

Overview of Radio Equipment Directive (RED)

Lindsay Cornell

Chairman, WorldDAB Technical Committee

What is it?



- The Radio Equipment Directive (2014/53/EU) establishes a regulatory framework for placing radio equipment on the market. It has been applicable since 13 June 2016. A 1-year transitional period between this Directive and the now-repealed Radio and Telecommunication Terminal Equipment (R&TTE) Directive (1999/5/EC) ended on 12 June 2017. As of 13 June 2017 only the new RED is applicable.
- The Radio Equipment Directive (<u>2014/53/EU</u>) ensures a Single Market for radio equipment by setting **essential requirements** for safety and health, electromagnetic compatibility, and the efficient use of the radio spectrum. It applies to **all products using the radio frequency** spectrum.
- The RED aligns the <u>previous directive</u> with the <u>new legislative framework</u> for the marketing of products. The revision takes account of the need for improved market surveillance, in particular for the traceability obligations of manufacturers, importers and distributors. It provides improved instruments for market surveillance, such as the possibility to require prior registration of radio equipment, within those categories affected by low levels of compliance.
- The Directive requires equipment to be constructed for efficient use of the radio spectrum, as well as electromagnetic compatibility, to avoid interference with terrestrial and orbital communications.



What's new?

- The Radio Equipment Directive (RED) came into force on the 13th June 2016 and immediately replaced R+TTE Directive without a transition period.
- "This will have little effect for manufacturers apart from:
- ...
- Broadcast TV and radio receivers, which are currently excluded from the scope of the R+TTE Directive, will be within the scope of the RED, but the basic self-certification structure remains in place for all equipment covered by Harmonised Standards.
- ..."



What's needed?

- Compliance with a set of essential requirements:
 - Article 3.1(a) Health and safety
 - Article 3.1(b) EMC
 - Article 3.2 Radio
 - Article 3.3 additional requirements when invoked by the European Commission
- Harmonised standards provide a presumption of conformity with the essential requirements
- Without harmonised standards, a Type Examination must be made by a Notified Body which creates technical documentation



What's a harmonised standard?

- A harmonised standard defines the methods to follow and limits required to presume the conformity of the equipment to the essential requirements of the directive
- The list of harmonised standards is regularly published on the Official Journal of the European Union
 - Without a listing, the standard is not valid for presuming conformity
- Each harmonised standard covers one or more essential requirements
 - More than one harmonised standard may be needed to obtain a presumption of conformity to all the essential requirements of RED for a given product
- The European Commission delegated the writing of standards to ETSI and CENELEC
- For broadcast receivers, CENELEC has the task for article 3.1 and ETSI for article 3.2
 - Since safety and EMC were already general requirements under the EMCD and LVD only an ETSI HS for article 3.2 was missing
- For broadcast transmitter, ETSI has the task for both article 3.1 and 3.2



ETSI RED work - receivers

- The task to write the ETSI HS for broadcast receivers was allocated to ETSI ERM TG17WG2
- Work began in November 2014
- The first draft version was completed in July 2015 and approved for the ENAP process
- It covered the requirements for broadcast sound receivers with AM, FM, DAB and DRM capabilities
 - Sensitivity for DAB and DRM receivers
 - limits were not set for analogue receivers because there was such a wide range of performance from products in the market
 - ACS for all receivers
- This version was not accepted
 - Mainly due to the lack of sensitivity requirements for analogue receivers



ETSI RED work - receivers

- Work resumed in November 2015 to produce a new version of the standard which address the feedback from the first version
- The second draft version was completed in June 2016 and approved for the ENAP process
- This version received some comments of a technical nature which were addressed through the resolution process
- The revised second draft version was approved for National Vote in February 2017
- This version failed at National Vote



ETSI RED work - receivers

- Work resumed again in July 2017 to produce a new version of the standard which addressed the feedback from the National Vote
- The standard was divided into 5 parts:
 - Part 1: generic requirements and measurement methods
 - Part 2: AM
 - Part 3: FM
 - Part 4: DAB
 - Part 5: DRM
- Parts 1, 4 and 5 were completed in March 2018 and are expected to be approved by ETSI ERM for ENAP in June
- Parts 2 and 3 are still in development
 - The issue remains finding limits that are acceptable to all parties



ETSI RED work - transmitters

- Broadcast transmitters were covered under the R&TTED
- EN 302 077 is the HS for DAB transmitters
- Since there is no receive function in a DAB transmitter, the R&TTED version has been listed in the OJ
 as suitable for showing conformance to the RED article 3.2 requirements
- A revised version which includes low power multi-COFDM transmitters is currently on ENAP approval

• EN 301 489 part 53 is the HS for broadcast transmitters (TV and radio)





Look for the book!



