

DTA 325X Series Digital Turn Around Routers

The DTA-325x series is specifically designed for turning MPEG, ATSC, Digicypher, or DVB based digital television services from ASI, SMPTE-310, Satellite, Terrestrial, or Cable QAM distribution to IP distribution. It is ideal for Telco TV and Broadband TV systems utilizing MPEG 2 or MPEG 4 AVC (H.264).



DOLBY DIGITAL a t s c DVB

DTA Digital television service operators wishing to re-distribute MPEG, ATSC, Digicypher, or DVB based services to next generation IPTV based services will find the DTA ideal. Available inputs include ASI, SMPTE-310, Satellite, ATSC Terrestrial/QAM and GIGE with optional ASI and SMPTE-310 outputs. All Adtec DTA's support multicast and unicast configurations including SPTS/UDP or RTP, MPTS/UPD or RTP, MPEG and DVB tables and conditional access capabilities including decryption and encryption. The DTA 325x Series is ideal for next generation television networks focused on IPTV.



applications

- Telco IPTV / Broadband IPTV:** Cost-effective and reliable delivery of video, audio and data services to an unlimited number of consumer set top boxes or PC/MAC clients on an IP network.
- Satellite (DVB-S) Digital TV:** Turnaround of digital satellite programming to IPTV or ASI, without the need for external QPSK receivers. (DTA 3250)
- Terrestrial (ATSC) Digital TV:** Turnaround of digital terrestrial programming to IPTV or ASI, without the need for external ATSC receivers. (DTA-3250, 3254)
- Cable (QAM 64/256) Digital TV:** Turnaround of digital cable programming to IPTV or ASI, without the need for external QAM receivers. (DTA-3250, 3254)
- IP over MPEG 2 Transport:** Delivery of IP data services to set top boxes or computers over MPEG-2 transport using IP encapsulation.

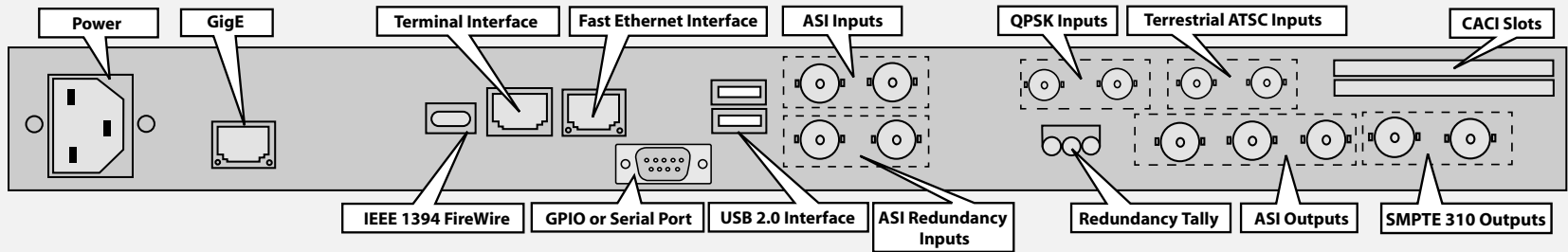
benefits

- Conditional Access:** The DTA-3250 and DTA-3254 provide DVB-CSA and AES conditional access decrypt and encrypt capabilities. DVB-CSA decrypt is facilitated through two rear mounted CACI slots; encryption is available as fixed key BISS or Simulcrypt based interfaces compatible with most major DVB-CSA CAS vendors. AES decryption and encryption include support for Adtec's OST and Verimatrix VCAS for set top and computer-based decryption.
- Integrated DVB-S and ATSC/QAM Tuners:** The DTA-3250 features two integrated QPSK satellite tuners for receiving programming delivered via DVB-S and two integrated ATSC/QAM tuners for receiving terrestrial ATSC or cable QAM signals. The DTA- 3254 features four integrated ATSC/QAM tuners.
- Aggregation of ASI, SMPTE-310 SPTS or MPTS services:** The DTA-3150 and DTA-3154 offer two DVB-ASI and one SMPTE-310 input ports enabling it to aggregate locally encoded SPTS or re-muxed MPTS from another router or receiver.
- IPTV:** Gigabit Ethernet distribution of digital television services includes SPTS over UDP or RTP for Set Top and computer decoding and MPTS over UDP or RTP for bundled distribution.
- ASI:** An optional 3 port mirrored ASI output interface provides integration with traditional distribution methods including Cable, Satellite, and Terrestrial.
- SMPTE-310:** An optional 2 port mirrored SMPTE-310 output interface provides integration with ATSC distribution.

