

Bio-Rad  
 7 rue de Madrid  
 67300 Schiltigheim  
 France

To: Curtis-Straus LLC TCB  
 One Distribution Center Circle, #1  
 Littleton, MA 02702

### Limited Modular approval letter

Dear application examiner,

BIO-RAD, would like to have your authorization as a modular approval on the DTE41027+1 module, with FCC ID: 2ABUUDTE41027 and IC: 11658A-DTE41027. The requirements of CFR 47 part 15.212 and RSP-100 part 5.3 have been checked and shown in the following statement,

| Modular transmitter requirement   | Yes | No | Comment   |
|---|-----|----|---|
| (i) The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.   |     | X  | The 2ABUUDTE41027 and 11658A-DTE41027 module will only be installed in BIO RAD end products. Some control measurements are performed on one of each kind of host equipment to ensure the compliance for both intentional and unintentional emission requirements. |
| (ii) The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates or over-modulation.   | X   |    |   |
| (iii) The modular transmitter must have its own power supply regulation.  |     | X  | The equipment has no power supply regulation, but a regulation is made by the motherboard of the host equipment from BIO-RAD  |
| (iv) The modular transmitter must comply with the antenna and transmission system requirements of Sections 15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections between the module and the antenna, including the cable). The "professional installation" provision of Section 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section. | X   |    | The antenna is integrated to the PCB module   |
| (v) The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with Part 15 requirements....   | X   |    |   |
| (vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.<br><br>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  | X   |    |   |

|   |   |  |  |
|---|---|--|--|
| the following: "Contains Transmitter Module FCC ID: 2ABUUDTE41027 " or "Contains FCC ID: 2ABUUDTE41027 ." The exact wording is not specified in our Rules (since modules are not specifically addressed), so you may use similar wording which expresses the same meaning.  |   |  |  |
| (vii) The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization. | X |  |  |
| (viii) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.   | X |  |  |

(Shall provide a detailed explanation if the answer is "No.")

|   |   |   |  |
|---|---|---|--|
| The module shall comply with the provisions for external power amplifiers and antennas detailed in the applicable RSS standard. The equipment certification submission shall contain a detailed description of the configuration of all antennas that will be used with the module. |   | X | The antenna is included in the module (on-board PCB antenna) and there is no option to connect an external antenna and/or power amplifier. |
| The module shall comply with applicable RSS-102 exposure requirements, which are based on the intended use/configurations   | X |   |  |
| Is the modular device for an Industry Canada licence-exempt service?  | X |   |  |

(Shall provide a detailed explanation if the answer is "No.")

Additionally, BIO-RAD LABORATORIES ask for that the following instruction should appear as a note on the final FCC Grant:

In the final equipment, the maximum collocated transmitter modules should not be over 48.

Best regards,

Jean Michel Henry

Quality Assurance Manager

Date 24 OCT 2016



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