

Transition DRM30 in MW

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Content

1. Medium Wave DRM
2. The transmission mode
3. The transmission
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Antenna

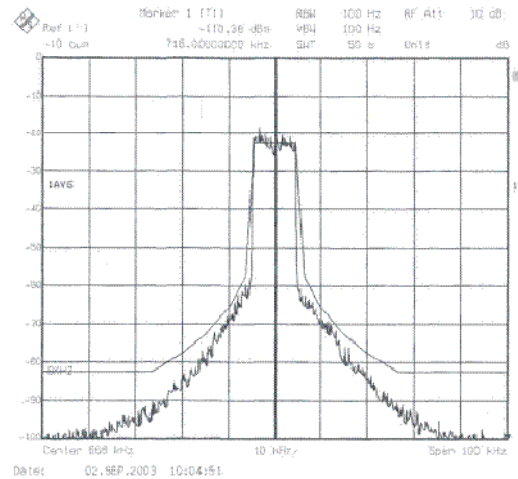
Medium Wave DRM

- -> traditional setup

→ Content generation and streaming
→



DRM Transmitter 1008 kHz

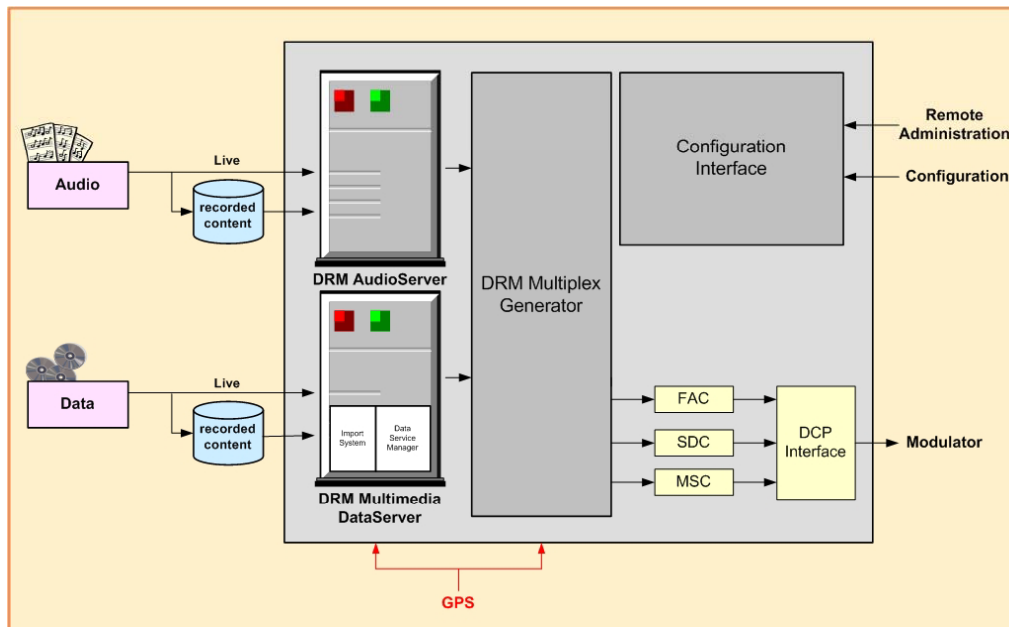


transmission lines
and ATU



Medium Wave DRM