- Flexible Configuration & Control:** Controlling and configuring the DTA-3250 or DTA-3254 is easy. Whether using the integrated front panel keypad and LCD, Terminal or remote Web page interface, they respond rapidly and reliably to the desires of the operator.
- IPTV Electronic Program Guide:** Adtec's edgeGuide Server integrates seamlessly with our DTA routers to deliver an interactive electronic program guide to IP based Set Tops or a PC/MAC edgePlayer and includes support for many IP based Set Tops. Adtec's edgeVOD enterprise VOD server, an optional service installed on the edgeGuide server, is ideal for small stream count implementations like medical, educational or hospitality. Interfaces to external VOD servers facilitate large stream count VOD requirements including direct to home Telco TV.

availability

	outputs			inputs			
	IP	ASI	SMPTE	ASI	DVB-S	ATSC	SMPTE
DTA-3250	✓			2	2	2	1
DTA-3250-ASI	✓	✓		2	2	2	1
DTA-3250-SMPTE	✓		✓	2	2	2	1
DTA-3250-ASI/SMPTE	✓	✓	✓	2	2	2	1
DTA-3254	✓			2	0	4	1
DTA-3254-ASI	✓	✓		2	0	4	1
DTA-3254-SMPTE	✓		✓	2	0	4	1
DTA-3254-ASI/SMPTE	✓	✓	✓	2	0	4	1



Note: DTA 3254 models do not have QPSK Input ports. They are replaced with 2 additional Terrestrial ATSC inputs.

specifications

Front Panel

- 8 Button Tactile Raised keypad: Mode, Select, Enter, Escape, Up, Down, Left, Right
- Blue Translucent LCD
20 character by 2 row
- Front Panel Host LED's
Power, Alarm, Link, Busy, MPE
- Front Panel LEDs
Out (Alarm, ASI, GigE, CA)

DTA-3250 Specific

In (2 - ASI Ports, DVB-S 3 Port & Lock, DVB-S 4 Port & Lock, ATSC 5 Port & Lock, ATSC 6 Port & Lock)

DTA-3254 Specific

In (2 - ASI Ports, ATSC 3 Port & Lock, ATSC 4 Port & Lock, ATSC 5 Port & Lock, ATSC 6 Port & Lock)

ASI Inputs

- ASI x 2 (BNC)
- 188 or 204 Byte mode
- SPTS or MPTS
- 211 Mbps per input
- 256 PIDs per input
- Fill scrubbing on input
- Input Modes
Auto (Remap all services)
Manual (Add/Drop/Remap PID/Services)
Pass (Pass all services as-is)
MHP Injector
SI Injector

SMPTE-310 Input

- SMPTE-310 x 2 (BNC)
- 188 Byte mode
- SPTS or MPTS
- 19.39 Mbs

QPSK Inputs (Satellite)

3250 (2) 3254 (0)

- QPSK
- Antenna Input
L-Band Input 950 – 2150 MHz
- Input Level
-65 dB to -25 dB
- LNB Power
Automatic Polarity Sensing
(Horizontal - 14V-Vertical - 18V)
Automatic Over and Under Current Protection
22 KHz Tone
(High Frequency Block Up-convert)
DiSEqC
- Symbol Rate
2 to 45 MS/s
- Forward Error Correction (Physical)
DVB Viterbi FEC
Automatic Sensing
1/2, 2/3, 3/4, 5/6, 7/8

Reed Solomon (16 bits)

- 188 or 204 Byte mode
- SPTS or MPTS
- 72 Mbps per input
- 256 PIDs per input
- Fill scrubbing on input
- Modes
Same as ASI

Redundancy

- 1+1 IP and ASI
- ASI x 2 (BNC inputs for auto switch)
- No external controller required

ATSC/QAM Inputs (Terrestrial)

