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uPD61051/2 Q&A Note

NEC Electronics Corporation
Digital AV Group

uPD61051/2 Q&A (Common item)

No	Key word	Question	Answer	Reference
1	Name of an article	The difference of uPD61051 and uPD61052?	In uPD61052, it is possible to do Dolby digital sound encoding by 2ch.	Data sheet, 1P
2	Host IF	How many kind is in host IF?	It is two kinds of the ISA/Motorola system parallel buses of 8 bits and the 4 line serial buses.	Data sheet, 12P
3	Clock	What clock should it input to SCLK?	Input the stable clock of 27 MHz. It recommends within 30ppm.	Data sheet, 22P
4	Clock	What clock should it input to STCLK?	In encoding, in the clock which is the same as SCLK, in decoding, type a 27-MHz clock from VCXO that PWM was controlled.	Data sheet, 22-23P
5	Clock	The difference of STCLK and SCLK?	STCLK is used for the block of the MPEG system, the video output system and SCLK is used for the clock of host IF, the internal CPU and SDRAM.	Data sheet, 22-23P
6	Clock	What clock should it input to IVCLK?	Input the clock for the ITU656 output of the video decoder.	Data sheet, 9P
7	Clock	What clock should it input to AMCLK?	Input STCLK and the clock of 256FS or 384FS that the synchronization comes off at the outside PLL circuit.	Data sheet, 22-23P
8	Video input	When the video inputs, is it possible to do changing by ITU656 (the SAVEAV synchronization) and ITU601 (the H/Vsync synchronization)?	It is possible by replacing FW.	-
9	Video input	Where can the nonstandard video correspond?	It is due to the performance of the video decoder. At the evaluation board, it is possible for the encoding processing tocontinue even if it is shone on in the pulling-out of the video cable while.	-
10	Video input	What is the recommendation video decoder?	At the evaluation board, it is using 7114 H of SAA of Philips Inc..	-
11	Video input	What is the VBI data detection supporting?	It is three kinds of VBID, the closed captions,	Data sheet, 24P
12	Video output	Which of ITU656 (the SAVEAV synchronization) and ITU601 (the H/Vsync synchronization) in video output, is it?	It is possible to output both at the same time.	-
13	Video output	Is there analog video output?	It doesn't correspond.	-

14	Video output	What is the recommendation video encoder?	At the evaluation board, it is using ADV7173 of the analog device Inc..It thinks that it is usable if being the video encoder which is supporting	-
15	SDRAM	Does it want to make SDRAM 64Mbit but what feature works?	It is possible for FW of the MPEG2-TS system to work.	-
16	SDRAM	What feature addition when making SDRAM 128Mbit, does it become?	The encoding FW of DVD-Video system can be used.	-
17	SDRAM	Tell the name of an article of SDRAM which has	It is UPD4564163, K4S and so on 641632.	-
18	Internal CPU	What processing is the internal organ CPU doing?	It is doing the generation of ES of MPEG2 and MUX to the TS packet.	-
19	Internal CPU	Is ROM of the internal organ CPU rewritten?	There is not ROM. The FW of the internal organ CPU must be downloaded to IRAM.	-
20	Internal CPU	How does it do a download to IRAM?	It writes data in the 8bits data register in order from the system CPU.	Data sheet, 52P
21	Internal CPU	Is it possible to customize the program of the internal organ CPU?	It is possible. Inquire of the special agent nearby because the cost/the man-day depend on thespecification of the customize.	-
22	Internal CPU	DMA_DONE doesn't become 1.	We request the confirmation of the setting of a register for DMA, the data transfer quantity, the start-up way and so on.	Data sheet, 51-64P
23	Audio input	Is it possible to input 512FS to the master clock?	It isn't supporting 512FS. Use in 256FS or 384FS.	-
24	Audio input	What is the mode that BCK can be chosen?	It is 32BCK or 64BCK.	Data sheet, 19-
25	Audio input	What is the mode that LRCK can be chosen?	In TS encoding FW, it is 48KHz fixation.	Data sheet, 19-
26	Audio input	What is the mode that the audio format can be chosen?	It is three of "Left-Justified, "Right-Justified" and "I2S". The quantization chief can chooseeither of 16, 20, 24 bits.	Data sheet, 19-21P
27	Audio input	What is recommendation ADC?	It is possible to work at most of ADC. At the evaluation board, it isusing PCM1800.	-
28	Audio output	What is the mode that BCK can be chosen?	It is 32BCK or 64BCK.	Data sheet, 19-
29	Audio output	What is the mode that LRCK can be chosen?	It is 32, 44.1, 48KHz.	Data sheet, 19-
30	Audio output	What is the mode that the audio format can be chosen?	It is three of "Left-Justified, "Right-Justified" and "I2S". The quantization chief can chooseeither of 16, 20, 24 bits.	Data sheet, 19-21P
31	Audio output	Does it turn around from the data that the audio typed in and is it possible to output?	The switchback is made but can not delay.	Data sheet, 19-21P

