

# DekTec SDK

## REVISION HISTORY

**SDK**

Oct 2014



## DekTec SDK Revision History

### SDK version Oct2014

Versions	DTAPI: v5.10.0.46 Drivers: Dta v4.10.0.144, DtaNw v3.5.0.28, Dtu v4.4.16.55 DtapiService: v2.2.13.37
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for SMPTE ST 2022-7 'Seamless Protection Switching' using the DTA-2162</li> <li>• Support for all possible number of FEC rows and FEC columns (before only the SMPTE specified)</li> <li>• Support for block aligned FEC generation using DTAPI_FEC_2D_M1_B and DTAPI_FEC_2D_M2_B</li> <li>• DTA-2138B support; upgraded demodulator includes ISDB-T and T2 lite (DVB-T2 v1.3.1) support</li> <li>• DTA-2144B support</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• Fractional SDI video standards did not contain the correct amount of audio samples in their output</li> <li>• DTA-2137: Calling SetTunerFrequency() twice on same frequency in some cases stopped the receiver</li> <li>• DTA-2115: DVB-S2X performance issue was seen on some new PC's</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• DTA-2154: Possible driver crash on application exit</li> <li>• DTA-2160: Possible failing network port attach for Ubuntu 3.11</li> </ul>

### SDK version Sep2014

Versions	DTAPI: v5.9.0.45 Drivers: Dta v4.9.1.142, DtaNw v3.5.0.28, Dtu v4.4.15.54 DtapiService: v2.2.12.36
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for 20%, 25% roll-off for DVB-S modulation</li> <li>• DTA-2131: DAB Transmitter ID support</li> <li>• AncPacket class extended with m_LineNumber field</li> </ul> <p>Note: Line parameter removed from DtFrameBuffer::AncAddPacket old interface of AncAddPacket is marked as deprecated and will be removed in a future release</p> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• Dta crash could occur on application exit</li> <li>• T2-MI input stream was not correctly modulated when IL-Type = 1</li> <li>• T2-MI output through a virtual port was not working for DTA-2111 and DTU-215</li> <li>• Registration for DT_EVENT_TYPE_GENLOCK did trigger an assert</li> <li>• DtAdvDemod: For DVB-C2 all opened streams were closed on SetTunerFrequency()</li> <li>• DtAdvDemod: Virtual input support did not work correctly</li> <li>• DtAdvDemod: Did return DTAPI_OK on AttachToPort() when port was already in use</li> <li>• DTU-351: Calling DtFrameBuffer::AncGet* twice with the same frame number caused an DTAPI error</li> <li>• DTA-2115: DVB-T2 single PLP was not working without DVB-T2 (multiPLP) license</li> <li>• DTA-2115: DVB-S, DVB-S2 and QAM levels were not correct</li> <li>• DTA-2152: Genlock was misaligned for several formats (720p50 does still have misalignment)</li> <li>• DTA-2154: Configuring port 4 as double-buffered from port 3 was no possible</li> <li>• DTA-160/2160: A zero in a multicast address was treated as a wildcard</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• IP V6 support was not working correctly</li> </ul>

### SDK version June2014

Versions	DTAPI: v5.8.0.43 Drivers: Dta v4.9.0.140, DtaNw v3.5.0.28, Dtu v4.4.14.53 DtapiService: v2.2.12.36
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Initial support for the DTA-2174 (Quad 3G/HD-SDI / ASI Ports with Genlock Adapter)</li> <li>• Support for runtime changes to channel modelling settings (i.e. no need to stop modulation anymore)</li> <li>• Support for extra option to force link IP speed to 1Gbps</li> <li>• Support for DVB-S2 16/32-APSK constellation shape configuration</li> <li>• DTA-2115: Optimized DMA performance, so that card can be used in PCIe gen2 slots at maximum sample rates</li> <li>• DTA-2154: Reduced time needed to achieve genlock</li> <li>• DTA-2154: Support for ancillary data checksum inserter</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• HyperV installation did result in a DTAPI_E_NW_DRIVER error for DTA-160/2160/2162</li> <li>• Spectral inversion was enabled by default for DVB-S2 / ISDB-S (introduced in Apr2014 SDK)</li> <li>• VLAN for Windows 8.1 did not function correctly due to administrator right changes</li> <li>• Audio control packets were not added for embedded audio in HD SDI streams</li> <li>• DTA-2115: Shoulder attenuation was not according specification for OFDM signals</li> <li>• DTA-2115: Non-default bitrates for ISDB-T were not accepted</li> <li>• DTA-2115: DVB-S2X dummy frames were incorrect</li> <li>• DTA-2115: DVB-S2X 16-APSK-L:5/9,8/15,1/2 did not create a correct signal</li> <li>• DTA-2144: Driver did crash after driver/PC restart when a genref was configured</li> <li>• DTA-2154: GetStatus(AsiLock) did always return 0</li> </ul> <p>Non-backwards compatible API change (<u>a code change might be required!</u>):</p> <ul style="list-style-type: none"> <li>• Buffers used for DtFrameBuffer and DtSdiMatrix must now have their addresses aligned at a 32-byte boundary (instead of 8-byte boundary) and their sizes must be a multiple of 32 bytes (instead of 8 bytes).</li> <li>• DTE-3137: RF level statistic was incorrectly using dBm unit, now using dBmV. Also statistic for MER was incorrect. Spectral Inversion, Link Margin, Es/N0 and Eb/N0 statistics are added (similar statistic support like DTA-2137)</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Dta driver did not compile for Linux kernel versions &gt;= 3.13</li> <li>• DTA-2160 network port did not function for a network configurations were only 2 interfaces descriptions were found</li> </ul>

