Request for Modular/Limited Modular Approval

Date: February 19, 2024				
Subject: Manufacturer's Declaration for	☑ - Modular Approval☐ - Limited Modular Approval	☐ - Split Modu ☐ - Limited Sp		
Confidentiality Request for: JO6	-RCL5510			
	asic Requirements – FCC Part 15.212(Limited Module Description Must be I		allawing Pag	es
	Approval Requirement	inica out on the I		ment Met
The modular transmitter must have its ow does not have to rely upon the shielding pall modular transmitter emissions to competween the RF circuitry of the module armodule is installed. Such coupling may retuning capacitors may be located external	provided by the device into which it is insoly with FCC limits. It is also intended to and any wires or circuits in the device into esult in non-compliant operation. The ph	talled in order for prevent coupling which the ysical crystal and	⊠ - YES	□ - NO(*)
Details: The module contains a metal sh of the board next to antenna connector	nield which covers all RF components an	nd circuitry. The si	hield is locate	d on the top
2. The modular transmitter must have buffer ensure that the module will comply with 1 or over-modulation. 15.212(a)(1)(ii)			⊠ - YES	□ - NO(*)
Details: Data to the modulation circuit	is buffered as described in the operation	nal description prov	ided with the	application
3. The modular transmitter must have its ow to ensure that the module will comply wit supplying circuitry in the device into which	th FCC requirements regardless of the des	sign of the power	⊠ - YES	□ - NO(*)
Details: The module contains its own po	Details: The module contains its own power supply regulation. Please refer to schematic filed with this application			
4. The modular transmitter must comply wit 15.203, 15.204(b), 15.204(c), 15.212(a), a attached or employ a "unique" antenna cantenna, including the cable). The "profe applicable to modules but can apply to lir 15.212(a)(1)(iv)	and 2.929(b). The antenna must either be coupler (at all connections between the m ssional installation" provision of § 15.20	permanently odule and the 03 is not	⊠ - YES	□ - NO(*)
Details: The module connects to its ante of antennas tested and approved with thi				ector. A list
5. The modular transmitter must be tested in inside another device during testing. This complying with Part 15 emission limits re Unless the transmitter module will be bat requirements found in Section 15.207. At to the module must not contain ferrites, ut 15.27(a)). The length of these lines shall lunknown, at least 10 centimeters to insure and supporting equipment. Any accessori module during testing shall be unmodified 15.212(a)(1)(v)	is intended to demonstrate that the module gardless of the device into which it is every powered, it must comply with the AC or DC power lines and data input/output nless they will be marketed with the module length typical of actual use or, if that less that there is no coupling between the cases, peripherals, or support equipment compared to the coupling between the cases, peripherals, or support equipment compared to the cases.	ale is capable of entually installed. In conducted it lines connected ule (see Section ength is se of the module enected to the	⊠ - YES	□ - NO(*)
Details: The module was tested stand-al	one as shown in test setup photographs	filed with this appli	ication.	

	Modular Approval Requirement		Requirement Met	
6.	The modular transmitter must be labeled with its own FCC ID number, or use an electron display (see KDB Publication 784748). If using a permanently affixed label with its own FCC ID number, if the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains Transmitter Module FCC ID: XYZMODEL1" or "Contains FCC ID: XYZMODEL1." Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization. If the modular transmitter uses an electronic display of the FCC identification number, the information must be readily accessible and visible on the modular transmitter or on the device in which it is installed. If the module is installed inside another device, then the outside of the device into which the module is installed must display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC certified transmitter module(s)." Any similar wording that expresses the same meaning may be used. The user manual must include instructions on how to access the electronic display. A copy of these instructions must be included in the application for equipment authorization. 15.212(a)(1)(vi)	⊠ - YES	□ - NO(*)	
	Details: There is a label on the module as shown in the labeling exhibit filed with this application.			
7.	The modular transmitter must comply with all specific rule or operating requirements applicable to the transmitter, including all the conditions provided in the integration instructions by the grantee. A copy of these instructions must be included in the application for equipment authorization. For example, there are very strict operational and timing requirements that must be met before a transmitter is authorized for operation under Section 15.231. For instance, data transmission is prohibited, except for operation under Section 15.231(e), in which case there are separate field strength level and timing requirements. Compliance with these requirements must be assured. 15.212(a)(1)(vii)	⊠ - YES	□ - NO(*)	
	Details: The module complies with FCC Part 15C requirements. Instructions to the OEM installer installation manual filed with this application.	are provided	in the	
8.	The modular transmitter must comply with any applicable RF exposure requirements. For example, FCC Rules in Sections 2.1091, 2.1093 and specific Sections of Part 15, including 15.319(i), 15.407(f), 15.253(f) and 15.255(g), require that Unlicensed PCS, UNII and millimeter wave devices perform routine environmental evaluation for RF Exposure to demonstrate compliance. In addition, spread spectrum transmitters operating under Section 15.247 are required to address RF Exposure compliance in accordance with Section 15.247(b)(4). Modular transmitters approved under other Sections of Part 15, when necessary, may also need to address certain RF Exposure concerns, typically by providing specific installation and operating instructions for users, installers and other interested parties to ensure compliance. 15.212(a)(1)(viii)	⊠ - YES	□ - NO(*)	
	Details: The module meets Portable exclusion levels as shown in the RF exposure information filed	d with this ap	plication.	

