

# DekTec SDK

## REVISION HISTORY

**SDK**

Nov 2024



## 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 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"><li>• Support added for <a href="#">DTA-2128 Octal DVB-S2X Receiver for PCIe</a></li></ul> <p>Bug fixes:</p> <ul style="list-style-type: none"><li>• DTA-2110: In rare cases a potential hang on AvFifo thread was seen</li><li>• DTA-2110: DtapiService PTP hang was seen at server startup</li><li>• DTA-2115B/2116/DTU-315: ATSC 3.0 STLTP playout was failing for configurations where PLP-ID was unequal to PLP-index</li><li>• DTA-2116: No output was detected on the monitor output when a SetOutputLevel was not set</li><li>• DTA-2131B: Advanced demodulation functions were not available for DVB-C2</li></ul> <p>Linux only changes:</p> <ul style="list-style-type: none"><li>• DtPcieNw driver didn't build on Linux kernel 6.11</li></ul>

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"> <li>• Support added for <a href="#">DTA-2125 25G SmartNIC Optimized for SMPTE 2110</a></li> <li>• Support for LNB overload detection and callback for DTA-2127 and DTA-2132</li> <li>• Additional info added to DtAtsc3ParamInfo struct like #dummy cells in subframe</li> <li>• DTA-2127: Support for PER statistic</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• [MatrixAPI] occasionally the transmit timestamp (TxTodTimestamp and/or TxRawTimestamp) were the same for two consecutive frames.</li> <li>• Driver installers had invalid red warning that Windows can't verify publisher</li> <li>• DTA-2110: Potential sequence errors in transmitting video</li> <li>• DTA-2110: VLAN receive Windows network driver was not working</li> <li>• DTA-2110: Added FEC #rows/columns in lplnpChannel::GetlpPars</li> <li>• DTA-2110: Potential issue with AvFifo stop receiving in specific cases</li> <li>• DTA-2110: DtapiService didn't stop PTP service after DT_EVENT_TYPE_REMOVE event</li> <li>• DTA-2110: SetlpPars failed for HD/3G SDI formats</li> <li>• DTA-2127: Packets with TEI flag set are no longer discarded</li> <li>• DTA-2131B/DTU-331: Improved DAB locking</li> <li>• DTA-2132: RF-Level can now also be retrieved for I/Q port 2 (used for DVB-S)</li> <li>• DTA-2132: Blindscan and auto symbolrate detection improvements for low symbol rate signals</li> </ul> <p>Linux only changes:</p> <ul style="list-style-type: none"> <li>• Dta driver failed to build for CentOS 9</li> </ul>

### 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"> <li>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.</li> </ul>

### 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"> <li>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)</li> <li>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)</li> <li>DTA-2131/DTU-331: Added function to extract DAB Superframes</li> <li>DTA-2154/74: Added function to disable VPID processing for raw SDI frames</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>[Matrix API] Audio status word, for API inserted muted channels, was corrupted when the audio frame sequence was overruled</li> <li>[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</li> <li>DTA-2110 SDI processing using DtInpChannel/DtOutpChannel was broken</li> <li>DTA-2110 AvFifo SMPTE-2022 Rx FramesOk statistic was not incremented</li> </ul> <p>Linux only changes:</p> <ul style="list-style-type: none"> <li>Support for GLIBC 2.28 added, GLIBC is required for DtapiService</li> <li>Support for Linux DKMS driver packages for Dtu, DtPcie and Dta</li> <li>Driver failed to build on Ubuntu 24.04 (latest) with kernel 6.8.0</li> </ul>

### 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"> <li>Support for raw GSE packet reception using: <ul style="list-style-type: none"> <li>DVB-S2X-GSE-HEM (Lite) for DTU-331, DTA-2127 and DTA-2132</li> <li>DVB-S2 Generic Continuous Stream for DTU-331 and DTA-2132</li> <li>DVB-T2 for DTU-331 and DTA-2131(B)</li> </ul> </li> <li>[MatrixAPI] DtMxAudioConfig::m_IgnoreVBit added to ignore the AES3 validity bit (V-bit)</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>[MatrixAPI] improvement of the Line 21 data detection</li> <li>GetDriverVersions() didn't return DtBb2 driver version anymore</li> <li>DTA-2110 software pipe transmit on time could fail</li> <li>DTA-2110 setting fifosize of input channel after SetIpPars in IDLE returned DTAPI_E_IN_USE error</li> <li>DTA-2110 setting m_SrcFltPort to 0 didn't disable source port filtering</li> <li>DTA-2131 sequence of API calls didn't work for DTA-2131B</li> <li>DTA-2131/DTU-331 locking time for DAB(+) improved</li> <li>DTA-2131/DTU-331 DAB(+) demodulator didn't lock to ensembles containing &gt;32 radio stations</li> <li>DTA-2132 potential crash on GetConstellationPoints() for a multi-input stream DVB-S2 signal</li> <li>DTA-2132 could not receive DVB-S2(X) streams where ISSY was active</li> </ul> <p>Linux only changes:</p> <ul style="list-style-type: none"> <li>Fix for incorrect netdev-&gt;dev_addr warning when loading network driver on Ubuntu 22.04.1</li> <li>Fix for issue loading driver(s) on Ubuntu 22.04.1(kernel 6.5.0-15, gcc version 12.3.0)</li> <li>Fix for drivers did not build on Linux kernel &gt;= v6.8.0</li> </ul>