#### SDK version Apr2014

Versions	DTAPI: v5.7.0.41 Drivers: Dta v4.8.0.121, DtaNw v3.4.6.27, Dtu v4.4.13.52 DtapiService: v2.2.11.35
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for DTA-2115 (All-Standard, All-Band Modulator) including DVB-S2x modulation</li> <li>• SDK support for Visual Studio 2013 (VC12)</li> <li>• Support for non-exclusive attaching to input channels, to allow read-only access to port status parameters. NOTE: this is not supported for all input types</li> <li>• Support for DTAPI_STAT_SPECTRUMINV statistic for DTA-2136</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• In some cases invalid DVB-T2 GSE packets were sent</li> <li>• Matrix API did not embed audio ANC packets in switching lines</li> <li>• DtInpChannel::SetIpPars crashed when unicast addresses were specified in combination with seamless protection mode</li> <li>• DTA-2152/2154: Driver did crash when IO Standard for GenRef port was set to SD-SDI</li> <li>• DTA-2154: Analog genlock did not work</li> <li>• DTA-2162: On high network transmit load the non real-time transmit stalled</li> </ul>

	<p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• DTA-2154 ASI input did not work</li> <li>• DtapigetDeviceDriverVersion(DTU) did return DTAPI_OK when no DTUs were present</li> </ul>
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SDK version Feb2014	
Versions	<p>DTAPI: v5.6.0.40</p> <p>Drivers: Dta v4.7.4.107, DtaNw v3.4.5.26, Dtu v4.4.11.50</p> <p>DtapiService: v2.2.10.34</p>
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• DTA-2131: added Advanced demodulation API support for DVB-T2/DVB-C2 BBframes</li> <li>• DTA-2131: added Advanced demodulation API support for GSE using DVB-T2</li> <li>• GSE support added for DVB-T2 modulation</li> <li>• ISDB-Tmm support added for DTA-115,116, DTU-215 (only &lt; 13 segments, DTA-2111 can do all)</li> <li>• Matrix API support for 24 and 32 bit PCM SDI audio added</li> <li>• Matrix API support for timestamps in DtFrameBuffer::GetFrameInfo added</li> <li>• Device temperature and fan-speed support added in DtDevice for DTA-2139, DTA-2154</li> <li>• Now making use of Visual Studio generated _WIN64 and _WIN32 defines for DTAPI.H</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• For Windows 8.1 adding a VLAN did not succeed</li> <li>• DVB-T/H was not correctly modulated/demodulated when using 2k in-depth interleaving</li> <li>• DtapDeviceScan order of devices returned was changed in Oct2013 release, changes reverted and optional parameter added for serial number sorting</li> <li>• DTU-351: SD SDI reception did result in lost frames</li> <li>• DTA-2131: Possible crash on detach of DVB-C2/T2 demodulator; introduced in Dec2013 release</li> <li>• DTA-2136: Packet loss on Port 2 when tuning port 1 and shared antenna mode was active</li> <li>• DTA-2137: VCM lock issue on low SNR; mute mechanism introduced using DtDemodParsDvbS2Adv</li> <li>• DTA-2154: Auto detect failed to detect standard of HD signals when port was configured for SD-SDI operation</li> </ul> <p>New Linux features:</p> <ul style="list-style-type: none"> <li>• Added ini file mechanism which specifies the default IO-configuration values for a card</li> </ul>

