



Mevlüt Taçyıldız*

Digital Radio Broadcasting

TRT DAB PILOT PROJECT

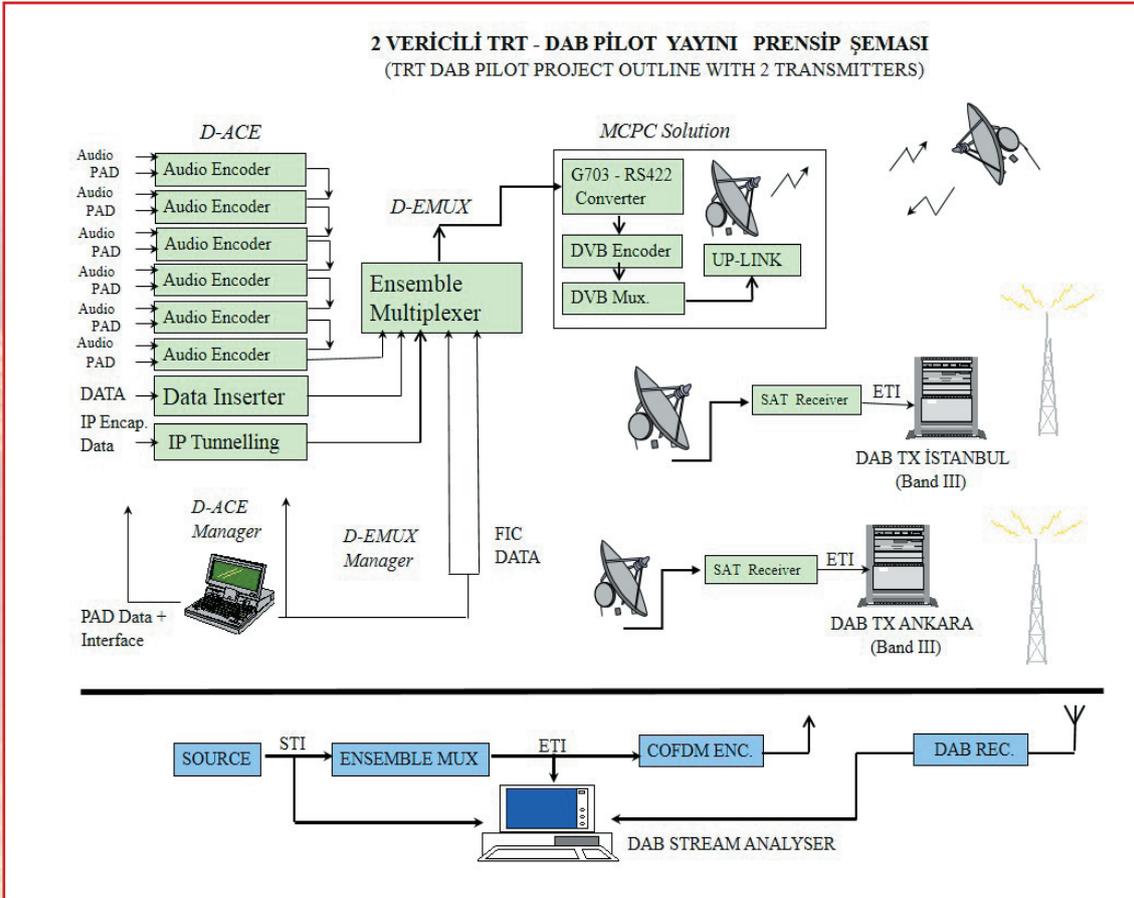
Developed by EUREKA 147 Group, DAB (**D**igital **A**udio **B**roadcasting) is a major leap in radio technology since the launch of FM stereo broadcasts.

DAB provides CD quality sound and crystal clear reception. Besides high quality sound, it transmits text, information and even images. The design of Digital radio broadcasting system makes it possible to have equally good broadcast reception in stationary (home type), portable, and in-car receivers.

TRT, as a national radio, TV broadcaster and a public broadcasting service in Turkey, established the first T-DAB (Terrestrial Digital Audio Broadcasting) transmitter and began test broadcasts. Keeping up with the technological advancements in digital

radio broadcasting and necessary lab work to put it into practice, test broadcasts and setting up the organizational infrastructure in line with the measurements were the main targets of the DAB Pilot Project.

In the scope of TRT –DAB Pilot Project, multiplexed Radio-1, TRT FM, Radio-3 and Tourism Radio channels can broadcast via a single transmitter simultaneously with FM broadcasts. Alongside the broadcast PAD –related with the program and independent from the program N-PAD data services can also be relayed.



As can be seen in the DAB Pilot Project Principle Schema already existing DVB-S MCPC platform was utilized to convey DAB transmission signal (which includes radio and data services for SFN-Single Frequency Network application) to transmitters via satellite. After confirming the success of SFN application with two transmitters in Ankara, 1kW DAB transmitter was taken to İstanbul in 2007 to promote in fairs and to increase awareness about digital radio broadcasting.

In line with our organization's mission to be a pioneer in broadcasting, DAB radio broadcasts started as a test through VHF band channel 12. Due to incomplete regulations and limited DAB transmitters the project was halted in 2008.

Developments at national and international level continue in digital terrestrial radio broadcasting. With developing voice coding-compression and transmission techniques digital future of AM and FM analogue broadcasts is being shaped. Alternative or supplementary technology standards like DAB/ DAB+, DRM/DRM+, HD-Radio, ISDB, IBOC, DVB-T2 Lite have been developed for countries to choose.

DAB+ and DRM+ technologies have an advantage over the others for they have open standards and are widespread. Also investment and operation costs are comparatively low.

In line with its mission to be a pioneer in broadcasting, the TRT wants to restart the DAB and DAB+ test broadcasts to support the transition into terrestrial digital broadcasting in Turkey. Thanks to the positive approach of RTÜK, expansion of DAB+ broadcast network tests particularly in İstanbul, Ankara, İzmir, Bursa, Kocaeli and Antalya is being planned. ■

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