- -> Content Server

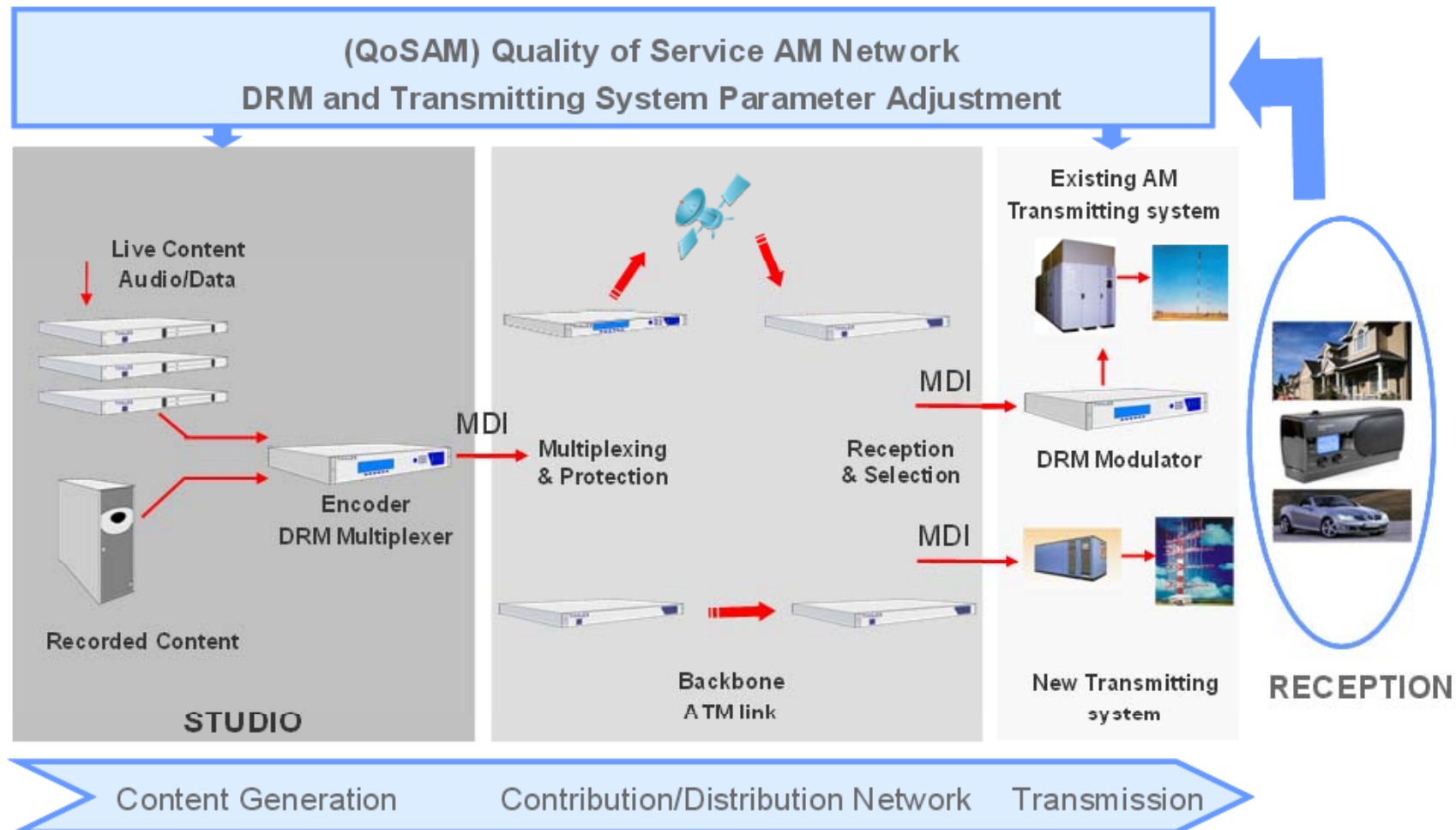


- One-box DRM Broadcast Solution
- DRM AudioServer
Live source, analog/digital and/or mp3 playlist
- **DRM Multimedia DataServer**
DRM Text Messages, News Service Journaline®,
EPG - Electronic Programme Guide
- **DRM Multiplex Generator**
- **Full Remote Control & Configuration via Web Interface**
- **Automatic Broadcast Scheduling**
- **Sound System Configuration**
- **Powerful Security Features**