SDK version Dec2013	
Versions	<p>DTAPI: v5.5.0.38</p> <p>Drivers: Dta v4.7.1.104, DtaNw v3.4.3.24, Dtu v4.4.7.46</p> <p>DtapiService: v2.2.9.33</p>
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• DTU-236: Added support for GetTunerFrequency() and GetDemodControl()</li> <li>• DTA-160/2160/2162: Support for specifying the source port for IP transmission</li> <li>• DTA-2131: Support for new statistic DTAPI_STAT_FER_POSTBCH</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• QAM-B modulation produced inverted spectrum when channel modelling was enabled</li> <li>• DTU-351: Frames were dropped on high CPU load</li> <li>• DTU-351: Some PC's did have incidentally a frame drop</li> <li>• DTA-2131: BER_PRELDPC and PER DVB-T2 statistics were not valid after DTAPI_STAT_LDPC_STATS call</li> <li>• DTA-2131: DtAdvDemod port attach was failing introduced in SDK Oct2013</li> <li>• DTA-2137: Re-attach could have failed with error DTAPI_E_INVALID_FREQ</li> <li>• DTA-2154: Dta driver did sometimes crash on RS422 simultaneously read/write</li> <li>• DTA-2154: Switching from fractional SDI standard to ASI resulted in an incorrect ASI stream</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Dta driver did not build for 32 bit linux, introduced by SDK Nov2013 changes</li> </ul>

- DtapiService could have crashed when long filenames processes were running
- DTU-236A: driver communication could have failed during initialization

### SDK version Nov2013

Versions	DTAPI: v5.4.0.36 Drivers: Dta v4.7.0.102, DtaNw v3.4.2.21, Dtu v4.4.3.41 DtapiService: v2.2.8.31
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• DTA-2154 official release including RS422 support</li> <li>• DTA-2131: Support for demodulation of complete DAB ETI using DtDabEtiStreamSelPars</li> <li>• DTAPI_STAT_DVBT2_L1DATA statistic extended with extra fields</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• Possible not supported error when SetIoConfig() was called on DtInputChannel/DtOutputChannel</li> <li>• DtaNw network driver was stalling when network stack was too busy</li> <li>• Dta driver crash could have incidentally happen at startup up due to I2C register remap</li> <li>• DtInpChannel::SetRxMode() for IPRAW and STTRP was not working since Aug2013 release</li> <li>• DTU-351: FrmBufInputChannel:GetStatus() ClkDet return parameter was always -1</li> <li>• DTA-107: For some PC's DVB-S2 playout was failing in combination with DTA-2111 boards</li> <li>• DTA-2138: DVB-T2 L1 data modulation type was incorrectly set</li> <li>• DTA-2154: Invalid eeprom content could result in crash</li> <li>• DTA-2154: The reported ASI input rate was incorrect</li> <li>• DTA-2154: ASI read with NumBytesToRead not a multiple of 32 was failing</li> <li>• DTA-2154: ASI fifo was not cleared when going from RCV to IDLE and back</li> <li>• DTA-2154: The reported TS-rate for ASI input was not corrected to 188 bytes for 204 bytes packets</li> <li>• DTA-2154: Port was not (re-)configured when switching between ASI and SDI</li> </ul>

### SDK version Oct2013

Versions	DTAPI: v5.3.0.35 Drivers: Dta v4.6.0.92, DtaNw v3.4.1.18, Dtu v4.4.2.40 DtapiService: v2.2.7.30
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• DTU-351 official release</li> <li>• DTA-2154 initial support</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• GetTsRateBps() was incorrect for RxMode STRAW</li> <li>• SetRxMode did not return an error when DTAPI_TXMODE_SDI_16B was not supported</li> <li>• Application restart could fail after application exception situation</li> <li>• Data playout could fail after unclean stop and restart of application</li> <li>• Multicast list was not updated correctly when configuring multiple VLAN's</li> <li>• SDI reception of Huffman compressed active video was not working</li> <li>• SDI DtOutpChannel:Write() could fail for specific frame-alignment</li> <li>• Matrix API audio samples alignment issue for fractional video standards</li> <li>• DTU-236: QAM tuner initialization was not completely correct</li> <li>• DTU-236: limit of tuning frequency is 885MHz not 865MHz</li> <li>• DTA-2131: PCR jitter for ISDB-T demodulation could be out of spec</li> <li>• DTA-2131: ISDB-T emergency flag was not set correctly for IIP and dummy byte</li> <li>• DTA-2131: Transport Error Indicator (TEI) flag was not set (not supported for T2/C2 HEM mode)</li> <li>• DTA-2152: Reading 8-bit SDI data was not done correctly</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• DtapiService did not start automatically after unclean stop of DtapiService</li> </ul>

