

GPR003: EMI/EMC

Unintentional electromagnetic radiation radiated or conducted from designs must meet US CFR Title 47 Part 15 subpart B regulations for Class A digital equipment. Intentional radiators must meet subpart C regulations. Exemptions from 15.103 are not allowed.

Title 47: Telecommunication

PART 15—RADIO FREQUENCY DEVICES

Subpart B—Unintentional Radiators

§15.101 Equipment authorization of unintentional radiators.

Type of device	Equipment authorization required
Class A digital devices, peripherals & external switching power supplies	Verification.

-Our design verification is included in the ATP.

§15.105 Information to the user.

(a) For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

-This note has been included in the user manual.

§15.107 Conducted limits.

(b) For a Class A digital device that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms LISN. Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	79	66
0.5-30	73	60

-Our design verification is included in the ATP.

§15.109 Radiated emission limits.

(b) The field strength of radiated emissions from a Class A digital device, as determined at a distance of 10 meters, shall not exceed the following:

Frequency of emission (MHz)	Field strength (microvolts/meter)
30-88	90
88-216	150
216-960	210
Above 960	300

Subpart C—Intentional Radiators

-Our design does not include intentional radiators.