



MaxEye Digital Video Signal Generation

DVB-T Signal Generation Toolkit

Version 1.0.0

Remote C APIs User Manual

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1 Introduction

MaxEye Technologies provides generation APIs in C for generating the standard compliant signals for various digital audio and video broadcasting standards. This guide explains Remote C APIs Structure and how to make use of APIs to control the DVB-T Signal Generation toolkit Soft Front Panel remotely, to run programming examples by using NI hardware Vector Signal Transceiver (NI VST).

DVB-T is an abbreviation for "Digital Video Broadcasting Terrestrial"; it is the DVB European-based consortium standard for the broadcast transmission of digital terrestrial television that was first published in 1997 and first broadcast in the UK in 1998. This system transmits compressed digital audio, digital video and other data in an MPEG transport stream, using coded orthogonal frequency division multiplexing (COFDM or OFDM) modulation.

2 Installed File Location

The remote C APIs Documentation file is located in, C:\Program Files(x86)\MaxEye\Digital Video Toolkits\DVB-T Generation\Documentation.

(Note: - For 32-bit Operating System, C Documentation is located in C:\Program Files\MaxEye\Digital Video Toolkits\DVB-T Generation\Documentation)

The remote C Examples are located in, C:\Program Files(x86)\MaxEye\Digital Video Toolkits\DVB-T Generation\Examples\C.

(Note: - For 32-bit Operating System, remote C Examples are located in, C:\Program Files\MaxEye\Digital Video Toolkits\DVB-T Generation\Examples\C.)

The DVB-T Signal Generation Soft Front Panel (SFP) is located in, C:\Program Files(x86)\MaxEye\Digital Video Toolkits\DVB-T Generation\Application.

(Note: - For 32-bit Operating System, Soft Front Panel (SFP) is located in C:\Program Files\MaxEye\Digital Video Toolkits\DVB-T Generation\Application.)

You can also find a shortcut to the above location from the windows start menu.

Start->All Programs->MaxEye->Digital Video Toolkits->DVB-T Generation

Note: - For Windows 10, Start-> MaxEye.

3 Remote C APIs

The Remote C APIs allow user to configure and control the DVB-T Signal Generation Soft Front Panel (SFP) remotely through TCP network connection. The SFP running in the signal generation hardware acts as a TCP Client and the test program running in the remote system built using the remote C APIs acts as a TCP Server. MaxEye DVB-T Signal Generation Toolkit provides set of C

APIs to establish connection, configure parameters, initiating and stopping the signal generation and to read the output parameters. The DVB-T Signal Generation SFP operates in two modes, remote and local. To control the SFP from remote system the SFP should be in remote mode.

3.1 MaxEye DVBT SG Remote TCP Open Connection

NAME	MaxEye_DVBT_SG_Remote_TCP_Open_Connection
DESCRIPTION	Opens the TCP network connection between DVB-T SFP Client and Server application.
FUNCTION PROTOTYPE	<pre>void __cdecl MaxEye_DVBT_SG_Remote_TCP_Open_Connection (char IPAddress[], uint16_t PortNumber, int32_t TimeoutMs, int32_t ErrorCodeIn, LVRefNum *ConnectionIDOut, int32_t *ErrorCodeOut,)</pre>

INPUT PARAMETERS

- PortNumber – Specifies the port number to establish network connection from server to client system. The default value is 7070.
- IPAddress – Specifies the IP Address or network name of the remote system.
- TimeoutMs – Specifies TCP Network connection timeout, in milliseconds, that the API waits to complete and return an error. The default value is 20s. A value of -1 indicates to wait indefinitely.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h

For more information please contact info@maxeyetech.com

- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.2 MaxEye DVBT SG Remote Set Number of Carriers

NAME MaxEye_DVBT_SG_Remote_Set_Number_of_Carriers

DESCRIPTION Configures the number of carriers to the DVB-T Client SFP Application through TCP Network Connection. The DVB-T Signal Generation Toolkit supports generation of multiple DVB-T carriers. The maximum number of carriers supported is 3.

FUNCTION PROTOTYPE `void __cdecl MaxEye_DVBT_SG_Remote_Set_Number_of_Carriers`

```
(  
    LVRefNum      *ConnectionIDIn,  
    int32_t       NumberOfCarriers,  
    int32_t       ErrorCodeIn,  
    LVRefNum      *ConnectionIDOut  
    int32_t       *ErrorCodeOut  
)
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- NumberOfCarriers – Specifies the number of carriers needs to be generated. The default value is 1.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C APIs. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

For more information please contact info@maxeyetech.com

3.3 MaxEye DVBT SG Remote Set Number of Super Frames

NAME MaxEye_DVBT_SG_Remote_Set_Number_of_SuperFrames

DESCRIPTION Configures the total number of Frames to the DVB-T Remote SFP Application through TCP Network Connection. The generator uses the same frame configuration for all the frames and the payload is continuous across frames.

FUNCTION PROTOTYPE `void __cdecl MaxEye_DVBT_SG_Remote_Set_Number_of_SuperFrames`

