

DRM

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DRM . AM : DRM

AM *DRM* :

() AM

:

:

FM

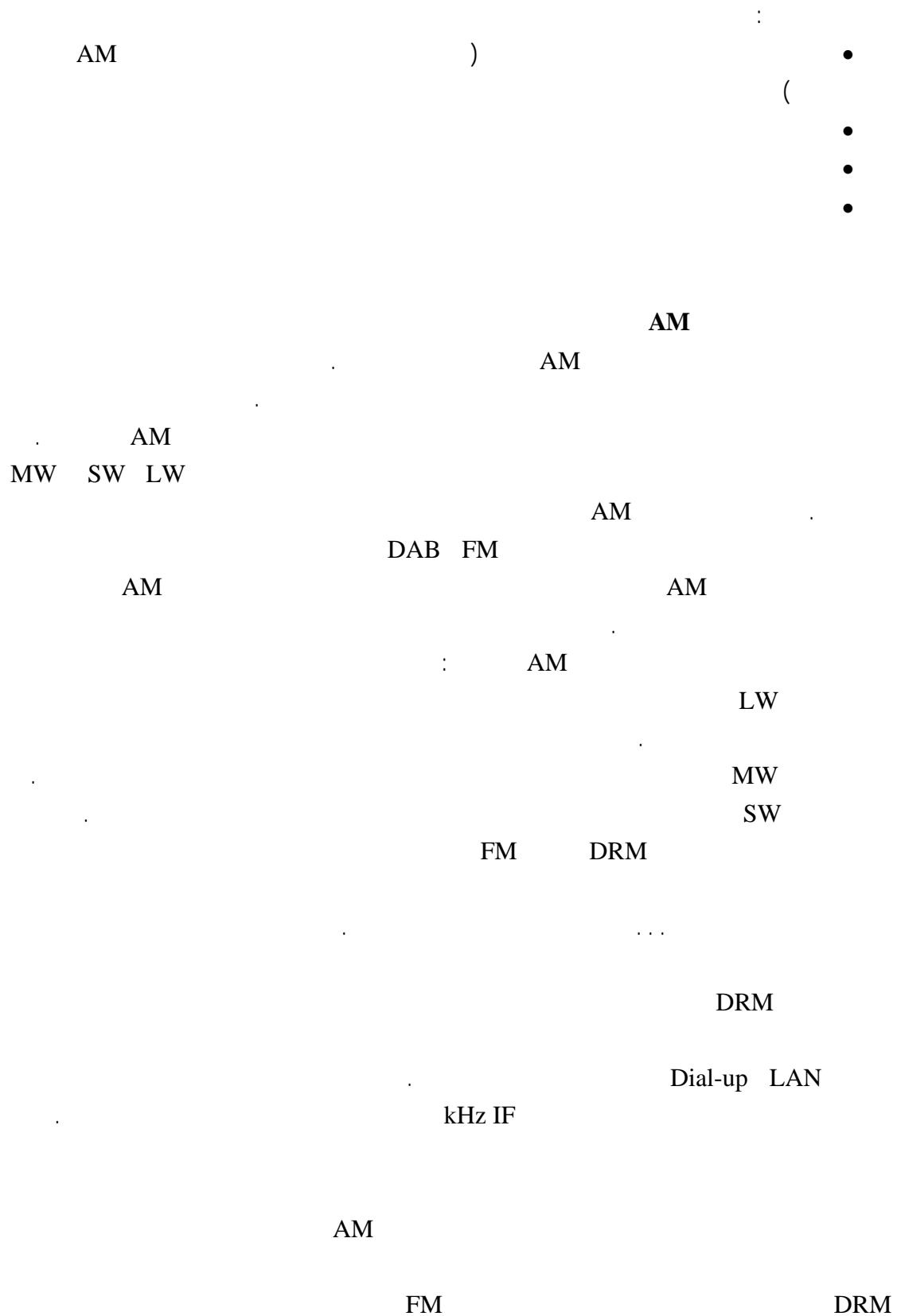
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¹. Digital Radio Mondiale
². Amplitude Modulation



¹ . Long Wave
² . Short Wave
³ . Medium Wave
⁴ . Frequency Modulation
⁵ . Digital Audio Broadcasting

AM

AM

DRM

DRM

MHz

(. .)

