

AK8464VN Application Note

"Timing Generator" setting example of typical sensor

① TCD2565BFG(TOSHIBA)

- P2 : Pin assignment
- P3 : Register setting (BANK0)
- P4 : Register setting (BANK1)
- P3 : Register setting (BANK2)

② TCD2566BFG(TOSHIBA)

- P5 : Pin assignment
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③ TCD2569BFG(TOSHIBA)

- P9 : Pin assignment
- P10 : Register setting (BANK0)
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- P12 : Register setting (BANK2)

TG_pin assignment (example)

TCD2565BFG

Sensor Signal	AK8464	
	Signal	TG_pin
SH1	SH0	TG9
SH2	SH1	TG10
SH2B	SH2	TG11
SH3	SH3	TG3
SW	High	TG0
TG(CLR)	SH5	TG1
Φ1A	P0	TG4
Φ2A,Φ2B	P1	TG5
RS	PRS	TG7
CP	PCL	TG8

*35MHz_Color_mode

Register setting example (TCD2565BFG)

BANK0

Adrs	Register Name		Adrs	Register Name		Adrs	Register Name	
00h	BANK_CTRL	00	2Bh	Reserved	00	56h	PPRS	00
01h	CTRL	01	2Ch	Reserved	00	57h	PPCLR	0F
02h	CTRL	80	2Dh	LVDSCTRL	00	58h	PPCLF	1B
03h	CLK_CTRL	4B	2Eh	LVDSCTRL	00	59h	PP0	00
04h	CLK_CTRL	26	2Fh	LVDSCTRL	00	5Ah	PP0	00
05h	CLK_CTRL	20	30h	LVDSCTRL	00	5Bh	PP0	00
06h	CLK_CTRL	AF	31h	LVDSCTRL	02	5Ch	PP0	00
07h	CLK_CTRL	00	32h	LVDSCTRL	00	5Dh	PP0	1C
08h	IO_CTRL	30	33h	LVDSCTRL	00	5Eh	PP0	00
09h	VCLP_CTRL	00	34h	TRIGCTRL	01	5Fh	PP0	00
0Ah	AFE_CTRL	08	35h	SPLCTRL	00	60h	PP0	00
0Bh	ANALOG_ADJUST	00	36h	TGCTRL	01	61h	PP1	00
0Ch	ANALOG_ADJUST	00	37h	TGCTRL	06	62h	PP1	00
0Dh	ANALOG_ADJUST	00	38h	TGCTRL	00	63h	PP1	00
0Eh	ANALOG_ADJUST	00	39h	TGCTRL	05	64h	PP1	00
0Fh	DIGITAL_ADJUST	00	3Ah	TGCTRL	15	65h	PP1	1C
10h	DIGITAL_ADJUST	00	3Bh	TGCTRL	06	66h	PP1	00
11h	DIGITAL_ADJUST	00	3Ch	TGCTRL	00	67h	PP1	00
12h	DIGITAL_ADJUST	00	3Dh	TGCTRL	07	68h	PP1	00
13h	DIGITAL_ADJUST	00	3Eh	TGCTRL	06	69h	PP2	00
14h	DIGITAL_ADJUST	00	3Fh	TGCTRL	07	6Ah	PP2	00
15h	DIGITAL_ADJUST	00	40h	TGCTRL	07	6Bh	PP2	00
16h	DIGITAL_ADJUST	00	41h	TGCTRL	07	6Ch	PP2	00
17h	DIGITAL_ADJUST	00	42h	BLANK	07	6Dh	PP2	00
18h	AUTO_ADJUST	10	43h	BLANK		6Eh	PP2	00
19h	AUTO_ADJUST	10	44h	BLANK		6Fh	PP2	00
1Ah	AUTO_ADJUST	00	45h	COUNT0	16	70h	PP2	00
1Bh	AUTO_ADJUST	00	46h	COUNT0	A2	71h	PCISCK	00
1Ch	AUTO_ADJUST	00	47h	COUNT1	00	72h	PCISCK	00
1Dh	AUTO_ADJUST	00	48h	COUNT1	00	73h	PSHR	0C
1Eh	AUTO_ADJUST	00	49h	COUNT2	00	74h	PSHR	1A
1Fh	ANALOG_ADJUST_READ		4Ah	COUNT2	00	75h	PSHD	26
20h	ANALOG_ADJUST_READ		4Bh	SP1/TRIG_WIDTH	03	76h	PSHD	32
21h	ANALOG_ADJUST_READ		4Ch	COROL_CTRL	01	77h	PTRIG	00
22h	DIGITAL_ADJUST_READ		4Dh	PX_HARF	00	78h	PRS_CTRL	00
23h	DIGITAL_ADJUST_READ		4Eh	PX_HARF	00	79h	PRS_CTRL	01
24h	DIGITAL_ADJUST_READ		4Fh	PPRS	02	7Ah	PRS_CTRL	00
25h	DIGITAL_ADJUST_READ		50h	PPRS	00	7Bh	PRS_CTRL	E4
26h	DIGITAL_ADJUST_READ		51h	PPRS	00	7Ch	PCL_CTRL	00
27h	DIGITAL_ADJUST_READ		52h	PPRS	00	7Dh	PCL_CTRL	1
28h	Reserved	00	53h	PPRS	0E	7Eh	PCL_CTRL	00
29h	Reserved	00	54h	PPRS	00	7Fh	PCL_CTRL	E4
2Ah	Reserved	00	55h	PPRS	00			

* When writing to "BLANK", write "0".

