



## Modular Approval Letter

**2018/5/17**

FEDERAL COMMUNICATIONS COMMISSIONS

Authorization and Evaluation Division

7435 Oakland Mills Road

Columbia, MD 21046

Subject: Modular Approval Letter

The Device, FCC ID: 2AADT-SDR1000, is seeking FCC authorization as a modular transmitter. The EUT meets the requirement for modular approval as detailed in FCC Public Notice DA 00-1407. Compliance to each of the requirements is described below:

1. The modular transmitter must have its own RF shielding.  
Ans: The SDR-1000 has its own shield that is enclosing all the relevant RF communication components on the board. The RF section of the board also has its own ground plane on the board that is electrically connected to the shield.
2. The modular transmitter must have buffered modulation/data inputs  
Ans: The SDR-1000 module includes an iMX6 processor with its own memory components, all communication with the module are interfacing with the processor.
3. The modular transmitter must have its own power supply regulator  
Ans: The SDR-1000 is powered by single 12/24V input. All power rails in the module are controlled by the internal regulators on the module. The module also includes its own Power Management Integrated Circuit (PMIC) to manage specific voltages and the power-up sequence.
4. The modular transmitter must comply with the antenna requirement of section 15.203 and 15.204(c)  
Ans: The SDR-1000 meets the requirement in 15.203 and 15.204(c). The SDR-1000 include a dedicated connection for up to 4 external communication antennas in the 5.9Ghz spectrum. The connection is of Fakra type connector and is keyed (and color coded) specifically for a 5.9GHz antenna that meets the specification of 802.11P.
5. The modular transmitter must be tested in a stand-alone configuration  
Ans: The SDR-1000 was tested in a stand-alone board configuration, it was only connected to an external PC using a USB or Ethernet interface to manage the testing scenario. All control and management of the RF communication is done on the board, and the system management was done by the onboard iMX6. Communication with the external PC was limited to running test

scenarios and sending communication parameters or data.

6. The modular transmitter must be labeled with its own FCC ID number

Ans: The module will be labeled with the FCC ID number on the RF section of the board (picture of the module is included with the FCC application)

7. The modular transmitter must comply with any specific rule or operating requirements and the manufacturer must provide adequate instruction along with the module to explain any such requirements

Ans: The SDR-1000 module complies with the requirement for 802.11P transition device, and the requirements for DSRC device for car to car communication. All relevant information is described in the module information.

8. The modular transmitter must comply with any applicable RF exposure requirements

Ans: The SDR-1000 is design to comply with any applicable RF requirement for device operating in the 5.9GHz spectrum, including signal strength spectral mask and data bandwidth.

Sincerely Yours,



Paul Sakamoto  
Chief Operating Officer