DVB-T (Digital Video Broadcasting-Terrestrial) is the DVB European-based standard for the broadcast transmission of digital terrestrial television. This system transmits audio, video, and data through MPEG-2 streaming, using COFDM modulation. The DVB-T Standard is published as EN 300 744, "*Framing structure, channel coding and modulation for digital terrestrial television*". This is available from the ETSI website, as is ETSI TS 101 154, "*Specification for the use of Video and Audio Coding in Broadcasting Applications based on the MPEG-2 Transport Stream*", which gives details of the DVB use of source coding methods for MPEG-2 and, more recently, H.264/MPEG-4 AVC as well as audio encoding systems. Many countries that have adopted DVB-T have published standards for their implementation. DVB-T has been further developed into newer standards such as DVB-H (Handheld), now in operation, and DVB-T2 now fully implemented.. The MPEG-2 video formats include: HDTV 1920x1080i/p, 1440x1152p, etc. in 16/9, SDTV 720x576 4/3 or 16/9, and Audio MPEG-2 or Dolby AC-3. Moreover, other types of data-stream can be transported as generic data or MPEG-4. It supports interactive contents by using return paths such as Internet, cellular or telephone.
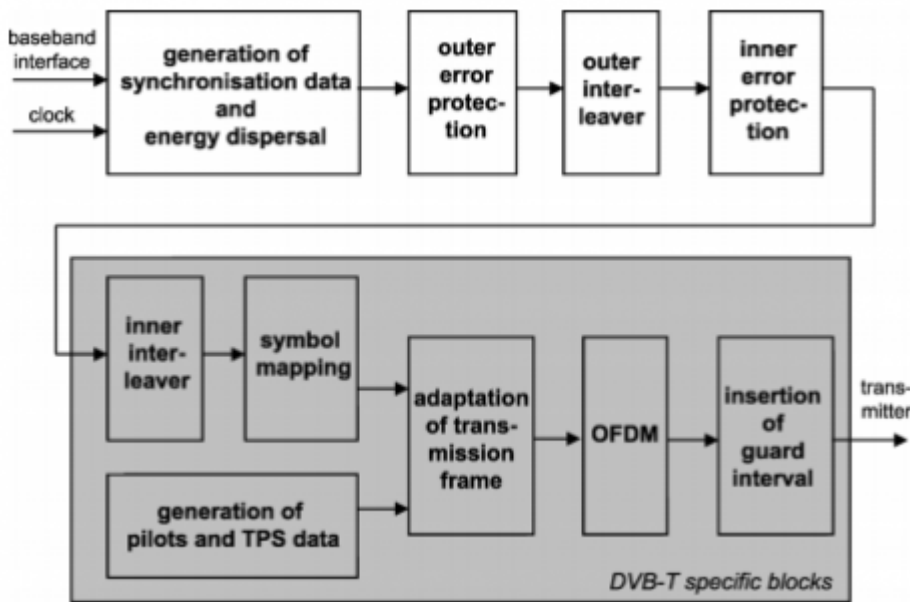
The digital terrestrial television system DVB-T is more complex than DVB-S because it must cope with a different noise and bandwidth environment and multi-path. The system has several dimensions of receiver 'agility', where the receiver is required to adapt its decoding according to signaling. The key element is the use of OFDM. There are two modes: 2K carriers plus QAM, 8K carriers plus QAM. The 8K mode can allow more multi-path protection, but the 2K mode can offer Doppler advantages where the receiver is moving.

The DVB-T signal is an Orthogonal Frequency Division Multiplexed (OFDM) signal with either 2k or 8k subcarriers depending on the operating mode. Symbols are organized into frames, with each DVB-T frame consisting of 68 OFDM symbols. A super-frame consists of four frames and is used to match the OFDM signaling with the framing for the error control coding in the system. The OFDM symbols carry data belonging to three different types: 1) the MPEG- 2 video data stream, 2) the DVB-T transmission parameter signal (TPS), and 3) pilots.
1) Data: The MPEG-2 stream first passes through a series of stages including bit-randomization, outer-coding, and inner-coding before being mapped into the signal constellation. This process results in the information appearing on these carriers as random data. This also leads to the flat spectrum of the signal. The data carriers are modulated with Quadrature Phase Shift Keying (QPSK), 16-Quadrature Amplitude Modulation (QAM), or 64QAM depending on the operating mode.
2) Transmission parameter signal (TPS): The TPS carriers convey information about the parameters of the transmission scheme. The carrier locations are constant and defined by the standard and all carriers convey the same information using Differential Binary Phase Shift Keying (DBPSK). The initial symbol is derived from a Pseudorandom Binary Sequence (PRBS).
3) Pilot: The pilot symbols aid the receiver in reception, demodulation, and decoding of the received signal. Two types of pilots are included: scattered pilots and continual pilots. The scattered pilots are uniformly spaced among the carriers in any given symbol. In contrast, the continual pilot signals occupy the same carrier consistently from symbol to symbol. The location of all pilots carriers are defined by the DVB-T standard.