Register setting example (TCD2565BFG)

BANK1

Adrs	Register Name		Adrs	Register Name		Adrs	Register Name	
00h	BANK_CTRL	40	2Bh	P1_SHIFT_CTRL	00	56h	SH1_CTRL	00
01h	P0_CTRL	00	2Ch	P1_SHIFT_CTRL	00	57h	LED2_CTRL	00
02h	P0_CTRL	01	2Dh	P2_SHIFT_CTRL	00	58h	LED2/SH2_CTRL	00
03h	P0_CTRL	00	2Eh	P2_SHIFT_CTRL	00	59h	LED2/SH2_CTRL	8C
04h	P0_CTRL	E4	2Fh	P2_SHIFT_CTRL	00	5Ah	LED2/SH2_CTRL	00
05h	P1_CTRL	00	30h	P2_SHIFT_CTRL	00	5Bh	LED2/SH2_CTRL	BB
06h	P1_CTRL	01	31h	P2_SHIFT_CTRL	00	5Ch	LED2/SH2_CTRL	00
07h	P1_CTRL	00	32h	P2_SHIFT_CTRL	00	5Dh	LED2/SH2_CTRL	00
08h	P1_CTRL	E4	33h	P2_SHIFT_CTRL	00	5Eh	SH2_CTRL	00
09h	P2_CTRL	00	34h	P2_SHIFT_CTRL	00	5Fh	SH2_CTRL	00
0Ah	P2_CTRL	00	35h	Reserved	00	60h	LED3_CTRL	00
0Bh	P2_CTRL	00	36h	Reserved	00	61h	LED3/SH3_CTRL	00
0Ch	P2_CTRL	00	37h	Reserved	00	62h	LED3/SH3_CTRL	B7
0Dh	CISCK	00	38h	Reserved	00	63h	LED3/SH3_CTRL	00
0Eh	CISCK	00	39h	Reserved	00	64h	LED3/SH3_CTRL	CD
0Fh	CISCK	00	3Ah	Reserved	00	65h	LED3/SH3_CTRL	00
10h	CISCK	00	3Bh	Reserved	00	66h	LED3/SH3_CTRL	00
11h	SHR	00	3Ch	Reserved	00	67h	SH3_CTRL	00
12h	SHR	00	3Dh	BLANK		68h	SH3_CTRL	00
13h	SHR	00	3Eh	BLANK		69h	LED4_CTRL	00
14h	SHR	00	3Fh	BLANK		6Ah	LED4/SH4_CTRL	00
15h	P0_SHIFT_CTRL	00	40h	BLANK		6Bh	LED4/SH4_CTRL	00
16h	P0_SHIFT_CTRL	2C	41h	BLANK		6Ch	LED4/SH4_CTRL	00
17h	P0_SHIFT_CTRL	00	42h	BLANK		6Dh	LED4/SH4_CTRL	00
18h	P0_SHIFT_CTRL	68	43h	BLANK		6Eh	LED4_CTRL	00
19h	P0_SHIFT_CTRL	00	44h	BLANK		6Fh	LED4_CTRL	00
1Ah	P0_SHIFT_CTRL	AF	45h	LED0_CTRL	00	70h	LED5_CTRL	00
1Bh	P0_SHIFT_CTRL	00	46h	LED0/SH0_CTRL	00	71h	LED5/SH5_CTRL	00
1Ch	P0_SHIFT_CTRL	B3	47h	LED0/SH0_CTRL	04	72h	LED5/SH5_CTRL	1E
1Dh	P0_SHIFT_CTRL	00	48h	LED0/SH0_CTRL	00	73h	LED5/SH5_CTRL	00
1Eh	P0_SHIFT_CTRL	DF	49h	LED0/SH0_CTRL	1A	74h	LED5/SH5_CTRL	68
1Fh	P0_SHIFT_CTRL	00	4Ah	LED0/SH0_CTRL	00	75h	LED5_CTRL	00
20h	P0_SHIFT_CTRL	E1	4Bh	LED0/SH0_CTRL	B7	76h	LED5_CTRL	00
21h	P1_SHIFT_CTRL	00	4Ch	SH0_CTRL	00	77h	SH6_CTRL	00
22h	P1_SHIFT_CTRL	64	4Dh	SH0_CTRL	CD	78h	SH6_CTRL	00
23h	P1_SHIFT_CTRL	00	4Eh	LED1_CTRL	00	79h	SH6_CTRL	00
24h	P1_SHIFT_CTRL	B3	4Fh	LED1/SH1_CTRL	00	7Ah	SH6_CTRL	00
25h	P1_SHIFT_CTRL	00	50h	LED1/SH1_CTRL	8C	7Bh	Reserved	00
26h	P1_SHIFT_CTRL	DF	51h	LED1/SH1_CTRL	00	7Ch	Reserved	00
27h	P1_SHIFT_CTRL	00	52h	LED1/SH1_CTRL	B7	7Dh	Reserved	00
28h	P1_SHIFT_CTRL	E1	53h	LED1/SH1_CTRL	00	7Eh	Reserved	00
29h	P1_SHIFT_CTRL	00	54h	LED1/SH1_CTRL	00	7Fh	Reserved	00
2Ah	P1_SHIFT_CTRL	00	55h	SH1_CTRL	00			

* When writing to "BLANK", write "0".