```
(  
    int32_t      ErrorCodeIn,  
    uint32_t     NumberOfSuperFrames,  
    LVRefNum     *ConnectionIDIn,  
    int32_t      *ErrorCodeOut,  
    LVRefNum     *ConnectionIDOut  
)
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- NumberOfSuperFrames – Specifies the required number of Frames. This parameter defines the length of the waveform to be generated. To generate longer duration of the waveform, increase the Number of Frames. The default value is 1.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

For more information please contact info@maxeyetech.com

3.4 MaxEye DVBT SG Remote Set Generation Mode

NAME MaxEye_DVBT_SG_Remote_Set_Generation_Mode

DESCRIPTION Configures the Generation Mode to the DVB-T Remote SFP Application through TCP Network Connection.

FUNCTION PROTOTYPE `void __cdecl MaxEye_DVBT_SG_Remote_Set_Generation_Mode`

```
(  
    LVRefNum      *ConnectionIDIn,  
    uint16_t      GenerationMode,  
    int32_t       ErrorCodeIn,  
    LVRefNum      *ConnectionIDOut,  
    int32_t       *ErrorCodeOut,  
)
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- GenerationMode – Specifies the generation mode of the MaxEye DVB-T Signal Generator. The default value is 1. Given below are the possible values.
 - 0 – Generate and Play Waveform
 - 1 – Generate and Save Waveform
 - 2 – Play Waveform from File
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

For more information please contact info@maxeyetech.com

3.5 MaxEye DVBT SG Remote Set Hardware Settings

NAME	MaxEye_DVBT_SG_Remote_Set_Hardware_Settings
DESCRIPTION	Configures the VST hardware settings to the DVB-T Remote SFP Application through TCP Network Connection
FUNCTION PROTOTYPE	<pre>void __cdecl MaxEye_DVBT_SG_Remote_Set_Hardware_Settings (LVRefNum *ConnectionIDIn, DVBT_Hardware_Settings *HardwareSettings, int32_t ErrorCodeIn, int32_t *ErrorCodeOut, LVRefNum *ConnectionIDOut)</pre>

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- HardwareSettings – Specifies the Hardware Settings parameters

```
typedef struct
{
    LStrHandle    RFSGResource;
    double        PowerLevelDBm;
    double        ArbPreFilterGainDB;
    double        ExternalAttenuationDB;
    LStrHandle    RefClockSource;
    double        FrequencyHz;
    LStrHandle    ClockOutputTerminal;
} DVBT_Hardware_Settings
```

- RFSGResource – Specifies the Resource Name. Select the name used in NI Measurement and Automation Explorer (NI MAX) for the AST-1000 and NI PXIe- 5840 device.
- PowerLevelDBm – Specifies the Average Power level of the signal in dBm. The default value is -10.00dBm
- ExternalAttenuationDB – Specifies the external amplification or attenuation, if any, between the NI RF signal generator and the device under test. Positive values for this property represent amplification, and negative values for this property represent attenuation. The default value is 0.
- ArbPreFilterGainDB – Specifies the AWG Pre-filter Gain. The pre-filter gain is applied to the waveform data before any other signal processing. Reduce this value to prevent overflow in the AWG interpolation filters. Other gains on the NI-RFSG device are automatically adjusted to compensate for non-unity AWG pre-filter gain. The default value is -1 dB
- RefClockSource – Specifies the source of the Reference Clock signal. The default value is 0. Given below are the possible values

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- 0 – OnboardClock
- 1 – RefIn
- 2 – PXI_CLK
- 3 – ClkIn
- FrequencyHz – Specifies the Reference Clock rate, in Hertz (Hz). The default value is 10MHz.
- ClockOutputTerminal – Specifies the terminal where the signal will be exported. The default value is 0. Given below are the possible values
 - 0 – Do not export signal
 - 1 – RefOut
 - 2 – RefOut2
 - 3 – ClkOut
 - 4 – PFI0
 - 5 – PFI1
 - 6 – PFI4
 - 7 – PFI5
 - 8 – PXI_Trig0
 - 9 – PXI_Trig1
 - 10 – PXI_Trig2

For more information about this, please refer NI RFSG Signal Generators help file.

- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib, labview.lib
- DLL – DVB-T Generation.dll

For more information please contact info@maxeyetech.com

3.6 MaxEye DVBT SG Remote Set Output Waveform Settings

NAME MaxEye_DVBT_SG_Remote_Set_Output_Waveform_Settings

DESCRIPTION Configures the DVBT Output Waveform Settings to the DVBT Remote SFP Application through TCP Network Connection

FUNCTION PROTOTYPE