### SDK version Aug2013

Versions	DTAPI: v5.2.4.31 Drivers: Dta v4.5.2.46, DtaNw v3.4.0.17, Dtu v4.4.0.38 DtapiService: v2.2.6.29
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• VLAN support using manually installation of protocol driver DtaNwAp</li> <li>• DTU-351 USB-3 HD-SDI input initial support</li> <li>• Support for ISDB-Tmm modulation using DtMplpOutpChannel::SetModControl(DtIsdbTmmPars&amp;)</li> <li>• DTA-2162 does now have port id included in device description strings</li> <li>• DVB-T demodulation statistic DTAPI_STAT_TPS_INFO including DVB-T Cell-ID information</li> <li>• The number of DtDevice/DtChannel instances is no longer limited to 256</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DtDevice::GetGenlockState was missing since DTAPI v4.0 release</li> <li>• Added private copy constructors to DTAPI classes to make sure that a copy will result in compile errors</li> <li>• DtInpChannel::GetIpsStat documentation updated; values are not reset after read</li> <li>• DtInpChannel::GetTunerFrequency returned DTAPI_E_NOT_SUPPORTED</li> <li>• DtaNw Promiscuous mode was not working</li> <li>• DtIsdbTpars::RetrievesParsFromTs did not support 1- and 3-segments audio streams</li> <li>• Certain T2-MI streams did not playout</li> <li>• DTA-124: Crash could occur on 64 bit OS</li> <li>• DTA-2111/DTU-215: MER was lower for DVB-C when Channel Simulator was disabled</li> <li>• DTA-2137: DVB-S2 L3 input selection caused a long delay</li> <li>• DTA-2137: DVB-S2 Multi Input Streams did not always lock (due to invalid ModType)</li> <li>• DTA-2142: Calling DtOutpChannel::SetTstRateRatio was failing</li> <li>• DTA-2152: Unsupported mode DTAP_RXMODE_SDI_ACTVID could be configured</li> <li>• DTA-2152: Reading 8-bit SDI data could cause the DtInpChannel::ReadFrame to hang</li> <li>• DTA-2160: DTAPI_E_OUT_OF_RESOURCES did sometimes occur after a lot of application restarts</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Dta driver did not compile on 64-bit CentOS 5</li> </ul>

### SDK version June2013

Versions	DTAPI: v5.2.3.29 Drivers: Dta v4.5.1.44, DtaNw v3.3.0.15, Dtu v4.3.1.37 DtapiService: v2.2.5.27
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Windows SDK is now distributed using an installer containing all drivers, libraries and include files</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DTE board could be reported twice when using multiple network cards and retrieving the available ports</li> <li>• DTE board was not reported when retrieving the available ports and user has no administrator rights</li> <li>• DTAPI documentation was incomplete for SetIloConfig, DtStatistics and DVB-C QAM-128 limitation for DTA-2136 and DTA-2139</li> <li>• DTAPI_E_DRIVER_INCOMP was not returned on Attach when an incompatible driver was installed</li> <li>• DTAPI_E_NOLINK was not returned when no network connection was available</li> <li>• Visual Studio Express was not able to link DTAPI caused by an ATL dependency</li> <li>• Division by zero exception was thrown when using Huffman compression</li> <li>• DTA-2131: For ISDB-T demodulation a relock was not automatically re-acquired</li> <li>• DTA-2131: Retrieving the RF level statistic resulted in an error</li> <li>• DTA-2135: Demodulation of bad signals could fail caused by a FIFO overflow</li> <li>• DTA-2139: MER/SNR statistics were incorrectly calculated</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Dta driver could crash when aborting the application</li> </ul>

