| Applica                              | nt/Grantee                            | Redpine Signals, Inc                                       |                         |                          |              |  |  |  |  |
|--------------------------------------|---------------------------------------|--|-------------------------|--------------------------|--------------|--|--|--|--|
|                                      |                                       | XF6-RSWC201  | IC:                     | IC: 8407A-RSWC201        |              |  |  |  |  |
| Section 15.212 Modular Transmitters  |                                       |  |                         |                          |              |  |  |  |  |
| Request                              | for Modular                           | Approval 🚺 Re  | quest for Limited M     | odular Approval          |              |  |  |  |  |
| •                                    |                                       | Requirements   |                         | Conditions               | Comply (Y/N) |  |  |  |  |
| Single Modular Approval Requirements |                                       |  |                         |                          |              |  |  |  |  |
| 1                                    | The radio ele                         | ments of the modular                                       |                         | ts own RF shielding."    | Y            |  |  |  |  |
|                                      | transmitter m                         | ust have their own   | Shield Can is emp       | ployed on the board      |              |  |  |  |  |
|                                      | shielding. Th                         | e physical crystal and                                     | structure, please s     | ee exhibition External   |              |  |  |  |  |
|                                      |                                       | itors may be located                                       |                         | on measurement was       |              |  |  |  |  |
|                                      | external to th                        | e shielded radio elements.                                 | conducted withou added. | t further shielding      |              |  |  |  |  |
| 2                                    | The modular                           | transmitter must have                                      |                         | nd data input(s) are     | Y            |  |  |  |  |
| _                                    |                                       | lulation/data inputs (if sucl                              |                         |                          |              |  |  |  |  |
|                                      |                                       | ovided) to ensure that the                                 |                         | fered data inputs, it is |              |  |  |  |  |
|                                      |                                       | comply with Part 15  | integrated on chip      | 1                        |              |  |  |  |  |
|                                      |                                       | under conditions of  |                         |                          |              |  |  |  |  |
|                                      | excessive dat                         | a rates or over-modulation                                 |                         |                          |              |  |  |  |  |
| 3                                    |                                       | transmitter must have its                                  |                         | PA chip requires 3.3     | Y            |  |  |  |  |
|                                      | own power s                           | upply regulation.  |                         | volts is supplied by the |              |  |  |  |  |
|                                      |                                       |  |                         | 8volt regulated power    |              |  |  |  |  |
|                                      |                                       |  | is supplied our RS      |                          |              |  |  |  |  |
| 4                                    | The modular transmitter must comply   |  | The EUT meets th        |                          | Y            |  |  |  |  |
|                                      |                                       | nna and transmission                                       | -                       | e spurious emission,     |              |  |  |  |  |
|                                      | • •                                   | system requirements of Sections 15.203,                    |                         | onnector and photo of    |              |  |  |  |  |
|                                      | • •                                   | d 15.204(c). The antenna                                   | antennas are snow       | vn in the test report.   |              |  |  |  |  |
|                                      |                                       | e permanently attached or<br>nique" antenna coupler (at    |                         |                          |              |  |  |  |  |
|                                      |                                       | ngue antenna coupler (at ns between the module and         | 1                       |                          |              |  |  |  |  |
|                                      |                                       | including the cable). The                                  | L                       |                          |              |  |  |  |  |
|                                      |                                       | installation" provision of                                 |                         |                          |              |  |  |  |  |
|                                      | -                                     | )3 is not applicable to                                    |                         |                          |              |  |  |  |  |
|                                      |                                       | can apply to limited                                       |                         |                          |              |  |  |  |  |
|                                      |                                       | covals under paragraph (b)                                 |                         |                          |              |  |  |  |  |
|                                      | of this section                       |  |                         |                          |              |  |  |  |  |
| 5                                    | The modular                           | transmitter must be tested                                 | The modular trans       | smitter was tested in a  | Y            |  |  |  |  |
|                                      | in a stand-alc                        | one configuration, <i>i.e.</i> , the                       | stand-alone config      | guration via a SDIO      |              |  |  |  |  |
|                                      | module must not be inside another     |  | interface.              |                          |              |  |  |  |  |
|                                      | device during testing for compliance  |  |                         |                          |              |  |  |  |  |
|                                      | with Part 15 requirements. Unless the |  |                         |                          |              |  |  |  |  |
|                                      |                                       | odule will be battery                                      |                         |                          |              |  |  |  |  |
|                                      | -                                     | nust comply with the AC                                    |                         |                          |              |  |  |  |  |
|                                      |                                       | ed requirements found in                                   |                         |                          |              |  |  |  |  |
|                                      |                                       | 07. AC or DC power lines                                   |                         |                          |              |  |  |  |  |
|                                      | -                                     | ut/output lines connected to<br>nust not contain ferrites, |                         |                          |              |  |  |  |  |
|                                      |                                       | vill be marketed with the                                  |                         |                          |              |  |  |  |  |
|                                      | -                                     | Section 15.27(a)). The                                     |                         |                          |              |  |  |  |  |
|                                      |                                       | se lines shall be the length                               |                         |                          |              |  |  |  |  |
|                                      | -                                     | ual use or, if that length is                              |                         |                          |              |  |  |  |  |
|                                      | J sprear of det                       | auf abe of, if that length is                              |                         |                          |              |  |  |  |  |

