

APPLICATION FOR
CLASS II Permissive Change on Type Accepted Equipment

Sierra Wireless Inc.

FCC ID: N7NAB300A

MODEL: AirBooster 350 (formerly Air Blaster 300)

Prepared by:
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February 22, 2000

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Letter of Submittal and Compliance

February 22, 2000

Federal Communications Commission
Authorization and Standards Division
7435 Oakland Mills Rd.
Columbia, M.D. 21046

RE: FCC ID: N7NAB300A Grantee: Sierra Wireless Inc.
Equipment Class: Amplifier
Application for Class II Permissive Change dated February 22, 2000

Dear Madam/Sir:

The following information is submitted in support of a Class II Permissive Change to the certification of the N7NAB300A amplifier. There are no physical or electrical changes being made to the device. The reason for this application for permissive change is to add a category of antenna to those shown to be in compliance with 2.1091 of the FCC rules.

Sierra Wireless wishes to establish the acceptability of a category of antennas (instead of specific models) as defined below for purposes of satisfying MPE compliance for 2.1091 of the FCC rules with the AirBooster 350 (FCC ID N7NAB300A). To qualify this category of antenna we have provided test results (see attached MPE report by ITS) using five examples within the category and that, we believe, represent the extremes of radiation levels that might be seen in this category.

These examples include the longest, shortest and nominal lengths of antennas of similar configuration and are intended to demonstrate the worst case and nominal performance for this category.

We refer to this category as the "3dB gain Cellular Mobile" whip antenna. This category is defined by these attributes:

- rated gain of 3 dBd
- the radiator is a collinear array of two vertical elements. A base fed lower element of length 85 mm +/-30 mm, connected at its highest point to a matching coil. The top of the coil is, in turn, connected to an upper vertical element of length 200 mm +/- 35 mm. The matching coil may be an open-air type or encapsulated.
- Intended for mounting on a horizontal metallic surface of vehicle body using either a through-hole or magnetic base.
- Cable loss of more than 0.5 dB

The five example antennas tested include open coil types, encapsulated coil types, magnetic mount and through-hole mount.

We ask that the Grant condition referring to antenna type be worded to include this category.

In support of this change, we also include an excerpt from our updated user manual to show the advice given to the user on antenna selection and placement.

Sincerely

A handwritten signature in black ink, appearing to read "R. Vanderhelm". The signature is written in a cursive style with a large initial "R".

Ron Vanderhelm
Director, RF Development

Expository Changes (2.1001(b)(2))

There are no physical or electrical changes being made to the amplifier. This permissive change application is to allow use (under 2.1091 of the Rules) of a category of antennas rather than the specific models.

Radio Frequency Radiation Exposure Limit (2.1091)

This test was performed by Intertek Testing Services (ITS) at Menlo Park California. Their test report, Report No j200001446, containing the results of their tests is attached to this submission.

Their report shows that the device meets the FCC rules with all five sample antennas.

As explained in the Letter of Submittal and Compliance, Sierra Wireless wishes to establish the acceptability of a category of antennas (instead of specific models) as defined below for purposes of satisfying MPE compliance for 2.1091 of the FCC rules with the AirBooster 350 (FCC ID N7NAB300A). To qualify this category of antenna we have provided test results (see MPE report by ITS) using five examples within the category and that, we believe, represent the extremes of radiation levels that might be seen in this category.

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- Cable loss of more than 0.5 dB

The five example antennas tested include open coil types, encapsulated coil types, magnetic mount and through-hole mount. Photographs of the antennas are included in the ITS report. As shown in the data of that report, all five antennas demonstrate similar performance and all meet FCC requirements.

We ask that the Grant condition referring to antenna type be worded to include this category.