Register setting example (TCD2565BFG)

BANK2

Adrs	Register Name	
00h	BANK_CTRL	80
01h	SP2_CTRL	00
02h	SP2_CTRL	00
03h	SP2_CTRL	00
04h	SP2_CTRL	00
05h	SP2_CTRL	00
06h	SP2_CTRL	00
07h	SP2_CTRL	00
08h	OBP_CTRL	01
09h	OBP_CTRL	10
0Ah	OBP_CTRL	01
0Bh	OBP_CTRL	6C
0Ch	Reserved	00
0Dh	Reserved	00
0Eh	Reserved	00
0Fh	Reserved	00
10h	AGC_CTRL	00
11h	AGC_CTRL	00
12h	AGC_CTRL	00
13h	AGC_CTRL	00
14h	BOS_CTRL	01
15h	BOS_CTRL	6F
16h	BOS_CTRL	01
17h	BOS_CTRL	70
18h	BOS_CTRL	00
19h	BOS_CTRL	00
1Ah	BOS_CTRL	00
1Bh	BOS_CTRL	00
1Ch	BOS_CTRL	00
1Dh	BOS_CTRL	00
1Eh	BOS_CTRL	00
1Fh	BOS_CTRL	00
20h	SHINT_CTRL	00
21h	SHINT_CTRL	00
22h	SHINT_CTR	00
23h	SHINT_CTR	00
24h	EN_CTRL	00
25h	EN_CTRL	00
26h	EN_CTRL	00
27h	EN_CTRL	00
28h	Reserved	00
29h	Reserved	00
2Ah	BLANK	

Adrs	Register Name	
2Bh	BLANK	
2Ch	BLANK	
2Dh	AK7864CTRL	00
2Eh	AK7864CTRL	00
2Fh	AK7864CTRL	00
30h	AK7864CTRL	00
31h	AK7864CTRL	00
32h	AK7864CTRL	00
33h	AK7864CTRL	00
34h	AK7864CTRL	00
35h	AK7864CTRL	00
36h	AK7864CTRL	00
37h	ANALOG_ADJUST	00
38h	ANALOG_ADJUST	00
39h	ANALOG_ADJUST	00
3Ah	DIGITAL_ADJUST	00
3Bh	DIGITAL_ADJUST	00
3Ch	DIGITAL_ADJUST	00
3Dh	DIGITAL_ADJUST	00
3Eh	DIGITAL_ADJUST	00
3Fh	DIGITAL_ADJUST	00
40h	DIGITAL_ADJUST	00
41h	DIGITAL_ADJUST	00
42h	DIGITAL_ADJUST	00
43h	ANALOG_ADJUST	00
44h	ANALOG_ADJUST	00
45h	ANALOG_ADJUST	00
46h	DIGITAL_ADJUST	00
47h	DIGITAL_ADJUST	00
48h	DIGITAL_ADJUST	00
49h	DIGITAL_ADJUST	00
4Ah	DIGITAL_ADJUST	00
4Bh	DIGITAL_ADJUST	00
4Ch	DIGITAL_ADJUST	00
4Dh	DIGITAL_ADJUST	00
4Eh	DIGITAL_ADJUST	00
4Fh	BLANK	
...	...	
7Fh	BLANK	

* When writing to "BLANK", write "0".

TG_pin assignment (example)

TCD2566BFG

Sensor Signal	AK8464	
	Signal	TG_pin
SW1	Low	TG0
SW2	High	TG1
SCG	SH3	TG2
SH	SH4	TG3
Φ1A,Φ1C	P0	TG4
Φ2A	P1	TG5
Φ1B,Φ2B	Low	TG6
RS	PRS	TG7
CP	PCL	TG8

*35MHz_Color_600dpi_TDI="ON"

Register setting example (TCD2566BFG)

