

Information about the Applicant

Company Name	Intel Corporation
Address	5200 NE Elam Young Parkway
City, State, Zip	Hillsboro, OR 97124
Requested By	Michael Espig
Job Number	INTE4561
Model	AnyPoint® DSL Gateway 4400 and AnyPoint® Networking Gateway 1400
FCC ID	EJM-X400
Agent	Applicant
Approval Type	Certification
Equipment Type	Unlicensed, low power spread spectrum transmitter
Rule Part	47 CFR 15.247

Overview

The applicant, Intel Corporation, has submitted all the exhibits to demonstrate compliance of their radio to 47 CFR 15.247. All the EMC testing was performed at Northwest EMC. The results are documented in the test report exhibits. The AnyPoint® DSL Gateway 4400 and AnyPoint® Networking Gateway 1400 use the same radio module, antennas, power supply, base board layout, and enclosure. The difference is the 4400 has a DSL interface, and the 1400 has an Ethernet interface. Both configurations were tested for radiated spurious emissions, one representative configuration was used for the antenna conducted measurements. The applicant submitted user manuals for both units.

General Comments

Item	The TCB410 application lists two models for the application, the AnyPoint DSL 4400 and the AnyPoint Networking 1400. The user manual and the test documentation lists the EUT as the WL-350F. The application should be changed to reflect the WF-350F as the radio to be certified for use in two different configurations.
Resolution	A new user's manual has been provided. All other documentation has been corrected to reflect the correct information.
Item	The Test Data for peak output power lists the power at 58 mW, the output power listed under the technical specs in the user manual for the WL-350F lists 13 dBm as the output power.
Resolution	A new user's manual has been provided.
Item	The technical specifications in the user manual is for the WL-250F. If this is a mistake, it should be corrected.
Resolution	A new user's manual has been provided.

Opinion

Specification Requirements	Description
15.207 (d)	AC Powerline Conducted Emissions

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: Test data has been submitted to demonstrate compliance.

Reference: Exhibit A

Specification Requirements	Description
15.203	Antenna Requirements

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted technical information to demonstrate compliance.

Reference: Exhibit B

Specification Requirements	Description
15.247 (b)	De Facto EIRP Requirement of $\leq +36$ dBm

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted technical information to demonstrate compliance.

Reference: Exhibit B & Exhibit J

Specification Requirements	Description
15.247 (c)	Band edge compliance

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: Test data has been submitted to demonstrate compliance.

Reference: Exhibit C

Specification Requirements	Description
2.1033 (b)(5)	Frequency Block Diagram

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted technical information to demonstrate compliance

Reference: Exhibit D

Specification Requirements	Description
2.1033 (b)(7)	External & Internal Photos

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted photographs to demonstrate compliance.

Reference: Exhibit E & G

Specification Requirements	Description
2.925, 2.926, & 2.1033 (b)(7)	FCC ID Label & Location

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted an exhibit to demonstrate compliance.

Reference: Exhibit F

Specification Requirements	Description
15.247 (a)(2)	Occupied Bandwidth

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: Test data has been submitted to demonstrate compliance.

Reference: Exhibit H

Specification Requirements	Description
2.1033 (4)	Operational Description

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted technical information to demonstrate compliance.

Reference: Exhibit I

Specification Requirements	Description
15.247 (b) 1	Peak Output Power

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: Test data has been submitted to demonstrate compliance.

Reference: Exhibit J

Specification Requirements	Description
15.247 (d)	Power Spectral Density

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: Test data has been submitted to demonstrate compliance.

Reference: Exhibit K

Specification Requirements	Description
15.247 (b)(5) 1.1307, 1.1310	RF Exposure

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted technical information to demonstrate compliance.

Reference: Exhibit L

Specification Requirements	Description
2.1033 (b)(5)	Schematics

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted schematics to demonstrate compliance.

Reference: Exhibit M

Specification Requirements	Description
15.247(c)	Spurious Conducted Emissions

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: Test data has been submitted to demonstrate compliance

Reference: Exhibit N

Specification Requirements	Description
15.247(c)	Spurious Radiated Emissions

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: Test data has been submitted to demonstrate compliance

Reference: Exhibit O

Specification Requirements	Description
2.1033 (b)(6)	Test Setup Photos

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted photographs to demonstrate compliance.

Reference: Exhibit P

Specification Requirements	Description
2.1033 (b)(3)	User Manuals

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted manuals to demonstrate compliance.

Reference: Exhibits Q & T

TCB Scope of Accreditation

Specification Requirements	Description
TCB Exclusion List Version 12/2000	Transmitter Category V

Opinion: The Equipment does not meet any of the conditions of the exclusion list, therefore it qualifies for TCB Approval.

Discussion: The Equipment is a mobile spread spectrum transmitter operating under 15.247 with the following conditions:

- i) operates in a single frequency band
- ii) does not operate with antennas co-located with other antennas or in conjunction with another transmitter
- iii) operates as a mobile transmitting device with antennas that are installed to provide the minimum separation distance (20 cm or more) needed to ensure MPE compliance
- iv) operates as a 2.4 GHz band, mobile transmitting device with peak conducted output power of 58 mW

Reference: Exhibits have been submitted to demonstrate compliance with these conditions.

Specification Requirements	Description
TCB RF Exposure Procedures Version 6/2000	Transmitter Category V

Opinion: The Equipment meets the conditions for "Section F of the Review and Approval Procedures".

Discussion: Section F requires the Equipment to be a mobile spread spectrum transmitter operating under 15.247 with the following conditions:

- i) operates in a single frequency band
- ii) does not operate with antennas co-located with other antennas or in conjunction with another transmitter
- iii) operates as a mobile transmitting device with antennas that are installed to provide the minimum separation distance (20 cm or more) needed to ensure MPE compliance
- v) operates as a 2.4 GHz band, mobile transmitting device with peak conducted output power of 58 mW

Reference: Exhibits have been submitted to demonstrate compliance.

Specification Requirements	Description
FCC Scope Designation for Northwest EMC, Inc	A4 – UNII devices & low power transmitters using spread spectrum techniques

Opinion: Northwest EMC is permitted to grant certification for this equipment because it falls within their scope of accreditation.

Discussion: The FCC issued a letter dated August 31, 2000 that authorizes Northwest EMC to certify category A4 equipment which includes UNII devices and low power transmitters using spread spectrum techniques.

Reference: FCC web site: www.fcc.gov/oet