

DekTec SDK

REVISION HISTORY

SDK

Sep 2026



DekTec SDK Revision History

The DekTec SDK for Linux requires GCC > 7.5, Linux kernel > 4.14 and GLIBC > 2.27.
Supported Visual Studio versions are: VS2019, VS2022 and VS2026

SDK version Sep 2026	
Versions	DTAPI: v6.14.0.243 Drivers: Dta v4.28.15.294, DtPcie v3.7.0.402, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.16.47, DtPcieNw v1.2.1.62 DtapiService: v5.2.9.142
Changes	New features: - DTA-2127/28/32: Gold code scrambling support added - Support added for DTA-2116B; a maintenance update that will replace DTA-2116 next year - Support added for DAB doppler fading options on the modulator cards - Option added to DtAtsc3StltpPars to ignore or to override the TxID when playing ATSC 3.0 STLTP - Support added for Visual Studio 2026 (VC18) Bug fixes: - DTA-2110/25: DtInpChannel::GetStatus() returned incorrect values for packet size Linux only changes: - ARM support added; support is limited to IQ modulation for DTA-2116 - DTA-2174B/78 Firmware variant switch no longer requires a reboot - Fix for DtPcie not compiling using KylinOS V11 - Fix for potential kernel crash when removing a device when an application is still using it IMPORTANT NOTE: VS2017 is no longer supported We recommend to upgrade VS2022 to v17.14.41 to prevent for potential incompatibility issues We recommend to upgrade VS2026 to v18.10.1 to prevent for potential incompatibility issues

SDK version May 2026	
Versions	DTAPI: v6.13.0.242 Drivers: Dta v4.28.14.293, DtPcie v3.6.4.398, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.16.47, DtPcieNw v1.2.1.62 DtapiService: v5.2.8.141
Changes	New features: - Support for DTA-2125 firmware v1 and DTA-2172 firmware v3 - DTA-2116/DTU-315: Added option for manual seed option in DtCmPars for AWGN noise generator Bug fixes: - Fix for DtapiModPars2TsRate() unresolved external - Fix for IPv6 not working for Local NIC - DTA-2127/28: Fix for GSE-HEM reception not working on even channels - DTA-2172/74B/75/78: Optimized TS-to-ASI for for low-delay, low-bitrate applications Linux only changes: - DtapiService script now returns an error on install failure IMPORTANT NOTE: We recommend to upgrade VS2022 to v17.14.31 to prevent potential incompatibility issues

SDK version February 2026

Versions	DTAPI: v6.12.0.241 Drivers: Dta v4.28.13.291, DtPcie v3.6.3.397, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.16.47, DtPcieNw v1.2.1.62 DtapiService: v5.2.7.140
Changes	New features: • Support for DTA-2127 firmware v1 and DTA-2178 firmware v4 Bug fixes: • DTA-2127/28: didn't pass DVB-S2(X) data after receiving a DVB-S2 GSE-HEM signal • DTA-2127/28: demodulator transport-stream output was disabled while carrier lock was achieved Linux only changes: • Fix for clean-up of the pipes when it stops • Change pipes location since /tmp folder could be deleted by systemd-tmpfiles proces IMPORTANT NOTE: • We recommend to upgrade VS2022 to v17.14.25 to prevent potential incompatibility issues

SDK version December 2025

Versions	DTAPI: v6.11.0.240 Drivers: Dta v4.28.13.291, DtPcie v3.6.2.396, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.16.47, DtPcieNw v1.2.1.62 DtapiService: v5.2.6.135
Changes	New features: • DTA-2127/28: Improvement to support also manual symbolrate configuration • Support for DTA-2116 firmware v1, DTA-2128 firmware v1 and DTA-2174B firmware v6 Bug fixes: • DtapiService improvement to support latest DirectShow filter that requires extra dll • DTA-2110/25/62: Improvements on IPv6 support • DTA-2110/25 AvFifo performance improvements for TimeConversion::Rtp2Tod and CopyFrame • DTA-2110/25 AvFifo support for TxFrameFormat 10-bit packed UYVY in network byte order • DTA-2110/25 AvFifo fix for potential out of bounds write for ConvertVideo/CopyVideoData functions • DTA-2110: TSolP output was not working for new firmware v1 • DTA-2127/28: Increased the DMA buffer size to prevent potential packet loss on lower-performance systems Linux only changes: • Fix for Rocky Linux 9.6 driver builds failing IMPORTANT NOTE: • We recommend to upgrade VS2022 to v17.14.21 to prevent potential incompatibility issues