BANK0

Adrs	Register Name		Adrs	Register Name		Adrs	Register Name	
00h	BANK_CTRL	00	2Bh	Reserved	00	56h	PPRS	00
01h	CTRL	01	2Ch	Reserved	00	57h	PPCLR	0C
02h	CTRL	80	2Dh	LVDSCTRL	00	58h	PPCLF	1C
03h	CLK_CTRL	4B	2Eh	LVDSCTRL	00	59h	PP0	00
04h	CLK_CTRL	26	2Fh	LVDSCTRL	00	5Ah	PP0	34
05h	CLK_CTRL	20	30h	LVDSCTRL	00	5Bh	PP0	00
06h	CLK_CTRL	AF	31h	LVDSCTRL	02	5Ch	PP0	00
07h	CLK_CTRL	00	32h	LVDSCTRL	00	5Dh	PP0	1C
08h	IO_CTRL	30	33h	LVDSCTRL	00	5Eh	PP0	00
09h	VCLP_CTRL	00	34h	TRIGCTRL	01	5Fh	PP0	00
0Ah	AFE_CTRL	08	35h	SPLCTRL	00	60h	PP0	00
0Bh	ANALOG_ADJUST	00	36h	TGCTRL	00	61h	PP1	00
0Ch	ANALOG_ADJUST	00	37h	TGCTRL	01	62h	PP1	00
0Dh	ANALOG_ADJUST	00	38h	TGCTRL	05	63h	PP1	00
0Eh	ANALOG_ADJUST	00	39h	TGCTRL	05	64h	PP1	00
0Fh	DIGITAL_ADJUST	00	3Ah	TGCTRL	15	65h	PP1	1C
10h	DIGITAL_ADJUST	00	3Bh	TGCTRL	06	66h	PP1	00
11h	DIGITAL_ADJUST	00	3Ch	TGCTRL	00	67h	PP1	00
12h	DIGITAL_ADJUST	00	3Dh	TGCTRL	07	68h	PP1	00
13h	DIGITAL_ADJUST	00	3Eh	TGCTRL	06	69h	PP2	00
14h	DIGITAL_ADJUST	00	3Fh	TGCTRL	00	6Ah	PP2	00
15h	DIGITAL_ADJUST	00	40h	TGCTRL	00	6Bh	PP2	00
16h	DIGITAL_ADJUST	00	41h	TGCTRL	00	6Ch	PP2	00
17h	DIGITAL_ADJUST	00	42h	BLANK		6Dh	PP2	00
18h	AUTO_ADJUST	10	43h	BLANK		6Eh	PP2	00
19h	AUTO_ADJUST	10	44h	BLANK		6Fh	PP2	00
1Ah	AUTO_ADJUST	00	45h	COUNT0	16	70h	PP2	00
1Bh	AUTO_ADJUST	00	46h	COUNT0	29	71h	PCISCK	00
1Ch	AUTO_ADJUST	00	47h	COUNT1	00	72h	PCISCK	00
1Dh	AUTO_ADJUST	00	48h	COUNT1	00	73h	PSHR	10
1Eh	AUTO_ADJUST	00	49h	COUNT2	00	74h	PSHR	1E
1Fh	ANALOG_ADJUST_READ		4Ah	COUNT2	00	75h	PSHD	26
20h	ANALOG_ADJUST_READ		4Bh	SP1/TRIG_WIDTH	03	76h	PSHD	32
21h	ANALOG_ADJUST_READ		4Ch	COROL_CTRL	01	77h	PTRIG	00
22h	DIGITAL_ADJUST_READ		4Dh	PX_HARF	00	78h	PRS_CTRL	00
23h	DIGITAL_ADJUST_READ		4Eh	PX_HARF	00	79h	PRS_CTRL	01
24h	DIGITAL_ADJUST_READ		4Fh	PPRS	00	7Ah	PRS_CTRL	00
25h	DIGITAL_ADJUST_READ		50h	PPRS	00	7Bh	PRS_CTRL	E4
26h	DIGITAL_ADJUST_READ		51h	PPRS	00	7Ch	PCL_CTRL	00
27h	DIGITAL_ADJUST_READ		52h	PPRS	00	7Dh	PCL_CTRL	1
28h	Reserved	00	53h	PPRS	10	7Eh	PCL_CTRL	00
29h	Reserved	00	54h	PPRS	00	7Fh	PCL_CTRL	E4
2Ah	Reserved	00	55h	PPRS	00			

* When writing to "BLANK", write "0".

Register setting example (TCD2566BFG)