### SDK version May2013

Versions	DTAPI: v5.2.2.26 Drivers: Dta v4.5.0.43, DtaNw v3.3.0.15, Dtu v4.3.0.36 DtapiService: v2.2.4.26
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for DTA-2162</li> <li>• Support for L3 input for DVB-S2 modulation</li> <li>• Support for DAB+ / T-DMB software demodulation</li> <li>• Support for ISDB-T software demodulation of all layers using TMCC</li> <li>• Support for extra Error statistics for DVB-T and ISDB-T software demodulation</li> <li>• Support for new DTA-2137 statistics: Link Margin, Es/N0, Eb/N0, Pre-LDBC BER, Occupied bandwidth and Roll-off factor</li> <li>• DTU-236A: Support for individually tuning of both tuners</li> </ul> <p>Non-backwards compatible API change (<u>a code change might be required!</u>)</p> <ul style="list-style-type: none"> <li>• Statistics like SNR, MER and RF LVL that did support double and integer values now only support integer values</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DtaNw driver installation was not executed when network port was active</li> <li>• Dta driver could hang during shutdown or disable</li> <li>• Unicast IP receive address in March release did only accept 0.0.0.0 and did not accept IP address of adapter</li> <li>• DtInpChannel:ReadFrame blocked on SDI frame when no valid input signal was attached</li> <li>• AdvDemod constellation points data stopped in case of a unlock-lock scenario</li> <li>• Driver did not check if firmware reboot was allowed</li> <li>• Visual Studio 2005 projects could fail building because of missing ATL reference</li> <li>• DTE license file programming failed since SDK version Mar2013</li> <li>• DTA-2136 and DTA-2139: Sometimes a value of -1 was returned for SNR</li> <li>• DTA-2136: MER/SNR statistics were incorrectly calculated</li> <li>• DTA-2137: 32-APSK performance was decreased since SDK version Aug2012</li> <li>• DTA-2152: Video standard capabilities were not set for port 3 (GENLOCK reference port)</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• DtapiService installation did not work for CentOS 6.3/6.4</li> <li>• DTA-2160: CentOS 5.9 possible crash on IP port</li> <li>• DTA-2160: Ethtool didn't work</li> </ul>

### SDK version Mar2013

Versions	DTAPI: v5.2.1.24 Drivers: Dta v4.4.0.37, DtaNw v3.2.1.14, Dtu v4.2.3.35 DtapiService: v2.2.2.25
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for DtTslpPars <i>Differentiated Services</i> field (formerly <i>Type Of Service</i>) in the IP v4 header or <i>Traffic Class</i> field in the IP v6 header</li> <li>• Support for DTE-3120 polarity control</li> <li>• Support for DTE-3100 transmit on timestamp mode</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• Some DVB-T2 modulation settings did not run on a Core Duo anymore (CPU load to high)</li> <li>• DTE attach speed was slow</li> <li>• IP packets were in some cases discarded because the packets were incorrectly recognized as VLAN packets</li> <li>• DVB-T2 modulator was not ignoring the IN_BAND_B_FLAG for DVB-T2 version V.1.1.1</li> </ul>

