

**13 April 2010 @ NAB, Las Vegas**

**Digital Radio Mondiale –  
DRM+ Completes The DRM Standard**

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# DRM – Digital Radio Mondiale System

## DRM System (DRM30 and DRM+):

### Global open standard for digital radio

- One station – One frequency:  
Covering large areas/international broadcast (AM bands: DRM30)  
and local/regional markets (VHF bands: DRM+)
- Radio with the “Extras”:  
Convenience Features (Labels, AFS, EPG), 5.1 Surround Sound,  
Multimedia Services (Slideshow, Journaline, real-time traffic, videos)
- Fits and works seamlessly  
with DAB family and other standards

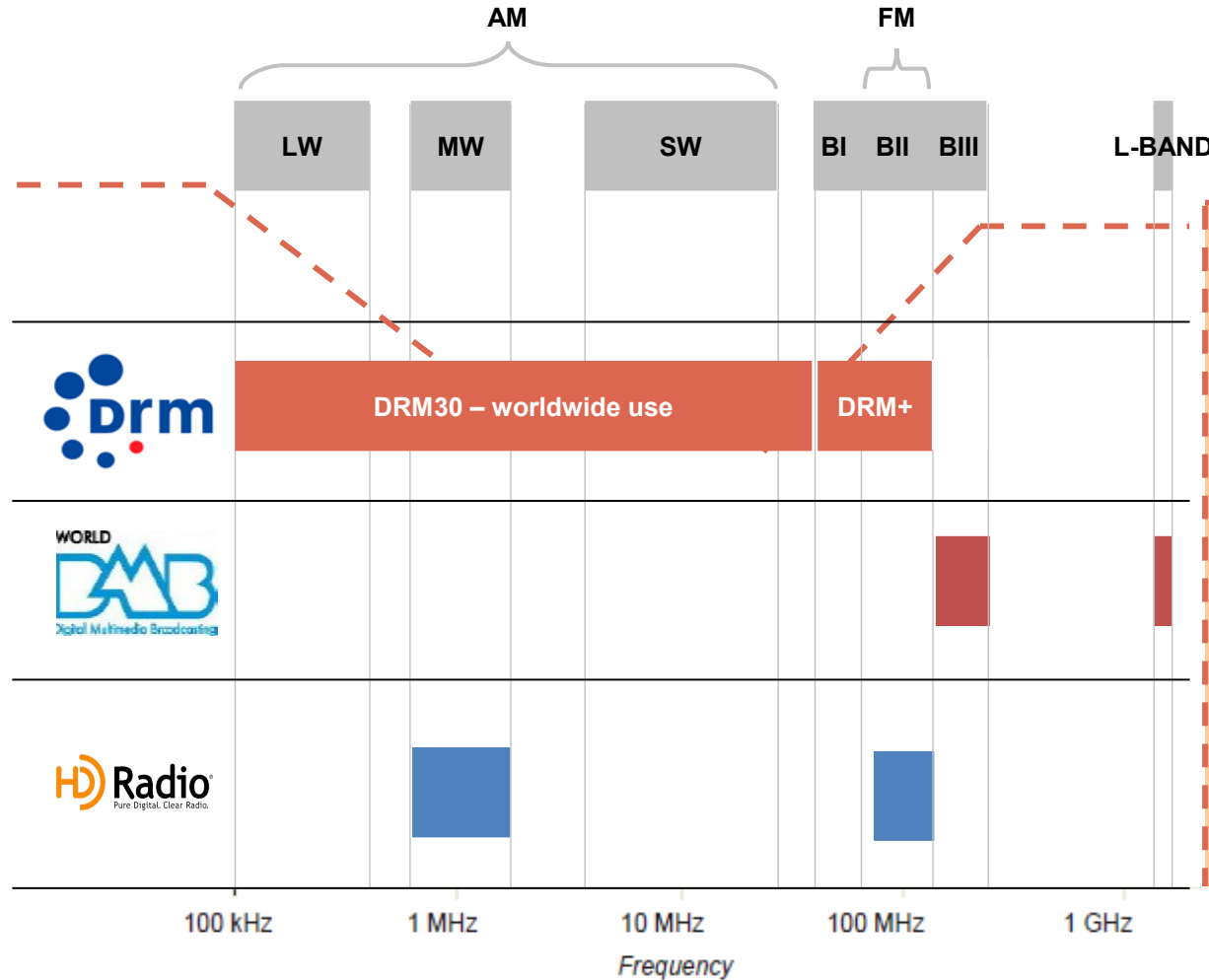
# Where DRM fits – Introducing DRM+

Frequency bands of different digital technologies

**DRM30**  
for **AM**  
**broadcasting**  
**bands**  
up to 30 MHz:  
short wave,  
medium wave  
and long wave

