

The modular approval on this module has the following restrictions:

1. It is host specific as the FCC defines this. See FCC document kdb 996369.
2. The grant limits its use to devices that are more than 20 cm from the human body. This by definition means used in fixed location and mobile devices. See FCC rule Part 2.1091.
3. The module is currently authorized for the specific style antenna used in the TND-760 and the following information (excerpted from kdb 996369) should be understood in subsequent designs.

Question 11: Can a module be certified where the host device must use a micro-strip trace on the host's printed circuit board to an antenna connector or a trace antenna on the host circuit board?

Answer 11: A modular transmitter may be certified when the connection to the antenna is made through a host's printed board micro-strip trace layout to an external connector, trace antenna or component (chip) antenna on a printed circuit board (herein referenced as "trace design"). This can be extended to include passive parts for antenna attenuation padding, impedance matching or providing test ports. Other components such as amplifiers and active drivers are not considered a trace layout and must be contained on the module.

The Form 731 application shall include detailed engineering reference designs for the trace design in addition to the required OEM instructions (see Comprehensive integration instructions above) for all trace designs approved with the module. In particular the integration instructions shall include the following:

1. Trace layout and dimensions including specific designs for each type:
 - a. Layout of trace design, parts, antenna, connectors and isolation requirements;
 - b. Boundary limits of size, thickness, length, width, shape(s) dielectric constant, and impedance must be clearly described for each type antenna;
 - c. Different antenna length and shapes affect radiated emissions and each design shall be considered a different type; e.g., antenna length in multiple(s) of frequency wavelength and antenna shape (traces in phase) can affect antenna gain and must be considered;
 - d. The above data is to be provided by a Gerber file (or equivalent) for PC layout.
2. Appropriate parts by manufacturer and specifications.
3. Test procedures for design verification.
4. Production test procedures for ensuring compliance.

Only trace designs approved at the time of grant or through permissive change can be used by the OEM. PCB circuit designs have an increased potential for design mishandling and they are susceptible to cross-talk and increased unintentional radiation. The applicant must provide compliance test data for all antenna circuit trace designs being marketed or used.