

Measurement methods for RDS receiver products

This presentation highlights a new proposal
to replace the outdated
IEC 60315-9

www.rds.org.uk/

- **1996:First RDS measurement specification IEC 60315-9**
- **2007:RDS Forum members question the relevance of the current IEC 60315-9**
- **2007:RDS Forum informs the IEC of the need to update or to replace the current outdated IEC 60315-9**
- **2008:Experts from the RDS Forum draft a replacement specification**
- **RDS Forum 2008 reviewed and approved replacement proposal**

- **ARI is no longer used**
- **Now fully integrated FM/RDS receiver chips are used**
 - These are made in very large quantities
 - Over 200 million RDS chips sold in 2007
 - There is a clear need for well agreed description of RDS measuring methods and a minimum set of basic requirements

Distinguish three receiver product categories:

- **Small portable devices**
- **Car radios**
- **Home receivers**

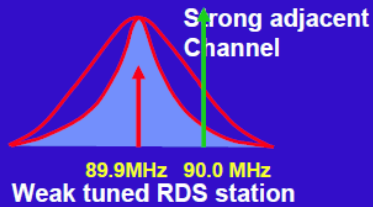
- **All-in-one document**
- **State of the art measuring method based on today's RDS products**
- **Realistic targets agreed by RDS Forum members**
- **Complementary to**
 - RDS new version of IEC 62106 Ed.2 : 2009
 - RDS Forum guidelines for implementation

RDS reception at Challenging conditions



Weak Signal

RDS sensitivity



Adjacent channel

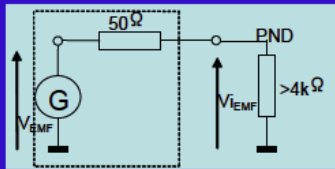
RDS Selectivity



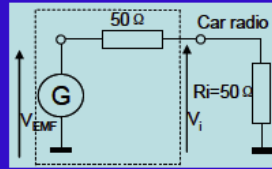
Strong Signal conditions

Measuring issue:

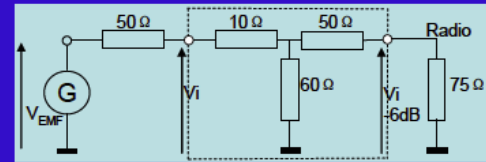
Connection method



High Ohmic



Car radio



Home tuners

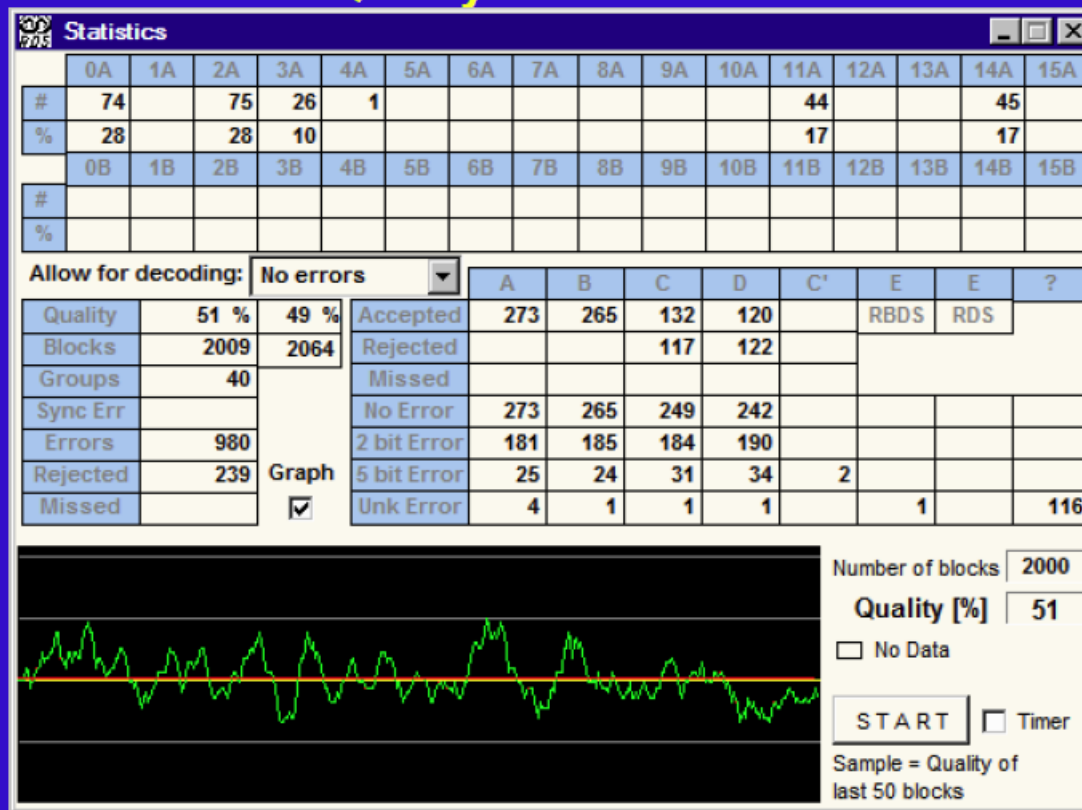
RDS Sensitivity

Categories:

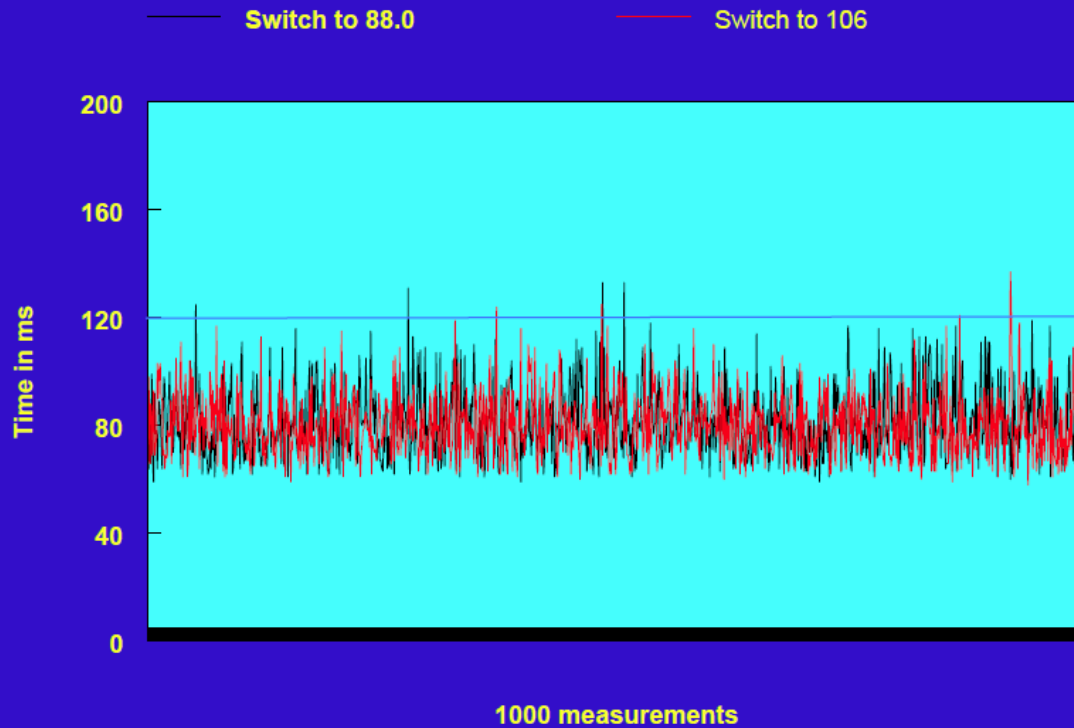
- 50% good blocks
- Time to find synchronization
- Time to find PI code

RDS Sensitivity: 50% good blocks

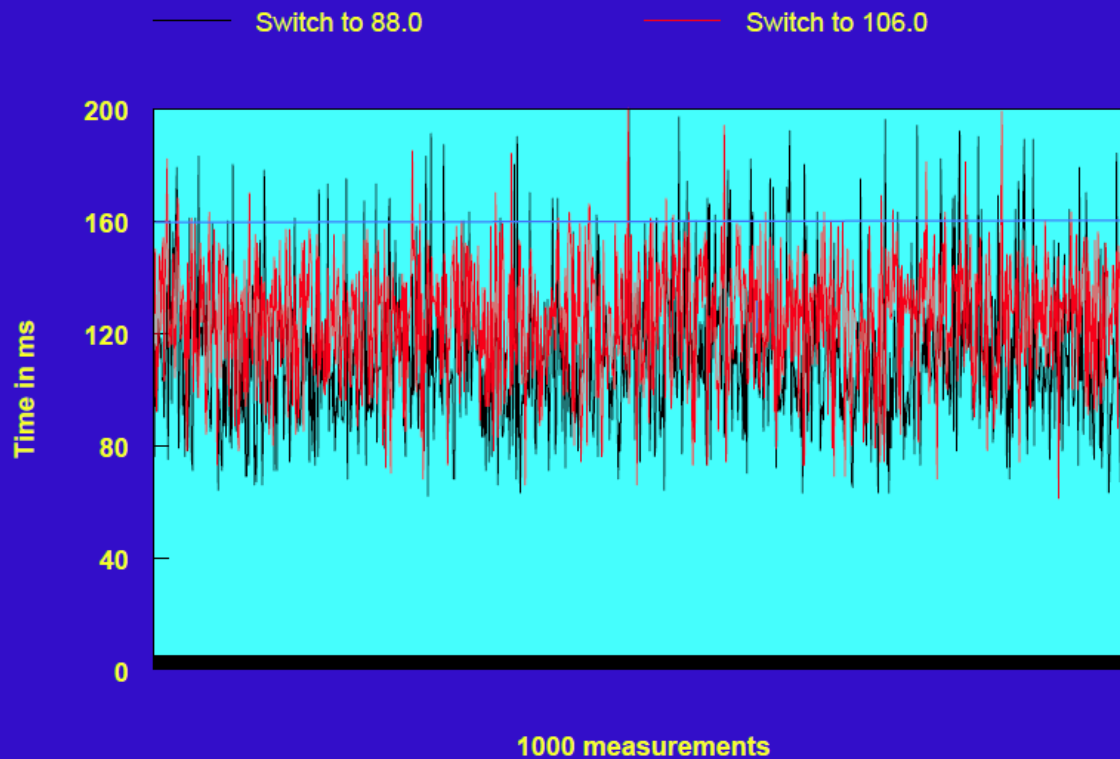
Quality over 2000 blocks



RDS Sensitivity: Time to find synchronization



RDS Sensitivity: Time to find PI code



RDS Sensitivity: Test setup / Method



1. Adjust RF level for 50 % good blocks



2. Let the PC make 1000 tuning switches and record times

**The new draft has been formally submitted in 2008
to IEC TC 100**

- **Is now published also as an RDS Forum Technical Specification**

R08/007_5

The RDS Forum invites the RDS receiver industry to provide feedback on these proposals

The new IEC project no. is 62634/Ed.1

**The target date for publishing the new
IEC standard 62634/Ed.1
is March 2011**