	<ul style="list-style-type: none"> <li>• SetTxControl was failing when using QAM-B and channel modeling</li> <li>• FrmBufInpChannel:SetRxControl call could have resulted in deadlock</li> <li>• Source Specific Multicast was limited to the IANA's SSM range for DTA-(2)160</li> <li>• Added missing DtInpChannel ISDB-T and T2MI functions in DTAPI core documentation</li> <li>• Uncorrected blocks was not reset between calls to GetStatistics() using DTAPI_STAT_BADPCKCN for DTA-2136 and DTA-2139</li> <li>• DTU-234: For some firmware versions a signal lock problem did occur</li> <li>• DTU-234: Added missing statistics DTAPI_STAT_BER_PREVIT, DTAPI_STAT_BER_POSTVIT, DTAPI_STAT_BER_PRERS</li> <li>• DTA-2131: Support for missing Rx modes: DTAPI_RXMODE_STMP2, DTAPI_RXMODE_STRAW, DTAPI_RXMODE_STTRP, DTAPI_RXMODE_TIMESTAMP32</li> <li>• DTA-2131: DTAPI_FULL_RESET resulted in no data received anymore</li> <li>• DTA-2131: ISDB-T SetDemodControl failed in some cases</li> <li>• DTA-2131: DVB-T bandwidth 5MHz was not supported</li> <li>• DTA-2137: Transport Error Indicator (TEI) bit was not set on packets with uncorrectable errors</li> <li>• DTA-2138: DtInpChannel:Tune() returned timeout error when there was no input signal</li> <li>• DTE-3114: Device was not found on DtapiDeviceScan</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• DtaNw driver is now installed and loaded automatically</li> <li>• DTU-236: RF level readings were unstable</li> </ul>
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SDK version Feb2013	
Versions	DTAPI: v5.2.0.21 Drivers: Dta v4.3.0.35, DtaNw v3.2.0.13, Dtu v4.2.2.34 DtapiService: v2.2.1.22
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Advanced Demodulator API: support for DVB-T,-T2,-C2 and ISDB-T including measurements Please refer to <i>DTAPI Manual</i> and <i>DTAPI Reference – Advanced Demodulator API documentation</i></li> <li>• Changed Modulation capabilities and new Receiver capabilities and licenses: RXA (Advanced Demodulator), IQ, T2MI and GOLD RX Please refer to <i>DTAPI 5.2 Releases Notes</i> explaining how to adapt your application for these changes.</li> <li>• Support for ATSC-MH modulation</li> <li>• SDK support for Visual Studio 2012 (VC11)</li> <li>• DtDvbT2Pars::RetrieveT2miRateFromTs calculates required TS rate for a given buffer with T2MI data</li> <li>• New Statistics BER_PREBCH and BER_PRELDPC, renamed BER_BCH and BER_LDPC to BER_POSTBCH and BER_POSTLDPC</li> <li>• DTA-160/2160: support for IPv6</li> <li>• Support for DAB modulation</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• IP header identification field value was not incremented for IP outputs</li> <li>• DVB-C2 modulator inserted invalid ISSY in case of HEM and NPD=1</li> <li>• Invalid DVB-C2 signal when using ACM + plp_header_counter=1 + odd number of XFEC-frames</li> <li>• DVB-T2-MI FEF sub-part not correctly encoded</li> <li>• Possible error when calling DtOutpChannel::GetFlags before DtOutpChannel:SetTxControl</li> <li>• SetIoConfig was not thread safe</li> <li>• GetFifoLoad returned wrong value for DVB-S2 when symbol rate was changed</li> <li>• DtapiDeviceScan returned DTE device's that were not in DTAPI mode</li> <li>• DtapiService crash when using incompatible driver</li> <li>• DTAPINET DtapiDtDeviceDesc2String() returned incorrect string</li> <li>• DTAPINET added missing functions: DtapiModPars2Bandwidth(), DtapiModPars2SymRate() and DtapiModPars2TsRate()</li> <li>• DtInpChannel::GetTsRateBps() doesn't normalize rate to 188byte packets</li> <li>• Reading data from USB device failed after warm reboot</li> <li>• DTA-107 produced incorrect SNR level for DVB-S2</li> <li>• DTU-215: boot time was slow</li> <li>• DTU-236: RF level was always returning around 396</li> </ul>



	<ul style="list-style-type: none"> <li>• DTU-245: port 2 could not be set in loop-through mode</li> <li>• DTA-2137: MER statistic for 16APSK and 32APSK was incorrect</li> <li>• DTA-2137: Not all BER statistics were correct</li> <li>• DTA-2137: FEC lock statistic was incorrect</li> <li>• DTA-2138: DVB-C, interleaving parameter was not ignored by SetDemodControl</li> <li>• DTA-2152: field length error on 525i59.94 signal</li> <li>• DTE-3120: Cannot attach to the DTE in DTAPI mode</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Compile warnings for DTA/DTU drivers</li> <li>• Dtu0 symlink was not created for some Linux distributions</li> <li>• Dtu driver failed on udev version before v98</li> <li>• Possible system freeze when using IP port on CentOS 5.8</li> <li>• On 64-bit linux not all license were recognized</li> <li>• DtapiService installer didn't work when /tmp was not executable</li> <li>• IP multicast receive only worked for 1 multicast address(-range)</li> <li>• Driver hangs on unloading driver (Red hat 5.4)</li> <li>• DTA-2131: AttachToPort was failing</li> </ul>
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#### SDK version Dec2012