SDK version September 2025

Versions	DTAPI: v6.10.0.239 Drivers: Dta v4.28.13.291, DtPcie v3.6.0.393, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.16.47, DtPcieNw v1.2.0.61 DtapiService: v5.2.5.133
Changes	New features: - DTA-2110: Support for ST 2110 Jumbo Frames (requires DTA-2110 firmware v1) Bug fixes: - DTAPI DtOutpChannel reported DMA underflows when generating a 1080p50 SDI signal - DTA-2115B/2116/DTU-315: Fix for ATSC3.0 ALP packets that are using concatenation - DTA-2115B//2116: ATSC 3.0 MIMO improvement to make sure channels are always in sync - DTA-2115B/2116: ATSC3.0 MIMO preamble and bootstrap power for polarization 2 according to latest spec; erratum correction A322 - DTA-2115B/2116: ATSC3.0 MIMO stream combining processing for QPSK 13/15 is now enabled - DTA-2115B/2116: ATSC3.0 MIMO channel modeling improvements for channel 2 - DTA-2115B/2116: Improvements in channel modeling paths to better support SFN and MIMO tests - DTA-2115B: Improvement to ensure GPS-Synced output - DTA-2110: Link was sometimes not established for a point-to-point connection to another DTA-2110 - DTA-2110/25: Improvement on receiving unsolicited unicast stream - DTA-2110/25: IPv6 header payload length was incorrect - DTA-2110/25: ST 2022 RTP timestamp could have been incorrect - DTA-2110/25: ST 2022 possible corrupted frame data if payload length was not multiple of 5 bytes - DTA-2131B: Improvement to support IQ-bandwidth of 7MHz - DTA-2132: Occasional invalid STL3 frame was seen Linux only changes: - Fix for Ubuntu 24.04 kernel array index out of bounds errors UBSAN - DTA-2110/25: DtPcie driver could in rare cases crash on join/release multicast - DTA-2110/25: DtPcieNw driver receive could in rare cases deadlock network stack IMPORTANT NOTE: - We recommend to upgrade VS2022 to v17.14.15 to prevent potential incompatibility issues

SDK version April 2025

Versions	DTAPI: v6.9.0.237 Drivers: Dta v4.28.12.290, DtPcie v3.5.2.391, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.15.46, DtPcieNw v1.1.1.59 DtapiService: v5.2.4.132
Changes	New features: • DTA-2110/25: Support for ST 2110-40: ST291-1 Ancillary Data • DTA-2110/25: Support for ST 2110-41: Fast Metadata • DTA-2115B/2116: Support for new MIMO_SFN modulation license • DTU-245B: Huffman compression is now used by default for SDI output; needed for new .sdi format Bug fixes: • [DTAPINET] Added missing SetSpectrumInversion() method and DtStatistic.m_StatisticId • DtInpChannel::Read removed that NumBytesToRead must be a multiple of 4 for GSE, L3 and IP • DTA-2110/25: Improvement on driver initialization robustness • DTA-2110/25: default FIFO size is now sufficient for audio Rx and Tx • DTA-2172/74B/75/78: For some specific SDI signal level the SD format was not detected Linux only changes: • Removed absolute paths in DTAPI.h references IMPORTANT NOTE: • Make sure to upgrade VS2022 to v17.13.5 to prevent potential incompatibility issues • DTAPI is now using C++17 (DTAPI_AvFifo.h)

SDK version January 2025

Versions	DTAPI: v6.8.0.235 Drivers: Dta v4.28.12.290, DtPcie v3.5.1.390, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.15.46, DtPcieNw v1.1.1.59 DtapiService: v5.2.3.131
Changes	New features: • DTA-2116 IQ playout doesn't require a separate license anymore Bug fixes: • DTU-215/DTA-2111(B): IQ playout <4.7Msps didn't work • DTA-2115B/2116: Improvement on AWGN noise generation to make it random for SFN setups that uses multiple DekTec modulators • DTA-2127/2175: Did report old clock properties on GetTxClockProperties() after changing video standard from fractional to non-fractional

