



RE FCC ID: 2AEAE-ISA-W-RF-H0215

To the certification reviewer:

We are hereby applying for limited modular approval of the above-referenced FCC ID, based on compliance with most of the criteria as detailed below. The criteria not met are addressed below.

Sincerely,

Jeffrey Andle
 Vice President of Research and Design
 IntelliSAW Inc.

Part 15 Unlicensed Single Modular Transmitter Approval Justification per 15.212

Requirement per 15.212	reference
(i) The radio elements of the modular transmitter must have their own RF shielding.	The Module has RF shielding over the transmitter elements.
(ii) The modular transmitter must have buffered modulation/data inputs (if such inputs are provided).	There are no modulation inputs. All data and power lines are filtered and buffered.
(iii) The modular transmitter must have its own power supply regulation.	5V input power is regulated to 3.3V digital power. It is independently regulated and filtered to obtain 3.3V RF power. Critical sections have secondary RF power regulated to 3.0V. 3.3-5V input power is regulated to 1.8V digital power. It is independently regulated and filtered to obtain 1.8V RF analog.



<p>(iv) The modular transmitter must comply with the antenna and transmission system requirements of §§ 15.203, 15.204(b) and 15.204(c).</p>	<p>The module is a circuit board assembly integral to multiple current and future products. It is not sold or provided to third parties, except for integration into OEM equipment designed in cooperation with and manufactured on behalf of IntelliSAW so as to account for all constraints of the module. The final installation of the system is in high power electrical assets, such as switchgear. (1) The systems are professionally installed and are not end user installed. (2) These assets are locked, and often in fenced/locked rooms for security purposes, and cannot be readily accessed to perform modifications.</p>
<p>(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 parameters.</p>	<p>Testing was performed with the module extended outside of the host on a special extender cable, as shown in the test setup photos. X, Y, and Z module orientations were employed.</p>
<p>(vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification 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.</p>	<p>Modules will use an affixed label. Host devices will reference the module.</p>
<p>(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.</p>	<p>The module complies fully with the operating requirements of Part 15 section 231(e) as demonstrated in the test report exhibit when antennas are enclosed in IEEE/ANSI C37.20 compliant enclosures. See KDB 550099.</p>
<p>(viii) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.</p>	<p>This module operates under Part 15 section 231(e), which is exempt from RF exposure evaluation owing to the very low operating power.</p>