

DekTec SDK

| REVISION HISTORY

SDK

Jan 2025



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: VS2017, VS2019 and VS2022

SDK version Jan 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	<p>New features:</p> <ul style="list-style-type: none"> DTA-2116 IQ playout doesn't require a separate license anymore <p>Bug fixes:</p> <ul style="list-style-type: none"> 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 Nov 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	<p>New features:</p> <ul style="list-style-type: none"> Support added for DTA-2128 Octal DVB-S2X Receiver for PCIe <p>Bug fixes:</p> <ul style="list-style-type: none"> 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 <p>Linux only changes:</p> <ul style="list-style-type: none"> DtPcieNw driver didn't build on Linux kernel 6.11

SDK version Sept 2024

Versions	<p>DTAPI: v6.6.0.233</p> <p>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</p> <p>DtapiService: v5.2.1.129</p>
Changes	<p>New features:</p> <ul style="list-style-type: none"> • 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 <p>Bug fixes:</p> <ul style="list-style-type: none"> • [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 <p>Linux only changes:</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> 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	<p>New features:</p> <ul style="list-style-type: none"> 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 <p>Bug fixes:</p> <ul style="list-style-type: none"> [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 <p>Linux only changes:</p> <ul style="list-style-type: none"> 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	<p>New features:</p> <ul style="list-style-type: none"> Support for raw GSE packet reception using: <ul style="list-style-type: none"> 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) <p>Bug fixes:</p> <ul style="list-style-type: none"> [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 <p>Linux only changes:</p> <ul style="list-style-type: none"> 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	<p>New features:</p> <ul style="list-style-type: none"> 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 <p>Bug fixes:</p> <ul style="list-style-type: none"> [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 <p>Linux only changes:</p> <ul style="list-style-type: none"> Fix for DtPcie driver crash when there are no more free memory pages available.

SDK version October 2023

Versions	<p>DTAPI: v6.2.0.219</p> <p>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</p> <p>DtapiService: v5.1.0.119</p>
Changes	<p>New features:</p> <ul style="list-style-type: none"> • Support for DTA-2131B Multi-Standard Cable/Terrestrial Demodulator for PCIe • DTA-2110: DT_EVENT_IP_CHANGED callback added <p>Bug fixes:</p> <ul style="list-style-type: none"> • [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	<p>DTAPI: v6.1.0.215</p> <p>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</p> <p>DtapiService: v5.0.1.117</p>
Changes	<p>New features:</p> <ul style="list-style-type: none"> • 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 <p>Bug fixes:</p> <ul style="list-style-type: none"> • [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 <p>Linux only changes:</p> <ul style="list-style-type: none"> • 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	<p>DTAPI: v6.0.1.214</p> <p>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</p> <p>DtapiService: v5.0.0.114</p>
Changes	<p>New features:</p> <ul style="list-style-type: none"> • 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() <p>Bug fixes:</p> <ul style="list-style-type: none"> • [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 <p>Linux only changes:</p> <ul style="list-style-type: none"> • Parent device linked to Dta/DtPcie device • DtapiHwFuncScan did not finish in some cases