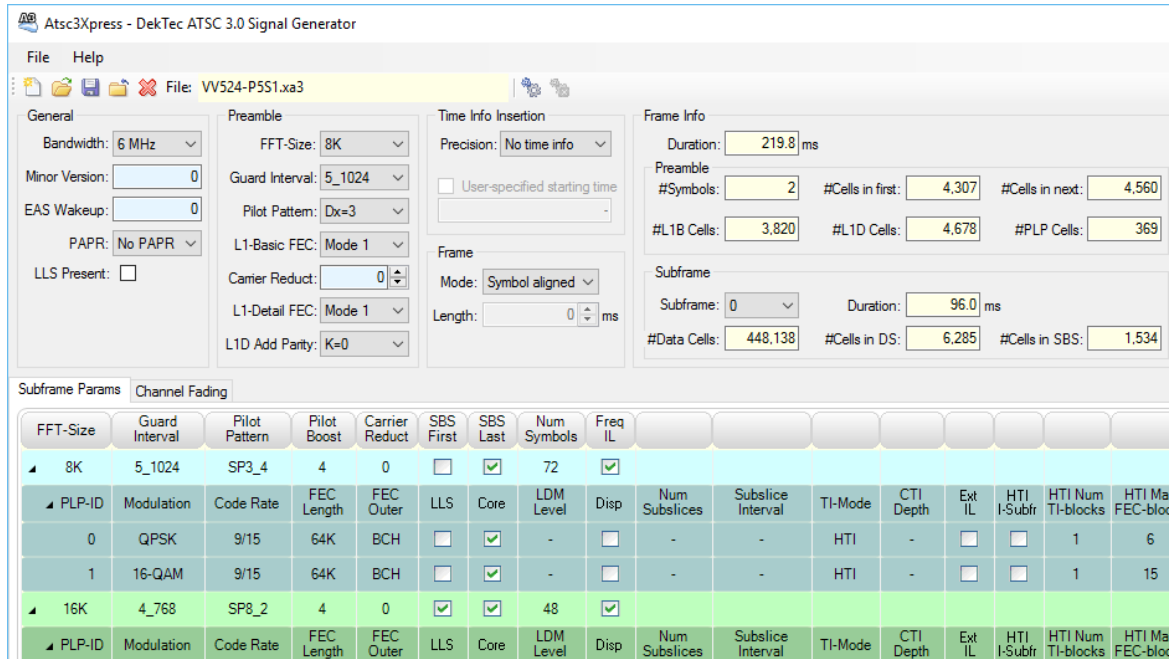


# ATSC 3.0 Signal Generator Software

- ❑ Generation of ATSC 3.0 RF signals
- ❑ Multi-subframe and multi-PLP support
- ❑ AWGN and multipath simulator option



## FEATURES

- Complete ATSC 3.0 modulator with file or live IP input and ATSC 3.0 RF output on e.g. DTU-315
- With DekTec’s DTC-371-IQ option: Off-line generation of I/Q sample files
- Full user control over general ATSC 3.0 parameters, preamble parameters, subframe parameters and parameters per PLP
- Configurable PLP-multiplexing techniques: Layer Division Multiplexing (LDM), Frequency Division Multiplexing (FDM), Time Division Multiplexing (TDM) and Time and Frequency Division Multiplexing (TFDM)
- Input from IP-capture files, built-in O151 PRBS test-signal generator or live IP-input
- Generate output data at different test points in the modulator chain conform the ATSC 3.0 V&V working group
- Can be used in conjunction with DekTec’s DTC-305-CM XpressSim channel simulator with AWGN generator (adjustable SNR), multipath fading to accurately simulate reflections

## APPLICATIONS

- Test-signal generator for ATSC 3.0 receiver chip development, testing and evaluation
- Signal generator for ATSC 3.0 receiver demonstrations and field trials

## SUPPORT

- **Atsc3Xpress** is being improved continuously and keeps track of developments in ATSC 3.0. Any product updates will be free for a period of at least one year after invoice date

## SUPPORTED ATSC 3.0 PARAMETERS

Type	Supported Parameters
General	Bandwidth Bootstrap minor version Emergency Alert System Peak-to-Average Power Ratio Low level signaling flag
Preamble	Guard interval Pilot pattern Dx L1-Basic FEC mode Carrier reduction L1-Detail FEC mode L1-Detail additional parity Time information
Frame	Frame length mode Frame length
Subframe	FFT size Guard interval Pilot pattern Pilot boost Carrier reduction SBS first SBS last Number of symbols Frequency interleaving
PLP	PLP-ID Modulation Code rate FEC-code length and outer code Low level signaling flag PLP layer LDM injection level PLP type PLP multiplexing parameters Time interleaving parameters
Source	PRBS IP-capture file Live IP-input
Output	I/Q format file* Test point data file* ATSC 3.0 RF

\* I/Q format and test point data requires the DTC-371-IQ option

## CHANNEL SIMULATION\* PARAMETERS

Parameter	Range
AWGN SNR	0 .. 60dB
<i>Fading Paths</i>	
#Paths	0 .. 32
Type	Constant delay Constant Doppler Rayleigh Jakes Rayleigh Gaussian
Attenuation	0 .. 60dB
Phase	0 .. 360°
Doppler (@8MHz)	0.3mHz .. 274kHz (Gaussian) 1.8mHz .. 914kHz (Jakes)

\* Requires DTC-305-CM option

## PC REQUIREMENTS

Platform	Windows 2k12/2k16/2k19, 7,8,10,11
Processor*	Core i5 minimum Core i7 recommended
RAM	2 GB min.

\* Or equivalent AMD processors

## SUPPORTED OUTPUT ADAPTERS

Bus	Adapter
PCI-Express	DTA-2115(B), 2116
USB	DTU-315

## RELATED PRODUCTS

Type	Description
DTC-305-CM	XpressSim channel-modelling option
DTC-371-IQ	I/Q sample generation option

## ORDERING INFORMATION

Type	Description
DTC-386-ATSC3	Atsc3Xpress ATSC 3.0 signal generator software

Please refer to [www.dektec.com](http://www.dektec.com) for the latest pricing and a list of distributors and resellers.