```
void __cdecl MaxEye_DVBT_SG_Remote_Set_Output_Waveform_Settings
(
    LVRefNum          *ConnectionIDIn,
    DVBT_Output_Waveform_Settings *OutputWaveformSettings,
    int32_t           ErrorCodeIn,
    LVRefNum          *ConnectionIDOut,
    int32_t           *ErrorCodeOut
)
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- OutputWaveformSettings – Specifies the Output Waveform Settings parameters

```
typedef struct
{
    double          HeadroomDB;
    uint16_t        OversamplingEnabled;
    double          OutputSamplingRate;
    uint16_t        SampleWidth;
    double          MaximumRealTimeBandwidthHz;
} DVBT_Output_Waveform_Settings
```

- HeadroomDB – Specifies the Headroom value. The generator uses this value for scaling the waveform. If PAPR of the signal is higher than the Headroom value then the generator clips the signal. To avoid clipping, the Headroom value should be higher than the PAPR of the signal. The default value is 14 dB.
- OverSamplingEnabled – Specifies whether the Oversampling Property is enabled or not. If this property is set to True then the generator resamples the generated signal based on the value configured by the user for the Output Sampling Rate property. The default value is 0 (False). Given below are the possible values
 - 0 – False
 - 1 – True
- OutputSamplingRate – Specifies the Output Sampling Rate. The generator resamples the generated signal to a sampling rate equal to the Output Sampling Rate only if the Over Sampling Enabled property is set to True.

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- SampleWidth – Specifies the sample width to be used to generate waveform file. The default value is 1(16 bit). MaxEye recommend using 16-bits sample width for better signal quality of the generated waveform. Given below are the possible values
 - 0 – 8 bit
 - 1 – 16 bit
- MaximumRealTimeBandwidthHz – The available bandwidth to combine the multi carrier waveform based on the selected hardware.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.7 MaxEye DVBT SG Remote Set Carrier Configuration

NAME	MaxEye_DVBT_SG_Remote_Set_Carrier_Configuration
DESCRIPTION	Configures the Carrier Frequency and Signal Bandwidth for each carrier based on carrier index value to the DVBT Remote SFP Application through TCP Network Connection
FUNCTION PROTOTYPE	<pre> void __cdecl MaxEye_DVBT_SG_Remote_Set_Carrier_Configuration (LVRefNum *ConnectionIDIn int32_t CarrierIndex, double CarrierFrequencyHz, double SignalBandwidthHz, int32_t ErrorCodeIn, LVRefNum *ConnectionIDOut, int32_t *ErrorCodeOut) </pre>

For more information please contact info@maxeyetech.com

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- **CarrierIndex** – Specifies the index value of the selected carrier. The default value of the Carrier Index is 0 which corresponds to the first carrier. For generating multi carrier signal, configure the parameters for each carrier index.
- **CarrierFrequencyHz** – Specifies the Carrier Frequency for the selected carrier in Hz.
- **SignalBandwidth** – Specifies signal bandwidth of the selected carrier, in Hz. Configure the Bandwidth of the signal for the selected carrier. The generator internally uses the Carrier Frequency and Bandwidth property values internally to compute the overall bandwidth and sampling rate of the signal when more than one carrier is used.
- **ErrorCodeIn** – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- **ConnectionIDOut** – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- **Header** – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- **Library** – DVB-T Generation.lib
- **DLL** – DVB-T Generation.dll

3.8 MaxEye DVBT SG Remote Set DVBT Configuration

NAME MaxEye_DVBT_SG_Remote_Set_DVBT_Configuration

DESCRIPTION Configures the DVB-T Waveform Settings for each carrier based on carrier index to the DVBT Remote SFP Application through TCP Network Connection

FUNCTION PROTOTYPE

```
void __cdecl MaxEye_DVBT_SG_Remote_Set_DVBT_Configuration  
(  
    LVRefNum          *ConnectionIDIn,  
    int32_t           CarrierIndex,  
    DVBT_Configuration *DVBT_Configuration,
```

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```

    int32_t
    LVRefNum
    int32_t
)
    ErrorCodeIn,
    *ConnectionIDOut,
    *ErrorCodeOut

```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- CarrierIndex – The default value of the Carrier Index is 0 which corresponds to the first carrier. For generating multi carrier signal, configure the parameters for each carrier index.
- DVBT_Configuration – Allows user to configure following parameters.

