

BTESA leads the deployment of the DVB-T2 Lite Profile

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After the resounding success achieved during the DVB-T2 trial that took place in the city of Copenhagen in 2011, BROAD TELECOM SA (BTESA) has continued to cooperate with its European partners in order to explore the capabilities of the DVB-T2 standard.

In collaboration with BTESA, the Danish operator Open Channel is now starting to air the next generation of mobile TV, based on the new DVB-T2 Lite profile, which is bound to be one of the main television broadcasting standards in the following years.

The T2-Lite profile is mostly a subset of the DVB-T2 standard, which will bring advantages for both end users and broadcasters, particularly for mobile TV reception”, said PhD Alejandro Delgado Gutierrez, head of R&D department, BTESA.

The reception of mobile television is taking advantage of an extraordinary boom thanks to the new generation of electronic receiver devices (the popular tablets and smartphones). One of the main goals of the trials being carried out in 2012 is to demonstrate the suitability of the DVB-T2 Lite Profile for mobile services. “The outcome of these tests will have a great impact on how we watch television in the coming years” declared Juan Lluch Ladrón de Guevara, R&D design engineer, BTESA.

The DVB-T2 transmitter that BTESA has used in Denmark is the TTD501, one of BTESA’s new air cooled transmitters. The TTD501 can reach an output power of 500 Wrms after filter thanks to its two amplifying modules, each one of them with its own power supply. The central control logic allows the monitoring of all the parameters of the equipment, either locally, through the color touch screen located in the frontal part of the equipment or remotely, through IP networks.



One of the highlights of TTD501 is that it is equipped with multiple protection systems, designed to extend the transmitter’s lifetime. Thus, the electric power system is designed to withstand the extreme conditions present in the television stations.; the home-designed power sources with an input voltage range of $\pm 20\%$, an excellent power factor (> 0.95) and robust protections (mains phase inversion and level detector, surge protectors, varistors, thermal-magnetic circuit breakers, etc). The hardware based logic control protection prevents the transmission interruption because of a software failure. The overheating protection system is based on a careful heat balance calculation and on the six independent fans per amplifier module.

It is also a very easy to install transmitter, as it can be housed in a 19” rack or as a stand-alone equipment, with a simple maintenance (simple substitution of fans and filters, all external equipment may be replaced in operation) which can be assembled in many different configurations (all DTT standards available, dual cast, output power ranging from 150 Wrms to 2 KWrms, multy-entry: single phase 220VAC $\pm 20\%$, 3x380VAC, 3x220VAC, $\pm 20\%$).

In short, the TTD501 is a solid and lasting transmitter completely designed and manufactured by BTESA, which meets the network operators’ needs in medium power TV transmission.