Versions	DTAPI: v5.1.0.19 Drivers: Dta v4.2.0.33, DtaNw v3.1.0.12, Dtu v4.2.0.30 DtapiService: v2.2.0.18
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• DTU-236: Support for enabling/disabling equalizer</li> <li>• DTA-2137: removed Frameld from L3 header (firmware V7)</li> <li>• Added support for subtype field in DtDeviceDesc</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DTAPI_TX_CPU_UFL reported but should be DTAPI_TX_DMA_UFL</li> <li>• IPAT was very large for RTP stream including FEC and lost packets</li> <li>• Local NIC: the data was corrupted every time the RTP sequence number wraps</li> <li>• Linker warnings regarding missing .pdb files when linking to DTAPI debug version</li> <li>• DVB-C2 modulation: stopped when type 1 and type 2 data slices are mixed</li> <li>• DVB-C2 modulation: crashed when header_counter=1 and modulation &lt;= 64qam</li> <li>• DVB-C2 modulation: the order of the ISSY fields generated for the first frame was not correct</li> <li>• DtFrameBuffer::AncAddPacket returns DTAPI_OK but AncCommit did not add the packet to the output</li> <li>• DtFrameBuffer::AncGetPackets never returns DTAPI_E_BUF_TOO_SMALL</li> <li>• DtInpChannel::GetStatus incorrectly reported -1 for AsiLock parameter</li> <li>• DtInpChannel::RegisterDemodCallback: possible fail on tuner event-register</li> <li>• DtInpChannel::SetDemodControl did not accept -1 for ParXtra1 for QAM-B</li> <li>• DtOutputChannel::Write(buf,0) caused a DTAPI crash</li> <li>• DTA-115: on certain PC's DMA performance caused OFDM modulation to stop working</li> <li>• DTU-215: device was not started on a "warm" reboot</li> <li>• DTA-2137: tuning to some DVB-S modulated streams was failing</li> <li>• DTA-2144: double-buffered output was not supported anymore</li> <li>• DTA-2152: bottom of frame showed a green line</li> <li>• DTA-2152: BSOD after enabling GENREF mode for one of the ports</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Multi-threading DTAPI usage could result in a crash</li> <li>• Dtu0 symlink was not created for some Linux distributions</li> </ul>

#### SDK version Oct2012

Versions	DTAPI: v5.0.11.17 Drivers: Dta v4.1.1.30, DtaNw v3.1.0.12, Dtu v4.1.2.26 DtapiService: v2.1.2.17
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Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for DTA-2138</li> <li>• Optimize performance of Matrix-API audio and ancillary data embedding and de-embedding code</li> <li>• Added support for add/removal event for USB devices</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DVB-T2/C2 modulation did not work</li> <li>• Failure to read licenses from DTE devices</li> <li>• DtapiHwFuncScan did not return a DTAPI_E_DRIVER_INCOMPATIBLE when an old driver is used</li> <li>• DtDeviceAttachToSerial did not return a DTAPI_E_DRIVER_INCOMPATIBLE when an old driver is used</li> <li>• DTA-160/2160: exception in Dta driver on system with 64GB of RAM</li> <li>• DTU-236: DTAPI crash when DTU-236 is disconnected from USB bus</li> <li>• DTU-236a: DtInpChannel::SetTunerFrequency failed when try to tune to frequencies above 862 MHz</li> <li>• DTA-2107: spectrum of DVB-S output was inverted</li> <li>• DTA-2107: actual SNR level did not match applied level</li> <li>• DTA-2139: first call to AttachToPort was very slow</li> <li>• DTA-2152: error in audio embedding when embedding less than 4 channels in an audio group</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Stack corruption when reading data from a DTU device</li> <li>• SDK could still not be built on Red Hat Enterprise Linux 5 with kernel version 2.6.18</li> </ul>
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SDK version Sep2012	
Versions	<p>DTAPI: v5.0.10.16</p> <p>Drivers: Dta v4.1.0.29, DtaNw v3.1.0.12, Dtu v4.1.0.24</p> <p>DtapiService: v2.1.0.15</p>
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for DTU-236a (1GHz version)</li> <li>• DTU-236: support for reading BER, SNR, MER and constellation points</li> <li>• Genlock support for DTA-145/2144/2145</li> <li>• Support for controlling DTA-plus (VHF/UHF Booster/Attenuator for DTA-115)</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DTA-2107: DVB-S spectrum was inverted</li> <li>• DTA-2136/2139: return sensible value for SNRs which are outside of the range that can be measured by demod chip</li> <li>• DTA-2152: failure to set IO-standard to 720p50</li> <li>• DTA-2152: VANC data was not committed in DtFrameBuffer::AncCommit</li> <li>• TS-rate returned for TS-over-IP streams received via a local-NIC was always ~10% to high</li> <li>• Non-exclusive attach of DtInpChannel object to a demodulator causes re-initialization of the port it is attached too</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• DTA-2111: setting the output level had no effect</li> <li>• SDK could not be built on Red Hat Enterprise Linux 5 with kernel version 2.6.18</li> <li>• Potential DMA data corruption, on 64-bit Linux, for cards that do not natively support 64-bit DMAs</li> <li>• 32-bit DTAPI could not connect with 64-bit driver.</li> </ul> <p>NOTE: the fix for this issue breaks backwards compatibility between the DTAPI and previous versions of the Dta, Dtu and DtaNw drivers (on 32-bit Linux configurations only)</p>

