Federal Communications Commission
Office of Engineering and Technology
Laboratory Division

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Draft Laboratory Division Publications Report

Title: Interpretation of Section 15.253(c)

Short Title: Interpretation of Section 15.253(c)

Reason: New Publication

Publication:

Keyword/Subject: Interpretation of Section 15.253(c)

Question:

Is it permitted for sensors certified under Section 15.253(c) for use on automobiles, without additional grant of equipment authorization, to be mounted on and deployed on railroad train locomotives; train cars; monorails or trams; construction vehicles; farming vehicles such as tractors and harvesters; motorcycles; scooters and motorbikes; mobile scissor-lifts and mobile work platforms; and boats and ships operated within territorial waters of the United States?

Answer:

The Part 15 rules do not specifically define vehicles in Section 15.253; however, in Section 15.515 which specifies "Technical requirements for vehicular radar system", the rule permits use of sensors "mounted in terrestrial transportation vehicles". Therefore, sensors certified under Section 15.253(c) for use on vehicles can be deployed, without further certification, on railroad train locomotives; train cars; monorails or trams; construction vehicles; farming vehicles such as tractors and harvesters; motorcycles; scooters and motorbikes; mobile scissor-lifts and mobile work platforms; and boats and ships operated within territorial waters of the United States. The overall installation must comply with all the conditions of grant of certification and the relevant technical standards for such operation.

Attachment:
Request for Interpretation of Section 15.253(c)

Attachment:

Request for Issuance of Public Guidance Document; Interpretation of Section 15.253(c) of the Commission's Rules.

My client requests an interpretation of Section 15.253(c) of the Commission's rules relative to the deployment of an FCC-certified vehicular radar sensor module operating in the 76-77 GHz band. The client has such a radar sensor in its product line which is now deployed on automobiles, and used in connection with anti-collision and automatic braking systems. The issue is whether this same device, unmodified, can be deployed on other types of terrestrial, mobile vehicles without a further grant of equipment authorization. Section 15.253(c) of the Commission's rules permits the use of sensors that have a grant of equipment authorization to be used when mounted on "vehicles" (other than aircraft or satellites).

There is no definition of "vehicle" found anywhere in the Part 15 rules. Nor is there any condition attached to the manufacturer's grant of equipment authorization for the radar sensor that would limit the deployment of certified automotive radar sensors operating pursuant to this rule subsection to any subset of vehicles, other than airborne or satellite-mounted vehicles. We can find no limitation on the deployment of these sensors to automobiles or any other specific type of terrestrial vehicle.

The specific question we now ask is whether or not these certified sensors now actively used on automobiles can, without additional grant of equipment authorization, be mounted on and deployed on railroad train locomotives; train cars; monorails or trams; construction vehicles; farming vehicles such as tractors and harvesters;. Motorcycles; scooters and motorbikes; mobile scissor-lifts and mobile work platforms; and boats and ships operated within territorial waters of the United States. The purpose of these vehicular deployments would be to improve safety in the operation of personal and industrial vehicles and aboard boats and ships within territorial waters, and to prevent collisions between those vehicles and other vehicles or between those vehicles and fixed objects. There does not appear any substantive difference in interference potential regardless of the type of terrestrial vehicle on which the sensors are mounted, and the value of the deployments mentioned herein is similar to the often-acknowledged value of vehicular radars in reducing instances of injury or death and property damage in automobile accidents.

We can find no authority for any restriction in the normal definition of the term "vehicle" as used in the subject rule section, and we would suggest that there is no interference-based justification for limiting the deployment of these sensors on terrestrial vehicles which are mobile rather than fixed, whether or not they operate on public roadways.