Limited Module Descri	iption – When Applicable
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* If a module does NOT meet one or more of the above 8 requirements, the applicant may request Limited Modular Approval (LMA). This Limited Modular Approval (LMA) is applied with the understanding that the applicant will demonstrate and will retain control over the final installation of the device, such that compliance of the end product is always assured. The operating condition(s) for the LMA; the module is only approved for use when installed in devices produced by grantee. A description regarding how control of the end product, into which the module will be installed, will be maintained by the applicant/manufacturer, such that full compliance of the end product is always ensured should be provided here.

Details: N/A

Software Considerations – KDB 594280 / KDB 442812 (One of the following 2 items must be applied)			
Requirement	Requirement Met		
 For non-Software Defined Radio transmitter modules where software is used to ensure compliance of the device, technical description must be provided about how such control is implemented to ensure prevention of third-party modification; see KDB Publication 594280. 	☐ - Provided in Separate Cover Letter	⊠ - N/A	
Details: <example a="" adjusted="" application.="" as="" be="" by="" can="" cover="" described="" device="" end="" filed="" firmware="" in="" letter="" modified="" not="" of="" or="" separate="" the="" this="" user="" with="" –=""></example>			
2. For <u>Software Defined Radio (SDR)</u> devices, transmitter module applications must provide a software security description; see KDB Publication 442812.	☐ - Provided in Separate Cover Letter	⊠ - N/A	
Details: <example -n="" a=""></example>			

Split Modular Requirements			
Requirement	Provided in Manual		
 For split modular transmitters, specific descriptions for secure communications between front-end and control sections, including authentication and restrictions on third-party modifications; also, instructions to third-party integrators on how control is maintained. 	☐ - Provided in Separate Cover Letter	⊠ - N/A	
Details: <example a="" n="" –=""></example>			

OEM Integration Manual Guidance – KDB 996369 D03 Section 2 Clear and Specific Instructions Describing the Conditions, Limitations, and Procedures			
for third-parties to use and/or integrate the module into a host device.			
Requirement			
3		□ - No,	
Is this module intended for sale to third parties?	⊠ - YES	If No, and LMA applies, the applicant not make the following detailed info puneeds to be basic integration instruction the information below must still be indescription. If the applicant wishes to keep this will require a separate statement of module is not for sale to third particular instructions are internal confidence.	ablic. However there still ns for a users manual and cluded in the operational excep this info confidential, over letter explaining the es and that integration
Items	required to be in the mar	nual – See KDB 996369 D03, Section 2	
As of May 1, 2019, the FCC requapplicants should include information on tr For example information on tr grantees own products and not i	tires ALL the following in ation in their instructions ace antenna design could ntended for sale to third p	formation to be in the installation manual for all these items indicating clearly when indicate "Not Applicable". Also if a modu parties, the user instructions may not need ription, but this should include a cover let	they are not applicable. ule is limited to only a I to be detailed and the
1. List of applicable FCC rules. K	DB 996369 D03, Section 2		
 Only list rules re 	lated to the transmitter.		
Summarize the specific operational use conditions. KDB 996369 D03, Section 2.3 a. Conditions such as limits on antennas, cable loss, reduction of power for point to point systems, professional installation info			
3. Limited Module Procedures. Kl			
		uses to verify the host meets the necessary	
b. When RF exposure evaluation is necessary, state how control will be maintained such that compliance is ensured, such as Class II for new hosts, etc.			 ✓ - All Items shown to the left are provided in the Modular Integration
a. Layout of trace design, parts list, antenna, connectors, isolation requirements, tests for design verification, and production test procedures for ensuring compliance. If confidential, the method used to keep confidential must be identified and information provided in the operational description.			Guide (or UM) for Full Modular Approval
5. RF exposure considerations. KI			* *
define conditions (mobile, portable – xx cm from body) and second additional text their own products, and			for use by the grantee in their own products, and not intended for sale to
6. Antennas. KDB 996369 D03, S			3 rd parties as provided in
a. List of antennas included in the application and all applicable professional installer instructions when applicable. The antenna list shall also identify the antenna types (monopole, PIFA, dipole, etc – note that "omni-directional" is not considered a type)			Therefore the information shown to
7. Label and compliance information. KDB 996369 D03, Section 2.8 a. Advice to host integrators that they need to provide a physical or e-label stating "Contains FCC ID: "with their finished product the left is found in the theory of operation.			
8. Information on test modes and additional testing requirements. KDB 996369 D03, Section 2.9 a. Test modes that should be taken into consideration by host integrators including clarifications necessary for stand-alone and simultaneous configurations.			
	tion on how to configure tes		-
9. Additional testing, Part 15 Subp	oart B disclaimer. KDB 996	5369 D03, Section 2.10	
Sincerely, Her te	Person		
	oduct Regulatory and C ure/Title ¹)	Compliance _Steven Peterson (Print name)	

¹ - Must be signed by applicant contact given for applicant on the FCC site, or by the authorized agent if an appropriate authorized agent letter has been provided. Letters should be placed on appropriate letterhead.