```

typedef struct
{
    uint16_t Mode;
    uint16_t HPCodeRate;
    uint16_t GuardInterval;
    Cell_Details CellDetails;
    uint8_t Modulation;
    uint16_t Alpha;
    uint16_t TransmissionFormat;
    uint16_t LPCodeRate;
} DVBT_Configuration;

```

- Mode – Specifies the Mode for each carrier. The mode selection determines the number of subcarriers used for data, pilot and other control information. Given below are the possible values
 - 0 – 2K
 - 1 – 8K
 - 2 – 4K
- HPCodeRate – Specifies the HP code rate for each carrier. The default value is 5/6. Supporting coding rates are 1/2, 2/3, 3/4, 5/6 and 7/8.
 - 0 – 1/2
 - 1 – 2/3
 - 2 – 3/4
 - 3 – 5/6
 - 4 – 7/8
- GuardInterval – Specifies the Guard Interval for each carrier. The Guard Interval is used to specify the length of cyclic prefix as a fraction of the total FFT size. The FFT size in 2K, 4K and 8K are 2048, 4096 and 8192 respectively. The default value is 1/8. Given below are the possible values
 - 0 – 1/4

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- 1 – 1/8
- 2 – 1/16
- 3 – 1/32
- CellDetails – Allows user to configure following parameters.

```
typedef struct
{
    uint16_t CellID;
    LVBoolean CellIdentification;
} Cell_Details;
```

- CellID– Specifies the Cell Id for each carrier. Configure this if the cell identification is enabled.
- CellIdentification – Specifies the cell identification for each carrier. . The default value is False.
 - 0 – False
 - 1 – True
- Modulation – Specifies the Modulation Scheme for each carrier. The default value is QPSK. The possible values are given below.
 - 2 – QPSK
 - 4 – 16QAM
 - 6 – 64QAM
- Alpha – Specifies the Alpha value for each carrier. The default value is 1. The possible values are given below.
 - 1 – 1
 - 2 – 2
 - 4 – 4
- Transmission Format – Specifies the Transmission format for each carrier. The default value is Non- hierarchical . The possible values are given below.
 - 0 – Non- hierarchical
 - 1 – hierarchical
- LP Code Rate - Specifies the LP code rate for each carrier. The default value is 5/6.Supporting coding rates are 1/2, 2/3, 3/4, 5/6 and 7/8.
 - 0 – 1/2
 - 1 – 2/3
 - 2 – 3/4
 - 3 – 5/6
 - 4 – 7/8
- SyncInsertionEnabled – If the Sync Insertion Enabled property is set to True, the toolkit inserts MPEG2 TS packet sync byte (0x47) after every 187 bytes. The length of the TS packet is 188 bytes and the first byte is a sync byte (0x47).

For more information please contact info@maxeyetech.com

- MPEG2TSNumberOfTSFiles – Configure the required number of TS Files for the selected carrier.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.9 MaxEye DVBT SG Remote Set HP Payload Settings

NAME MaxEye_DVBT_SG_Remote_Set_HP_Payload_Settings

DESCRIPTION Configures the DVBT HP Payload settings for each carrier based on the carrier index value to the DVBT Remote SFP Application through TCP Network Connection.

FUNCTION PROTOTYPE

```
void __cdecl MaxEye_DVBT_SG_Remote_Set_HP_Payload_Settings
(
    LVRefNum *ConnectionIDIn,
    int32_t CarrierIndex,
    HP_Payload *HP_Payload_Settings,
    int32_t ErrorCodeIn,
    LVRefNum *ConnectionIDOut,
    int32_t *ErrorCodeOut
);
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- CarrierIndex – The default value of the Carrier Index is 0 which corresponds to the first carrier. For generating multi carrier signal, configure the parameters for each carrier index.
- HP_Payload Settings - Allows user to configure following parameters.

For more information please contact info@maxeyetech.com

```
typedef struct
{
    uint16_t PayloadMode;
    int32_t MPEG2TSNumberOfTSFiles;
    uint16_t SyncInsertionEnabled;
    uint16_t PayloadTestPattern;
    LStrHandle PayloadUserDefinedBits;
    uint32_t PayloadPNOrder;
    uint32_t PayloadPNSeed;
    LStrHandle PayloadFilePath;
} HP_Payload;
```

- PayloadMode – Choose the desired payload source. The default value is 0. Given below are the possible values
 - 0 – PN Sequence
 - 1 – User Defined Bits
 - 2 – Test Pattern
 - 3– Test File
 - 4– MPEG2TS File(s)
- PayloadPNSeed – Specifies the initial state of the PN generator shift register. Configure this field when the Payload mode is PN Sequence.
- PayloadPNOrder – Specifies the order of the PN bit sequence to be generated. The valid values are 5 to 31, inclusive. Configure this field when the Payload mode is PN sequence.
- PayloadTestPattern – Select the required Test Pattern. Configure this field when the Payload mode is Test Pattern.
- PayloadFilePath – Configure the Payload File Path properties and the toolkit ignores other properties available in the Payload settings/ Digital Video Payload Control. This mode is used for generating signal with the data from the file. This Control is visible only if the Payload Mode selected as a Test File format.
- PayloadTestPattern – Specifies the test bit pattern. This mode is used for generating signal with known test patterns.
- SyncInsertionEnabled – If the Sync Insertion Enabled property is set to True, the toolkit inserts MPEG2 TS packet sync byte (0x47) after every 187 bytes. The length of the TS packet is 188 bytes and the first byte is a sync byte (0x47).
- MPEG2TSNumberOfTSFiles – Configure the required number of TS Files for the selected carrier.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

