

ISO 11452-1:2015-06 (E)

Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 1: General principles and terminology

| Contents | | Page |
|---------------------|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | General aim and practical use | 6 |
| 5 | General test conditions | 7 |
| 5.1 | General | 7 |
| 5.2 | Test temperature | 8 |
| 5.3 | Supply voltage | 8 |
| 5.3.1 | Low Voltage (LV) power supply | 8 |
| 5.3.2 | HV d.c. power supply (excluding charger) | 8 |
| 5.3.3 | Charger power supply (a.c. or d.c.) for HV battery | 8 |
| 5.4 | Modulation | 8 |
| 5.5 | Dwell time | 9 |
| 5.6 | Frequency step sizes | 9 |
| 5.7 | Definition of test severity levels | 10 |
| 5.8 | Disturbance application | 10 |
| 6 | Instrumentation | 10 |
| 6.1 | Grounding and shielding | 10 |
| 6.2 | AN, AMN, and AAN | 11 |
| 6.3 | Power supply | 11 |
| 6.3.1 | LV power supply | 11 |
| 6.3.2 | HV d.c. power supply (excluding charger) | 11 |
| 6.3.3 | Charger power supply (a.c. or d.c.) | 11 |
| 6.4 | Load simulator | 11 |
| 6.5 | Test signal quality | 11 |
| 7 | Test procedure | 12 |
| 7.1 | Test plan | 12 |
| 7.2 | Test methods | 12 |
| 7.2.1 | General | 12 |
| 7.2.2 | Substitution method | 12 |
| 7.2.3 | Closed loop levelling | 13 |
| 7.2.4 | DUT immunity measurement | 13 |
| 7.3 | Test report | 14 |
| Annex A (normative) | Function Performance Status Classification (FPSC) | 15 |
| Annex B (normative) | Artificial networks (AN), artificial mains networks (AMN), and asymmetric artificial networks (AAN) | 18 |

| | |
|---|-----------|
| Annex C (informative) Constant peak test level | 27 |
| Annex D (informative) Example of load simulator design | 30 |
| Bibliography | 33 |