

QUO VADIS Frankreich ?





DIGITAL RADIO

IN EUROPE YEAR 2008 ?



WWW.DIGITALRADIODR.FR

Why T-DMB ?

- FM - liberation in 81
1 000 radio stations in France on 6 000 freq.
- FM situation comfortable
More stations = danger
- But need to occupy spectrum
- Logical but not visionary



The process

- 2 public consultations
- Project of decree by DDM, DGE, Industry and Culture minister
- Notice by the CSA
- Experimentations authorizations
- Notice by the EC
- Project of decree frozen at EC



The experimentations

8 experimentations in France

- 4 T-DMB, 2 DRM and 2 DAB+/T-DMB

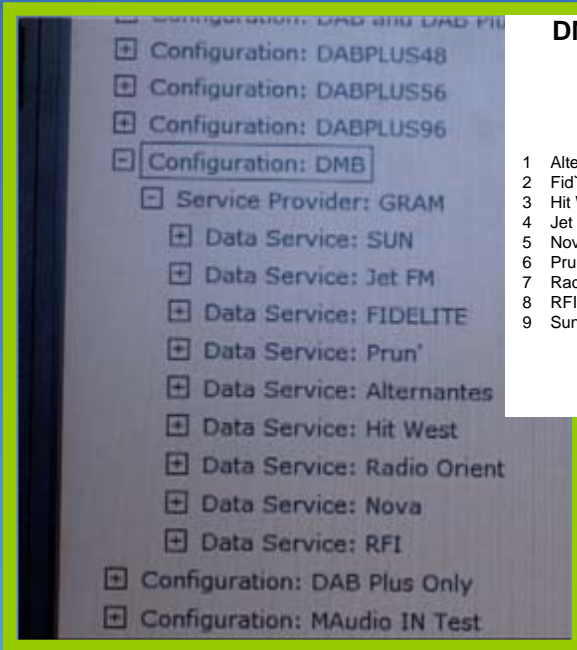
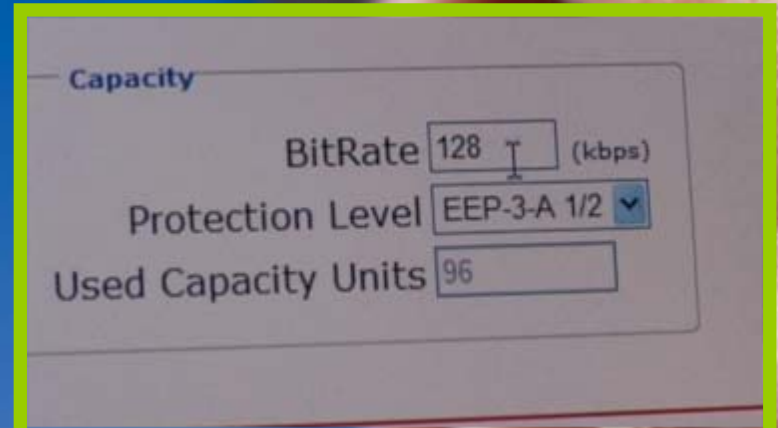
DR - One multiplex in CORE AAC

- T-DMB = max 9/10 services in 48 kbit/s
- DAB+ = max 24 services in 48 kbit/s



Configuration 1 - T-DMB

- T-DMB in 48 kbit/s CORE audio = 96 CU
- 9 services with BIFS
 - 10 services without BIFS



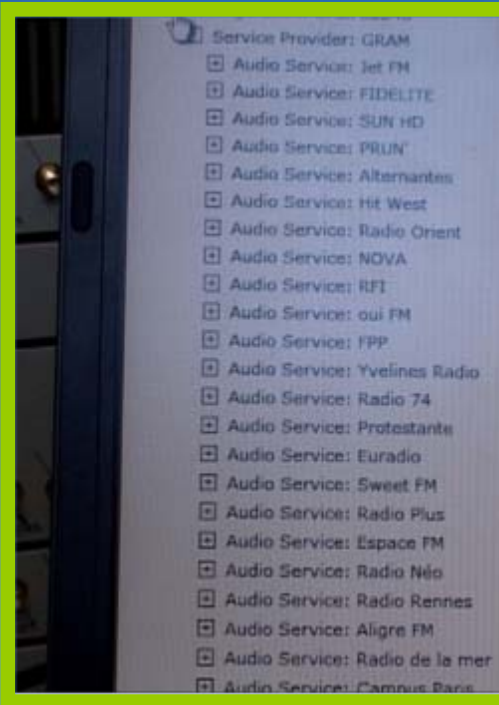
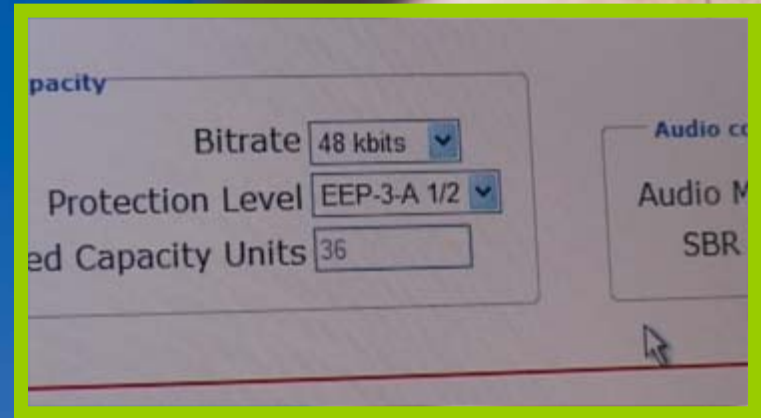
DMB - 96 CU/programme