### SDK version Aug2012

Versions	DTAPI: v5.0.9.15 Drivers: Dta v4.0.14.27, DtaNw v3.0.7.11, Dtu v4.0.8.23 DtapiService: v2.0.9.12
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for DTA-2139</li> <li>• DTA-102: implementation for DtOutpChannel::SetPower</li> <li>• DTA-2137: support for firmware version V6</li> <li>• DTA-2137: support for C-version (with STV0900AAC)</li> <li>• DTA-2137: support for getting the spectral-inversion status</li> <li>• DtapiCheckDeviceDriverVersion now also detects the presence of pre V4 drivers</li> <li>• Added new EULA for Linux SDK</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DtInpChannel::GetRxMode always returned 0 for IP ports</li> <li>• DtInpChannel::GetRxControl always returned DTAPI_RXCTRL_IDLE for IP ports</li> <li>• CPU overload when DtapiService was stopped while used</li> <li>• Crash in SetDemocControl if invalid ISDB-T parameters were passed to this function</li> </ul> <p>Linux only bug fixes:</p> <ul style="list-style-type: none"> <li>• Unknown symbols when loading Dta, Dtu and DtaNw driver</li> <li>• DtapiService.bin installer only contained 64-bit version of DtapiService</li> <li>• DTA-2145: Kernel panic in ISR when Dta driver is loaded during system boot-up</li> <li>• "DMA: Out of SW-IOMMU space" in Dta driver</li> </ul>

### SDK version Jul2012

Versions	DTAPI: v5.0.8.12 Drivers: Dta v4.0.13.25, DtaNw v3.0.7.11, Dtu v4.0.8.23 DtapiService: v2.0.8.10
Changes	<p>New features:</p> <ul style="list-style-type: none"> <li>• Support for DTA-2131</li> </ul> <p>Bug fixes:</p> <ul style="list-style-type: none"> <li>• DTA-2152: fixed timeout error for WaitFrame</li> <li>• DTA-2136: added missing loop-through capability</li> <li>• DTA-2137: added missing support for DTAPI_STAT_CNR</li> <li>• DTA-2135/2137: added missing support for DTAPI_STAT_BER_PRERS &amp; DTAPI_STAT_CNR</li> <li>• DTA-2152: DtInpChannel::ReadFrame always returned 10-bit frames, regardless of rx-mode settings</li> <li>• DTA-2152: error in audio embedding when embedding less than 4 channels in an audio group</li> <li>• DtapiHwFuncScan never returns DTAPI_E_BUF_TOO_SMALL when supplied buffer really is too small</li> <li>• DTA-235: added missing support for DTAPI_STAT_BER_PRERS &amp; DTAPI_STAT_CNR</li> <li>• DTU-236: added missing support for DTAPI_STAT_CNR</li> <li>• GetIoConfig for DTAPI_IOCONFIG_LOOPTHR returned incorrect buddy port value</li> <li>• Probe attach to DTE always failed</li> </ul>

SDK version Jun2012	
Versions	DTAPI: v5.0.7.10 Drivers: Dta v4.0.12.23, DtaNw v3.0.7.11, Dtu v4.0.8.23 DtapiService: v2.0.7.8
Changes	Bug fixes: <ul style="list-style-type: none"> <li>• AttachToPort, with the probe flag set, failed for DTEs</li> <li>• Could not set DTAPI_RXMODE_TIMESTAMP32 for DTE devices</li> <li>• Deadlock in DtFrameBuffer::WriteSdiLines</li> <li>• DtInpChannel::SetLnbVoltage always returned DTAPI_E_INVALID_ARG</li> <li>• DtIsdbtPars::RetrieveParsFromTs always sets m_Guard to 1/8</li> <li>• DVB-S2 capability was missing for DTA-2137</li> <li>• Exception in DTAPI which occurred when an application using the DTAPI was closed</li> <li>• Link errors due to missing symbols in VC9 version of the DTAPI</li> <li>• Memory leak in modulation code</li> <li>• Using SetIoConfig to set a fractional IOSTD failed for the input of a DTA-2152</li> <li>• Updated FIFO load algorithm for a DTA-2152 in 'DtOutpChannel-mode'</li> </ul>

SDK version May2012	
Versions	DTAPI: v5.0.5.8 Drivers: Dta v4.0.11.20, DtaNw v3.0.7.11, Dtu v4.0.7.22 DtapiService: v2.0.6.7
Changes	Major new release of the entire SDK. Please refer to <i>DTAPI 5.0 Release Notes</i> in the SDK documentation for an overview of changes.