



DVB-T to DVB-T2
transition



Digital terrestrial television is becoming the primary distribution platform in many countries. Across all over the world, the DVB-T standard will be gradually replaced by the new DVB-T2 standard that will offer higher performances, more robustness and flexible respect to the previous one.

Many countries are just starting this transition to digital: often there is a high demand of transmitters to move quickly to the new standard, but a lack of infrastructures and people are not ready for receiving such kind of signal.

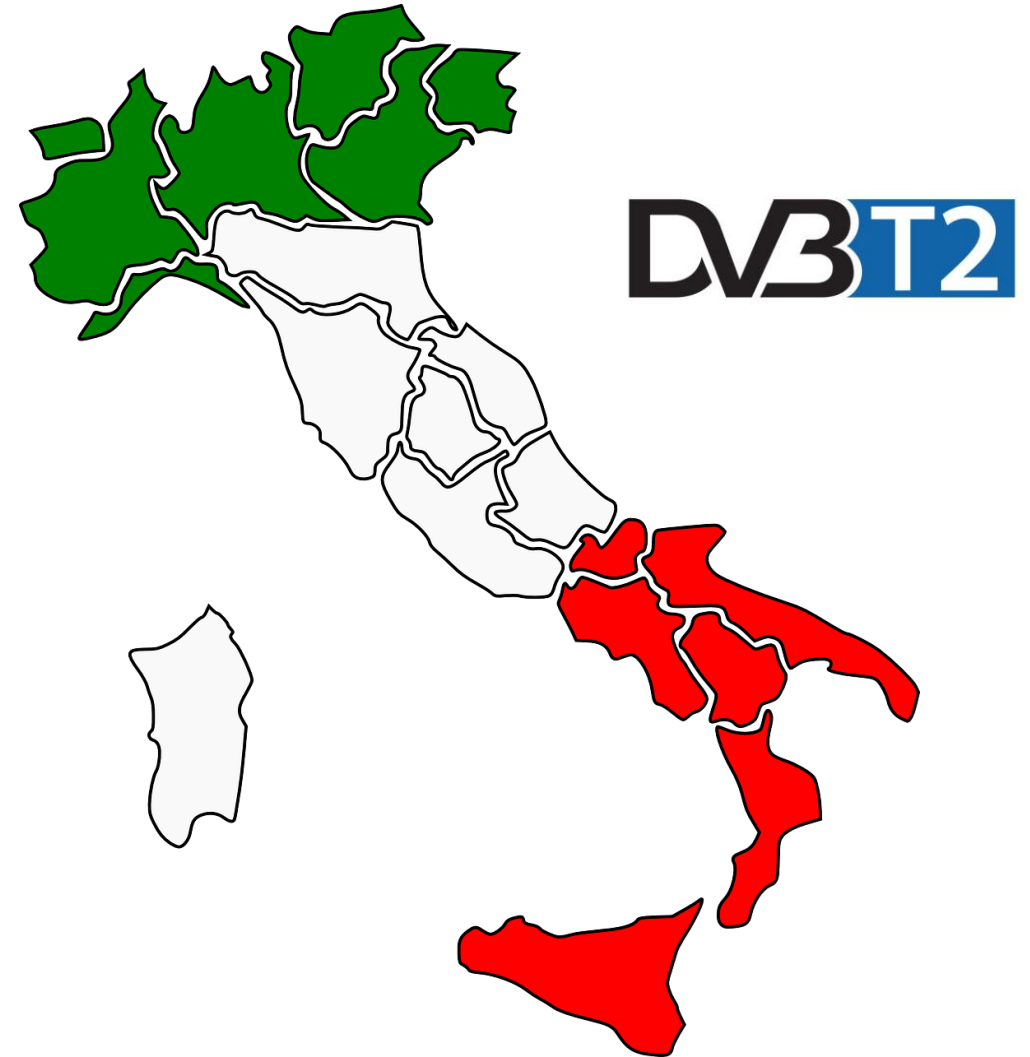




Italy is one of the countries that is now transitioning to the more efficient second-generation system.

Several European countries planned to make this change within 2024, but this transition often is not smooth: DVB-T televisions are not suitable to receive the new signal even if the new standard respects the basic principle of compatibility with old standard requested in the international rules.

Moreover, existing TV stations need to find a reliable and economical solution to start the transmission in the new standard. The antenna system, in fact, will not change but the transmitter must be able to transmit in DVB-T2.



DB Elettronica offers the ideal solution for such transition, both for broadcasters who need a transmitter that works on DVB-T2 standard and for who is still working in DVB-T and will move to the new standard only in one or two years.

No need to change the modulator: ARK-X modulator is already a multistandard unit and you simply have to set the standard you need to use!

Let's see with some more details the high efficiency line of DB Elettronica/Screen transmitters for DTV.





The New Revolutionary SFT/XE eXtreme Efficiency DTV TRANSMITTER SERIES is reaching the highest technology level in both TV Digital Signal Processing and RF domain.

The top performances of this Transmitters Series are possible thanks to the following points:

- 1) **ARK-X**: the new evolution of the ARK Series multistandard DTV Drivers, the ARK-X Series, able to meet or exceed all the DTV International Broadcasters requirements.
- 2) **XET™** (eXtreme Efficiency Technology): the new XET™ (eXtreme Efficiency Technology) as the result of using latest generation LDMOS devices (more rugged and efficient compared to the past), with a special low-loss design of matching and combining system, together with extremely high-efficiency power supplies (over 96% efficiency).





3) Compactness: the highest efficiency, reached thanks to the above-mentioned technology, combined with a new concept of heat sync and ultracompact power supplies, grants the minimum sizes of amplifier modules with air cooling or liquid cooling systems and a greatly reduced dimensioning of the cooling system itself. A 10 kW rms DTV Transmitter in a single rack is just an example of this extreme compactness.

4) Easy and Fast maintenance: a significantly improved easy-maintenance concept thanks to:

- Hot pluggable RF power modules,
- 3 independent power supplies that are also hot pluggable themselves,
- Latest generation of industry higher class power supplies with efficiency >96%, wider input AC range capability and greater ruggedness.





5) **Smart System Design:** latest generation progressive RF combiner with ultracompact unbalancing dummy loads and a smart intercommunication interface between RF modules, drivers and Logical Control System allow for a very clean and easy to maintain system configuration, both for liquid and air-cooling equipment.





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