFR Part 15 Subpart H TV band devices and <u>KDB Publication 416721</u>.</li> </ol>	

A1 – Low power transmitters operating on frequencies below 1 GHz (with the exception of spread spectrum devices), emergency alert systems, unintentional radiators (e.g., personal computers and associated peripherals, and TV Interface Devices), and consumer ISM devices subject to certification (e.g., microwave ovens, RF lighting, and other consumer ISM devices)

31. Understands and has a working k measure and compute the averag pulsed emissions from a remote transmitter.	knowledge of how to the field strength of control and security
32. Understands and has a working k procedures for measuring band-e	knowledge of the edge emissions.
33. Understands and has a working k requirements for Emergency Ale (see 47 CFR Part 11).	cnowledge of the ert System devices

# A2 – Low power transmitters and radar detectors operating on frequencies above 1 GHz, with the exception of spread spectrum devices

34. Understands and can explain the requirements for low power transmitters operating on frequencies above 1 GHz. ( <i>See 47 CFR Sections 15.207, 15.209,</i> <i>15.214, 15.245, 15.249, 15.251, 15.253, and 15.255.</i> )	
<ol> <li>Understands the requirements and has a working knowledge of 47 CFR Section 15.256 Level Probing Radar (LPR) devices and <u>KDB Publication 890966</u>.</li> </ol>	

		36. Understands the requirements and has a working knowledge of Millimeter Wave devices and <u>KDB</u> <u>Publication 200443.</u>	
A3 –	Unlicen	sed Personal Communications Service (PCS) Devices	
		<ul><li>37. Understands and can explain the requirements and measurement procedures for unlicensed Personal Communications System devices. (See 47 CFR Part 15 Subpart D)</li></ul>	
A4 –	UNII d	evices and low power transmitters using spread spectrum	techniques
		38. Understands and can explain the requirements and measurement procedures for spread spectrum systems. (See 47 CFR Section 15.247)	
		39. Understands and has a working knowledge of the requirements for digital transmission systems of 47 CFR Section 15.247, 47 CFR Section 15.407, and <u>KDB Publication 558074</u> .	
		40. Understands and can explain the requirements and measurement procedures for Unlicensed National Information Infrastructure systems. (See 47 CFR Part 15 Subpart E).	
		41. Understands and has a working knowledge of Dynamic Frequency Selection (DFS) devices and the following KDB Publications: 905462, and 789033.	
		42. Understands and has a working knowledge of Multiple Input and Multiple Output (MIMO) devices and <u>KDB Publication 662911</u> .	

Sc	Scope B – Licensed Radio Service Equipment			
G	General Requirements for the Licensed Radio Services			
Y	Ν	N/A	Question	Comments
			<ul> <li>43. Testing Capability and Core Test Facilities (A TCB shall have the following minimum facilities and equipment. It shall also demonstrate that it has a procedure in place and is capable of performing tests for each of the products it will certify.)</li> <li>RF wattmeter and probes up to 40 GHz</li> </ul>	
			<ul> <li>Spectrum analyzer or receiver and antennas up to 40 GHz</li> <li>Temperature chamber covering -30 °C to +50 °C</li> <li>Frequency counter or other means of measuring accurately up to 40 GHz</li> <li>Facilities for performing each of the core tests described in the next item</li> </ul>	
			44. Understands and has working knowledge of the general measurement procedures for licensed transmitters:	
			<ul> <li>RF power output</li> <li>Modulation characteristics</li> <li>Occupied bandwidth</li> <li>Spurious emissions at antenna terminals</li> <li>Field strength of spurious emissions</li> <li>Frequency spectrum</li> <li>Specific tests for the amateur radio service</li> </ul>	
			<ul> <li>45. Understands and is capable of creating line entries for the grant of certification, consisting of the following parameters:</li> <li>Grant notes</li> <li>Rule parts</li> <li>Frequency range</li> <li>Power output</li> <li>Frequency tolerance</li> <li>Emission designator</li> </ul>	
			46. Understands and has a working knowledge of Signal Boosters and <u>KDB Publication 935210</u> .	

