

PROTELEVISION ATSC 3.0 EXCITER Solution – Layered Division Multiplexing (LDM)



ProTelevision Technologies from Denmark is with absolutely no doubt leading the race on ATSC 3.0 modulation and is back at NAB show this year with more advantages for its ATSC 3.0 customers.

Back in NAB Show 2015, ProTelevision was already chosen for a pioneer ATSC 3.0 set up by One Media Llc and that was just the beginning.

2015 is the year remembered for an intense and fruitful cooperation with South Korean manufacturers, Broadcasters and authorities paving way towards the future of Broadcasting in the country with 2018 Winter Olympics transmission on UHD 4k with ATSC 3.0.

Last NAB Show 2016, ProTelevision Technologies presented their ATSC 3.0 modulator supporting 1 PLP and with crystal clear RF signal. This was achieved even with the absence of demodulators with the difficulties that this entails for the developers. But in the South Upper Hall at NAB 2016, this ambitious company based in Copenhagen was already transmitting ATSC 3.0.

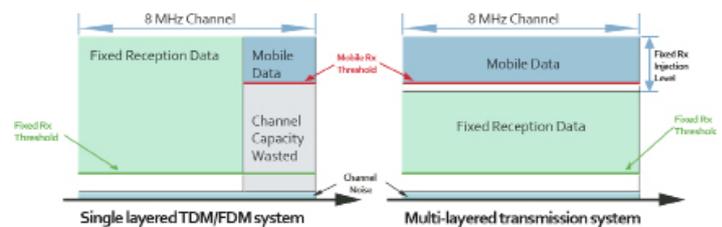
Ever since, the race has been hectic, and what a race! In 2016 ProTelevision continued cooperating with South Korean regulation organizations to give shape to a certain transmission mode for the country, and after the world's first successful on air SFN test together with a commercial scheduler in June 2016, the ATSC 3.0 Korean mode was released.

From summer 2016 until now, ProTelevision has, in cooperation with reference transmitter manufacturers, helped the main South Korean Broadcasters to put on air their first SFN, multiple PLP networks transmitting in 4k quality becoming the reference exciter manufacturer in the country.

Not happy just being ahead, ProTelevision Technologies has been developing the Layer Division Multiplexing functionality and is thrilled to present it at NAB 2017 for the first time in USA's history.

Layered Division Multiplexing (LDM), which grew from a Cloud transmission concept is the sum of two synchronized signals (in time and frequency), which are broadcast on the same RF television channel.

For instance, it is possible to combine on the same channel a signal targeting mobile services (Upper Layer, UL), and certain dBs below UL, another signal (Lower Layer, LL), where LL could be a DVB-T2 signal or some other signal format. LDM shows then a higher spectrum efficiency than TDM and FDM techniques.



ATSC 3.0 is an IP based standard, given this fact, it demonstrates that ProTelevision modulation platform was developed with a future mindset. Protelevision presented back in 2012 a hardware platform with four (4) IP physical ports with independent MAC address, Gigabit capacity and seamless switching support, when most of the broadcasters in the world were providing ASI signals to their transmitters. With the arrival of ATSC 3.0 we are providing a mature platform with full IP redundancy and robustness in the transmitting signal which of course is a huge advantage and differs us technologically from other players in the market.

In addition, by using the existing hardware platform, ProTelevision allows Broadcasters to have in the modulator both ATSC 1.0 and ATSC 3.0 with the possibility of changing from one to other by a simple button click.

These are all evidences that ProTelevision Technologies provides transmitter manufacturers and broadcasters added values that position them in advantageous positions for actual and future success.

ProTelevision Technologies, formerly Philips TV & Test Equipment, is a leading designer and manufacturer of advanced future-proof modulation solutions for Digital TV and Radio standards (DVB-T/T2, ISDB-T, DAB+, ATSC 1.0 and ATSC 3.0) represented in more than 50 countries with over 30,000 installed units in daily operation.

50 years of experience bringing value to the global broadcasting industry for mutual future success.