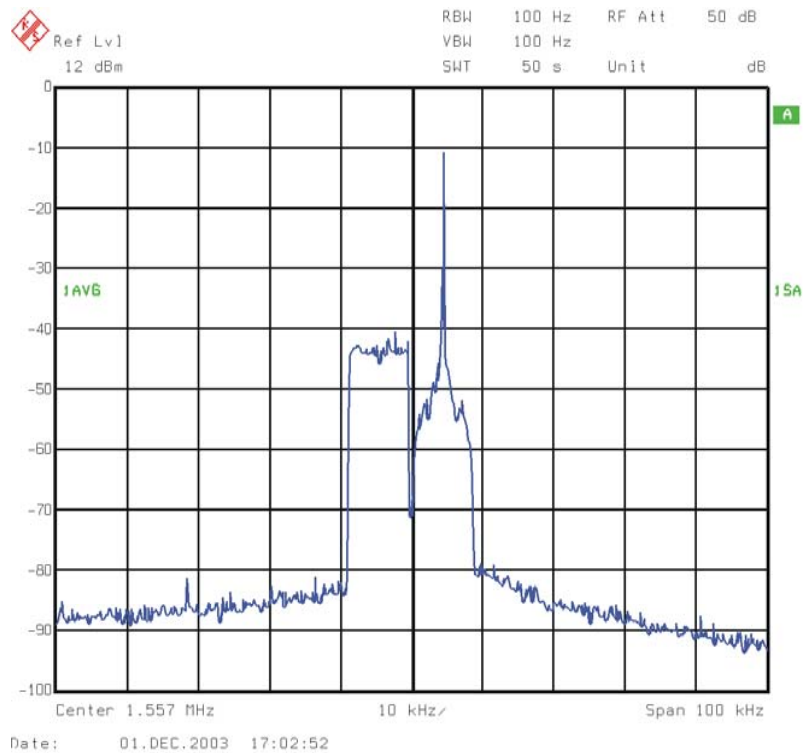
Medium Wave DRM

- Older high frequency transmitters may be linearized and work, but with lowered efficiency
- Existing linear transmitters may be suitable
- Many recent solid state MW and LW transmitters using digital modulators should be suitable
- Newer high frequency transmitters with PDM/PSM type modulators should be convertible with addition of digital exciter and increase in modulator bandwidth to 40 kHz
- Implementation of automatic frequency tuning in DRM need to be checked

