DCH-380D Series

TERACUE
A LEYARD Company

8-Channel DVB to IP Gateway for IPTV Headends

PRODUCT DESCRIPTION

The DCH-380D is a high-density, cost-effective DVB to IP gateway for IPTV headends. The gateway is equipped with eight independent tuners, which can be DVB-S/S2, S2X, DVB-T2/T or DVB-C inputs. Next to TS/IP output it supports a wide range of applications by its additional ASI outputs and its integrated re-multiplexer. It has BISS decryption and eight DVB common interface (CI) slots for the most well-known Conditional Access Systems (CAS) in the market to decrypt multiple pay TV services.

The compact 1RU design with redundant power supply makes the DCH-380D to one of the most competitive IPTV headends in the market.



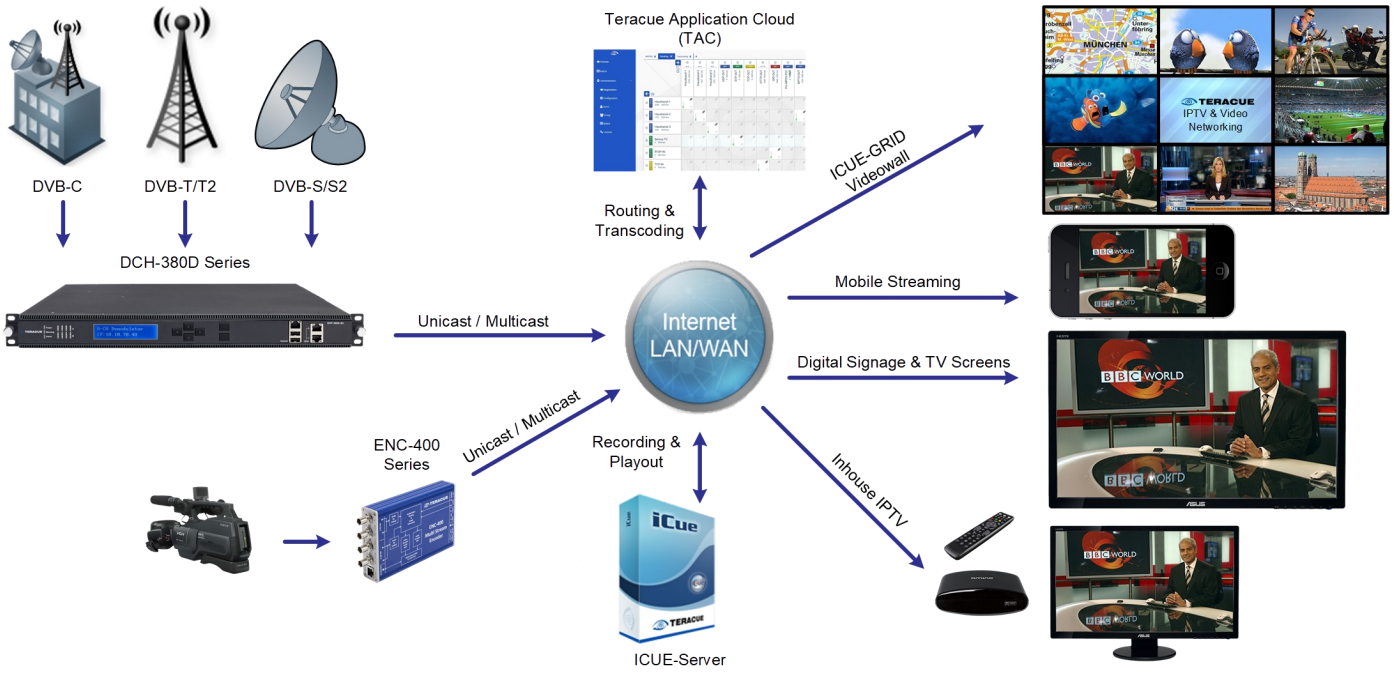
KEY FEATURES

- 8 Channel tuner for DVB-S/S2, S2X, DVB T2/T or DVB-C
- 8 DVB-CI slots with multi program decryption
- Up to 64 IPTV streams
- BISS-1 and BISS-E decryption
- Re-multiplexer and PID filtering
- MPTS & SPTS streaming, remux and demux
- Multicast & unicast for UDP or RTP transport streams
- 10 ASI outputs for tuner and re-multiplexer
- Remote configuration by web browser & SNMP
- Software update through IP or USB
- Local configuration with front panel display
- Compact 1RU frame with redundant power supply