BANK1

Adrs	Register Name		Adrs	Register Name		Adrs	Register Name	
00h	BANK_CTRL	40	2Bh	P1_SHIFT_CTRL	00	56h	SH1_CTRL	00
01h	P0_CTRL	00	2Ch	P1_SHIFT_CTRL	00	57h	LED2_CTRL	00
02h	P0_CTRL	01	2Dh	P2_SHIFT_CTRL	00	58h	LED2/SH2_CTRL	00
03h	P0_CTRL	01	2Eh	P2_SHIFT_CTRL	00	59h	LED2/SH2_CTRL	00
04h	P0_CTRL	1E	2Fh	P2_SHIFT_CTRL	00	5Ah	LED2/SH2_CTRL	00
05h	P1_CTRL	00	30h	P2_SHIFT_CTRL	00	5Bh	LED2/SH2_CTRL	00
06h	P1_CTRL	01	31h	P2_SHIFT_CTRL	00	5Ch	LED2/SH2_CTRL	00
07h	P1_CTRL	01	32h	P2_SHIFT_CTRL	00	5Dh	LED2/SH2_CTRL	00
08h	P1_CTRL	1E	33h	P2_SHIFT_CTRL	00	5Eh	SH2_CTRL	00
09h	P2_CTRL	00	34h	P2_SHIFT_CTRL	00	5Fh	SH2_CTRL	00
0Ah	P2_CTRL	00	35h	Reserved	00	60h	LED3_CTRL	00
0Bh	P2_CTRL	00	36h	Reserved	00	61h	LED3/SH3_CTRL	00
0Ch	P2_CTRL	00	37h	Reserved	00	62h	LED3/SH3_CTRL	05
0Dh	CISCK	00	38h	Reserved	00	63h	LED3/SH3_CTRL	00
0Eh	CISCK	00	39h	Reserved	00	64h	LED3/SH3_CTRL	6E
0Fh	CISCK	00	3Ah	Reserved	00	65h	LED3/SH3_CTRL	00
10h	CISCK	00	3Bh	Reserved	00	66h	LED3/SH3_CTRL	00
11h	SHR	00	3Ch	Reserved	00	67h	SH3_CTRL	00
12h	SHR	00	3Dh	BLANK		68h	SH3_CTRL	00
13h	SHR	00	3Eh	BLANK		69h	LED4_CTRL	00
14h	SHR	00	3Fh	BLANK		6Ah	LED4/SH4_CTRL	00
15h	P0_SHIFT_CTRL	00	40h	BLANK		6Bh	LED4/SH4_CTRL	91
16h	P0_SHIFT_CTRL	00	41h	BLANK		6Ch	LED4/SH4_CTRL	00
17h	P0_SHIFT_CTRL	00	42h	BLANK		6Dh	LED4/SH4_CTRL	FA
18h	P0_SHIFT_CTRL	00	43h	BLANK		6Eh	LED4_CTRL	00
19h	P0_SHIFT_CTRL	00	44h	BLANK		6Fh	LED4_CTRL	00
1Ah	P0_SHIFT_CTRL	00	45h	LED0_CTRL	00	70h	LED5_CTRL	00
1Bh	P0_SHIFT_CTRL	00	46h	LED0/SH0_CTRL	00	71h	LED5/SH5_CTRL	00
1Ch	P0_SHIFT_CTRL	00	47h	LED0/SH0_CTRL	00	72h	LED5/SH5_CTRL	00
1Dh	P0_SHIFT_CTRL	00	48h	LED0/SH0_CTRL	00	73h	LED5/SH5_CTRL	00
1Eh	P0_SHIFT_CTRL	00	49h	LED0/SH0_CTRL	00	74h	LED5/SH5_CTRL	00
1Fh	P0_SHIFT_CTRL	00	4Ah	LED0/SH0_CTRL	00	75h	LED5_CTRL	00
20h	P0_SHIFT_CTRL	00	4Bh	LED0/SH0_CTRL	00	76h	LED5_CTRL	00
21h	P1_SHIFT_CTRL	00	4Ch	SH0_CTRL	00	77h	SH6_CTRL	00
22h	P1_SHIFT_CTRL	00	4Dh	SH0_CTRL	00	78h	SH6_CTRL	00
23h	P1_SHIFT_CTRL	00	4Eh	LED1_CTRL	00	79h	SH6_CTRL	00
24h	P1_SHIFT_CTRL	00	4Fh	LED1/SH1_CTRL	00	7Ah	SH6_CTRL	00
25h	P1_SHIFT_CTRL	00	50h	LED1/SH1_CTRL	00	7Bh	Reserved	00
26h	P1_SHIFT_CTRL	00	51h	LED1/SH1_CTRL	00	7Ch	Reserved	00
27h	P1_SHIFT_CTRL	00	52h	LED1/SH1_CTRL	00	7Dh	Reserved	00
28h	P1_SHIFT_CTRL	00	53h	LED1/SH1_CTRL	00	7Eh	Reserved	00
29h	P1_SHIFT_CTRL	00	54h	LED1/SH1_CTRL	00	7Fh	Reserved	00
2Ah	P1_SHIFT_CTRL	00	55h	SH1_CTRL	00			

* When writing to "BLANK", write "0".

Register setting example (TCD2566BFG)

