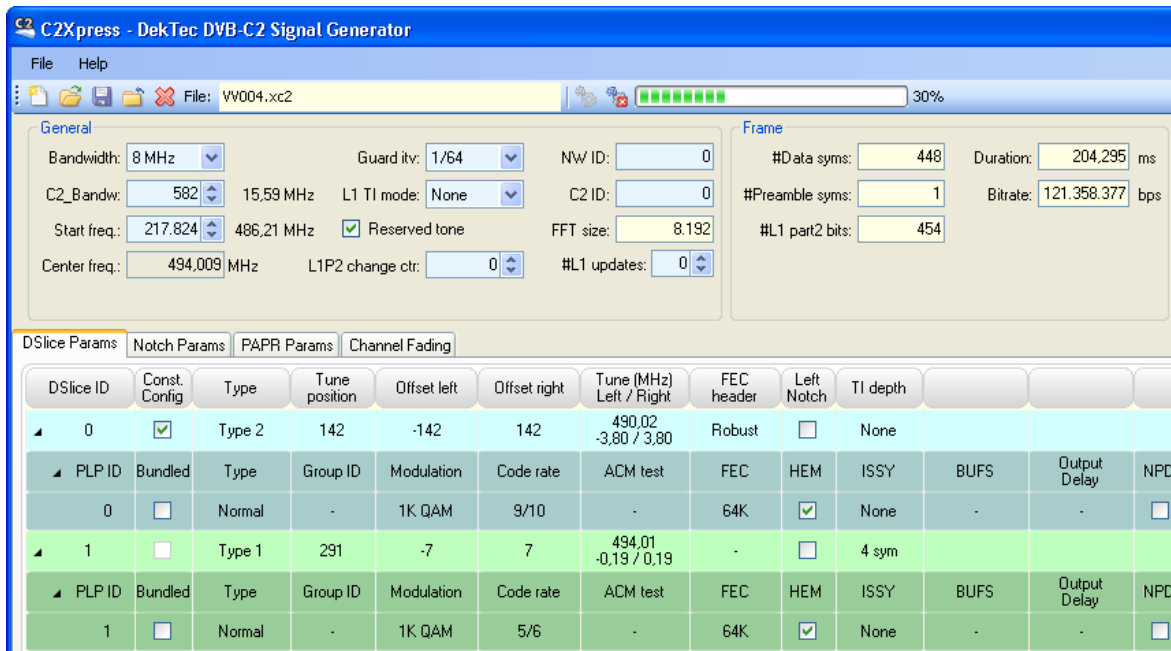


# DVB-C2 Signal Generator Software

- Off-line generation of DVB-C2 signals
- Multi-Data Slice and multi-PLP support
- AWGN and multipath simulator option



## FEATURES

- Complete DVB-C2 modulator with file input and DVB-C2 RF output on e.g. DTA-115
- With DekTec’s DTC-371-IQ option: Off-line generation of I/Q sample files
- Full user control over general DVB-C2 parameters, Data Slice parameters and parameters per PLP
- Support for varying Data Slices, PLP modulation and code rate
- Peak-to-average power ratio (PAPR) reduction
- Input from Transport-Stream files or built-in O151 PRBS test-signal generator
- Generate output data at different test points in the modulator chain conform the DVB-C2 V&V working group
- “Big-TS splitter” function with SI processing for easy generation of multi-PLP streams with a common PLP

- 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 DVB-C2 receiver chip development, testing and evaluation
- Signal generator for DVB-C2 receiver demonstrations and field trials

## SUPPORT

- C2Xpress is being improved continuously and keeps track of developments in DVB-C2. Any product updates will be free for a period of at least one year after invoice date

## SUPPORTED DVB-C2 PARAMETERS

Parameter	Range
<i>General</i>	
Bandwidth	6 or 8MHz
C2_Bandwidth	In multiples of pilot spacing
Start frequency	In multiples of carrier spacing
Guard interval	1/64 or 1/128
L1 TI mode	No time interleaving, Best fit, 4 or 8 OFDM symbols
Reserved tone	On/off
IDs	Network, C2 System
<i>Data Slice</i>	
IDs	Data Slice ID
Constant config.	Variable or fixed configuration
Type	Type 1, Type 2
Tune position	In multiples of pilot spacing
Tune offset	Left and right offset in multiples of pilot spacing
FEC header	Normal/High-efficiency mode
Left Notch	Present/not present
Time interleaver depth	No time interleaving, 4, 8 or 16 OFDM symbols
<i>PLP</i>	
IDs	PLP ID, Group ID
Bundled	Yes/no
Type	Common, Grouped or Normal
Modulation	16/64/256/1024/4096-QAM
Code rate	2/3, 3/4, 4/5, 5/6, 8/9, 9/10
FEC	16K or 64K
NPD	On/off
ISSY insertion	None, Long, Short, BUFS
PSI/SI	PSI/SI is reprocessed yes/no, TS ID and Onw ID
HEM	High-efficiency/Normal mode
Header counter	1 or 2 FEC Frames
CCM	CCM or ACM
<i>Source</i>	
PRBS	O151 PRBS test signal
TS	One (partial) stream per PLP
Big TS	C2Xpress extracts partial TSs
<i>Output</i>	
I/Q Format*	Float32, Int16, Text
Real-time	DVB-C2 RF**

\* I/Q format requires the DTC-371-IQ option

\*\* Maximum 8 MHz bandwidth

## 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 XP/2003/Vista .NET v2.0
Processor*	P4@2.0GHz (off-line mode) Core 2, Core i7 (real-time)
RAM	1 GB min.

\* Or equivalent AMD processors

## RELATED PRODUCTS

Type	Description
DTA-115	Multi-standard modulator with VHF/UHF upconverter for PCI
DTU-215	Multi-standard modulator with VHF/UHF upconverter for USB
DTC-300	<i>StreamXpress</i> payout software
DTC-305-CM	<i>XpressSim</i> channel-modelling option
DTC-371-IQ	I/Q sample generation option

## ORDERING INFORMATION

Type	Description
DTC-379-C2	<i>C2Xpress</i> DVB-C2 signal generator software

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