3250 (2) 3254 (4)

- 8VSB x 2 (Type F Female)
- Antenna Input
54 MHz to 864 MHz
- Input Level
80 dB to -0 dB 8VSB
15 dBmv to -15 dBmv (64 QAM)
12 dBmv to -15 dBmv (256 QAM)
- Channel Bandwidth
6, 7 or 8 MHz
- Channel Bandwidth
6 MHz
- Channel Assignment
US Standard
- Functional
8 VSB Signaling
- Modulation Modes
8 VSB, 64 and 256 QAM Annex B
- Forward Error Correction
Reed Solomon, Trellis Encoding
- 188 or 204 Byte mode
- SPTS or MPTS
- 19.39 Mbps 8 VSB
- 256 PIDs per input
- Fill scrubbing on input
- Modes
Same as ASI

Outputs

- Gigabit Ethernet
SPTS over UDP or RTP
MPTS over UDP or RTP
50 Mbs
Very low jitter

Output Options

- ASI (model is DTA 3250/4-SMPTE)
Mirrored (BNC x 3)
Byte or Burst Mode
54 Mbs Byte
211 Mbs Burst
Jitter less than 150 (nS)

- SMPTE-310 (model is DTA 3250/4-SMPTE)
Mirrored (BNC x 2)
SMPTE-310 option includes ASI

Table Processing

- No Tables
- MPEG Tables
PAT
CAT (if CA is enabled)
PMT
- DVB Tables (Add/Drop/Remap DVB Services)
NIT
SDT
TDT/TOT
EIT
- ATSC Tables (Add/Drop/Remap ATSC Services)
VCT (Cable or Terrestrial)
MGT
STT
RRT
EIT (1-4)
- DCII Tables (Add/Drop/Remap Digicypher services to DVB or ATSC)

IP Data Encapsulation (ISO 13818-6 MPE)

- EN 301 192 Encapsulation of IP Datagrams over
- Unicast and Multicast Support
- 32 Routes
- 32 PIDs

IP Data de-capsulation (ISO 13818-6 MPE)

- EN 301 192 de-capsulation of IP Datagrams
- 16 PIDs
- 300 Mbs

Conditional Access Encryption

- DVB-Common Scrambling Algorithm (CSA)
- DVB Simulcrypt TS 103 197 v 1.2.1 and SCTE
OpenCAS™ DVS-278 compliant
- FIPS 140-2 hardware based random number generator (RNG)
- Advanced Encryption Standard (AES)
Adtec Open Secure Transport (OST)
IP based encryption for use with Adtec IRDs
IP Set Top and Computer compatibility
- Approved 3rd Party CA Vendors include:
 - CSA:
 - Irdeto
 - Conax
 - EuroCAS
 - KeyFly
 - Xcrypt
- AES:
 - Verimatrix

Host Platform

- PowerPC
- Adtec optimized Linux Kernel
- 10/100 Ethernet RJ-45 (Eth 0)
- 10/100/1000 Ethernet RJ-45 (Eth 1)
- Serial Port (RJ-48)
- USB 2.0 (2)
- IEEE 1394 (Firewire)
- N.C. / N.O. Tally Interface
- XML Configuration
- HTTP, FTP, Telnet, IP Logging, DHCP,
(XCP Adtec encrypted layer 3 protocol)

Power

- 70-240 VAC switching power supply
- 50/60 Hertz
- Rated at 94 Watts return nominal usage 20 watts

Physical

- 19" wide, 1.75" tall, 16" deep, (483 x 44.5 x 406 mm)
- 1 Rack Unit
- Weight 13lbs.

Environmental

- Active cooling (Push pull Fans)
- Operating: 0 to +50 degrees C
- Storage: -30 to +65 degrees C
- Less than 70% RH
- Non-Condensing

what's included

- Digital Turn Around Router
- 1 - 3 pin Alarm Tally Plug
- Rackmount Kit:
4 rack mount screws with washers.
- Terminal Kit:
1 - RS232 Interface
1 - Ethernet Cable (10 foot long)
- Adtec Startup CD
- DTA Operations Manual
- US Power Cord (6 foot long)

Note: Specifications subject to change without written notice

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