For more information please contact info@maxeyetech.com

- **ConnectionIDOut** – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.10 MaxEye DVBT SG Remote Set HP TS File Path

NAME MaxEye_DVBT_SG_Remote_Set_HP_TSFilePath

DESCRIPTION Configures the DVBT HP MPEG2TS file path for each carrier based on the carrier index value to the DVBT Remote SFP Application through TCP Network Connection

FUNCTION PROTOTYPE

```
void __cdecl MaxEye_DVBT_SG_Remote_Set_HP_TSFilePath
(
    LVRefNum      *ConnectionIDIn,
    int32_t       CarrierIndex,
    int32_t       TSFilePathIndex,
    char          MPEG2TSFilePath[],
    int32_t       ErrorCodeIn,
    LVRefNum      *ConnectionIDOut,
    int32_t       *ErrorCodeOut
)
```

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- **CarrierIndex** – The default value of the Carrier Index is 0 which corresponds to the first carrier. For generating multi carrier signal, configure the parameters for each carrier index.
- **TSFilePathIndex** – For generating multiple channels in one carrier, configure the MPEG2TS file path based on the TS file path index value. The default value of the TSFilePathIndex is 0, corresponds to the first MPEG2TS file path.
- **MPEG2TSFilePath** – Select the MPEG2 TS File based on the number of TS files configured for the selected carrier.

For more information please contact info@maxeyetech.com

- **ErrorCodeIn** – Specifies the error code. The **ErrorCodeIn** can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- **ConnectionIDOut** – Returns the TCP connection reference. **Connection ID Out** is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.11 MaxEye DVBT SG Remote Set LP Payload Settings

NAME MaxEye_DVBT_SG_Remote_Set_LP_Payload_Settings

DESCRIPTION Configures the DVBT HP Payload settings for each carrier based on the carrier index value to the DVBT Remote SFP Application through TCP Network Connection.

FUNCTION PROTOTYPE

```
void __cdecl MaxEye_DVBT_SG_Remote_Set_LP_Payload_Settings
(
    LVRefNum *ConnectionIDIn,
    int32_t CarrierIndex,
    LP_Payload *LP_Payload_Settings,
    int32_t ErrorCodeIn,
    LVRefNum *ConnectionIDOut,
    int32_t *ErrorCodeOut
);
```

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. **Connection ID In** is a network connection reference that uniquely identifies the TCP connection.
- **CarrierIndex** – The default value of the **Carrier Index** is 0 which corresponds to the first carrier. For generating multi carrier signal, configure the parameters for each carrier index.
- **LP_Payload Settings** - Allows user to configure the following parameters.

```
typedef struct
{
    uint16_t PayloadMode;
```

For more information please contact info@maxeyetech.com

```
    int32_t MPEG2TSNumberOfTSFiles;  
    uint16_t SyncInsertionEnabled;  
    uint16_t PayloadTestPattern;  
    LStrHandle PayloadUserDefinedBits;  
    uint32_t PayloadPNOrder;  
    uint32_t PayloadPNSeed;  
    LStrHandle PayloadFilePath;  
} LP_Payload;
```

- PayloadMode – Choose the desired payload source. The default value is 0. Possible values are given below
 - 0 – PN Sequence
 - 1 – User Defined Bits
 - 2 – Test Pattern
 - 3– Test File
 - 4– MPEG2TS File(s)
- PayloadPNSeed – Specifies the initial state of the PN generator shift register. Configure this field when the Payload mode is PN Sequence.
- PayloadPNOrder – Specifies the order of the PN bit sequence to be generated. The valid values are 5 to 31, inclusive. Configure this field when the Payload mode is PN sequence.
- PayloadTestPattern – Select the required Test Pattern. Configure this field when the Payload mode is Test Pattern.
- PayloadFilePath – Configure the Payload File Path properties and the toolkit ignores other properties available in the Payload settings/ Digital Video Payload Control. This mode is used for generating signal with the data from the file. This Control is visible only if the Payload Mode selected as a Test File format.
- PayloadTestPattern – Specifies the test bit pattern. This mode is used for generating signal with known test patterns.
- SyncInsertionEnabled – If the Sync Insertion Enabled property is set to True, the toolkit inserts MPEG2 TS packet sync byte (0x47) after every 187 bytes. The length of the TS packet is 188 bytes and the first byte is a sync byte (0x47).
- MPEG2TSNumberOfTSFiles – Configure the required number of TS Files for the selected carrier.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

