

4K/HD/SD Decoder

HC10000DS/HC11000DS

High Performance and Reliable 10bit 4:2:2 HEVC, H.264/AVC, and MPEG-2 Decoder



Key Features

- 10bit 4:2:2/4:2:0 for HD/SD, 4K supported
- Multiple video formats supported;
H.265/HEVC, H.264/MPEG-4 AVC, and MPEG-2 Video
- Super Low Delay with NTT Electronics' Encoders
- Embedded Audio up to 16ch/8 PES combinations
- Dolby Digital Pass-through
- Ancillary Data transmission
- BISS-1/E and BISS-2/CA supported
- 12G-SDI Output
- AES/EBU Audio Output (HC11000DS)
- GENLOCK supported
- Multicast / Unicast to support IPv4 and IPv6 with Error Correction
- Seamless Protection Switching supported
- Two each Ethernet ports for GUI control and for streaming data
- Dual power supply units for redundancy (HC11000DS)

Front Panel



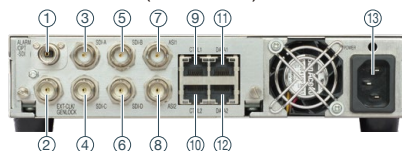
HC10000DS
(1RU Half)



HC11000DS
(1RU Full)

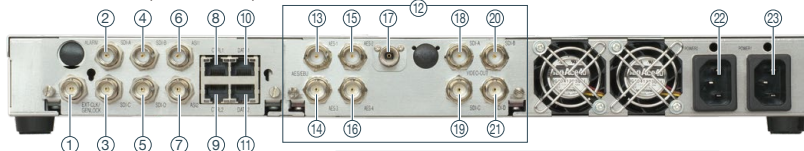
Rear Panel

HC10000DS (1RU Half)



- ① 12G-SDI-OUT OP4 ④ SDI-C ⑦ ASI1 ⑩ CTRL2 ⑬ AC inlet
- ② GENLOCK ⑤ SDI-B ⑧ ASI2 ⑪ DATA1
- ③ SDI-A ⑥ SDI-D ⑨ CTRL1 ⑫ DATA2

HC11000DS (1RU Full)



- ① GENLOCK ⑤ SDI-D ⑨ CTRL2
- ② SDI-A ⑥ ASI1 ⑩ DATA1
- ③ SDI-C ⑦ ASI2 ⑪ DATA2
- ④ SDI-B ⑧ CTRL1 ⑫ Option Slot

Option Board

- ⑬⑭⑮⑯⑰⑱⑲⑳ : Digital Audio Output Board OP1
- ⑬⑭⑮⑯⑰⑱⑲⑳ : 12G-SDI/AES Output Board OP5
- ⑬ AES/EBU1 ⑰ AES/EBU4 ⑲ SDI-C
- ⑭ AES/EBU3 ⑱ 12G-SDI-OUT ⑳ SDI-B
- ⑮ AES/EBU2 ⑳ SDI-A ㉑ SDI-D

