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RENESAS TECHNICAL UPDATE

TOYOSU FORESIA, 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061, Japan
Renesas Electronics Corporation

Product Category	MPU/MCU		Document No.	TN-SY*-A0038A/E	Rev.	1.00
Title	Note on JPEG decoding		Information Category	Technical Notification		
Applicable Product	Renesas Synergy™ S7G2 MCU Group Renesas Synergy™ S5D9 MCU Group	Lot No.	Reference Document	S7G2 Microcontroller Group User's Manual Rev.1.40 S5D9 Microcontroller Group User's Manual Rev.1.20		
		All				

Renesas added a restriction on JPEG decoding.

1. Details

When the JPEG decoding is executed after encoding, if the decoding size is less than or equal to the encoding size, the decoding stops.

2. Restriction

JCVSZU, JCVSZD, JCHSZU and JCHSZD should be set to 0 before starting JPEG decoding.

Software reset
Reset the JPEG Codec in advance by setting the BRST bit in the JCCMD register.

JPEG core settings
Compression setting: DSP bit in JCMOD
JPEG size clear: JCVSZU, JCVSZD, JCHSZU and JCHSZD are set to 0
Decompression setting: DSP bit in JCMOD
Interrupt setting: INT7 to INT5 and INT3 flags in JINTE0

Input buffer settings
Byte/halfword/word swap setting: JINSWAP bit in JIFDCNT
Input coded data stop count setting: JINC bit in JIFDCNT
Address initialization setting for resumption of input coded data: JINRINI bit in JIFDCNT
Source address setting: JIFDSA
Source count setting: JIFDSDC
Interrupt setting: JINF bit in JINST1 is set to 0
                                                                 JINEN bit in JINTE1

Output buffer settings
Byte/halfword/word swap setting: DOUTSWAP bit in JIFDCNT
Vertical/horizontal subsampling setting: VINTER and HINTER bits in JIFDCNT
Output image pixel format setting: OPF bits in JIFDCNT
Output data line stop count setting: DOUTLC bit in JIFDCNT
Address initialization setting for resumption of output image data: DOUTRINI bit in JIFDCNT
Line offset setting: JIFDDOFST
Destination address setting: JIFDDA
Destination line count setting: JIFDDLC
Interrupt setting: DBTF bit in JINST1 is set to 0
                                                                 DOUTLF bit in JINST1 is set to 0
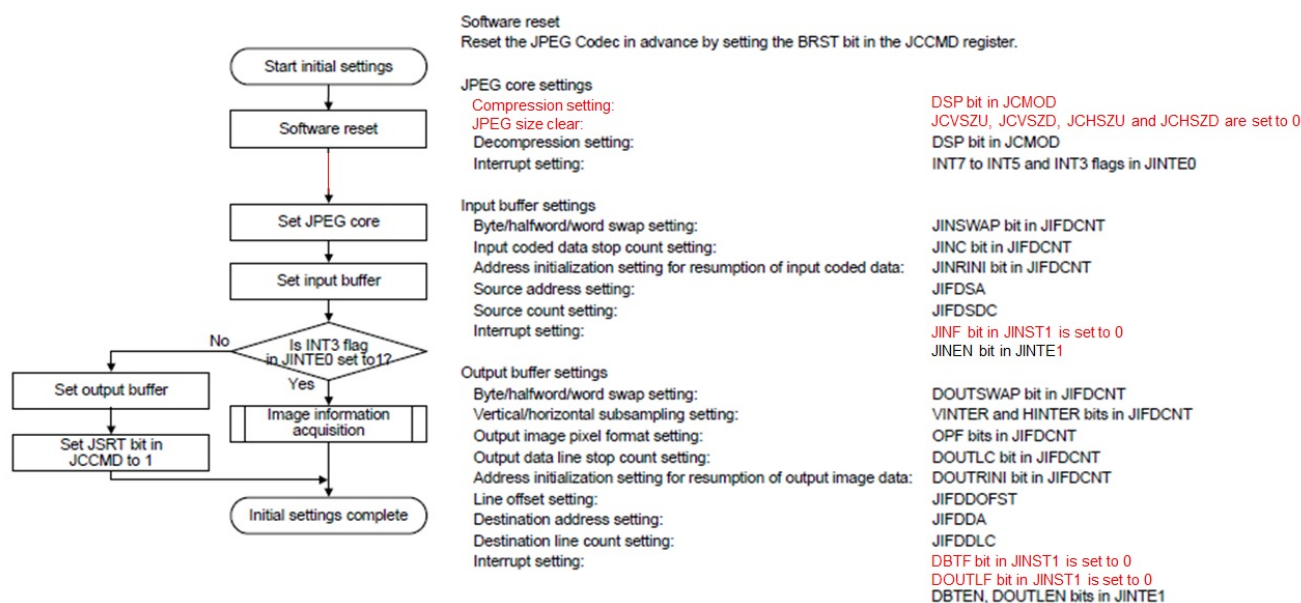   DBTEN, DOUTLEN bits in JINTE1

Figure   Flow of decompression initial settings

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