

## DCH-600 DTV COMPACT HEADEND

### FEATURES:

- Professional applications to DTV compact headend
- Modular universal system
- Compact 1U housing with power supply
- Support single, redundancy or hot plugging power supply for optional
- Support flexible combination of different type of modules
- Supports multiple input and output interfaces and signal formats
- Capacity for up to 6 modules
- Support Web "NMS" and upgrade via Web



### EQUIPMENT SPECIFICATIONS:

Model		DCH-601	DCH-602	DCH-603
Built-in power supply type		Single	Redundancy (non-hot plugging)	Redundancy (hot plugging)
Port	GE1 output	512 SPTS IP (UDP, RTSP/RTP), Unicast/Multicast, RJ45/SFP interface		
	GE2 output	8 MPTS IP (UDP, RTP), Unicast/Multicast, RJ45/SFP interface		
	ASI output	1 ASI (Copy as MPTS2 through front panel GE2), BNC interface		
	NMS	Network management software connection		
General	Mains supply voltage	AC100~240V, 50/60Hz		
	Consumption	40W		
	Dimensions	482mm(W)x480mm(D)x44mm(H)		
	Weight	4kg		
	Temperature	0~45°C (operating), -20~80°C (storage)		

### MODULE NUMBER GUIDE:

Item:	Model:	Module:
1	DCH-614CV	4 CVBS Encoding module
2	DCH-614HD	4 HDMI Encoding module
3	DCH-614HDA	4 HDMI Encoding module with HEAAC
4	DCH-612SD	2 SDI Encoding/Transcoding module
5	DCH-612HD	2 HDMI Encoding/Transcoding module
6	DCH-612HDA	2 HDMI Encoding/Transcoding module with AC3
7	DCH-622SD	2 SDI Decoding module
8	DCH-624AS	4 ASI/IP Multiplexing module
9	DCH-625AS	5 ASI Multiplexing module
10	DCH-632DS	2 DVB-S/S2 Tuner Descrambling module
11	DCH-634DS	4 DVB-S/S2 FTA Tuner module
12	DCH-634DSA	4 DVB-S/S2 FTA Tuner module with 16/32APSK
13	DCH-634DC	4 DVB-C FTA Tuner module
14	DCH-634DT	4 DVB-T/T2 FTA Tuner module
15	DCH-661DC	16 DVB-C Modulating module
16	DCH-662DC	32 DVB-C Modulating module
17	DCH-668DT	8 DVB-T Modulating module
18	DCH-668AT	8 ATSC Modulating module
19	DCH-666IT	6 ISDB-Tb Modulating module
20	DCH-668DM	8 DTMB Modulating module

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### MODULE SPECIFICATIONS:

Model		DCH-614CV	DCH-614HD	DCH-614HDA
Module Type		4 CVBS Encoding	4 HDMI Encoding	4 HDMI Encoding with HEAAC
Input		4x CVBS & audio R/L (RCA)	4x HDMI	4x HDMI
Video Encoding	Format	MPEG-2 (4:2:0), PAL/NTSC (SD)	MPEG-4 AVC/H.264	
	Input resolution	720x480, 544x480, 352x480, 352x240, 320x240, 176x240, 176x120_60i 720x576, 704x576, 640x576, 352x288, 320x288, 176x288, 176x144_50i	1920x1080_60p/50p/60i/50i, 1280x720_60p/50p, 720x576_50i, 720x480_60i	
	GOP structure	IBBPB	IBBPB	
	Bitrate	0.5~8Mbps each channel	0.8~19Mbps each channel	
	Rate control	---	CBR/VBR	
Audio Encoding	Format	MPEG-1 Layer 2, DD AC3 (2.0)	MPEG-1 Layer 2, AC3 pass-through	MPEG-1 Layer 2, MPEG-2 & MPEG-4 AAC, AC3 pass-through
	Sampling rate	48KHz	48KHz	
	Resolution	24 bit	24 bit	
	Bitrate	128, 192, 256, 320, 384Kbps each channel	64~320Kbps each channel	
	Gain control	---	0~400	