BANK2

Adrs	Register Name		Adrs	Register Name	
00h	BANK_CTRL	80	2Bh	BLANK	
01h	SP2_CTRL	00	2Ch	BLANK	
02h	SP2_CTRL	00	2Dh	AK7864CTRL	00
03h	SP2_CTRL	00	2Eh	AK7864CTRL	00
04h	SP2_CTRL	00	2Fh	AK7864CTRL	00
05h	SP2_CTRL	00	30h	AK7864CTRL	00
06h	SP2_CTRL	00	31h	AK7864CTRL	00
07h	SP2_CTRL	00	32h	AK7864CTRL	00
08h	OBP_CTRL	01	33h	AK7864CTRL	00
09h	OBP_CTRL	10	34h	AK7864CTRL	00
0Ah	OBP_CTRL	01	35h	AK7864CTRL	00
0Bh	OBP_CTRL	6C	36h	AK7864CTRL	00
0Ch	Reserved	00	37h	ANALOG_ADJUST	00
0Dh	Reserved	00	38h	ANALOG_ADJUST	00
0Eh	Reserved	00	39h	ANALOG_ADJUST	00
0Fh	Reserved	00	3Ah	DIGITAL_ADJUST	00
10h	AGC_CTRL	00	3Bh	DIGITAL_ADJUST	00
11h	AGC_CTRL	00	3Ch	DIGITAL_ADJUST	00
12h	AGC_CTRL	00	3Dh	DIGITAL_ADJUST	00
13h	AGC_CTRL	00	3Eh	DIGITAL_ADJUST	00
14h	BOS_CTRL	01	3Fh	DIGITAL_ADJUST	00
15h	BOS_CTRL	3B	40h	DIGITAL_ADJUST	00
16h	BOS_CTRL	01	41h	DIGITAL_ADJUST	00
17h	BOS_CTRL	3C	42h	DIGITAL_ADJUST	00
18h	BOS_CTRL	00	43h	ANALOG_ADJUST	00
19h	BOS_CTRL	00	44h	ANALOG_ADJUST	00
1Ah	BOS_CTRL	00	45h	ANALOG_ADJUST	00
1Bh	BOS_CTRL	00	46h	DIGITAL_ADJUST	00
1Ch	BOS_CTRL	00	47h	DIGITAL_ADJUST	00
1Dh	BOS_CTRL	00	48h	DIGITAL_ADJUST	00
1Eh	BOS_CTRL	00	49h	DIGITAL_ADJUST	00
1Fh	BOS_CTRL	00	4Ah	DIGITAL_ADJUST	00
20h	SHINT_CTRL	00	4Bh	DIGITAL_ADJUST	00
21h	SHINT_CTRL	00	4Ch	DIGITAL_ADJUST	00
22h	SHINT_CTR	00	4Dh	DIGITAL_ADJUST	00
23h	SHINT_CTR	00	4Eh	DIGITAL_ADJUST	00
24h	EN_CTRL	00	4Fh	BLANK	
25h	EN_CTRL	00	
26h	EN_CTRL	00	7Fh	BLANK	
27h	EN_CTRL	00			
28h	Reserved	00			
29h	Reserved	00			
2Ah	BLANK				

* When writing to "BLANK", write "0".

TG_pin assignment (example)

TCD2569BFG

Sensor Signal	AK8464	
	Signal	TG_pin
SH1	SH0	TG9
SH2	SH1	TG10
SH2B	SH2	TG11
SH3	SH3	TG3
ESW	High	TG0
TG	SH5	TG1
Φ1A	P0	TG4
Φ2A	P1	TG5
Φ2B	P2	TG6
RS	PRS	TG7

*35MHz

Register setting example (TCD2569BFG)

BANK0

Adrs	Register Name		Adrs	Register Name		Adrs	Register Name	
00h	BANK_CTRL	00	2Bh	Reserved	00	56h	PPRS	00
01h	CTRL	01	2Ch	Reserved	00	57h	PPCLR	00
02h	CTRL	80	2Dh	LVDSCTRL	00	58h	PPCLF	00
03h	CLK_CTRL	4B	2Eh	LVDSCTRL	00	59h	PP0	00
04h	CLK_CTRL	26	2Fh	LVDSCTRL	00	5Ah	PP0	00
05h	CLK_CTRL	20	30h	LVDSCTRL	00	5Bh	PP0	00
06h	CLK_CTRL	AF	31h	LVDSCTRL	02	5Ch	PP0	00
07h	CLK_CTRL	00	32h	LVDSCTRL	00	5Dh	PP0	1C
08h	IO_CTRL	30	33h	LVDSCTRL	00	5Eh	PP0	00
09h	VCLP_CTRL	00	34h	TRIGCTRL	01	5Fh	PP0	00
0Ah	AFE_CTRL	0F	35h	SPLCTRL	00	60h	PP0	00
0Bh	ANALOG_ADJUST	00	36h	TGCTRL	01	61h	PP1	00
0Ch	ANALOG_ADJUST	00	37h	TGCTRL	06	62h	PP1	00
0Dh	ANALOG_ADJUST	00	38h	TGCTRL	00	63h	PP1	00
0Eh	ANALOG_ADJUST	00	39h	TGCTRL	05	64h	PP1	00
0Fh	DIGITAL_ADJUST	00	3Ah	TGCTRL	15	65h	PP1	1C
10h	DIGITAL_ADJUST	00	3Bh	TGCTRL	06	66h	PP1	00
11h	DIGITAL_ADJUST	00	3Ch	TGCTRL	07	67h	PP1	00
12h	DIGITAL_ADJUST	00	3Dh	TGCTRL	07	68h	PP1	00
13h	DIGITAL_ADJUST	00	3Eh	TGCTRL	06	69h	PP2	00
14h	DIGITAL_ADJUST	00	3Fh	TGCTRL	07	6Ah	PP2	00
15h	DIGITAL_ADJUST	00	40h	TGCTRL	07	6Bh	PP2	00
16h	DIGITAL_ADJUST	00	41h	TGCTRL	07	6Ch	PP2	00
17h	DIGITAL_ADJUST	00	42h	BLANK	07	6Dh	PP2	1C
18h	AUTO_ADJUST	10	43h	BLANK		6Eh	PP2	00
19h	AUTO_ADJUST	10	44h	BLANK		6Fh	PP2	00
1Ah	AUTO_ADJUST	00	45h	COUNT0	16	70h	PP2	00
1Bh	AUTO_ADJUST	00	46h	COUNT0	36	71h	PCISCK	00
1Ch	AUTO_ADJUST	00	47h	COUNT1	00	72h	PCISCK	00
1Dh	AUTO_ADJUST	00	48h	COUNT1	00	73h	PSHR	05
1Eh	AUTO_ADJUST	00	49h	COUNT2	00	74h	PSHR	1A
1Fh	ANALOG_ADJUST_READ		4Ah	COUNT2	00	75h	PSHD	05
20h	ANALOG_ADJUST_READ		4Bh	SP1/TRIG_WIDTH	03	76h	PSHD	1A
21h	ANALOG_ADJUST_READ		4Ch	COROL_CTRL	01	77h	PTRIG	00
22h	DIGITAL_ADJUST_READ		4Dh	PX_HARF	00	78h	PRS_CTRL	00
23h	DIGITAL_ADJUST_READ		4Eh	PX_HARF	00	79h	PRS_CTRL	01
24h	DIGITAL_ADJUST_READ		4Fh	PPRS	00	7Ah	PRS_CTRL	00
25h	DIGITAL_ADJUST_READ		50h	PPRS	00	7Bh	PRS_CTRL	B5
26h	DIGITAL_ADJUST_READ		51h	PPRS	00	7Ch	PCL_CTRL	00
27h	DIGITAL_ADJUST_READ		52h	PPRS	00	7Dh	PCL_CTRL	00
28h	Reserved	00	53h	PPRS	04	7Eh	PCL_CTRL	00
29h	Reserved	00	54h	PPRS	00	7Fh	PCL_CTRL	00
2Ah	Reserved	00	55h	PPRS	00			