For more information please contact info@maxeyetech.com

- **ConnectionIDOut** – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.12 MaxEye DVBT SG Remote Set LP TS File Path

NAME MaxEye_DVBT_SG_Remote_Set_LP_TSFilePath

DESCRIPTION Configures the DVBT LP MPEG2TS file path for each carrier based on the carrier index value to the DVBT Remote SFP Application through TCP Network Connection

FUNCTION PROTOTYPE

```
void __cdecl MaxEye_DVBT_SG_Remote_Set_LP_TSFilePath
(
    LVRefNum      *ConnectionIDIn,
    int32_t       CarrierIndex,
    int32_t       TSFilePathIndex,
    char          MPEG2TSFilePath[],
    int32_t       ErrorCodeIn,
    LVRefNum      *ConnectionIDOut,
    int32_t       *ErrorCodeOut
)
```

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- **CarrierIndex** – The default value of the Carrier Index is 0 which corresponds to the first carrier. For generating multi carrier signal, configure the parameters for each carrier index.
- **TSFilePathIndex** – For generating multiple channels in one carrier, configure the MPEG2TS file path based on the TS file path index value. The default value of the TSFilePathIndex is 0, corresponds to the first MPEG2TS file path.
- **MPEG2TSFilePath** – Select the MPEG2 TS File based on the number of TS files configured for the selected carrier.

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- **ErrorCodeIn** – Specifies the error code. The **ErrorCodeIn** can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- **ConnectionIDOut** – Returns the TCP connection reference. **Connection ID Out** is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.13 MaxEye DVBT SG Remote Set Output Waveform File Path

NAME MaxEye_DVBT_SG_Remote_Set_Output_Waveform_File_Path

DESCRIPTION Configures the path to save the generated waveform to the Client DVB-T SFP Application through TCP Network Connection

FUNCTION PROTOTYPE `void__cdecl MaxEye_DVBT_SG_Remote_Set_Output_Waveform_File_Path`

```
(
    LVRefNum    *ConnectionIDIn,
    char        WavfeormFilePath[],
    int32_t     ErrorCodeIn,
    LVRefNum    *ConnectionIDOut,
    int32_t     *ErrorCodeOut
)
```

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. **Connection ID In** is a network connection reference that uniquely identifies the TCP connection.
- **WavfeormFilePath** – Specifies the file location where the generated IQ baseband waveform is stored.
- **ErrorCodeIn** – Specifies the error code. The **ErrorCodeIn** can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

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OUTPUT PARAMETERS

- **ConnectionIDOut** – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- **Header** – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- **Library** – DVB-T Generation.lib
- **DLL** – DVB-T Generation.dll

3.14 MaxEye DVBT SG Remote Set Play Waveform File Settings

NAME MaxEye_DVBT_SG_Remote_Set_Play_Waveform_File_Settings

DESCRIPTION Configures the DVBT Play Waveform from File Settings to the Client DVBT SFP Application through TCP Network Connection

FUNCTION PROTOTYPE

```

void _cdecl
MaxEye_DVBT_SG_Remote_Set_Play_Waveform_File_Settings
(
    LVRefNum          *ConnectionIDIn,
    DVBT_Play_Waveform_Settings
    int32_t           *PlayWaveformSettings,
    LVRefNum          ErrorCodeIn,
    int32_t           *ConnectionIDOut,
    int32_t           *ErrorCodeOut
)
  
```

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- **PlayWaveformSettings** – Allows user to configure the following parameters

```

typedef struct
{
    double           CenterFrequencyHz;
    int32_t          WriteBlockSizeSamples;
    uint16_t         SampleWidth;
} DVBT_Play_Waveform_Settings;
  
```

- **CenterFrequency** – Specifies the center frequency of the DVB-T signal in Hz.
- **WriteBlockSizeSamples** – Specifies the size of the block in samples. The waveform is written in the hardware as blocks.

For more information please contact info@maxeyetech.com

- SampleWidth – Specifies the sample width value. Use the same sample width value used for saving the waveform in the file.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.15 MaxEye DVBT SG Remote Set Play Waveform File Path

NAME MaxEye_DVBT_SG_Remote_Set_Play_Waveform_File_Path

DESCRIPTION Configures the play waveform file path to the DVB-T SFP Application through TCP Network Connection.