32	Audio output	What is recommendation DAC?	It is possible to work at most of DAC. At the evaluation board, it isusing PCM1716.	-
33	The way of controlling	The control from the system CPU is to do how?	Use either of the ISA/Motorola system parallel bus of 8 bits or the 4 line serial bus.	Data sheet, 12P
34	Goods	The LSI which is used for what goods is it?	It is used for DVHS, HDD recoder, the AV radio transmission equipment and so on.	-
35	Price	Price how much?	Because it depends on the purchase quantity, inquire of the special agent nearby.	Data sheet, 104P
36	Support	Is there technology support?	There is not basic and free technology support.	-
37	Electric	Consumption electric power how much?	It is 1.2 W in the average.	Data sheet, 1P
38	License	When using a MPEG, is it necessary to pay a license fee?	The license fee must be paid. Inquire of following MPEGLA. http://www.mpegla.com/	-

uPD61051/2 Q&A (Encoding item)

No	Key word	Question	Answer	Reference
1	The encoding operation	Of encoding not beginning why?	Isa ? video signal typed about whether the? parameter, the command are normal about whether or not the download of FW is normal?	Data sheet, 51-64P
2	The encoding operation	Of encoding stopping on the way why?	Is the circuit of ?AMCLK designed as the recommendation about whether or not the OSREQ signal becomes Low?	Data sheet, 22-23P
3	VBI	Is it possible to do the detection of the VBI data?	It is possible to do the detection of VBID and CC in the NTSC mode, and WSS in the PAL mode.	Data sheet, 24P
4	VBI	Is MUX of the VBI data made?	It becomes customize but it is possible.	-
5	TBC	Is it possible not to use TBC?	It uses TBC in all FW.	Data sheet, 17P
6	Video output	Is it possible to output a video in encoding?	It is made. There are two of the way of outputting a video before encoding and the way of outputting thevideo of the local decoding.	Data sheet, 18P
7	Rate	How many are the maximum TS rate/the minimum TS rate?	The maximum rate : The 14.4Mbps (resolution 720*480) minimum rate : 2.7Mbps (resolution	-

uPD61051/2 The Q&Acollection The decoding item

No	Key word	Question	Answer	Reference
1	The decoding operation	Why doesn't the decoding begin?	Does it download FW? Is there not an error in the stream data? Did it encode stream data in D61051?	Data sheet, 51-64P
2	The decoding operation	Why does the decoding stop on the way?	Please check the data and a transfer way, whether or not there is not an error in the stream	-
3	The decoding operation	What operation when there is an error in the MPEG stream, does it become?	The phenomenon depends on the part of the error.As for the much seen phenomenon, the warp having to do with figure of block of one of the images is done and the noise rides sound.When an error is detected, it recommends to do picture & sound in the mute and to reset	-
4	The special replay	What thing can the special replay do?	Generally, it searches only the I stream to the thing except the replay and it can be replayed.	-
5	VBI data	Is it possible to do the decoding of the PSI data?	Because it transfers PSI packet to the area of the specification of SDRAM, it is possible to read from the system CPU.	-
6	VBI data	Is it possible for decoded VBI data to be embedded in ITU656?	It isn't supporting.	-
7	Stream	What stream is it possible to decode?	It is the MPEG2-TS data which was encoded in D61051 or a stream with the same degree.	-
8	OSD	Is there OSD feature?	It isn't supporting.	-

uPD61051/2 Q&A (Evaluation board item)

No	Key word	Question	Answer	Reference
1	Feature	What thing is made at the evaluation board?	The encoding or the decoding of the audio video can be done.	Users manual, 5P
2	Error	It isn't accessible. The "I2C error" occurs..	Does the power on? Is the DSUB25pin cable straight? Does the printer BIOS of PC become "BIDIR"?	Users manual, 3P
3	Error	The encoding stops on the way.	Does the capacity of the power is enough? Does it short-circuit in 1p and 2p of the J10	-
4	Price	The price, the appointed date of delivery of the evaluation board?	Inquire of the special agent nearby.	Data sheet, 104P

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