**Large**  
**coverage**  
**areas**

**Robust**  
**against**  
**fading and**  
**interference**

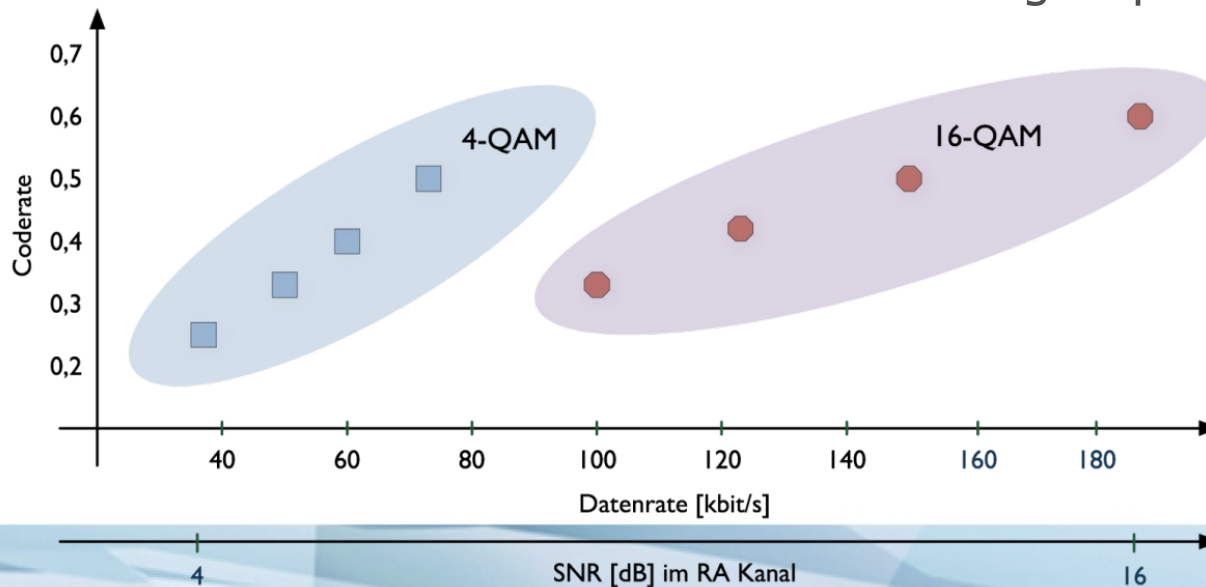


**DRM+**  
is designed  
to cover  
spectrum  
**above 30 MHz**,  
including  
band I /  
band II (FM).

**ETSI ratified**  
on 2009-08-31;  
ITU recomm.  
prepared



- Extension to the DRM system:  
**Robustness Mode E**
- Includes  
**band I and II (FM)**
- **Useful content bit rate 37–186 kbps**
- **Worldwide spectrum compatibility:**  
100 kHz bandwidth
- **Minimum signal delay:** 0.6 sec
- Flexible trade-off between content bit rate and signal protection:

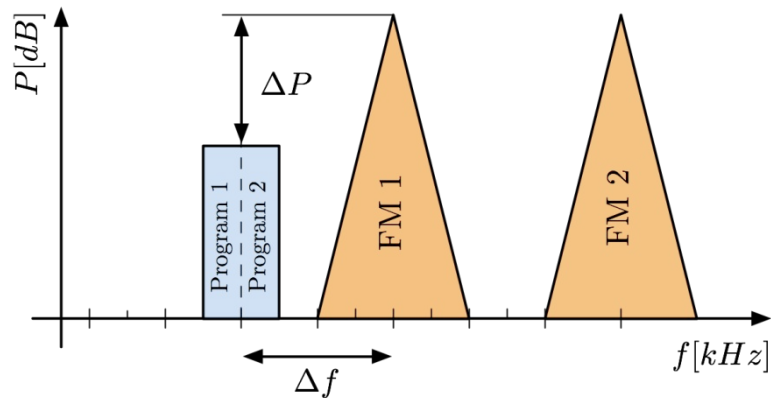


# DRM+

## DRM Above 30 MHz to 174 MHz

### Introduction scenarios:

- **Anywhere in the VHF bands**  
(seamless receiver switching)
- **Adjacent to linked FM signal:**



Recommended values:  
 $\Delta f = \text{min. } 150 \text{ kHz}$   
 $\Delta P > 20 \text{ dB for } \Delta f = 150 \text{ kHz}$

- **SFN Support**

(Single Frequency Network)  
→ Efficient spectrum usage