:

MW

MW

SW

DRM

DRM

(SFN)

(AFS)

DRM

AFS

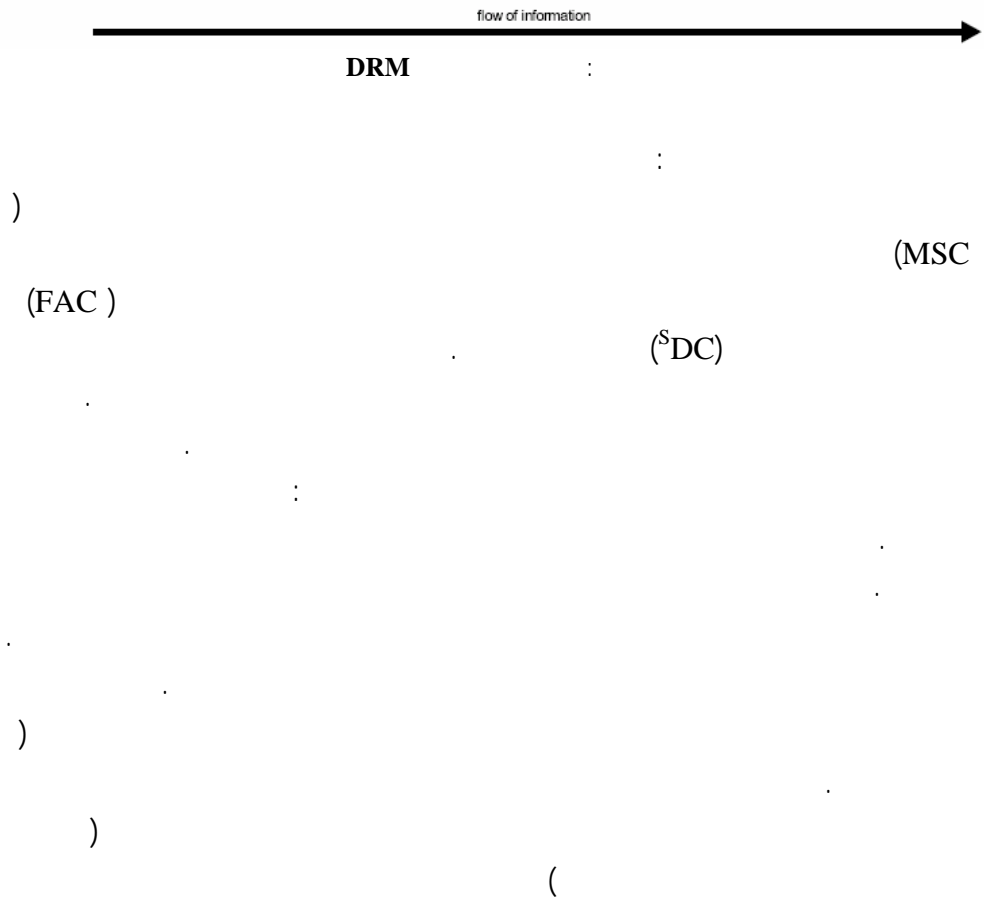
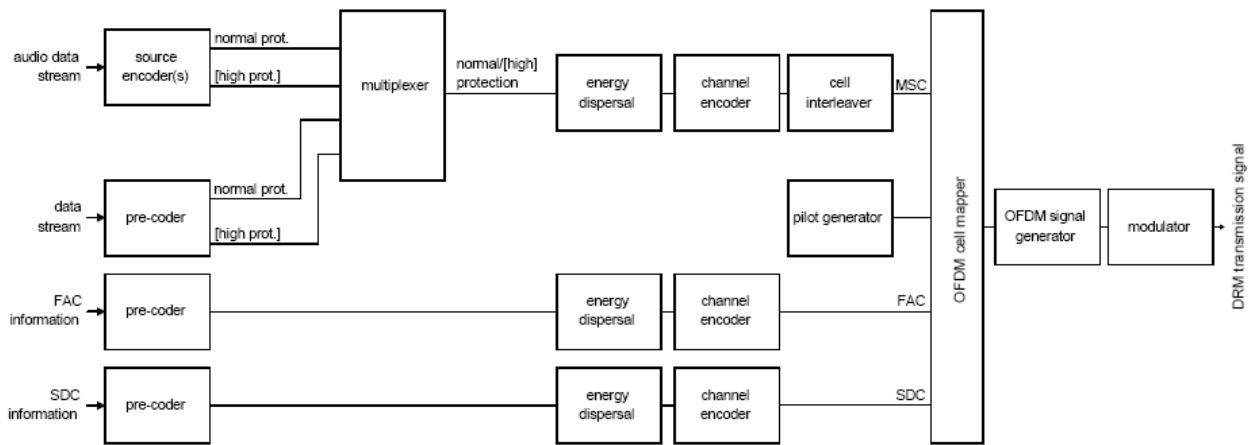
DRM