|   | unknown, at least 10 centimeters to  |   |   |
|---|--|---|---|
|   | insure that there is no coupling between   |   |   |
|   | the case of the module and supporting  |   |   |
|   | equipment. Any accessories, peripherals,   |   |   |
|   | or support equipment connected to the  |   |   |
|   | module during testing shall be   |   |   |
|   |  |   |   |
|   | unmodified and commercially available  |   |   |
|   | (see Section 15.31(i)).  |   |   |
| 6 | The modular transmitter must be  | In the exhibition OEM manual, there are   | Y |
|   | equipped with either a permanently   | instructions given to the OEM on how to   |   |
|   | affixed label or must be capable of  | label the end product.                    |   |
|   | electronically displaying its FCC  | -   |   |
|   | identification number.   |   |   |
|   | (A) If using a permanently affixed label, the  |   |   |
|   | modular transmitter must be labeled with its own   |   |   |
|   | FCC identification number, and, if the FCC   |   |   |
|   | <i>identification number is not visible when the</i>   |   |   |
|   | 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<br>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.   |   |   |
|   | (B) 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:<br>"Contains ECC contined transmittee module(a)"                             |   |   |
|   | "Contains FCC certified transmitter module(s)."<br>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.   |   |   |
| 7 | The modular transmitter must comply  | The EUT is compliant with all             | Y |
| , | with any specific rules or operating   | applicable FCC rules. Detail instructions | - |
|   |  |   |   |
|   | requirements that ordinarily apply to a  | for maintaining compliance are given in   |   |
|   | complete transmitter and the   | the OEM Manual.                           |   |
|   | manufacturer must provide adequate   |   |   |
|   | instructions along with the module to  |   |   |
|   | explain any such requirements. A copy  |   |   |
| L |  |   |   |

|  | of these instructions must be included in<br>the application for equipment<br>authorization. |                            |   |  |  |
|--|--|----------------------------|---|--|--|
| 8  | The modular transmitter must comply  | Please see the SAR report. | Y |  |  |
|  | with any applicable RF exposure  |                            |   |  |  |
|  | requirements in its final configuration.   |                            |   |  |  |
| A limited modular approval may be granted for single or split modular transmitters that do not comply with               |  |                            |   |  |  |
| all of the above requirements, <i>e.g.</i> , shielding, minimum signaling amplitude, buffered modulation/data inputs, or |  |                            |   |  |  |
| power supply regulation, if the manufacturer can demonstrate by alternative means in the application for                 |  |                            |   |  |  |
| equipment authorization that the modular transmitter meets all the applicable Part 15 requirements under the             |  |                            |   |  |  |
| operating conditions in which the transmitter will be used. Limited modular approval also may be granted in              |  |                            |   |  |  |

those instances where compliance with RF exposure rules is demonstrated only for particular product configurations. The applicant for certification must state how control of the end product into which the module will be installed will be maintained such that full compliance of the end product is always ensured.

Best Regards,

A c feler.

Signature Name/Title: Chandra Sekhar Abburi, VP-Systems Company Name: Redpine Signals Inc Date: 21January 2013