SDK version November 2024

Versions	DTAPI: v6.7.0.234 Drivers: Dta v4.28.12.290, DtPcie v3.5.0.389, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.15.46, DtPcieNw v1.1.1.59 DtapiService: v5.2.2.130
Changes	New features: - Support added for DTA-2128 Octal DVB-S2X Receiver for PCIe Bug fixes: - A small memory leak could occur in DtDevice, DtAvInputStatus and DtApiDeviceScan - DTA-2110: In rare cases a potential hang on AvFifo thread was seen - DTA-2110: DtapiService PTP hang was seen at server startup - DTA-2115B/2116/DTU-315: ATSC 3.0 STLTP playout was failing for configurations where PLP-ID was unequal to PLP-index - DTA-2116: No output was detected on the monitor output when a SetOutputLevel was not set - DTA-2131B: Advanced demodulation functions were not available for DVB-C2 Linux only changes: - DtPcieNw driver didn't build on Linux kernel 6.11

SDK version September 2024

Versions	DTAPI: v6.6.0.233 Drivers: Dta v4.28.12.290, DtPcie v3.4.0.388, Dtu v4.15.5.93, DtBb2 v1.0.1.11, DtaNw v3.5.15.46, DtPcieNw v1.1.0.58 DtapiService: v5.2.1.129
Changes	New features: - Support added for DTA-2125 25G SmartNIC Optimized for SMPTE 2110 - Support for LNB overload detection and callback for DTA-2127 and DTA-2132 - Additional info added to DtAtsc3ParamInfo struct like #dummy cells in subframe - DTA-2127: Support for PER statistic Bug fixes: [MatrixAPI] occasionally the transmit timestamp (TxTodTimestamp and/or TxRawTimestamp) were the same for two consecutive frames. - Driver installers had invalid red warning that Windows can't verify publisher - DTA-2110: Potential sequence errors in transmitting video - DTA-2110: VLAN receive Windows network driver was not working - DTA-2110: Added FEC #rows/columns in lplnpChannel::GetlpPars - DTA-2110: Potential issue with AvFifo stop receiving in specific cases - DTA-2110: DtapiService didn't stop PTP service after DT_EVENT_TYPE_REMOVE event - DTA-2110: SetlpPars failed for HD/3G SDI formats - DTA-2127: Packets with TEI flag set are no longer discarded - DTA-2131B/DTU-331: Improved DAB locking - DTA-2132: RF-Level can now also be retrieved for I/Q port 2 (used for DVB-S) - DTA-2132: Blindscan and auto symbolrate detection improvements for low symbol rate signals Linux only changes: - Dta driver failed to build for CentOS 9

SDK version June 2024.1

Versions	DTAPI: v6.5.0.229 Drivers: Dta v4.28.11.289, DtPcie v3.3.5.384, Dtu v4.15.4.92, DtBb2 v1.0.1.11, DtaNw v3.5.14.45, DtPcieNw v1.0.1.56 DtapiService: v5.1.2.121
Changes	Linux only changes: Driver fails to load for a DTA-2116, on Linux machines with kernel 6.8.0, with a "Phy-TxCalBusy flag ... timed out" error message.

SDK version June 2024

Versions	DTAPI: v6.5.0.229 Drivers: Dta v4.28.11.289, DtPcie v3.3.1.363, Dtu v4.15.4.92, DtBb2 v1.0.1.11, DtaNw v3.5.14.45, DtPcieNw v1.0.1.56 DtapiService: v5.1.2.121
Changes	New features: - DTA-2110: Support for ST 2022-1: Forward Error Correction for Real-Time Video/Audio Transport Over IP Networks (IP FEC for TS-over-IP) - DTA-2110: Support for ST 2022-5: Forward Error Correction for Transport of High Bit Rate Media Signals over IP Networks (IP FEC for SDI-over-IP) - DTA-2131/DTU-331: Added function to extract DAB Superframes - DTA-2154/74: Added function to disable VPID processing for raw SDI frames Bug fixes: [Matrix API] Audio status word, for API inserted muted channels, was corrupted when the audio frame sequence was overruled [Matrix API] multiple simultaneous AttachToPort/Attach calls from any of the DTAPI objects could cause interruptions in reception/transmission of a running channel on the same board - DTA-2110 SDI processing using DtInpChannel/DtOutpChannel was broken - DTA-2110 AvFifo SMPTE-2022 Rx FramesOk statistic was not incremented Linux only changes: - Support for GLIBC 2.28 added, GLIBC is required for DtapiService - Support for Linux DKMS driver packages for Dtu, DtPcie and Dta - Driver failed to build on Ubuntu 24.04 (latest) with kernel 6.8.0