	47. Understands and has a working knowledge of procedures for power measurements of devices with a bandwidth of greater than 1 MHz and <u>KDB</u> <u>Publication 971168</u> .
B1 – Comm	ercial Mobile (Radio) Services in 47 CFR Parts 20, 22 (cellular), 24, 25 (below 3 GHz), and 27
	<ol> <li>Understands and has working knowledge of Cellular Radiotelephone Service equipment described in 47 CFR Part 22 Subpart H.</li> </ol>
	49. Understands and has working knowledge of narrowband PCS equipment contained in 47 CFR Part 24 Subpart D.
	<ul><li>50. Understands and has working knowledge of broadband PCS equipment contained in 47 CFR Part 24 Subpart E.</li></ul>
	<ul><li>51. Understands and has working knowledge of Satellite communication equipment contained in 47 CFR Part 25, including ITU GMPCS MOU.</li></ul>
	52. Understands and has working knowledge of Wireless Communication Service (WCS) equipment contained in 47 CFR Part 27.
	<ul> <li>53. Understands and has a working knowledge of hearing aid compatibility requirements of 47 CFR Section 20.19 and <u>KDB Publication 285076</u>.</li> </ul>
B2 – Gener 3 GHz), 95	al Mobile Radio Services in 47 CFR Parts 22 (non-cellular), 73, 74 (below 3 GHz), 90 (below (below 3 GHz), and 97 (below 3 GHz)
	54. Understands and has working knowledge of non- cellular public mobile radio service equipment contained in 47 CFR Part 22 Subparts E, F and G.
	<ul> <li>55. Understands and has working knowledge of auxiliary broadcast service equipment contained in 47 CFR Part 74 Subparts D, E and H.</li> </ul>
	<ul> <li>56. Understands and has working knowledge of private land mobile radio services equipment contained in 47 CFR Part 90 and <u>KDB Publication 579009</u>.</li> </ul>

	<ul> <li>57. Understands and has working knowledge of personal radio services equipment contained in 47 CFR Part 95 Subparts A to K, including the special requirement for equipment in each of the following radio services:</li> <li>Family Radio Service (FRS)</li> <li>Radio Control (R/C) Radio Service</li> <li>Citizen Band (CB) Radio Service</li> <li>General Mobile Radio Service (GMRS)</li> <li>218-219 MHz Service</li> <li>Low Power Radio Service (LPRS)</li> <li>Wireless Medical Telemetry Service (WMTS)</li> <li>Medical Device Radio Communications Service (MedRadio)</li> <li>Multi-Use Radio Service (MURS)</li> <li>Personal Locator Beacons (PLB) and Maritime Survivor Locating Devices (MSLD)</li> </ul>	
	<ul><li>58. Understands and has working knowledge of amateur radio service equipment contained in 47 CFR Part 97, including the special requirements for kits in 47 CFR Section 2.1060.</li></ul>	
B3 – Marit	time and Aviation Radio Services in 47 CFR Parts 80 and 8	7
	<ul><li>59. Understands and has working knowledge of maritime radio service equipment contained in 47 CFR Part 80, including the special requirements for EPIRBs, as well as those contained in 47 CFR 80.203.</li></ul>	
	60. Understands and has working knowledge of aviation radio service equipment contained in 47 CFR Part 87, including the special requirements for ELTs and the requirement in 47 CFR Section 87.147(d)(2).	
B4 – Micro 95 (abo	owave and Millimeter Wave Bands Radio Services in 47 CFI ove 3 GHz, 97 (above 3 GHz) and 101	R Parts 25, 30, 74, 90 (above 3 GHz),
	61. Understands and has working knowledge of Broadband Radio Services and Educational Broadband Services equipment contained in 47 CFR Part 27 Subpart M.	
	62. Understands and has working knowledge of microwave television auxiliary broadcast service equipment contained in 47 CFR Part 74 Subparts F including the special requirements in public notice DA-95-1854 and Docket No. MM 97-217.	