DCH-614CV



DCH-614HD, DCH-614HDA



DCH-612SD



DCH-612HD, DCH-612HDA

Model		DCH-612SD	DCH-612HD	DCH-612HDA
Module Type		2 SDI Encoding/Transcoding	2 HDMI Encoding/Transcoding	2 HDMI Encoding/Transcoding with AC3
Input		2x HD-SDI, BNC 75Ω	2x HDMI, 2x BNC (for CC)	2x HDMI, 2x BNC (for CC)
Video Encoding	Format	MPEG-2, MPEG-4 AVC/H.264	MPEG-2, MPEG-4 AVC/H.264	
	Input resolution	1920x1080_60p/50p/60i/50i, 1280x720_60p/50p, 720x576_50i, 720x480_60i	1920x1080_60p/50p/60i/50i, 1280x720_60p/50p, 720x576_50i, 720x480_60i	
	Aspect ratio	16:9, 4:3		
	Bitrate	0.8~19.5Mbps		
	Rate control	CBR/VBR		
	Closed caption	Support CC		
Audio Encoding	Format	MPEG-1 Layer 2, MPEG-2 & MPEG-4 AAC, AC3 (2.0/5.1) pass-through	MPEG-1 Layer 2, MPEG-2 & MPEG-4 AAC, AC3 (2.0/5.1) pass-through	MPEG-1 Layer 2, MPEG-2 & MPEG-4 AAC, AC3 (2.0/5.1) pass-through, Dolby digital AC3
	Sampling rate	48KHz		
	Bitrate	64~320Kbps each channel		
Video Transcoding		2x MPEG-2 HD → 2x MPEG-2/H.264 HD or SD, 2x H.264 HD → 2x MPEG-2/H.264 HD or SD, 4x MPEG-2 SD → 4x MPEG-2/H.264 SD, 4x H.264 SD → 4x MPEG-2/H.264 SD		
Audio Transcoding		MPEG-1 Layer 2, AAC and AC3		

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### MODULE SPECIFICATIONS:

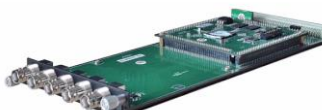
Model		DCH-622SD	DCH-624AS	DCH-625AS
Module Type		2 SDI Decoding	4 ASI/IP Multiplexing	5 ASI Multiplexing
Input		2x ASI bi-direction, BNC 75Ω	4x ASI bi-direction, BNC 75Ω 256x2 IP, 100/1000M Ethernet port	5x ASI bi-direction, BNC 75Ω
Output		2x SDI, BNC 75Ω	4x ASI (max), 4x IP	5x ASI (max)
Decoding	Video format	MPEG-2, MPEG-4 AVC/H.264		-----
	Resolution	480i, 480p, 576i, 576p, 720p, 1080i@50/59.94/60		-----
	Chroma	4:2:0		-----
	Audio format	MPEG-1 Layer 2, LC-AAC, HE-AAC, AC3 (2.0/5.1), AC3 pass-through		-----
	Functions	Support Dual audio out and CC/subtitle		-----
Re-multiplexing		-----	PID remapping, PCR correction, generate PSI/SI table automatically	



DCH-622SD



DCH-624AS



DCH-625AS



DCH-632DS

Model		DCH-632DS	DCH-634DS	DCH-634DSA
Module Type		2 DVB-S/S2 Tuner Descrambling	4 DVB-S/S2 FTA Tuner	4 DVB-S/S2 FTA Tuner with 16/32APSK
Input		2x DVB-S/S2, F type	4x DVB-S/S2 (FTA), F type	4x DVB-S/S2 (FTA), F type
Tuner Section	Input frequency	950~2150MHz		
	Input level	-65~-25dBm		
	Symbol rate	DVB-S: QPSK 1~45Mbps DVB-S2: QPSK/8PSK 1~45Mbps		DVB-S: QPSK 1~45Mbps DVB-S2: QPSK/8PSK/ 16APSK 1~45Mbps, 32APSK 1~32Mbps
	FEC	DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: 1/2, 2/3, 3/4, 5/6, 7/8, 4/5, 5/6, 8/9, 9/10		
Function		Support Diseqc		
Multiplexing		Maximum 256 input for PID remapping (auto/manu), accurate PCR adjust		
Descrambling		2x CAM/CI slots		-----



