DVB-T2 Signal Generator
Installation

1. Introduction

The *T2Xpress*™ is DekTec's DVB-T2 Signal Generator application.

The DTC-378 *T2Xpress* software package is designed to create DVB-T2 test signals in the form of I/Q sample file, T2-MI files, DVB-T2 RF output and T2-MI over ASI output. *T2Xpress* allows you to set the DVB-T2 parameters, specify the T2-frame structure, PLP parameters and select the PLP sources, add noise, add multiple channel simulation paths and generate the DVB-T2 test signals.

The I/Q samples file and T2-MI file can be processed by your application or it can be played out through the *StreamXpress*.

A setup program is available for easy installation or upgrading of the *T2Xpress* software.

The *T2Xpress* application requires a valid *license code* that is stored in non-volatile memory on one of the DekTec devices or on a dongle. Optionally the *T2Xpress* license will be delivered within a separate license file, which has to be installed through *DtInfo*.

2. System Requirements

Platform	Windows 2k8/2k12/2k16, 7,8,10
Processor*	Core i5 minimum Core i7 recommended
RAM	1 GB

* Or equivalent AMD processor

3. Files

The `T2Xpress.zip` archive contains the following files:

`DTC-378 T2Xpress Installation.pdf`	This document
`DTC-378 T2Xpress Manual.pdf`	The user manual
`T2Xpress Configs.zip`	Archive containing *T2Xpress* configuration files
`T2Xpress Setup.exe`	Setup program for *T2Xpress*

4. Installing the Software

The following install steps should be executed:

1. Extract `T2Xpress.zip` into a temporary folder.
2. Run `T2Xpress Setup.exe` to install *T2Xpress*.
3. Optionally install appropriate license(s) through *DtInfo*. The *DtInfo* utility can be downloaded here.

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T2Xpress can now be started using the desktop shortcut.

5. Revision History

Revision	Date	Change Description
V2.7.0.57	2018.05.30	• Added PLP-mute option
V2.6.3.56	2017.03.17	• Fixed DTA-2115B 8 channel inverted spectrum issue
V2.6.2.55	2016.08.23	• Added DTA-2115B support
V2.6.1.54	2016.01.20	• Fix for potential crash seen on some PC's
V2.6.0.53	2015.08.12	• Added DTU-315 support
V2.5.1.52	2015.02.23	• Improved T2-MI time-stamping to reduce buffering • Set the O.151 PRBS generator's initial state according the V&V reference streams
V2.5.0.51	2014.07.18	• Added support for real-time changing channel fading (SNR and paths) • Added support for real-time changing RF-level • Fixed T2-MI generation when IL_TYPE=1 • Improved error reporting
V2.4.0.50	2014.04.24	• Added DTA-2115 support
V2.3.7.49	2013.09.25	• Fixed number of leap seconds
V2.3.6.48	2013.02.29	• Fixed performance issues • Fixed crash after stopping generation • Ignores In-band B-flag for T2 version 1.1.1 • Improved error reporting
V2.3.2.44	2013.02.21	• Added warning when type 1 PLPs are used and number of sub-slices!=1 • Fixed T2MI FEF sub-part encoding
V2.3.1.43	2012.06.11	• Fixed IQ and T2MI output to file • Fixed T2MI output when license is stored on a dongle
V2.3.0.42	2012.05.15	• Based on new DTAPI and drivers
V2.2.2.40	2011.12.09	• Added display of design delay values when Auto is selected • Added append-file option for IQ-output • Added L1 change counter for IQ-output. • Maximum one L1 post FEC block for T2 Lite • Updated 'Tdecode' RBM parameter for T2 Lite • Allowed bias balancing with V1.3.1 • Fixed multi PLP output for T2 Lite profile • Fixed T2MI multi profile output • Fixed in band signaling type A when P_I > 1 • Fixed T2MI output with frame interval > 1 • Fixed RBM crash
V2.0.1.35	2011.08.30	• Added support for DVB-T2 version 1.3.1 including the T2-Lite profile • Added support for multiple component signal generation • Added continuity count correction and PCR adaption after TS-file looping • Added display of total play out time
V1.10.6.33	2011.04.28	• Improved DTU-215 support

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V1.10.5.32	2011.02.17	• Adapted TS-file input for stream generation according to DVB-T2 V&V Working Group model • Fixed noise generation for MISO TX1+TX2 • Fixed SDT-Other generation in common PLP • Removed .NET 2.0 SP2 dependency
V1.10.2.28	2011.01.17	• Fixed RF-frequency and RF-level
V1.10.1.27	2011.01.10	• Fixed 1.7MHz bandwidth
V1.10.0.26	2010.12.22	• Added test point data output • Improved RBM accuracy • Added TS-file input for stream generation according to DVB-T2 V&V Working Group model • Automatic determination of static or dynamic scheduling • Added option to set both PLP-TS-rate and input file TS-rate.
V1.9.3.25	2010.07.08	• Added support for PLP stream generation according to DVB-T2 V&V Working Group model. • Added Receiver Buffer Model validation option • Added option to add dummy AUX streams • Fixed Pilot Pattern #8 • Fixed continuity count errors in SDT-table • Fixed ISCR generation • Fixed SYNCD computation • Fixed Compensation Delay computation
V1.7.0.17	2010.04.08	• Added Transmitter Signature parameters • Two independent channel simulation paths for MISO • Added Message tab page • Added options for PAT, PMT and PCR insertion in T2-MI • Reduced de-jitter buffer size requirements when IL-Type 1 is used • Fixed PRBS for bias balancing cells • Scheduler fixes • Fixed TTO rounding in in-band type B signalling
V1.6.0.15	2010.02.26	• Added DVB-T2 Version 1.2.1 support • Improved PAPR TR algorithm • Improved L1 ACE algorithm • FEF signal selection fixed
V1.5.0.14	2010.01.25	• Name changed into T2Xpress • Design delay computation updated • Rare L1 BCH error fixed • Parameters for PAPR testing added • Vclip in PAPR specified in Volt
V1.4.0.12	2009.12.03	• Design Delay parameter added • "Big-TS" Splitting hanging fixed • T2-MI generated file size fixed • At least 3 BB-frames with ISSY per IL-frame are created.
V1.3.0.8	2009.10.28	• ACE and TR PAPR reduction added • T2-MI improvements • T2-MI DVB-T2 timestamp support added • T2-MI over IP output format added
V1.1.0.6	2009.09.04	• "Big-TS" Splitting added • T2-MI output format added

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		• DVB-T2 RF output format added • T2MI over ASI output format added • TTO error related to DTG164 fixed • L1_POST_INFO_SIZE field of the L1 current packet in T2MI fixed
V1.0.0.4	2009.07.09	• First released version

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