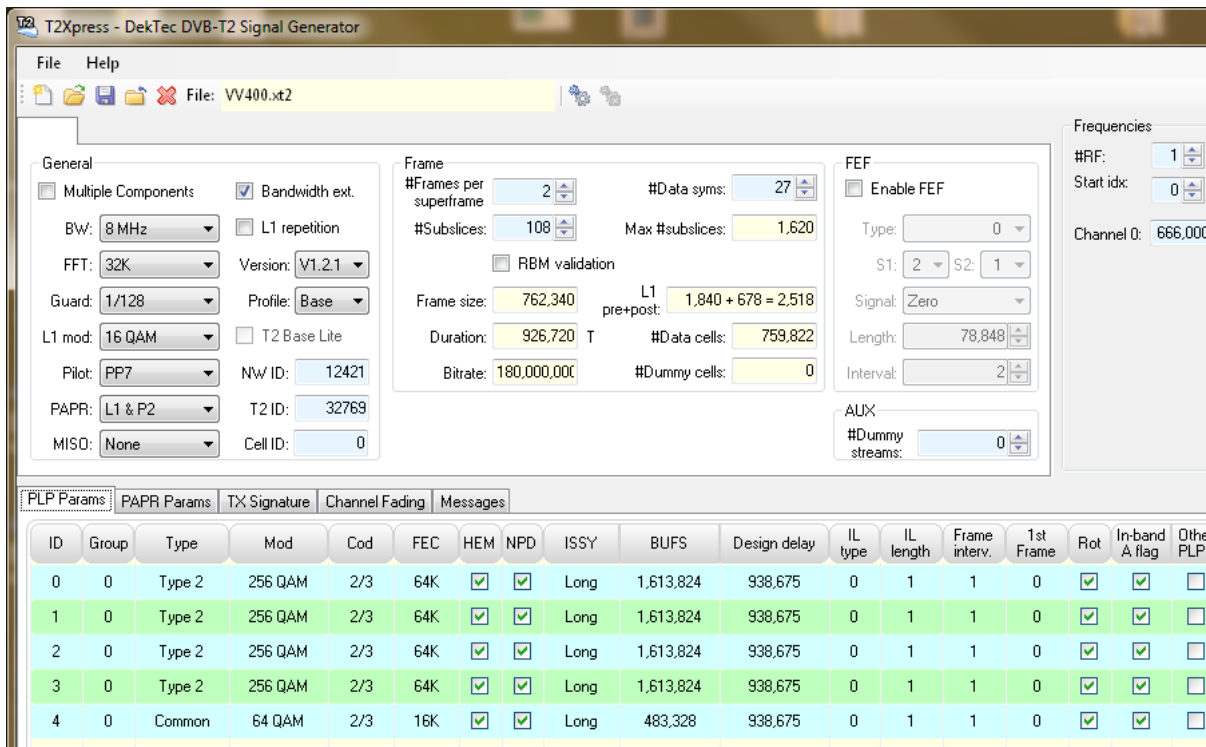


DVB-T2 Signal Generator Software

- ❑ Off-line generation of DVB-T2 signals
- ❑ Full multi-PLP DVB-T2 gateway function
- ❑ AWGN and multipath simulator option



FEATURES

- Complete DVB-T2 modulator with file input and DVB-T2 RF output on e.g. DTA-115
- Multi component stream generation: T2-base and T2-lite profile
- **T2Xpress** can also operate as DVB-T2 gateway with file input and T2-MI written to a file, or real-time T2-MI over ASI or IP
- With DekTec’s DTC-371-IQ option: Off-line generation of I/Q sample files
- Full user control over general DVB-T2 parameters, T2-Frame structure and parameters per PLP
- Input from Transport-Stream files, built-in O151 PRBS test-signal generators or V&V Workgroup stream generator model
- “Big-TS splitter” function with SI processing for easy generation of multi-PLP streams with a common PLP
- Receiver Buffer Model validation

- MISO simulation: Generation of I/Q sample files for both MISO transmitter signals with optional independent channel modeling of each signal
- Can be used in conjunction with DekTec’s DTC-305-CM **XpressSim** channel simulator with AWGN generator (adjustable SNR), multipath fading, Rayleigh channels and Doppler simulation to accurately simulate reflections and a moving receiver

APPLICATIONS

- Test-signal generator for DVB-T2 receiver chip development, testing and evaluation
- Signal generator for DVB-T2 receiver demonstrations and field trials

SUPPORT

- **T2Xpress** is being improved continuously and keeps track of developments in DVB-T2. Any product updates will be free for a period of at least one year after invoice date

SUPPORTED DVB-T2 PARAMETERS

| Parameter | Range |
|------------------|---|
| <i>General</i> | |
| Bandwidth | 1.7, 5, 6, 7, 8 or 10MHz |
| FFT mode | 1K, 2K, 4K, 8K, 16K or 32K |
| Guard interval | 1/32, 1/16, 1/8, 1/4, 1/128, 19/128 or 19/256 |
| L1 modulation | BPSK, QPSK, 16/64-QAM |
| Pilot pattern | PP1 .. PP8 |
| Bandwidth ext. | Extended carrier mode yes/no |
| PAPR | None, ACE, TR, ACE+TR |
| MISO | Tx1 and/or Tx2, Tx1+Tx2 |
| IDs | Network, Cell, T2 System |
| <i>PLP</i> | |
| IDs | PLP ID, Group ID |
| Type | Type 1, Type 2, Common |
| Modulation | QPSK, 16/64/256-QAM |
| Code rate | 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 |
| FEC | 16K or 64K |
| HEM | High-efficiency/Normal mode |
| NPD | On/off |
| ISSY insertion | None, Long, Short, BUFS, Tdesign |
| Time interleaver | Type, Length, Interval, 1 st Frame |
| Constellation | Rotated, Normal |
| Signalling | In band A, B, None |
| Other PLPs | List in in-band signalling yes/no |
| FF | PLP on same channel yes/no |
| <i>Frame</i> | |
| Structure | #T2 frames, #T2 sub slices, #data symbols |
| <i>Source</i> | |
| PRBS | O151 PRBS test signal |
| TS | One (partial) stream per PLP |
| Big TS | T2Xpress extracts partial TSs |
| <i>TFS</i> | |
| #Carriers | 1 .. 7 |
| <i>FEF</i> | |
| Parameters | Type, S1, S2, Length, Interval |
| Signal | Zero, 1K OFDM of PRBS signal |
| <i>Output</i> | |
| I/Q Format* | Float32, Int16, Text |
| TP Data* | Test-Point data files |
| T2-MI | VBR, CBR |
| Real-time | DVB-T2 RF, T2-MI over ASI/IP |

* 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

| Output Format | Adapters |
|---------------|---|
| RF | DTA-111, 115, 116, 117, 2111, 2115(B), 2116 DTU-215, 315 |
| T2-MI | All DekTec adapters supporting ASI or T2-over-IP |

RELATED PRODUCTS

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

ORDERING INFORMATION

| Type | Description |
|------------|---|
| DTC-378-T2 | T2Xpress DVB-T2 signal generator software |

Please refer to www.dektec.com for the latest pricing and a list of distributors and resellers.