### 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"> <li>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)</li> <li>Driver allocated DMA buffers will use 64-bit when the hardware supports it (e.g. DTA-217x series)</li> <li>DTA-2111B support for firmware v1; fix for potential low MER on startup</li> <li>DTA-2179 support for firmware v1; fix for potential fail on switching between two SD inputs</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>[MatrixAPI] CRC for audio status word of unused audio channels in an audio group was not valid.</li> <li>DTA-2127 GetTxClockOffset call resulted in a crash when called for the SDI output</li> <li>DTA-2132 Spectral Inversion auto detect did not work as expected</li> <li>DTA-2132 Potential crash when receiving L3 packets</li> </ul> <p>Linux only changes:</p> <ul style="list-style-type: none"> <li>Fix for DtPcie driver crash when there are no more free memory pages available.</li> </ul>

### 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	<p>New features:</p> <ul style="list-style-type: none"> <li>Support for <a href="#">DTA-2131B Multi-Standard Cable/Terrestrial Demodulator for PCIe</a></li> <li>DTA-2110: DT_EVENT_IP_CHANGED callback added</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>[MatrixAPI] Unused audio channels in an audio group didn't have a valid audio status word</li> <li>[MatrixAPI] SetIoConfig or AttachRowToInput did return a DTAPI_E_IN_USE error after detaching from a port and reattaching to the same port</li> <li>Improvements on custom install for SDK and DTA-2111B/2110 DtPcie driver install</li> <li>DTA-2110: AvFifo improvements; did potentially stall when switching between video standards</li> <li>DTA-2110: Unicast receive DtInpChannel did not work</li> <li>DTA-2110: DtInpChannel did not update status information when RxControl was IDLE</li> <li>DTA-2111B: DVB-T2SPLP license support was missing</li> <li>DTA-2131/DTU-331: DtInpChannel GetStatistics() returned empty DAB ensemble information</li> <li>DTA-2172/74B/78: GenLock locking was unstable when TimeOfDay (TOD) clock was synchronized to steady clock (external reference)</li> <li>DTA-2172/75/74B/78: SDI output did not recover from application crash (introduced in Aug23 SDK)</li> </ul>

### 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	<p>New features:</p> <ul style="list-style-type: none"> <li>Support for <a href="#">DTA-2111B Multi-Standard Cable/Terrestrial Modulator for PCIe</a></li> <li>Support for <a href="#">DTA-2178 firmware v2 (NTSC genlock signals can now be used to genlock fractional (U)HD outputs)</a></li> <li>Support prepared for FFmpeg (<a href="https://www.dektec.com/products/SDK/ffmpeg/">https://www.dektec.com/products/SDK/ffmpeg/</a>)</li> <li>DTU-315/DTA-2116 Support for low-sample rates IQ output</li> <li>DTU-331 added <a href="#">DVB-S2 CID support</a></li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>[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</li> <li>DtapiDtHwFuncDesc2String() and DtapiDtDeviceDesc2String() did return undefined output string</li> <li>DTU-331: DVB-S demodulation was not stable for some setups resulting in bit errors</li> <li>DTU-331: Improvements on signal reception &gt; 1GHz</li> <li>DTA-2110: DtInpChannel::GetTsRateBps returned incorrect rate</li> <li>DTA-2116 Invalid RF-Levels were reported in specific cases</li> </ul> <p>Linux only changes:</p> <ul style="list-style-type: none"> <li>ABI 0 DTAPI deliverables added</li> <li>Fedora 38 drivers did not build</li> <li>Linker warning DTAPI64.o: requires executable stack was reported</li> <li>DtapiService was not stopped correctly</li> </ul>

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"> <li>• Support for <a href="#">DTA-2110 10GbE NIC for SMPTE 2110</a></li> <li>• Support for <a href="#">DTU-331 Portable All-Standard RF Probe for USB-3</a></li> <li>• [Matrix API] timestamp added signalling the transmit time of a frame to DtMxFrame</li> <li>• DTA-2139C: support for ATSC1.0 GetConstellationPoints()</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• [Matrix API] SDI input with pixelformat DT_PXFMT_YUV420P2_8B did crash</li> <li>• [Matrix API] creation of a crashdump for an application sharing a port with others results in blocking of other applications sharing the same port</li> <li>• [Matrix API] Potential stop of generating callbacks when no SDI signal is present and PC is heavily overloaded</li> <li>• [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</li> <li>• [Matrix API] optimized multi-threading code to lower CPU overhead caused by Matrix API threads</li> <li>• DTA-2127: LinkMargin and EbN0 statistics were not supported for DVB-S</li> <li>• DTA-2127: measured RF level &gt; 0 dBm and &lt; -88 dBm were incorrect</li> <li>• DTA-2131: reception errors were seen on specific ATSC 1.0 streams</li> <li>• DTA-2131: the computed PLP bitrate in DtAtsc3PlpInfo was not correct for enhanced PLPs</li> <li>• DTA-2132: didn't lock to DVB-S with coderate 1/2</li> <li>• DTA-2139C: DTAPI_STAT_PER was not implemented for ATSC</li> <li>• DTA-2139C: DtAdvDemod::OpenStream() was only supported for ATSC 3.0</li> <li>• DTA-2172/74B/75/78: ASI-output data was corrupted when writing too much data</li> <li>• DTA-2172/74B/75/78: GetFifoLoad did return inaccurate FIFO-load when using TXONTIME transmit mode for Transport Streams</li> <li>• DTU-245B: driver did in some cases not update</li> </ul> <p>Linux only changes:</p> <ul style="list-style-type: none"> <li>• Parent device linked to Dta/DtPcie device</li> <li>• DtapiHwFuncScan did not finish in some cases</li> </ul>