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SAE J1816 OCT87

**Performance Levels
and Methods of
Measurement of
Electromagnetic
Radiation from
Vehicles and Devices
Narrowband, 10 kHz
to 1000 MHz**

SAE Recommended Practice
Issued October 1987



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Submitted for Recognition as
an American National Standard

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400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

HIGHWAY VEHICLE PRACTICE

SAE J1816

Issued Oct. 1987

Submitted for recognition as an American National Standard

PERFORMANCE LEVELS AND METHODS OF MEASUREMENT OF ELECTROMAGNETIC RADIATION FROM VEHICLES AND DEVICES Narrowband, 10 kHz to 1000 MHz

1. **FOREWORD:** With the advent of computer based electronics being utilized in automobiles, the Electromagnetic Radiation Subcommittee has deemed it prudent that a new test method be written to provide a common test for the measurement of narrowband radiation from vehicles and devices.
2. **PURPOSE:** This SAE Standard covers methods of measuring incidental narrowband radiation from vehicles and devices. The standard also establishes performance levels intended to protect nearby communication and broadcast receivers. It is intended to serve as an alternate method of measuring electromagnetic radiation which is analogous to the FCC Part 15 methodology but adapted to measuring vehicles. The equivalent procedures for broadband emissions are set forth in SAE J551.
3. **SCOPE:** This standard covers narrowband emissions in the frequency range of 10 kHz to 1000 MHz. An example of such radiation is the unintended emission from on-board logic and computer modules. In particular, the standard is intended to provide protection to adjacent mobile communication and broadcast receivers (vertical E-Field test) and portable broadcast radios (magnetic field test). In the future horizontal E-Field measurement requirements will be considered.
4. **DEFINITIONS:** Terms used in this Standard are defined either in SAE J551 or in the IEEE Dictionary of Electrical Terms.

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