			63. Understands and has working knowledge of microwave radio service equipment contained in 47 CFR Part 101 Subparts C, G, J, and I, including the special requirements for minimum data rate and 47 CFR Section 101.109.	
			64. Understands and has working knowledge of 47 CFR Part 90 Subpart Z requirements for devices operating in 3650-3700 MHz band, and <u>KDB Publications</u> <u>552295</u>	
			<ul><li>65. Understands and has working knowledge of 47 CFR</li><li>Part 96 requirements for devices operating in 3550-</li><li>3700 MHz band, and <u>KDB Publication 940660</u></li></ul>	
			<ul> <li>66. Understands and has working knowledge of the requirements for Dedicated Short Range Communications Service On-Board Units (DSRCS-OBUs) (47 CFR Part 95 Subpart L) and Roadside Units (RSUs) (47 CFR Part 90 Subpart M)</li> </ul>	
Sc	ope	C – A	CTA and Part 68 Telephone Equipment	
Y	Ν	N/A	Question	Comments
	11	1 1/11	Question	Comments
			<ul><li>67. Understands and has a working knowledge of ACTA requirements, filing ACTA applications, completing ACTA forms, and submitting related documents.</li></ul>	
			<ul> <li>67. Understands and has a working knowledge of ACTA requirements, filing ACTA applications, completing ACTA forms, and submitting related documents.</li> <li>68. Understands and has a working knowledge of evaluating test results for TSB31, TIA 968-B, and T1.TRQ.6.</li> </ul>	
			<ul> <li>67. Understands and has a working knowledge of ACTA requirements, filing ACTA applications, completing ACTA forms, and submitting related documents.</li> <li>68. Understands and has a working knowledge of evaluating test results for TSB31, TIA 968-B, and T1.TRQ.6.</li> <li>69. Understands and has a working knowledge of 47 CFR Part 68 and hearing aid compatibility requirements.</li> </ul>	
			<ul> <li>67. Understands and has a working knowledge of ACTA requirements, filing ACTA applications, completing ACTA forms, and submitting related documents.</li> <li>68. Understands and has a working knowledge of evaluating test results for TSB31, TIA 968-B, and T1.TRQ.6.</li> <li>69. Understands and has a working knowledge of 47 CFR Part 68 and hearing aid compatibility requirements.</li> <li>70. Understands which tests are needed for each type of connection (loop start, ground start, reverse battery, lossless two wire tie-trunk, lossless four wire tie-trunk, off premises circuit, local area data channels, ring down signaling private lines, metallic signaling private lines, digital PSDS lines, ISDN lines, DS1 lines).</li> </ul>	

72. Has procedures to evaluate and maintain copies of test procedures (provided by test laboratories, including laboratories of applicants) associated with applications (47 CFR Section 68.200(d)).	
73. Ability to create or obtain, and maintain applicant, manufacturer, and equipment codes.	
74. Ability to create or obtain, and maintain audit trail for addition of trade names and model numbers to registrations.	
75. Ability to generate certificate containing all required data.	
76. Demonstrate ability to provide the ACTA with the ACTA Form information.	
77. Has a thorough understanding of the ACTA equipment authorization program and specifically the following: Operating Principles and Procedures; ACTA Customer Information and TIA-TSB168-B Labeling Requirements.	
78. Understands the procedure for approval of components.	

#### CHANGE NOTICE

**07/31/2015:** <u>668797 D01 TCB Accreditation Checklist v03</u> replaces <u>668797 D01 TCB Accreditation Checklist v02</u>.

• Updated to incorporate changes resulting from FCC 14-208.

**02/29/2016:** <u>668797 D01 TCB Accreditation Checklist v03r01</u> replaces <u>668797 D01 TCB Accreditation</u> <u>Checklist v03</u>.

Editorial corrections to questions 23 and 28.

**03/02/2018:** <u>668797 D01 TCB Accreditation Checklist v03r02</u> replaces <u>668797 D01 TCB Accreditation</u> <u>Checklist v03r01</u>.

- Updated for consistency with KDB 641163 TCB roles and responsibilities.
- Updated for FCC 17-93 rule changes for SDoC.
- Updated standards per rule changes and added reference year.
- Added links to KDB.
- Updated scope names to add new rule sections.
- Updated to modify microwave frequencies breakpoint from the Part 101.3 definition (890 MHz) to the Part 2.101 definition convention (3 GHz) and reorganized related questions in scopes B2 and B4.

• Updated to add question about ISO/IEC 17025:2017.

# **04/02/2019:** <u>668797 D01 TCB Accreditation Checklist v03r03</u> replaces <u>668797 D01 TCB Accreditation</u> <u>Checklist v03r02</u>.

• Updated section B3 and B4 titles to clarify rule parts associated with General Mobile Radio Service scope and Microwave and Millimeter Wave Bands Radio Service scope. As the updates in version v03r03 are considered clarifications to the scope titles and therefore the two year transition period ends on March 2, 2020 and is not extended two year from the release date of v03r02.