APPLICATION

- IPTV streaming
- OTT streaming
- DVB monitoring
- DVB remultiplexing
- SPTS & MPTS streaming
- Decryption of Pay-TV

WORKFLOW INTEGRATION



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DCH-380D Series

DVB-C TUNER INPUT	
Connector type:	8x F type female 75Ω for input
Input frequency range:	51~862MHz
Input level:	51~75dBμV
Symbol rate:	1~7MBaud (ITU J.83 Annex A)
Constellation:	16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Bandwidth:	6MHz, 7MHz, 8MHz
Input return loss:	7dB (typ.)
DVB-S/S2 TUNER INPUT (S2X Factory Optional)	
Connector type:	8x F type female 75Ω for input
Input frequency range:	950 ~ 2150MHz
Input level:	-25~-65dBm
Symbol rate:	2~45MBaud
Roll-off factor:	DVB-S QPSK: 0.35 DVB-S2 8PSK: 0.35, 0.25, 0.2
FEC Code rate:	DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2 QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
LNB Polarity selection voltage:	0, 13V, 18V selectable
LNB Band selection tone:	0, 22KHz selectable
Satellite selection command:	DiSEqC 2.0
DVB-T/T2 TUNER INPUT	
Connector type:	8x F type female 75Ω for input
Input frequency:	104~862MHz (VHF/UHF)
Input level:	-20~-70dBm
Constellation:	DVB-T: QPSK, 16QAM, 64QAM / DVB-T2: QPSK, 16QAM, 64QAM, 256QAM
Bandwidth:	6MHz, 7MHz, 8MHz
FFT Mode:	DVB-T: 2K, 8K / DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
Guarding interval:	DVB-T: 1/4, 1/8, 1/16, 1/32 / DVB-T2: 1/4, 5/32, 1/8, 5/64, 1/16, 1/32, 1/64, 1/128
FEC Code rate:	DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8 / DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Input return loss:	7dB (typ.)
TS OVER IP	
Connector type:	2x RJ45, 10/100/1000M for TS/IP (Main/Backup or user defined)
Typical bitrate:	400Mb/s for 64 channels in IPTV mode, 80Mb/s for each channel in full duplex mode
Protocol:	UDP / RTP, Multicast / Unicast, IGMPv3, ARP
TS PROCESSING	
TS Input management:	Demux and Remux among ASI, TS/IP and CI inputs
TS Output management:	Demux and Remux for ASI output
Service and PID management:	Service and PID level for Remux, filtering and remapping
PSI/SI:	PSI/SI table regeneration, NIT and SDT edition, LCN edition and re-generation
Descrambler:	DVB Common scrambling algorithm (CSA)
BISS mode:	BISS-1, BISS-E
Common interface:	8x PCMCIA slots, compatible with major CAMs in the market

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ASI OUTPUT	
Connector type:	10x independent BNC female, 75Ω >(8x Tuner + 2x Remux)
Standard:	DVB-ASI, EN50083-9
Output bit rate:	≤200Mb/s
TS processing:	8x ASI out pass through the TS (CI1 to CI8), 2x ASI out from Remux
CONTROL & MONITORING	
Connector type:	1x RJ45, 10/100M, for equipment IP control
Remote control:	SNMP, HTTP (Web Interface), HDMS
Local control:	LCD-display and 6-key keypad
Serial port:	1x RS-232 D-sub female, for debugging
Equipment upgrade:	HTTP, USB, FTP loader
GENERAL	
Chassis:	19” 1RU
Dimension:	(WxDxH) 485x445x45mm
Weight:	7.9 Kg
Agency approvals:	CE, RoHS
Operating temperature & humidity:	0~45°C / 10~90%, non-condensed
Power supply & consumption:	AC 90V—250V, 50/60 Hz, typical 30W
Warranty:	1 Year standard limited warranty. Warranty extensions for up to 5 years