FUNCTION PROTOTYPE `void __cdecl MaxEye_DVBT_SG_Remote_Set_Play_Waveform_File_Path`

```
(  
    LVRefNum    *ConnectionIDIn,  
    char        WavfeormFilePath[],  
    int32_t     ErrorCodeIn,  
    LVRefNum    *ConnectionIDOut,  
    int32_t     *ErrorCodeOut  
)
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- WaveformFilePath – Specifies the waveform file path to play the waveform
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

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OUTPUT PARAMETERS

- **ConnectionIDOut** – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- **Header** – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- **Library** – DVB-T Generation.lib
- **DLL** – DVB-T Generation.dll

3.16 MaxEye DVBT SG Remote Set Impairments

NAME	MaxEye_DVBT_SG_Remote_Set_Impairments
DESCRIPTION	Configures the Impairment properties for each carrier to the Client DVBT SFP Application through TCP Network Connection
FUNCTION PROTOTYPE	<pre>void __cdecl MaxEye_DVBT_SG_Remote_Set_Impairments (LVRefNum *ConnectionIDIn, int32_t CarrierIndex DVBT_Impairment *Impairments, int32_t ErrorCodeIn, LVRefNum *ConnectionIDOut, int32_t *ErrorCodeOut)</pre>

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- **CarrierIndex** – Specifies the index value of the selected carrier. The default value of the Carrier Index is 0 which corresponds to the first carrier. For generating multi carrier signal, configure the parameters for each carrier index.
- **Impairments** – Specifies the Impairment Configuration parameters

```
typedef struct
{
    uint16_t      ImpairmentsEnabled;
    uint16_t      AWGEnabled;
    double        CarrierToNoiseRatioDB;
    double        FrequencyOffsetHz;
    double        ClockOffsetPPM;
```

For more information please contact info@maxeyetech.com


```
    DVBT_IQ_Impairments IQImpairments;  
}
```

- **ImpairmentsEnabled** – Specifies whether the impairment addition is enabled or not. If this property is set to True then the toolkit adds the impairments to the generated signal as per the user configuration for the supported impairments. The default value is 0 (False). Given below are the possible values
 - 0 – False
 - 1 – True
- **AWGNEnabled** – Specifies if the AWGN noise addition is enabled or not. If this property is set to True then the toolkit adds Additive White Gaussian Noise (AWGN) to the created waveform based on the value configured in the Carrier to Noise Ratio property. The default value is 0 (False). Given below are the possible values
 - 0 – False
 - 1 – True
- **CarrierToNoiseRatio** – Specifies the Carrier to Noise ratio of the generated signal. The default value is 0 dB.
- **FrequencyOffsetHz** – Specifies the frequency offset in Hz. The toolkit applies frequency offset to the created waveform based on the value configured in this property. The applied frequency offset is relative to the signal generator's carrier frequency. The default value is 0.
- **ClockOffsetPPM** – Specifies the clock offset in parts per million (ppm). The toolkit applies the clock offset to the generated waveform based on this value. The applied clock offset is relative to the clock frequency of the signal generator. The default value is 0.
- **IQImpairments** – Specifies IQ Impairment Configuration parameters

```
typedef struct  
{  
    double IDCOffset;  
    double QDCOffset;  
    double IQGainImbalanceDB;  
    double QuadratureSkewDeg;  
} DVBT_IQ_Impairments
```

- **IDCOffset** – Specifies the In-phase DC offset value. The toolkit adds the DC offset to the in-phase signal component (I) of the complex waveform as a percentage of the root mean square magnitude of the unaltered I signal. The default value is 0.
- **QDCOffset** – Specifies the Quadrature DC offset value. The toolkit adds the DC offset to the quadrature-phase signal component (Q) of the complex waveform as a percentage of the root mean square magnitude of the unaltered Q signal. The default value is 0.
- **IQGainImbalanceDB** – Specifies the ratio, in dB, of the mean amplitude of the in-phase (I) signal to the mean amplitude of the quadrature-phase (Q) signal. The default value is 0.

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- QuadratureSkewDeg – Specifies the deviation in angle from 90 degrees between the in-phase (I) and quadrature-phase (Q) signals. The default value for the Quadrature Skew is 0.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.17 MaxEye DVBT SG Remote Command

NAME MaxEye_DVBT_SG_Remote_Command

DESCRIPTION Initiates or stops the signal generation

FUNCTION PROTOTYPE `void __cdecl MaxEye_DVBT_SG_Remote_Generation_Control`

```
(
    LVRefNum      *ConnectionIDIn,
    DVBT_Command  Command,
    int32_t       errorCodeIn,
    LVRefNum      *ConnectionIDOut,
    int32_t       *errorCode
)
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- Command – Specifies the command to Start Generation, Stop Generation, Save Configuration and Load Configuration. The default value is 0.
 - 0 – Start Generation
 - 1 – Stop Generation
 - 2 – Save Configuration

For more information please contact info@maxeyetech.com

- 3 – Load Configuration
 - Start Generation: This command starts the generation in SFP.
 - Stop Generation: This command stops the generation in SFP.
 - Save Configuration: This command save the configurations into a file.
 - Load Configuration: This command load the configurations from the selected file.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.18 MaxEye DVBT SG Remote Save Configuration

NAME	MaxEye_DVBT_SG_Remote_Save_Configuration
DESCRIPTION	Configures the file path to save the configurations in file.
FUNCTION PROTOTYPE	<pre> void __cdecl MaxEye_DVBT_SG_Remote_Save_Configuration (LVRefNum *ConnectionIDIn, char SaveConfigurationFilePath[], int32_t ErrorCodeIn, LVRefNum *ConnectionIDOut, int32_t *ErrorCodeOut) </pre>

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- SaveConfigurationFilePath[] – Specifies the file path to save the configurations in file.