SDK version April 2024

Versions	DTAPI: v6.4.0.225 Drivers: Dta v4.28.11.289, DtPcie v3.3.1.363, Dtu v4.15.4.92, DtBb2 v1.0.1.11 DtaNw v3.5.14.45, DtPcieNw v1.0.1.56 DtapiService: v5.1.2.121
Changes	New features: - Support for raw GSE packet reception using: - DVB-S2X-GSE-HEM (Lite) for DTU-331, DTA-2127 and DTA-2132 - DVB-S2 Generic Continuous Stream for DTU-331 and DTA-2132 - DVB-T2 for DTU-331 and DTA-2131(B) [MatrixAPI] DtMxAudioConfig::m_IgnoreVBit added to ignore the AES3 validity bit (V-bit) Bug fixes: [MatrixAPI] improvement of the Line 21 data detection - GetDriverVersions() didn't return DtBb2 driver version anymore - DTA-2110 software pipe transmit on time could fail - DTA-2110 setting fifosize of input channel after SetIpPars in IDLE returned DTAPI_E_IN_USE error - DTA-2110 setting m_SrcFltPort to 0 didn't disable source port filtering - DTA-2131 sequence of API calls didn't work for DTA-2131B - DTA-2131/DTU-331 locking time for DAB(+) improved - DTA-2131/DTU-331 DAB(+) demodulator didn't lock to ensembles containing >32 radio stations - DTA-2132 potential crash on GetConstellationPoints() for a multi-input stream DVB-S2 signal - DTA-2132 could not receive DVB-S2(X) streams where ISSY was active Linux only changes: - Fix for incorrect netdev->dev_addr warning when loading network driver on Ubuntu 22.04.1 - Fix for issue loading driver(s) on Ubuntu 22.04.1(kernel 6.5.0-15, gcc version 12.3.0) - Fix for drivers did not build on Linux kernel >= v6.8.0

SDK version January 2024

Versions	DTAPI: v6.3.0.221 Drivers: Dta v4.28.11.289, DtPcie v3.3.0.362, Dtu v4.15.4.92, DtBb2 v1.0.1.11 DtaNw v3.5.13.44, DtPcieNw v1.0.0.55 DtapiService: v5.1.1.120
Changes	New features: - Support for DtDevice::GetTxClockCount() to establishing the relationship between the transmit-clock and a user defined (ToD) clock (requires DTA-2172 v2, DTA-2174B v5, DTA-2178 v3) - Driver allocated DMA buffers will use 64-bit when the hardware supports it (e.g. DTA-217x series) - DTA-2111B support for firmware v1; fix for potential low MER on startup - DTA-2179 support for firmware v1; fix for potential fail on switching between two SD inputs Bug fixes: [MatrixAPI] CRC for audio status word of unused audio channels in an audio group was not valid. - DTA-2127 GetTxClockOffset call resulted in a crash when called for the SDI output - DTA-2132 Spectral Inversion auto detect did not work as expected - DTA-2132 Potential crash when receiving L3 packets Linux only changes: - Fix for DtPcie driver crash when there are no more free memory pages available.

SDK version October 2023

Versions	DTAPI: v6.2.0.219 Drivers: Dta v4.28.10.288, DtPcie v3.2.0.354, Dtu v4.15.4.92, DtBb2 v1.0.1.11 DtaNw v3.5.13.44, DtPcieNw v1.0.0.55 DtapiService: v5.1.0.119
Changes	New features: - Support for DTA-2131B Multi-Standard Cable/Terrestrial Demodulator for PCIe - DTA-2110: DT_EVENT_IP_CHANGED callback added Bug fixes: [MatrixAPI] Unused audio channels in an audio group didn't have a valid audio status word [MatrixAPI] SetIoConfig or AttachRowToInput did return a DTAPI_E_IN_USE error after detaching from a port and reattaching to the same port - Improvements on custom install for SDK and DTA-2111B/2110 DtPcie driver install - DTA-2110: AvFifo improvements; did potentially stall when switching between video standards - DTA-2110: Unicast receive DtInpChannel did not work - DTA-2110: DtInpChannel did not update status information when RxControl was IDLE - DTA-2111B: DVB-T2SPLP license support was missing - DTA-2131/DTU-331: DtInpChannel GetStatistics() returned empty DAB ensemble information - DTA-2172/74B/78: GenLock locking was unstable when TimeOfDay (TOD) clock was synchronized to steady clock (external reference) - DTA-2172/75/74B/78: SDI output did not recover from application crash (introduced in Aug23 SDK)

