Blonder Tongue

FlexCoder

Flexible Transcoder

The **FlexCoder** combines edge QAM, off-air transcoding, and IP grooming technology into one integrated package. By providing a wide-range of functionality in a compact solution, the FlexCoder brings remarkable cost savings. The unit can convert ASI to IP video streams, as well as Mux and Demux ASI and IP streams.

An RF input option is available for demodulating an 8VSB (digital off-air) signal to clear QAM, ASI, or IP signals.

Features

- De-multiplexes MPTS to SPTS; MPEG-2 or H.264/H.265
- Multiplexes SPTS to MPTS via IP and/or QAM outputs; MPEG-2 or H.264/H.265
- Optional 8VSB/QAM input board to receive one (1) off-air or clear QAM channel
- Can pass-thru or modify PSIP information such as major/minor channels, short names, and corresponding program IDs (PIDs)
- Allows for null packet insertions or deletion supporting Constant Bit Rate (CBR)
- UDP Unicast or Multicast support
- Supports UDP delivery of IP packets
- Separate Web-based management port for local and remote control
- Supports three audio formats: AC3, AAC and MPEG-1 Layer 2, E-AC3

Ordering Information

Model	Stock #	Description
FlexCoder	6582	Flexible Transcoder
	6582-RFI	FlexCoder with RF Input Option
FlexCoder-RP-2	6591	Rack Panel for 2 FlexCoders across 1RU

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Input

IP Mode	
Connectors:	1x RJ-45
Standard:	1000Base-T Ethernet (GigE)
UDP/RTP:	Supported (user-selectable)
Protocols:	IGMPv2/IGMPv3 Supported
Stream Portfolio	
Standard:	ISO/IEC 13818-1
TS Packet Length:	188 bytes
Sync Byte:	0x47
SPTS and MPTS:	Supported
Muxing:	32 SPTS to 4 MPTS
Bit Rate:	Constant
ASI	
Connector:	4x BNC Female
Standard:	DVB-ASI; EN 50083-9
8VSB Mode*	
Connectors:	1x "F" Female
Standard:	ATSC Digital Television A/53E
Tuning Range:	UHF (Ch.14-69), VHF (Ch.2-13)
Data Rate:	19.392 MHz
Bandwidth:	6 MHz
Power Level:	-20 to +20 dBmV
Impedance:	75 Ω
QAM Mode*	
Connectors:	1x "F" Female
Standard:	ITU-T J.83; Annex A and B (64 and 256 QAM)
Tuning Range:	CATV Ch. 2-158 (STD, HRC, IRC)
Data Range:	38.8 Mbps (QAM 256); 26.97 Mbps (QAM 64) – Auto Detect
Bandwidth:	6 MHz
Power Level:	-15 to +20 dBmV (@ QAM 256) -20 to +20 dBmV (@ QAM 64)
Impedance:	75 Ω

*** Optional**

Output

QAM	
No. of Output Modules:	1x Quad-QAM (total of 4 QAM channels)
Connector:	1x "F" Female (for combined output)
Modulation:	QAM 16, 32, 64, 128, and 256
Standards:	ITU-T J.83; Annex A and B
DVB Symbol Rate:	Variable; up to 7 MSymbol/sec (MBaud)
Frequency Range:	54 to 1002 MHz
Tuning:	CATV Channel Selectable (Ch. 2 to 158)
Channels' Bandwidth:	24 MHz (4x Adjacent 6 MHz)
RF Level:	+40 dBmV (±1 dB increment)
RF Level Adjustment Range:	+35 to +42 dBmV (±1 dB increment)
Frequency Tolerance:	± 0.5 kHz @ 77 °F (25 °C)
Frequency Stability:	± 5 kHz over 32 to 122 °F (0 to 50 °C)
Amplitude Flatness:	± 0.25 dB (over 6 MHz channel)
Phase Noise:	-98 dBc (@ 10 kHz)
Spurious:	-60 dBc
Broadband Noise:	-70 dBc (@ +40 dBmV output level, 5.5 MHz bandwidth)
Impedance:	75 Ω
Spectral Inversion:	Auto Recognition
Carrier Suppression:	45 dB
Return Loss:	14 dB typical
Signal-to-Noise Ratio (SNR):	40 dB typical
MER:	39 dB typical
I/Q Phase Error:	Less than 1 degree
I/Q Amplitude Imbalance:	Less than 1%
IP	
Connectors:	1x RJ45
Standard:	1000Base-T Ethernet (GigE)
UDP/RTP:	Supported (user-selectable)
Address Assignment:	IPv4 addresses & port numbers (user-selectable)
ASI	
Connector:	1x BNC Female
Standard:	DVB-ASI; EN 50083-9

General

Dimensions (W x D x H):	8.69 x 12.70 x 1.97 inches (220.7 x 322.6 x 50.0 mm)
Power:	12 VDC External Power Supply
Power Dissipation:	20 W
Weight:	3.0 lbs (1.36 kg)
Operating Temperature:	32 to 122 °F (0 to 50 °C)
Storage Temperature:	-13 to 158 °F (-25 to 70 °C)
Operating Humidity:	0 to 95% RH @ 35 °C max, non-condensing
Storage Humidity:	0 to 95% RH @ 35 °C max, non-condensing

Alarms/Monitoring/Control

Local Monitoring:	1x Power LED 1x Status LED
Local Control:	1x IP Reset button
Remote Monitoring/Control:	GUI-based menu via Web browser (1x RJ45; 10/100Base-T)

Modes of Operation

Mode		Input	Functions and Notes	Output TS Select
1	**PASS-THRU**	(RJ45) GigE Full Duplex[1]; 4xMPTS (16 prog./3 audio each max) (BNC) 4xASI	•May select up to four (4) input sources to present four (4) transport streams (TS) over QAM and/or IP. •Limited PSIP Manipulation, e.g. Re-PID Capability •May direct any one (1) of the TS to the ASI output (5th Output)	[2,3]4xQAM (16 prog. each max) [2,3]4xMPTS (16 prog. each max) 1xASI (214 Mbps)
2	**DEMUX**	(RJ45) GigE Full Duplex[1]; 4xMPTS (16 prog./3 audio each max) (BNC) 4xASI	•Defines 32xSPTS max •Full PSIP Manipulation and Program Filtering Capability	32xSPTS; 40 Mbps max each
3	**MUX**	(RJ45) GigE Full Duplex[1] •32xSPTS (3 audio each max); or •4xMPTS (16 prog./3 audio each max) (BNC) 4xASI	•A total of 32 TS inputs can be multiplexed over a total of four (4) TS in any combination on QAM and IP. •Full PSIP Manipulation and Program Filtering Capability •May direct any of the output TS to the ASI output (5th Output)	[2,3]4xMPTS [2,3]4xQAM 1xASI

[1] Sum of input data and output data must not exceed 1 Gbps.
[2] MPTS and QAM output TS quantity cannot exceed four (4).
[3] Once defined, a TS may be selected for presentation on either QAM or IP, or both.

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