AFS

(PAD)

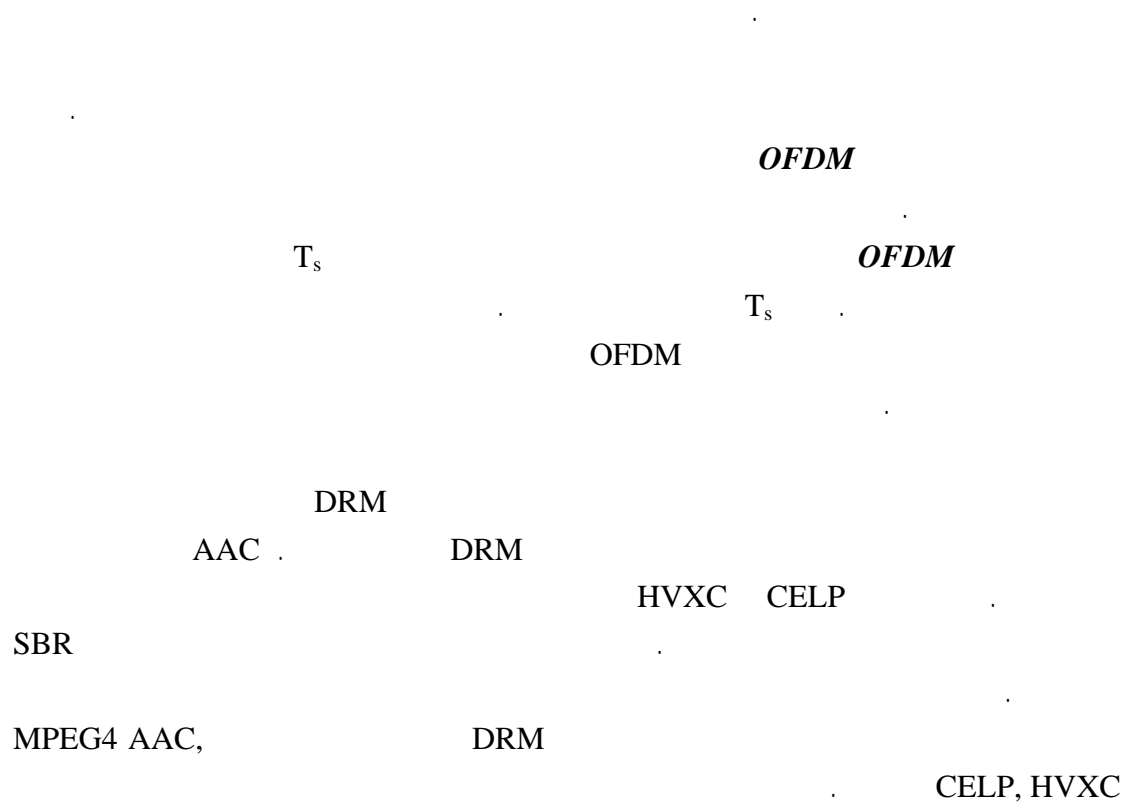
¹.Robustness
² . Single Frequency Network
³ . Alternative Frequency Switching
⁴ . Programme Associated Data

