

DekTec SDK

REVISION HISTORY

SDK

Jun 2024

DekTec

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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 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	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"> • 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	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"> • 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