For more information please contact info@maxeyetech.com

- **ErrorCodeIn** – Specifies the error code. The **ErrorCodeIn** can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- **ConnectionIDOut** – Returns the TCP connection reference. **Connection ID Out** is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.19 MaxEye DVBT SG Remote Load Configuration

NAME	MaxEye_DVBT_SG_Remote_Load_Configuration
DESCRIPTION	Configures the file path to load the saved configurations from file.
FUNCTION PROTOTYPE	<pre> void __cdecl MaxEye_DVBT_SG_Remote_Load_Configuration (LVRefNum *ConnectionIDIn, char LoadConfigurationFilePath[], int32_t ErrorCodeIn, LVRefNum *ConnectionIDOut, int32_t *ErrorCodeOut) </pre>

INPUT PARAMETERS

- **ConnectionIDIn** – Specifies the TCP connection reference. **Connection ID In** is a network connection reference that uniquely identifies the TCP connection.
- **LoadConfigurationFilePath[]** – Specifies the file path to load the saved configurations from file.
- **ErrorCodeIn** – Specifies the error code. The **ErrorCodeIn** can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

For more information please contact info@maxeyetech.com

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.20 MaxEye DVBT SG Remote TCP Get Error Status

NAME MaxEye_DVBT_SG_Remote_TCP_Get_Error_Status

DESCRIPTION Receives Error Message from the Remote SFP Application through TCP Network Connection

FUNCTION PROTOTYPE

```
void __cdecl MaxEye_DVBT_SG_Remote_TCP_Get_Error_Status
(
    LVRefNum      *ConnectionIDIn,
    int32_t       ErrorCodeIn,
    LVRefNum      *ConnectionIDOut,
    DVBT_Get_Generation_Parameters *GetGenerationParameters,
    int32_t       LengthofErrorStatus,
    char          ErrorStatus[],
    int32_t       *ErrorCodeOut
)
```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.
- ErrorCodeIn – Specifies the error code. The ErrorCodeIn can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- ConnectionIDOut – Returns the TCP connection reference. Connection ID Out is a network connection reference that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent API calls.

```
typedef struct {
    int32_t GenerationMode;
```

For more information please contact info@maxeyetech.com

```

double GeneratingFrames;
double MaximumNumberOfFrames;
LVBoolean GenerationStatus;
int32_t ErrorOrWarning;
LVBoolean GenerationCompleted;
} DVBT_Get_Generation_Parameters;

```

- GenerationMode – Returns the Generation Mode.
- GenerationFrames – Returns the current frame number being generated, to the user.
- MaximumNumberOfFrames – Returns the Maximum Number of Frames configured.
- GeneratingStatus – Returns the current status of the generation.
- ErrorOrWarning – Returns the Current Error Status is Warning or Error.
- GenerationCompleted – Returns the status of Current frame is equal to the Maximum Number of Frames Configured.
- LengthofErrorStatus – Specifies the size of the ErrorStatus.
- ErrorStatus – Returns the description of the error occurred.
- ErrorCodeOut – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- Header – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- Library – DVB-T Generation.lib
- DLL – DVB-T Generation.dll

3.21 MaxEye DVBT SG Remote TCP Close Connection

NAME MaxEye_DVBT_SG_Remote_TCP_Close_Connection

DESCRIPTION Closes TCP network connection between DVBT SFP Client and Server applications

FUNCTION PROTOTYPE

```

void __cdecl MaxEye_DVBT_SG_Remote_TCP_Close_Connection
(
    LVRefNum      *ConnectionIDIn,
    int32_t       ErrorCodeIn,
    int32_t       *ErrorCodeOut
)

```

INPUT PARAMETERS

- ConnectionIDIn – Specifies the TCP connection reference. Connection ID In is a network connection reference that uniquely identifies the TCP connection.

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- **ErrorCodeIn** – Specifies the error code. The **ErrorCodeIn** can accept error information from previously called C API. Use this information to decide if any functionality should be bypassed in the event of errors from other C APIs.

OUTPUT PARAMETERS

- **ErrorCodeOut** – Returns the error code, passes error or warning information out of an API to be used by other C APIs.

DEPENDENCIES

- **Header** – DVB-T Generation.h, extcode.h, fundtype.h, platdefines.h, lv_epilog.h
- **Library** – DVB-T Generation.lib
- **DLL** – DVB-T Generation.dll