[illegible]². Coded Orthogonal Frequency Division Multiplexing³. Quadrature Amplitude Modulation

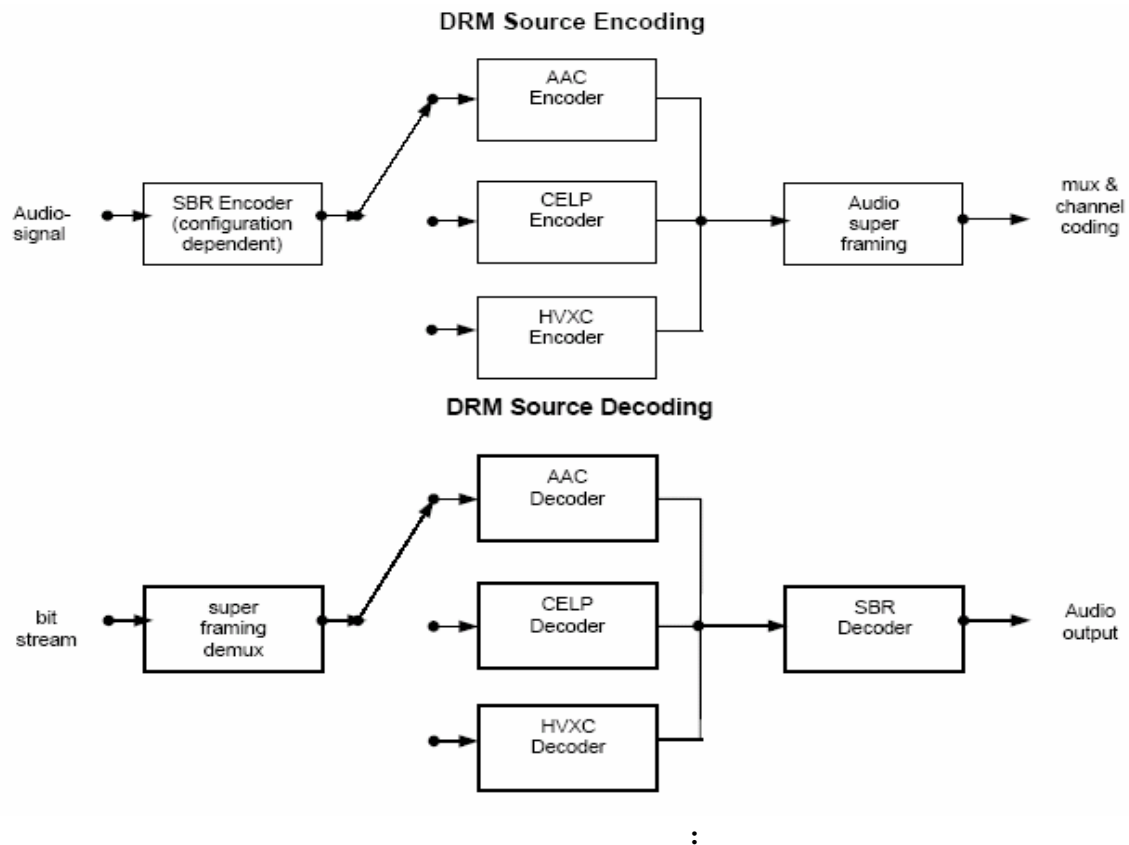


QAM

- ¹.Main Service Channel
- ².Fast Access Channel
- ³.Service Description Channel
- ⁴. Energy Dispersal
- ⁵. Mapping



