



APPLICATION NOTE IC

**SDA 9x8xX
PIP IV
Version B31
Recommended
Register Settings**

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PIP IV Recommended Register Settings

1. Introduction

The recommendation (“R”) column gives a default value (may be different to power-up values) which ensures optimal operation in a standard application. However, under special conditions, a different setting may be suitable. In the “user-adjustable / remark” column, some remarks are given. Furthermore, an “X” indicates values which are TV-dependent or which can be changed after production or during TV operation (e.g. picture format). The mandatory (“M”) items are not intended to be user adjustable and should be set according to this table. Otherwise, the IC may not give full performance. All values are given in decimal number format.

1.1. Recommended and Mandatory Settings

Table 1–1: SDA 9x8xX Settings

Name	SA	User-adjustable / Remark	R	M
ACCFIX	0Eh			0
ADLCK	30h			1
ADLCKSEL	30h			1
ADLKCC	30h			1
AGCMD	0Ah	use 0 or 3 only. 1 or 2 do work correctly, but have disadvantages against 0 or 3.	0	
AGCRES	0Ah	Usually not necessary to set, but may be used manually after change of channel when AGCMD=0 or 2 is used.	0	
AGCVL	0Ah	X, only effective if AGCMD=3	8	
BCOROFF	33h		0	
BELLIIR	2Eh		1	
BGFRC	19h	X	0	
BGPOS	0Eh		1	
BGU	18h	X	0	
BGV	19h	X	0	
BGY	17h	X	1	
BLKCVL	0Bh		0	

Table 1–1: SDA 9x8xX Settings, continued

Name	SA	User-adjustable / Remark	R	M
BLKINVB	13h		0	
BLKINVR	13h		0	
BLKLB	13h		0	
BLKLG	12h		0	
BLKLR	11h		0	
BLKVCFIL	0Ch		0	
BLKVCHYS	0Bh		0	
BRTADJ	12h	X		
CHRBW	0Eh		0	
CKILL	0Dh		0	
CLMCHRY	36h		0	
CLMPID	0Bh		3	
CLMPIST	37h	Back-porch clamping=26 Sync-tip-clamping=3.	26	
CLMSTGY	35h	Back-porch clamping is recommended (CLMSTGY=0). However, sync-tip clamping is working with some clamping noise, also. Depending on clamping algorithm, position of clamping pulse must be set accordingly (CLMPIST).	0	
CLPDEL	09h		0	
CLPLEN	21h		7	
CLRANGE	30h		1	
COLON	0Eh		0	
CONADJ	11h	X		
CPLLOF	10h			0
CPOS	00h	X	0	
CSTAND	0Dh		0	
CSTDEX	0Dh	X	0	
CVBSEL	0Bh	X	0	
DEEMP	0Eh		0	
DISPMOD	09h	X	0	
DISPSTD	04h		0	

Table 1–1: SDA 9x8xX Settings, continued

Name	SA	User-adjustable / Remark	R	M
DTECT5060	32h		1	
ENLIM	31h		1	
FIESEL	00h		0	
FILTBRST	37h			1
FLNSTRD	36h		0	
FMACTI	10h		0	
FMACTP	05h		0	
FPSTD	05h		0	
FREEZE	04h	x	0	
FRSEL	07h		1	
FRU	18h		15	
FRV	19h		1	
FRWIDTH	07h		4	
FRWIDV	07h		2	
FRY	17h		3	
HFP	03h		0	
HSHRNK	20h		0	
HSPINV	06h		0	
HUE	0Fh	X	0	
HZOOM	05h	X	0	
IFCOMP	0Fh		2	
INFRM	07h		0	
IRQCON	1Ch	X	0	
ISHFT	31h	do NOT use ISHFT>0 and PLLTC=0. When PLLTC=0, ISHFT must be 0 also. When PLLTC>0, every value for ISHFT is allowed.	3	
LATENCY	37h		3	
LMOFST	0Bh	X	0	
LOCKSP	2Fh		3	
MAT	17h	X	0	
MOSAIC	04h	X	0	
MPIPBG	1Ch		0	