SDK version August 2023

Versions	DTAPI: v6.1.0.215 Drivers: Dta v4.28.9.286, DtPcie v3.1.0.349, Dtu v4.15.4.92, DtBb2 v1.0.1.11 DtaNw v3.5.13.44, DtPcieNw v1.0.0.55 DtapiService: v5.0.1.117
Changes	New features: - Support for DTA-2111B Multi-Standard Cable/Terrestrial Modulator for PCIe - Support for DTA-2178 firmware v2 (NTSC genlock signals can now be used to genlock fractional (U)HD outputs) - Support prepared for FFmpeg (https://www.dektec.com/products/SDK/ffmpeg/) - DTU-315/DTA-2116 Support for low-sample rates IQ output - DTU-331 added DVB-S2 CID support Bug fixes: [Matrix API] trying to set 4 VPID's (one for each logical link in a 6G/12G signal) in DtMxAuxConfigSdi::m_Vpid resulted in a DTAPI_E_CONFIG_AUX_VPID error - DtapiDtHwFuncDesc2String() and DtapiDtDeviceDesc2String() did return undefined output string - DTU-331: DVB-S demodulation was not stable for some setups resulting in bit errors - DTU-331: Improvements on signal reception > 1GHz - DTA-2110: DtInpChannel::GetTsRateBps returned incorrect rate - DTA-2116 Invalid RF-Levels were reported in specific cases Linux only changes: - ABI 0 DTAPI deliverables added - Fedora 38 drivers did not build - Linker warning DTAPI64.o: requires executable stack was reported - DtapiService was not stopped correctly

SDK version June 2023	
Versions	DTAPI: v6.0.1.214 Drivers: Dta v4.28.9.286, DtPcie v3.0.0.345, Dtu v4.15.3.91 DtBb2 v1.0.0.10 DtaNw v3.5.13.44, DtPcieNw v1.0.0.55 DtapiService: v5.0.0.114
Changes	New features: • Support for DTA-2110 10GbE NIC for SMPTE 2110 • Support for DTU-331 Portable All-Standard RF Probe for USB-3 • [Matrix API] timestamp added signalling the transmit time of a frame to DtMxFrame • DTA-2139C: support for ATSC1.0 GetConstellationPoints() Bug fixes: • [Matrix API] SDI input with pixelformat DT_PXFMT_YUV420P2_8B did crash • [Matrix API] creation of a crashdump for an application sharing a port with others results in blocking of other applications sharing the same port • [Matrix API] Potential stop of generating callbacks when no SDI signal is present and PC is heavily overloaded • [MatrixAPI] not providing video in the callback, while in zero-copy mode, did result in a corrupt SDI output with spurious EAV/SAV/ADF sequences • [Matrix API] optimized multi-threading code to lower CPU overhead caused by Matrix API threads • DTA-2127: LinkMargin and EbN0 statistics were not supported for DVB-S • DTA-2127: measured RF level > 0 dBm and < -88 dBm were incorrect • DTA-2131: reception errors were seen on specific ATSC 1.0 streams • DTA-2131: the computed PLP bitrate in DtAtsc3PlpInfo was not correct for enhanced PLPs • DTA-2132: didn't lock to DVB-S with coderate 1/2 • DTA-2139C: DTAPI_STAT_PER was not implemented for ATSC • DTA-2139C: DtAdvDemod::OpenStream() was only supported for ATSC 3.0 • DTA-2172/74B/75/78: ASI-output data was corrupted when writing too much data • DTA-2172/74B/75/78: GetFifoLoad did return inaccurate FIFO-load when using TXONTIME transmit mode for Transport Streams • DTU-245B: driver did in some cases not update Linux only changes: • Parent device linked to Dta/DtPcie device • DtapiHwFuncScan did not finish in some cases