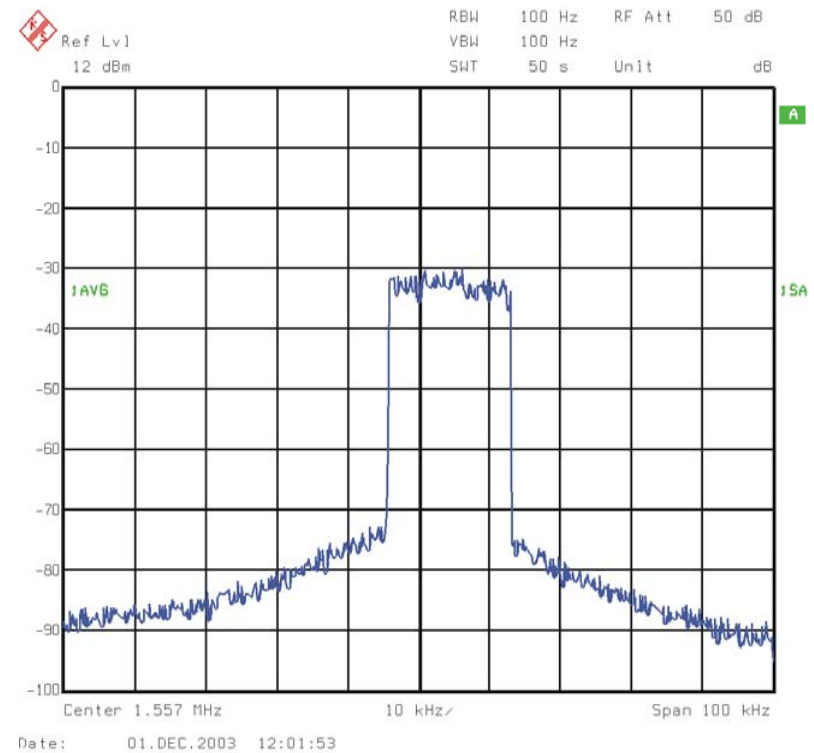
Medium Wave DRM



The transmission mode



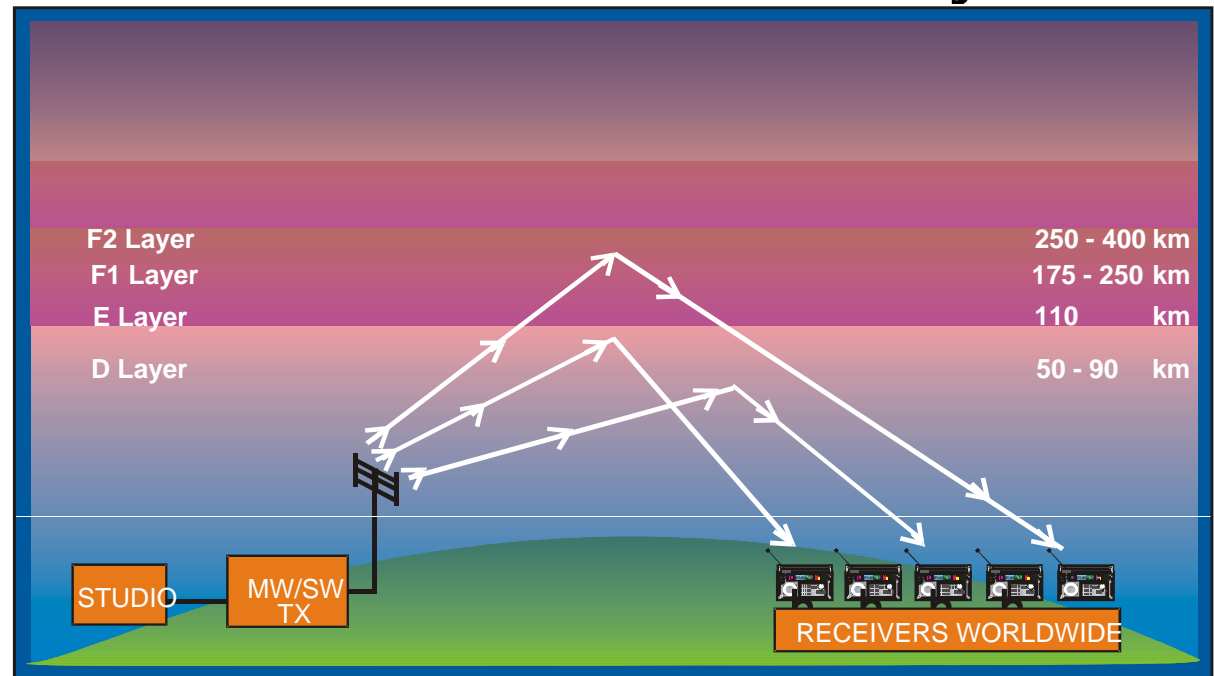
9 kHz Digital, 9 kHz Analog Simulcast
Mean Output Power 26.6 kW