* When writing to "BLANK", write "0".

Register setting example (TCD2569BFG)

BANK1

Adrs	Register Name		Adrs	Register Name		Adrs	Register Name	
00h	BANK_CTRL	40	2Bh	P1_SHIFT_CTRL	00	56h	SH1_CTRL	00
01h	P0_CTRL	00	2Ch	P1_SHIFT_CTRL	00	57h	LED2_CTRL	00
02h	P0_CTRL	01	2Dh	P2_SHIFT_CTRL	00	58h	LED2/SH2_CTRL	00
03h	P0_CTRL	00	2Eh	P2_SHIFT_CTRL	00	59h	LED2/SH2_CTRL	5D
04h	P0_CTRL	B5	2Fh	P2_SHIFT_CTRL	00	5Ah	LED2/SH2_CTRL	00
05h	P1_CTRL	00	30h	P2_SHIFT_CTRL	00	5Bh	LED2/SH2_CTRL	8C
06h	P1_CTRL	01	31h	P2_SHIFT_CTRL	00	5Ch	LED2/SH2_CTRL	00
07h	P1_CTRL	00	32h	P2_SHIFT_CTRL	00	5Dh	LED2/SH2_CTRL	00
08h	P1_CTRL	B5	33h	P2_SHIFT_CTRL	00	5Eh	SH2_CTRL	00
09h	P2_CTRL	00	34h	P2_SHIFT_CTRL	00	5Fh	SH2_CTRL	00
0Ah	P2_CTRL	01	35h	Reserved	00	60h	LED3_CTRL	00
0Bh	P2_CTRL	00	36h	Reserved	00	61h	LED3/SH3_CTRL	00
0Ch	P2_CTRL	B5	37h	Reserved	00	62h	LED3/SH3_CTRL	88
0Dh	CISCK	00	38h	Reserved	00	63h	LED3/SH3_CTRL	00
0Eh	CISCK	00	39h	Reserved	00	64h	LED3/SH3_CTRL	9E
0Fh	CISCK	00	3Ah	Reserved	00	65h	LED3/SH3_CTRL	00
10h	CISCK	00	3Bh	Reserved	00	66h	LED3/SH3_CTRL	00
11h	SHR	01	3Ch	Reserved	00	67h	SH3_CTRL	00
12h	SHR	3E	3Dh	BLANK		68h	SH3_CTRL	00
13h	SHR	00	3Eh	BLANK		69h	LED4_CTRL	00
14h	SHR	E0	3Fh	BLANK		6Ah	LED4/SH4_CTRL	00
15h	P0_SHIFT_CTRL	00	40h	BLANK		6Bh	LED4/SH4_CTRL	00
16h	P0_SHIFT_CTRL	2B	41h	BLANK		6Ch	LED4/SH4_CTRL	00
17h	P0_SHIFT_CTRL	00	42h	BLANK		6Dh	LED4/SH4_CTRL	00
18h	P0_SHIFT_CTRL	59	43h	BLANK		6Eh	LED4_CTRL	00
19h	P0_SHIFT_CTRL	00	44h	BLANK		6Fh	LED4_CTRL	00
1Ah	P0_SHIFT_CTRL	80	45h	LED0_CTRL	00	70h	LED5_CTRL	00
1Bh	P0_SHIFT_CTRL	00	46h	LED0/SH0_CTRL	00	71h	LED5/SH5_CTRL	00
1Ch	P0_SHIFT_CTRL	84	47h	LED0/SH0_CTRL	04	72h	LED5/SH5_CTRL	1D
1Dh	P0_SHIFT_CTRL	00	48h	LED0/SH0_CTRL	00	73h	LED5/SH5_CTRL	00
1Eh	P0_SHIFT_CTRL	B0	49h	LED0/SH0_CTRL	19	74h	LED5/SH5_CTRL	59
1Fh	P0_SHIFT_CTRL	00	4Ah	LED0/SH0_CTRL	00	75h	LED5_CTRL	00
20h	P0_SHIFT_CTRL	B2	4Bh	LED0/SH0_CTRL	88	76h	LED5_CTRL	00
21h	P1_SHIFT_CTRL	00	4Ch	SH0_CTRL	00	77h	SH6_CTRL	00
22h	P1_SHIFT_CTRL	55	4Dh	SH0_CTRL	9E	78h	SH6_CTRL	00
23h	P1_SHIFT_CTRL	00	4Eh	LED1_CTRL	00	79h	SH6_CTRL	00
24h	P1_SHIFT_CTRL	84	4Fh	LED1/SH1_CTRL	00	7Ah	SH6_CTRL	00
25h	P1_SHIFT_CTRL	00	50h	LED1/SH1_CTRL	5D	7Bh	Reserved	00
26h	P1_SHIFT_CTRL	B0	51h	LED1/SH1_CTRL	00	7Ch	Reserved	00
27h	P1_SHIFT_CTRL	00	52h	LED1/SH1_CTRL	88	7Dh	Reserved	00
28h	P1_SHIFT_CTRL	B2	53h	LED1/SH1_CTRL	00	7Eh	Reserved	00
29h	P1_SHIFT_CTRL	00	54h	LED1/SH1_CTRL	00	7Fh	Reserved	00
2Ah	P1_SHIFT_CTRL	00	55h	SH1_CTRL	00			