Service	Codec	Fréquence d'échantillonnage	Débit Subchannel A+B+C	A - débit Audio	B - overhead* minimum obligatoire	Protection	Unité de Capacité (CU)	C - BIFS**
1 Alternantes	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
2 Fidélité	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
3 Hit West	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
4 Jet FM	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
5 Nova	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
6 Prun'	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
7 Radio Orient	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
8 RFI	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
9 Sun	AAC	24 kHz	128 kbit/s	48,00 kbit/s	56,00 kbit/s	EEP-3A	96	24 kbit/s
Total CU							864	
CU max							864	



Configuration 2 - DAB+

DAB + in 48 kbit/s CORE audio = 36 CU
- 24 services



XP1 - DAB+ - audio pur - 36 Capacity Units

Octobre 2007

Multiplex

Expérimentations Association pour la Radio Numérique DR France

Service	Codec	Fréquence d'échantillonnage	Débit Subchannel	Débit Audio	Protection	Unité de Capacité (CU)
1 Aligre FM	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
2 AlterNantes	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
3 Espace FM	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
4 Eur@dio	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
5 Fid'lit'	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
6 Fréquence Paris Plurielle	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
7 Fréquence Protestante	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
8 Hit West	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
9 Jet FM	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
10 La Radio de la Mer	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
11 Radio Néo	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
12 Nova	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
13 Oui FM	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
14 Prun'	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
15 Radio 74	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
16 Radio Campus Paris	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
17 Radio France Maghreb	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
18 Radio Fid'lit'	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
19 Radio Orient	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
20 Radio Plus	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
21 Radio Rennes	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
22 RFI	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
23 Sun FM	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36
24 Yveline Radio	AAC	24 kHz	48 kbit/s	43,20 kbit/s	EEP-3A	36

Total CU 864
CU max 864



" The future of Digital is ...
analogue ? "



What is DR ?

- Non-profit organizations
- Platforms to inform and exchange
- Simplify Digital transition
- Popularize technologies
- Global approach to digital
- Protect radio industry in a "mess" média environment (Telco, TV...)



Today

- Feb. 06 - DR France = 600 radio stations + industry actors
- June 06 - DR Belux = 18 radio stations + Public sector & industry actors pending
- Sept. 06 - Forum DR Swiss = 38 radios + Public sector & industry actors pending
- Nov. 06 - « DR in Europe » working Group



Tomorrow

- To come :
DR UK, DR Italia, DR Middle East,
DR Germany and any other country...
- Develop DR in european countries
- DR Europe and DR label
- Network of broadcasters to prepare Digital Radio launch and inform on european scale
- First step towards professionals (members) and with professionals
- Second step = general public, consumer, listeners, mass market...



Summary

Promote together
with radio broadcasters
and industry actors
the universal quality label
to simplify the future
and insure success
of Digital Radio





Conditions of use :

The DR label can only be used by official members that have paid their annual membership fee to one of the official DR Association.



A validation is required before the free use of the DR label. Manufacturers must send a receiver to the technical team. A serie of tests is made before validation. For others, a simple validation process is required.

A licensing contrat is then established between the parts and the logo can be used freely by the member.

The DR label is declined into different versions depending on the year the receiver came out. DR 2006 will stand for certain technical features (see below) that were available in 2006.

DR 2007 will add the latest features and updates as new technologies will arise every year.



Minimum requirements for manufacturers DR Label 2006 :

The following requirements are the minimum conditions to get a license

- Multistandard :
 - 1 - DAB L-Band & Band III with EPG
 - 2 - DRM in AM Band (SW, MW, LW)
 - 3 - Analog FM-RDS & AM

- 1 scan ALL : requires that the receiver has an autoscanner that scans all bands in one search, displays a unique list of stations and erase old list.

- Leaflet : This requires that a leaflet must be added to every receiver explaining the concept of the label, giving informations about reception possibilities and questions consumers could have.

- Menu language : this requires that the screenplay must be available in at least 3 languages - English, French, German.

- European plug : this requires that the receiver is Europe Ready in term of plug and norms.

- Label stamp : this requires that the DR label must be clearly printed on the box in which the receiver is sold and on the printed receiver's book manual and eventually on chassis if wished by manufacturers.



If those minimum requirements are included and the validation test is passed, the DR label can be used free of charge by the member.

DR Label version 00270.906

Ignominiam indicat gladiator cum inferiore componi,
et scit eum sine gloria vinci qui sine periculo vincitur.

Digital Radio DR

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A gladiator betrays as infamy the fact to be opposed to weaker than himself
And he knows that you are defeated without glory when defeated without danger.