

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 2k16/2k19/2k22,10,11
Processor*	Core i5 minimum Core i7 recommended
RAM	2 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](#).

T2Xpress can now be started using the desktop shortcut.

5. Revision History

Revision	Date	Change Description
v2.10.0.61	2023.09.11	<ul style="list-style-type: none"> Added DTA-2111B support
v2.9.0.60	2023.07.06	<ul style="list-style-type: none"> Added DTA-2116 support
v2.8.0.59	2022.01.10	<ul style="list-style-type: none"> Added support for local NIC output
v2.7.0.57	2018.05.30	<ul style="list-style-type: none"> Added PLP-mute option
v2.6.3.56	2017.03.17	<ul style="list-style-type: none"> Fixed DTA-2115B 8 channel inverted spectrum issue
v2.6.2.55	2016.08.23	<ul style="list-style-type: none"> Added DTA-2115B support
v2.6.1.54	2016.01.20	<ul style="list-style-type: none"> Fix for potential crash seen on some PC's
v2.6.0.53	2015.08.12	<ul style="list-style-type: none"> Added DTU-315 support
v2.5.1.52	2015.02.23	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Added DTA-2115 support
v2.3.7.49	2013.09.25	<ul style="list-style-type: none"> Fixed number of leap seconds
v2.3.6.48	2013.02.29	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fixed IQ and T2MI output to file Fixed T2MI output when license is stored on a dongle
v2.3.0.42	2012.05.15	<ul style="list-style-type: none"> Based on new DTAPI and drivers
v2.2.2.40	2011.12.09	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Added support for DVB-T2 version 1.3.1 including the T2-Lite profile

		<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Improved DTU-215 support
v1.10.5.32	2011.02.17	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Fixed RF-frequency and RF-level
v1.10.1.27	2011.01.10	<ul style="list-style-type: none"> • Fixed 1.7MHz bandwidth
v1.10.0.26	2010.12.22	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • ACE and TR PAPR reduction added

		<ul style="list-style-type: none"> • T2-MI improvements • T2-MI DVB-T2 timestamp support added • T2-MI over IP output format added
v1.1.0.6	2009.09.04	<ul style="list-style-type: none"> • "Big-TS" Splitting added • T2-MI output format added • 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	<ul style="list-style-type: none"> • First released version

6. Contact Information

Please find our contact information below:

DekTec Digital Video B.V.

Godelindeweg 4

1217 HR Hilversum

The Netherlands

Tel: +31 35 20 30 100

Fax: +31 35 20 30 101

email: <mailto:support@dektec.com> / <mailto:info@dektec.com>

website: <http://www.dektec.com>