Table 1–1: SDA 9x8xX Settings, continued

Name	SA	User-adjustable / Remark	R	M
NADJ	30h	X	3	
NOSIGB	0Ah		1	
NSRED	31h	TV: NSRED=4 VCR: NSRED=6. If source not known: All sources: NSRED=6	6	
OUTFOR	18h		0	
PALIDL0	1Dh		1	
PALIDL1	1Dh		1	
PALIDL2	1Dh		1	
PALINC1	2Fh		0	
PALINC2	2Fh		0	
PIPBG	05h	X	0	
PIPBLK	1Dh	X	0	
PIPON	00h		1	
PKBOOST	21h		1	
PKLB	16h	X	12 8	
PKLG	15h	X	12 8	
PKLR	14h	X	12 8	
PLLTC	0Ch		1	
POSCOR	09h	(malfunction). This function has been deleted from the feature list.		0
POSHOR	01h	X	10	
POSOFH	1Eh		0	
POSOFV	1Eh		0	
POSVER	02h	X	20	
PROGEN	00h	0 for interlaced, 1 for progressive display	0	
READD	00h	0 for single-scan, 1 for double-scan display	0	
REFINT	13h		0	
RGBINS	08h	X	0	
SATADJ	1Ah		8	
SATNR	10h		1	

Table 1–1: SDA 9x8xX Settings, continued

Name	SA	User-adjustable / Remark	R	M
SCADJ	10h	X		
SCMIDL	2Eh		5	
SCMREL	2Eh		2	
SECACC	2Fh		1	
SECACCL	2Fh		5	
SECDIV	2Eh		1	
SELDEL	06h			
SELDOWN	06h		1	
SELLNR	1Ch		1	
SERVICE	1Ch		0	
SIZEHOR	04h	X	1	
SIZEVER	04h	X	1	
SLLTHD	31h		0	
SLLTHDV	35h		6	
SLLTHDVP	35h		1	
TRIOUT	13h		0	
UVPOLAR	18h		0	
UVSEQ	1Ch		0	
VDETIFS	36h		0	
VDETITC	36h		0	
VERBLK	06h	(malfunction)		0
VFLYWHL	35h		1	
VFLYWHLM	35h		1	
VFP	03h		0	
VLP	36h		1	
VSHRNK	1Fh		0	
VSPDEL	06h	X (application specific)	10	
VSPINV	06h		0	
VSPNSRQ	06h		1	
VSPRED	07h	X	0	
VTHRH50	34h		8	
VTHRH60	34h		13	
VTHRL50	32h		65	
VTHRL60	33h		60	

Table 1–1: SDA 9x8xX Settings, continued

Name	SA	User-adjustable / Remark	R	M
XDSCLS	1Bh	X	0	
XDSTPE	1Bh	X	0	
YCDEL	0Ch		0	
YCOR	1Ah		1	
YPEAK	1Ah	X	5	
YUVSEL	00h	X	0	

Table 1–2: Additional SDA 9x8xX Settings

Name	SA	User-adjustable / remark	R	M
ABRSPD	22h		0	
ABRTHD	22h		0	
CHRADR	26h	X	0	
CHRBGON	25h		0	
CHRBGY	25h		0	
CHRCLR	26h		0	
CHRCOD	26h	X	0	
CHRDHW	25h		0	
CHRFRC	25h	X	1	
CHRY	25h		1	
CZMEN	24h		0	
CZMSP	24h		0	
DISPMOD	23h	X	17	
DWCOR	21h		1	
INFRMOD	23h		0	
OSDON	26h	X	0	
PIPHLT	21h		0	
WIPESP	23h		1	
WRPOS	24h	X	0	

2. Application Note History

1. Application Note IC: "SDA 9x8xX PIP IV Recommended Register Settings", Jan. 28, 2002, 6251-580-1AN. First release of the application note IC.

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