

**Ktechtelecom**  
**DCC-4200**

**Multi-Channel HD/SD Encoder**



**Performance**

The DCC-4200 is a Multi-Channel HD/SD Encoder with an 8-VSB Modulator Output conforming to the ATSC A53 Terrestrial Digital Television Broadcast Standard. It takes multiple HD-SDI or SD-SDI signal inputs, and generates static PSIP tables and multiple 8-VSB RF carriers.

**Inputs and Outputs**

This unit supports multiple HD-SDI/SD-SDI inputs, ASI output, GigE output and 8-VSB RF outputs (optional.) An RJ45 is available for NMS control via GUI using web-interface.

**Modular Interface**

There are three slots that accept HD-SDI/SD-SDI inputs. The empty, unused slots can be used for additional future functions and expanded capabilities such as an additional tuner, GigE or ASI interface.

**HD/SD Encoder**

The HD encoder supports 720p@59.94fps MP@HL, 1080i@29.97fps MP@HL and 1080i@25fps MP@HL and the SD encoder supports 480i@29.97fps MP@ML.

**Static PSIP Generation**

Static PSIP tables will be generated (STT, VCT, MGT and four static EIT.)

**Fail-Over and Fail-Back (Optional)**

Upon user's selection of predetermined Fail-Over and Fail-Back trigger scenarios, the unit will automatically change to Fail-Over (primary to secondary mode) or Fail-Back (secondary to primary mode) of the input selection.

**Standby Video Generator (Optional)**

In the event of loss of signal, the DCC-4200 will automatically insert a standby video message that had been previously downloaded into the unit via USB or GUI and is useful to indicate if the input is bad. STB will show the contents of the video message such as a "Stay Tuned" technical message, rather than showing no signal or a black picture.

**Alarms and Notifications sent via Email and IM**

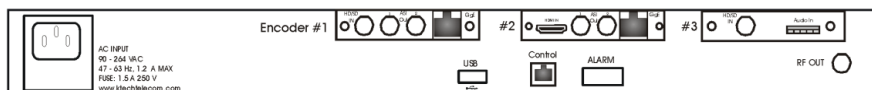
In the event of failure, the unit will send a notification to the user's email and text message the user's cell phone with the same notification.

**User Interface**

All settings and controls can be viewed and set using a web-based GUI or Front Panel Control.

Features
Multiple HDSDI/SD-SDI Inputs
8-VSB RF Output 3 adjacent carriers (Optional)
Web-based GUI NMS and Front Panel Control
Multiple HD/SD MPEG2 Encoders
Static PSIP Generation
Standby Video Generation (Optional)
Fail-Over/Fail-Back (Optional)
QAM Modulation (Optional)

**Multi-Channel HD/SD Encoder**



General Specifications (All specifications are preliminary and subject to change)		
Description	Range	Units
<b>AC Power</b>		
Frequency	47-63	Hz
Voltage	90-264	VAC
Current	1.8	Amp (max)
<b>Operating Conditions</b>		
Temperature	0-50	°C
Altitude	10,000	Ft (max)
Humidity (Non-condensing)	95	%
<b>Weight</b>		
Net/Gross	13/15	lbs.
<b>Dimensions</b>		
Height/ Width/ Depth	1.75/19/20	Inches (1RU)

HD/SD Encoder Specifications		
Parameters	Specification	Comments
Inputs	HD-SDI/SD-SDI	
Number of Inputs	3 Max	
MPEG2 Video Profile	MP@HL, MP@ML	
Video Formats	480i(29.97fps), 720P (59.94fps), 1080i (29.97fps)	
Video Data Rate	1.5 Mbps Min	18 Mbps Max
Encoder Delay	900m Sec Max	
Audio Format	MPEG1	48KHz at 16bits
Audio Input	Analog L & R (Optional)	Terminal Strip

GigE Output		
Format	Ethernet, MPEG-2-over-IP	1000BASE-T
Connector	RJ45	IP/UDP

Control		
NMS	GUI via 10/100baseT	
SNMP	SNR, BER, Loss of Sync Byte, Fail-Over Status, Temperature, Current	No of IP to receive traps is 5 max
Front Panel	VFD	Front Panel Keys

DVB-ASI Serial Interface (Baseband Data Output)		
Parameter	Specification	Comments
Connector	BNC	x2
Source Impedance	75 ohms	
Output Coupling	AC	AC Inductively Coupled
Transport Stream Bit Rate (Input)	2.6 Mbps Min 45 Mbps Max	
Transport Stream Bit-Rate (Output)	19.39265 Mbps	If SMPTE-310M input is selected

RF 8-VSB Modulated Output		
Parameter	Specification	Comments
Output RF Level	110 dBuV max	User Adjustable
Frequency Range	54-1002 MHz	Band Center
Number of Carriers	3 max	3 max carriers placed adjacent to each other
Spurious	Less than -60dB	Relative to 8-VSB RF Channel Power
Frequency Tolerance	+/-0.5ppm	
RF Output Return Loss	Better than 15dB	
Group Delay	+/-50nSec	5.38MHz BW
Frequency Response	+/-0.5dB	5.38MHz BW
Phase Noise	Better than -97dBc	@ 20KHz
Output SNR	32dB min	

Ordering Information	
Part Number	Description
DCC-4200	Multi Channel HD/SD MPEG2 Encoder
Opt- SVG	Standby Video Generator
Opt-8-VSB	8-VSB Modulation
Opt- QAM	QAM Modulation
Opt- HDSDI/SDSDI	HDSDI/SDSDI input - ASI output-GigE output (specify qty) 3 max
Opt- HDMI	HDMI input-ASI Output-GigE output (specify qty) 3 max
Opt- HD/SD-AA	HD/SD Input/Analog Audio Input
Opt- FOFB	(n:1) Fail-Over/Fail-Back