- ⑳ AC inlet2
- ㉑ AC inlet1

Specifications

Video	Output Interface	BNC: 12G-SDI(SMPTE ST 2082-1)/3G-SDI(SMPTE ST 424)/HD-SDI(SMPTE ST 292)/SD-SDI(SMPTE ST 259)	
	Decode Method	H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2 Video	
	Profile; Level <small>(Please see below for supported formats.)</small>	H.265/HEVC	Profile: Main 4:2:2 10, Main 10, Main ; Level: 5.1, 4.1, 4
		H.264/MPEG-4 AVC	Profile: High4:2:2 (10bit), High10, High, Main ; Level: 4.2, 4.1, 4.0, 3.2, 3.0
MPEG-2 Video		Profile: 422P, Main ; Level: High, Main	
Video Format @Frame Rate	H.265/HEVC	2160P(3840x2160)@23.98Hz, 29.97Hz, 50Hz, 59.94Hz 1080P(1920/1440x1080)@23.98Hz, 29.97Hz, 50Hz, 59.94Hz 1080I(1920/1440x1080)@25Hz, 29.97Hz ; 720P(1280x720)@50Hz, 59.94Hz 576I(720x576)@25Hz ; 480I(720x480)@29.97Hz	
	H.264/MPEG-4 AVC	1080P(1920/1440x1080) * @23.98Hz, 29.97Hz 1080I(1920/1440x1080)@25Hz, 29.97Hz 720P(1280x720)@50Hz, 59.94Hz 576I(720x576)@25Hz ; 480I(720x480)@29.97Hz	
	MPEG-2 Video	1080I(1920/1440x1080)@25Hz *, 29.97Hz ; 720P(1280x720)@50Hz, 59.94Hz 576I(720x576)@25Hz ; 480I(720x480)@29.97Hz	
Audio	Output Interface	Embedded Audio 16ch(SMPTE ST 299, SMPTE ST 272), AES/EBU 8ch OP1	
	Decode Audio Type	MPEG-1 L2 : 1ch(Mono), 2ch(Dual Mono), 2ch(Stereo) ; max. 8PES MPEG-2 AAC-LC : 1ch(1/0), 2ch(1+1), 2ch(2/0), 4ch(3/1), 5.1ch(3/2/1), 6ch(2/2/2) ; max.4PES MPEG-4 AAC-LC : 2ch(2/0), 4ch(3/1), 5.1ch(3/2/1) ; max.4PES MPEG-4 HE-AACv1 : 2ch(2/0), 5.1ch(3/2/1) ; max.2PES MPEG-4 AAC-ELD : 2ch(2/0), 4ch(3/1), 5.1ch(3/2/1) ; max.2PES SMPTE ST 302 : 2, 4, 6, 8ch ; max.4PES Dolby Digital Pass Through ; max.6PES	
Ancillary	Data Type	TIMECODE, ARIB TR-B23/TR-B22, SMPTE ST 2038	
Transport Stream (TS)	Input Interface	DVB-ASI : BNC x 1 (0.8Vp-p 75Ω) ; IP : 100BASE-TX/1000BASE-T x 2 (RJ-45)	
	Input Type	MPEG-2 TS(188/204byte) ; For IP: Time-stamped TS (TTS)(192byte), Advanced TS(192byte)	
	Maximum TS Rate	200.000Mbps	
	TS Decryption	BISS-2 1/E/CA OP7 OP8, BISS-1/E OP2 OP7	
Network	Interface	DATA1: 100BASE-TX/1000BASE-T (RJ-45) ; DATA2: 100BASE-TX/1000BASE-T (RJ-45)	
	Transmission	RTP/UDP/IP(SMPTE ST 2022-2:2007, RFC2250, RFC3550, RFC1889), Unicast/Multicast	
	Network Features	IPv4: IGMPv2/v3, NTP, DHCP, Ping, Syslog, PPPoE IPv6: MLDv2, Ping, Syslog, IPoE	
	Error Correction	FEC(SMPTE ST 2022-1:2007/Pro-MPEG COP#3 R2), ARQ	
	Others	Seamless Protection OP3	
Control	Local Control	LCD (20digits x 4/brightness control available) + Front Switch(7 buttons)	
	Remote Control	WEB GUI, SNMP v1, Ping, Syslog	
Others	Dimensions	HC10000DS: W:209 x H:44 x D:430(mm) (w/o Connector, Foot, Rack mount bracket) HC11000DS: W:432 x H:44 x D:430(mm) (w/o Connector, Foot, Rack mount bracket)	
	Weight	HC10000DS: 5kg typ. ; HC11000DS: 8kg typ. (w/o option card)	
	Supply Voltage	AC100V to 240V, 50/60Hz HC10000DS: Single power supply ; HC11000DS: Dual power supply for redundancy	
	Power Consumption	HC10000DS: 100W max., HC11000DS: 150W max.	
	Operating Environment	0 to 45°C, 30 to 90% (non condensing)	
	Compliance	RoHS, VCCI, FCC, ICES, CE, UL, CSA	

	Suffix	Option Name	Description
Hardware	OP1	HC11000_OP_AES	Digital Audio Output Board (Factory Option)
	OP4	HC10000D_OP_12G	12G-SDI Output (Factory Option)
	OP5	HC11000D_OP_AES-12G	12G-SDI/AES Output Board (Factory Option)
Software	OP2	HC1x000D_OP_BISS	BISS Decryption
	OP3	HC1x000D_OP_SEAMLESS	Seamless Protection
	OP7	HC1x000D_OP_BISS2UG	BISS-2 Upgrade for the kit installed BISS-1
	OP8	HC1x000D_OP_BISS1+2	BISS-1 and BISS-2 Decryption

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- Exporting our products or technologies may be subject to the Foreign Exchange and Foreign Trade Law of Japan and export control acts and regulations of other related countries.

Caution Please use our products in accordance with the instructions provided in the manual, user's guide or specifications attached.



NTT Electronics Corporation

Business Promotion Office, Digital Video Component Business Group
 New Stage YOKOHAMA, 1-1-32 Shin-urashimacho, Kanagawa-ku,
 Yokohama-shi, Kanagawa, 221-0031, Japan
 TEL: +81-50-9000-6004 FAX: +81-45-453-9651 E-mail: sys-info-w@ntt-el.com
 URL: <https://www.ntt-electronics.com/en/products/video/>