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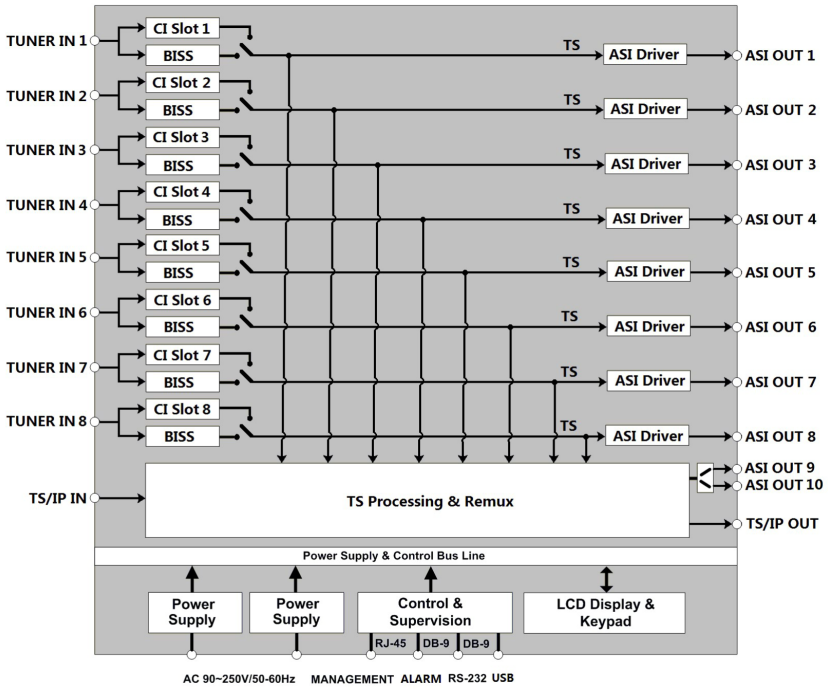
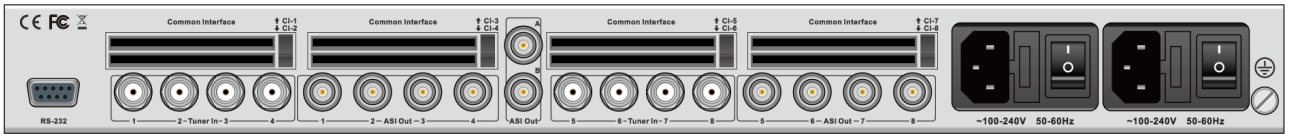
BLOCK DIAGRAM



BACK PANEL INTERFACE



ORDER INFORMATION

DCH-380D-S2	8-Channel DVB-S2 to IP gateway for IPTV. Up to 64 simultaneous multicast streams. 10x ASI out for DVB and re-multiplexed MPTS streams. 1 RU compact rack mount frame with dual power supply.
DCH-380D-T/T2	8-Channel DVB-T/T2 to IP gateway for IPTV. Up to 64 simultaneous multicast streams. 10x ASI out for DVB and re-multiplexed MPTS streams. 1 RU compact rack mount frame with dual power supply.
DCH-380D-C	8-Channel DVB-C to IP gateway for IPTV. Up to 64 simultaneous multicast streams. 10x ASI out for DVB and re-multiplexed MPTS streams. 1 RU compact rack mount frame with dual power supply.

COMPLEMENTARY PRODUCTS

ENC-400-HDMI2	H.264 and MJPEG HD/SD encoder board with dual HDMI input, loop through outputs and USB recording. Standalone portable decoder also available.
ENC-400-HDSDI	H.264 and MJPEG HD/SD encoder board with dual HDSDI input (with embedded audio) and loop through output. Standalone portable decoder also available.
DEC-400-HDMI	H.265, H.264 and MPEG-2 HD/SD decoder blade with HDMI output, embedded audio Standalone portable decoder also available.
DEC-400-HDSDI	H.265, H.264 and MPEG-2 HD/SD decoder blade with dual SDI output, embedded audio Standalone portable decoder also available.
TERACUE APPLICATION CLOUD (TAC)	Stream routing and transcoding software for transmission and receiving widely used protocols and codecs e.g. UDP, RTP, TCP, RTSP, HLS, SRT, H.265, H.264 and MPEG-2.
ICUE-SERVER	IPTV Mediaserver: Live, VoD and scheduled playout streaming server software.
XPLAYER	PC Livestream playback software. Licence packages are available.