DCH-634DS, DCH-634DSA, DCH-634DC,  
DCH-634DT

Model		DCH-634DC	DCH-634DT
Module Type		4 DVB-C FTA Tuner	4 DVB-T/T2 FTA Tuner
Input		4x DVB-C (FTA), F type	4x DVB-T/T2 (FTA), F type
Tuner Section	Input frequency	30~1000MHz	
	Constellation	16/32/64/128/256 QAM	-----
	Bandwidth	-----	6M, 7M, 8M
Multiplexing		Maximum 256 input for PID remapping (auto/manu), accurate PCR adjust	

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### MODULE SPECIFICATIONS:

Model		DCH-661DC	DCH-662DC	DCH-668DT
Module Type		16 DVB-C Modulating	32 DVB-C Modulating	8 DVB-T Modulating
RF output		16x channels, F port	32x channels, F port	8x channels, F port
Standard		DVB-C, EN300 429/ITU-T J83A/B		DVB-T, ETSI EN300 744
Data output	IP	IP over UDP/RTP/RTSP, unicast/multicast, 2GE ports (RJ45/SFP), max.840Mbps/GE port		
	No. of IP	16	32	8
Data input	IP	IP over UDP/RTP, 2GE ports (RJ45/SFP)		
	No. of IP	512x2	512x2	256
Multiplexing	Input / output	1024/16 channels	1024/32 channels	1024/8 channels
	Max. PIDs	180 per channel		
	Functions	PID remapping (auto/manu), accurate PCR adjust, generate PSI/SI table automatically		
Scrambling	Simulcrypt CA	4 (maximum)		-----
	Standard	ETR289, ETSI 101 197, ETSI 103 197		-----
	Connection	Local/remote		-----
Modulation	Output	16 carrier within 192M bandwidth	32 carrier within 384M bandwidth	8 carrier within 192M bandwidth
	RF frequency	50~960MHz, 1KHz step		
	Output level	-20~+10dBm (87~117dB $\mu$ V), 0.5dB step for all carrier		
	MER	>36dB		
	Symbol rate	5.0~7.0Msps, 1Ksps step		-----
	Constellation	16/32/64/128/256 QAM		QPSK/16QAM/64QAM
	Bandwidth	-----		6M/7M/8M
	Trans mode	-----		2K/4K/8K
FEC	-----		1/2, 2/3, 3/4, 5/6, 7/8	



DCH-661DC, DCH-662DC



DCH-668DT, DCH-668AT, DCH-668DM

Model		DCH-668AT	DCH-666IT	DCH-668DM
Module Type		8 ATSC Modulating	6 ISDB-Tb Modulating	8 DTMB Modulating
RF output		8x channels, F port	6x channels, F port	8x channels, F port
Standard		ATSC A/53	ISDB-Tb, ARIB STD-B31	DTMB, GB20600-2006
Data output	IP	IP over UDP/RTP/RTSP, unicast/multicast, 2GE ports (RJ45/SFP), max.840Mbps/GE port		
	No. of IP	8	6	8
Data input	IP	MPTS/SPTS IP over UDP/RTP, 2GE ports (RJ45/SFP)		
	No. of IP	256	32x6	256
Multiplexing	Input / output	1024/8 channels	192/6 channels	1024/8 channels
	Max. PIDs	180 per channel		
	Functions	PID remapping (auto/manu), accurate PCR adjust, generate PSI/SI table automatically		-----
Modulation	Output	8 carrier within 192M bandwidth	6 carrier within 192M bandwidth	8 carrier within 192M bandwidth
	RF frequency	50~960MHz, 1KHz step		
	Output level	-20~0dBm (87~107dB $\mu$ V), 0.5dB step for all carrier		
	MER	>36dB		
	Constellation	8VSB	QPSK/16QAM/64QAM	4QAM, 16QAM, 32QAM, 64QAM
	Bandwidth	6M	6M	8M
	FEC	RS(208 188)+Trellis	1/2, 2/3, 3/4, 5/6, 7/8	0.4/0.6/0.8
	Trans mode	-----	2K/4K/8K	-----
	Guard interval	-----	1/32, 1/16, 1/8, 1/4	-----
	FFT mode	-----	-----	1, 1+pilot
	Frame mode	-----	-----	420, 595, 945, 420var, 945var
	Interleaving	-----	-----	240, 720



DCH-666IT

# DCH-600 DTV COMPACT HEADEND

## BLOCK DIAGAM

