

DekTec

DTU-215 / DTU-245 и DTU-350 / DTU-351

USB-2 / USB-3 Adapters



DTU-215

FantASI USB-2 VHF/UHF Modulator



Features

- ✓ USB-2 based multi-standard modulator with support for most QAM-, OFDM- and VSB-based modulation standards.
- ✓ Powered from the USB-2 bus, so no external power adapter is required.
- ✓ Supports all constellations and modulation modes for each supported standard
- ✓ Digital upconversion for excellent signal quality without need for calibration
- ✓ Payout of I/Q sample files
- ✓ Programmable attenuator
- ✓ Free Windows and Linux SDK is fully compatible with other DekTec digital-video output adapters

Applications

- ✓ Multi-standard test generator
- ✓ Demonstrations
- ✓ Research and development



USB Adapters

No power adapter required
Fully agile from 36 to 1002MHz
Channel simulation option

Key Attributes

Parameter	Value
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RF connector	75-Ω F male
Frequency range	36 .. 1002MHz ±3ppm
Bandwidth (max)	8.0MHz
I/Q sample rate	4.7 .. 9.375MHz
Level	Range
	-46 .. -15dBm (QAM)
	-49 .. -18dBm (OFDM)
Step size	0.5dB
Accuracy	±2dB
MER	>40dB
Adjacent channel	-54dB (QAM)
	-52dB (OFDM)
Phase noise	<-95dBc @ 10kHz
Spectral purity	>50dB (47 .. 1000MHz)
USB port	USB-2
Power (through USB-2)	5V, 500mA
Dimensions (LxWxH)	123 x 62 x 22mm

Modulation Standards

Modulation	Standard
ATSC VSB	ATSC A/53E
CMMB*	GY/T 220.1/2-2006
DAB+*	EN 300 401
DTMB*	GB 20600-2006
DVB-C	EN 300 429
DVB-C2*	EN 302 769
DVB-T / DVB-H	EN 300 744
DVB-T2*	EN 302 755
I/Q*	Arbitrary I/Q samples
ISDB-T*	ARIB STD-B31
QAM	J.83 Annex A/B/C

* Option

Ordering Information

Type	Description
DTU-215-SP	USB-2 VHF/UHF modulator with StreamXpress®
DTU-215-GOLD	DTU-215 with all options

DTU-245

FantASI USB-2 ASI/SDI Input+Output Adapter



Features

- ✓ Convenient, compact USB adapter that can be used to capture and generate MPEG 2 transport streams (ASI) and uncompressed serial digital video (SDI)
- ✓ USB powered - no power supply required
- ✓ Independent operation of input and output:
 - Full-duplex: maximum combined bitrate of 160 MBps
 - Half-duplex: Full DVB-ASI and SDI bitrate range
- ✓ 16-Mbytes local hardware buffer for sustained real-time streaming

Applications

- ✓ General-purpose USB adapter for capturing, generating and processing of ASI and SDI streams
- ✓ On-site recording and analysis
- ✓ Portable demo set

Applications

- ✓ *DtGrabber+* advanced capturing
- ✓ *DtTV* transport-stream television
- ✓ *StreamXpress*® ASI / SDI player
- ✓ Windows/Linux drivers and associated SDK for developing custom applications
- ✓ (DTU-245-SXP) *StreamXpert*® transport-stream analyser software
- ✓ (DTU-245-SY-SDP) *SdEye* SDI waveform monitoring software

USB Adapters



No AC power adapter required
Portable streaming of DVB-ASI and SDI
Essential tool for every digital-TV engineer

Key Attributes

Parameter	Value	
Connector	75-Ω BNC (2x)	
ASI	Physical layer	EN50083-9
	Bitrate range	0 .. 160Mbit/s*
	Packet size	188 or 204
SDI	Physical layer	SMPTE 259M/C
	Bitrate (half-duplex only)	270Mbit/s
	#Bits	8 or 10 bit
USB port	USB-2**	
Power (through USB-2)	5V, 400mA max	
Dimensions in mm (LxWxH)	87 x 104 x 30	

* Maximum total bitrate (Input+Output) in full-duplex mode.
In half-duplex mode the full ASI/SDI range is supported
** USB-1 provides insufficient bandwidth and is not supported

Ordering Information

Type	Description
DTU-245-SDP	USB-2 ASI/SDI input+output adapter with <i>DtGrabber+</i> , <i>DtTV</i> and <i>StreamXpress</i> ®
DTU-245-SXP	DTU-245-SDP with <i>StreamXpert</i> ®
DTU-245-SY-SDP	DTU-245-SDP with <i>SdEye</i>
DTU-245-SY-SXP	DTU-245-SDP with <i>SdEye</i> and <i>StreamXpert</i> ®
DTU-245-DVB+	DTU-245-SDP with <i>DVBAnalyzer</i> advanced transport-stream analyser

DTU-350/DTU-351

HD-SDI Output for USB-3, HD-SDI Input for USB-3



DTU-350 HD-SDI OUT – FEATURES

- ✓ General purpose HD-SDI output for USB-3
- ✓ All 10-bit samples in the full SDI frame can be generated
- ✓ Supported by Matrix API to automatically build frames from HANC, VANC and video
- ✓ All 16 audio channels can be generated

Applications

- ✓ With StreamXpress®: HD-SDI test generator
- ✓ HD-SDI output of software video decoder
- ✓ HD-SDI output of your custom application



USB Adapters

HD-SDI interfaces with full frame access
Hardware scaling to reduce USB bandwidth
Support for SD-SDI

DTU-351 HD-SDI IN – FEATURES

- ✓ General purpose HD-SDI input for USB-3
- ✓ All 10-bit samples from the full SDI frame can be read
- ✓ Supported by Matrix API to automatically separate HANC, VANC and video
- ✓ Scaling by 1/4 or 1/16 in hardware

Applications

- ✓ With SdEye: HD-SDI waveform analysis
- ✓ With DtGrabber+: HD-SDI recording
- ✓ HD-SDI input for software video encoder

Key Attributes

Parameter	Value
Physical layer	SD-SDI:SMPTE 259M HD-SDI:SMPTE 424M
Connector	75-Ω BNC
Return loss	12dB @ 0 .. 1.5GHz
Matrix API features	8/10/16-bit conversion Audio/video/ANC extraction Hardware scaling by 1/4 or 1/16 Multiple unit synchronization
USB port	USB-3
SDK	DTAPI, Matrix API
OS	Win7/Win8, Linux 2.6.31, 3.x

Supported Formats

Formats
525i59.94, 625i50
720p23.98, 720p24, 720p25, 720p29.97, 720p30, 720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080i50, 1080i59.94, 1080i60

Ordering Information

Type	Description
DTU-350	HD-SDI output for USB-3
DTU-351	HD-SDI input for USB-3