¹. Interleaving
². Pilot Generator
³. Mapper
⁴. Advanced Audio Coding
⁵. Code Excited Linear Prediction
⁶. Harmonic Vector Excitation Coding
⁷. Spectral Band Replication



AM

DRM

A

B

(SNR)

QAM

QAM

¹. Signal to Noise Ratio

Robustness	MSC Mode (nQAM)	Typical uses bandwidth
A	16,64	Ground-wave local, regional in LW and MW bands. SW 26MHz band local line-of-sight.
B	16,64	Sky-wave international and national coverage in MW and SW bands
C	16,64	Sky-wave needing higher robustness for international coverage in SW bands
D	16,64	Sky-wave needing highest robustness

Mode	MSC Modulation (nQAM)	Robustness level	Nominal Signal Bandwidth (kHz)					
			4.5	5.0	9.0	10.0	18.0	20.0
			Approx. available bit rate kb/s (equal error protection, standard mapping)					
A	64	Max.	9.4	10.6	19.7	22.1	40.9	45.8
		Min.	14.7	16.7	30.9	34.8	64.3	72.0
	16	Max.	6.3	7.1	13.1	14.8	27.3	30.6
		Min.	7.8	8.9	16.4	18.5	34.1	38.2
B	64	Max.	7.2	8.3	15.3	17.5	31.8	35.8
		Min.	11.3	13.0	24.1	27.5	50.0	56.1
	16	Max.	4.8	5.5	10.2	11.7	21.2	23.8
		Min.	6.0	6.9	12.8	14.6	26.5	29.8
C	64	Max.	Not used			13.8	Not used	29.0
		Min.				21.6		45.5
	16	Max.				9.2		19.3
		Min.				11.5		24.1
D	64	Max.				9.2		19.5
		Min.				14.4		30.6
	16	Max.				6.1		13.0
		Min.				7.6		16.3

DRM

AM

MW

DRM

LW
SCS)

MW

KHz

(

¹.Simulcast

². Single Channel Simulcast

DRM

DRM

DRM

kbit/s

DRM

(FAC)
(SDC)
(MSC)

QAM

)

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SNR

DRM

SNR

QAM

QAM

QAM

QAM

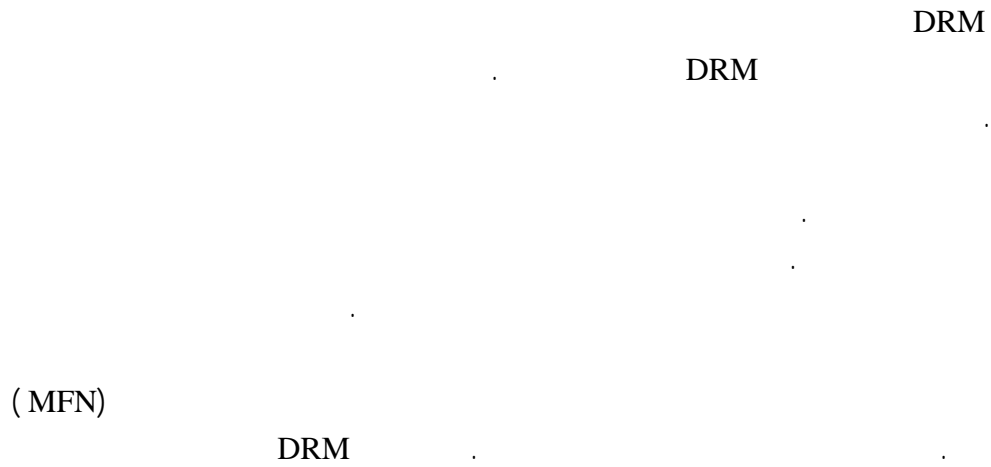
DRM

QAM

QAM

QAM

QAM



[1] Shanmugan. K. Sam,. “Digital and analog communication system”

[2] www.etsi.org

[3] www.drm.org

¹. Multi Frequency Network