* When writing to "BLANK", write "0".

Register setting example (TCD2569BFG)

BANK2

Adrs	Register Name	
00h	BANK_CTRL	80
01h	SP2_CTRL	00
02h	SP2_CTRL	00
03h	SP2_CTRL	00
04h	SP2_CTRL	00
05h	SP2_CTRL	00
06h	SP2_CTRL	00
07h	SP2_CTRL	00
08h	OBP_CTRL	00
09h	OBP_CTRL	E0
0Ah	OBP_CTRL	01
0Bh	OBP_CTRL	3C
0Ch	Reserved	00
0Dh	Reserved	00
0Eh	Reserved	00
0Fh	Reserved	00
10h	AGC_CTRL	00
11h	AGC_CTRL	00
12h	AGC_CTRL	00
13h	AGC_CTRL	00
14h	BOS_CTRL	01
15h	BOS_CTRL	40
16h	BOS_CTRL	01
17h	BOS_CTRL	41
18h	BOS_CTRL	00
19h	BOS_CTRL	00
1Ah	BOS_CTRL	00
1Bh	BOS_CTRL	00
1Ch	BOS_CTRL	00
1Dh	BOS_CTRL	00
1Eh	BOS_CTRL	00
1Fh	BOS_CTRL	00
20h	SHINT_CTRL	00
21h	SHINT_CTRL	00
22h	SHINT_CTR	00
23h	SHINT_CTR	00
24h	EN_CTRL	00
25h	EN_CTRL	00
26h	EN_CTRL	00
27h	EN_CTRL	00
28h	Reserved	00
29h	Reserved	00
2Ah	BLANK	

Adrs	Register Name	
2Bh	BLANK	
2Ch	BLANK	
2Dh	AK7864CTRL	00
2Eh	AK7864CTRL	00
2Fh	AK7864CTRL	00
30h	AK7864CTRL	00
31h	AK7864CTRL	00
32h	AK7864CTRL	00
33h	AK7864CTRL	00
34h	AK7864CTRL	00
35h	AK7864CTRL	00
36h	AK7864CTRL	00
37h	ANALOG_ADJUST	00
38h	ANALOG_ADJUST	00
39h	ANALOG_ADJUST	00
3Ah	DIGITAL_ADJUST	00
3Bh	DIGITAL_ADJUST	00
3Ch	DIGITAL_ADJUST	00
3Dh	DIGITAL_ADJUST	00
3Eh	DIGITAL_ADJUST	00
3Fh	DIGITAL_ADJUST	00
40h	DIGITAL_ADJUST	00
41h	DIGITAL_ADJUST	00
42h	DIGITAL_ADJUST	00
43h	ANALOG_ADJUST	00
44h	ANALOG_ADJUST	00
45h	ANALOG_ADJUST	00
46h	DIGITAL_ADJUST	00
47h	DIGITAL_ADJUST	00
48h	DIGITAL_ADJUST	00
49h	DIGITAL_ADJUST	00
4Ah	DIGITAL_ADJUST	00
4Bh	DIGITAL_ADJUST	00
4Ch	DIGITAL_ADJUST	00
4Dh	DIGITAL_ADJUST	00
4Eh	DIGITAL_ADJUST	00
4Fh	BLANK	
...	...	
7Fh	BLANK	

* When writing to "BLANK", write "0".