18 kHz Full Digital
Mean Output Power 18.0 kW

The transmission

MW and SW Transmission over Sky Waves

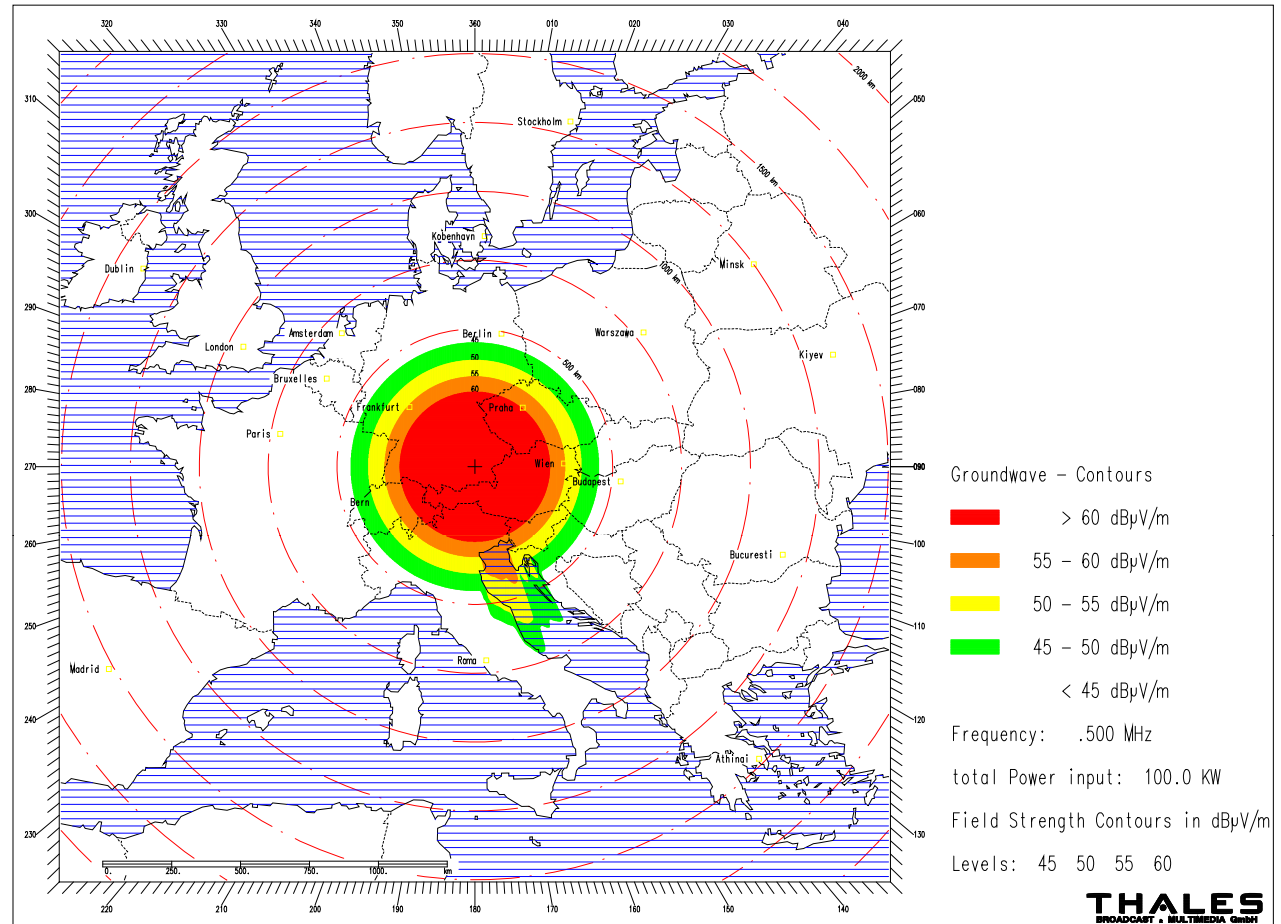


To be considered:

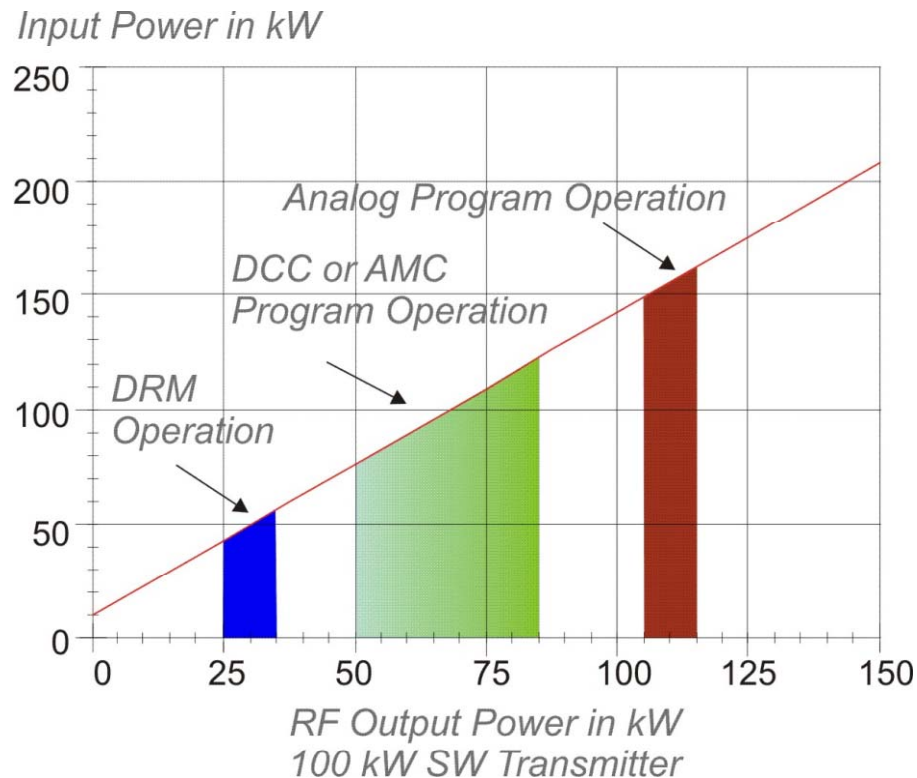
- Ground wave coverage
- Sky wave coverage
- Atmospheric noise
- Man-made noise
- Sun spot activity
- Variation of damping (fading)
- Transmitting antenna pattern & receiver antenna sensitivity
- Ground conductivity
- Characteristics of transmission path
- Multipath reception

Coverage

Example for
ground wave
propagation
LW, MW -
day and night



Energy aspect



- broadcast flexibility
 - broadcast quality improvement
 - reducing the Energy cost
-
- 100kW transmitter DSB (100%)
 - 100kW transmitter in energy saving mode. (ca. 60%)
 - 100kW transmitter 9kHz full DRM (ca. 35%)

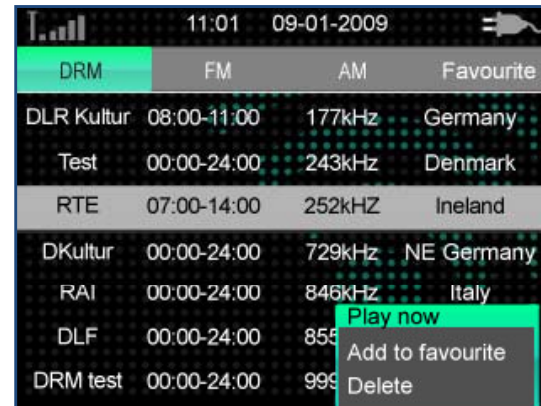
Content

- Significantly improved audio quality, more reliable reception and data service facility
- Compatibility with existing AM bands (spectrum usage) and services and with other radio services (e.g. FM and DAB)
- Provision of data capacity
- Provide a flexible system with an easy migration path from analogue to all digital broadcasting
- Operate within existing spectrum allocations
- Maximize re-use of existing transmitters and transmission facilities
- Multiplex supports up to 4 data/audio streams used
- Multiple modulation modes to match different propagation conditions (ground wave, sky wave, difficult sky wave, vertical incidence)
- Digital life Radio
- Digital life videos
- Digital Music
- News Journaline
- Picture exchange
- MOT slide show
- ...

Content



125 mm (H) x 65 mm (W) x 232 mm (L)
3.5 » TFT LCD color screen



DRM Radio menu



Journaline,
live information



Main menu



Pictures menu



Videos

01011101001110001111010001011110
10111000011011
10001110100110
10100110000110001
0101011000000
110001011100
0011100001110100

***Everything you need
to make DRM happen***



Talk to people who will help you realize your vision for DRM

Thank you

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