

TOSHIBA

TA8777BN

TENTATIVE TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

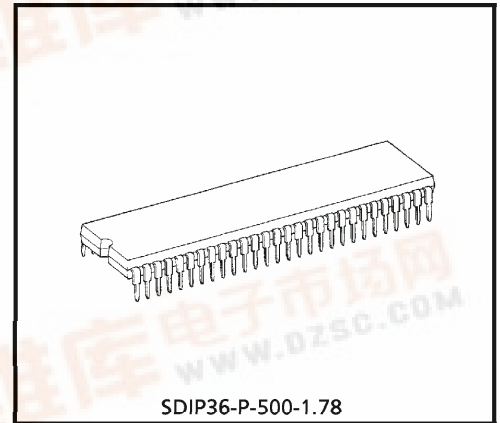
TA8777BN

AV SWITCH FOR COLOR TV

TA8777BN is a switching IC comprising two audio (R/L) and a video circuit and is offered in a shrink 36-pin plastic package.

The inputs for all the three audio/video circuits can be simultaneously switched among a TV input channel and for external input channels. Two of the four external input channels are compatible with S-terminals.

TA8777BN is controlled via the I²C Bus.

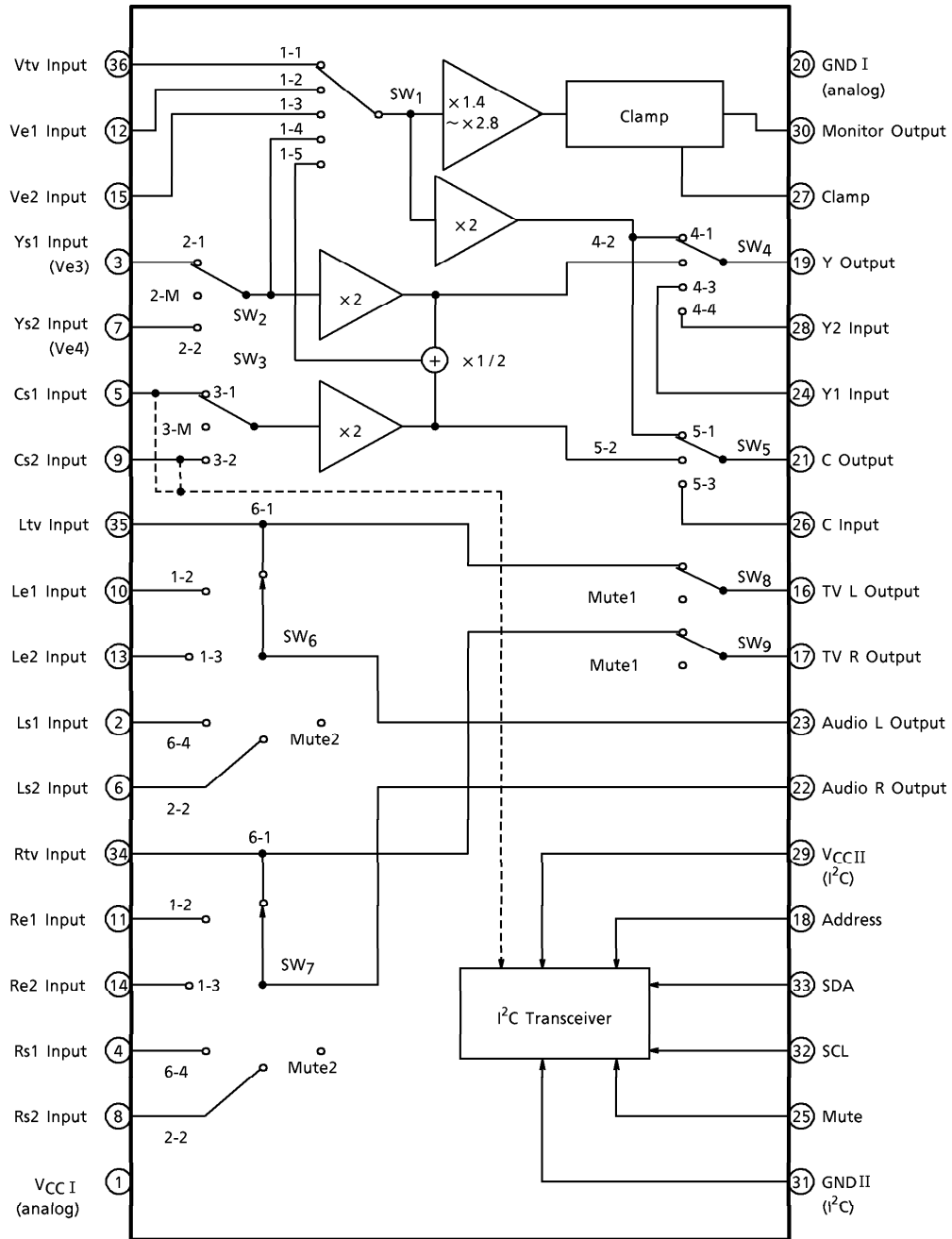


Weight : 2.98 g (Typ.)

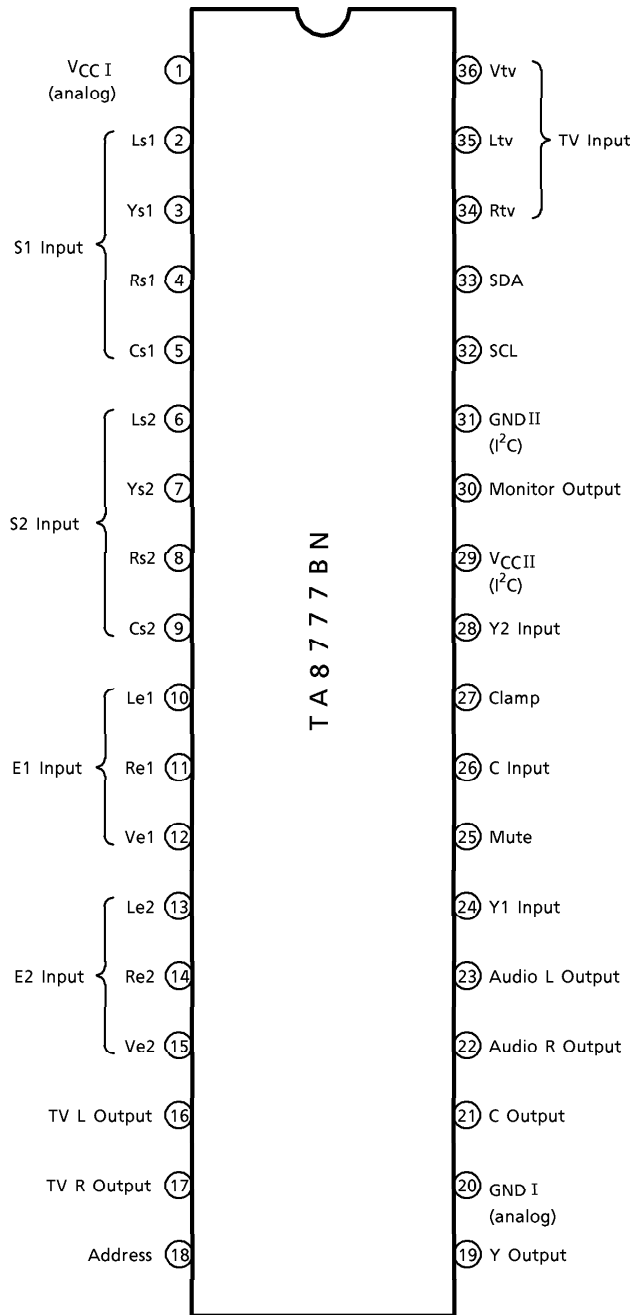
FEATURES

- Audio Two circuits (L/R)
 - Inputs : 1-channel TV input
4-channel external input
 - Outputs : L/R output
- Video One circuit
 - Inputs : 1-channel TV input
4-channel external input
 - Outputs : Monitor output
Y/C output
- Audio mute function
- Can be used with a comb filter.

BLOCK DIAGRAM



TERMINAL CONNECTION DIAGRAM



I²C Bus Slave Address

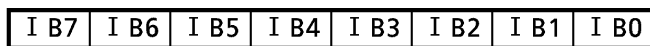
Voltage on Pin (V)	Address
0.0~1.5	10010000
1.5~4.5	10010110
4.5~7.5	10010100
7.5~9.0	10010010

Data Transfer Format



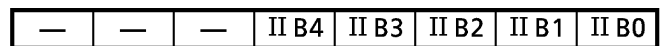
Bus Control Function

DATA I



Preset to { 00001111 } when power-on

DATA II



Preset to { ※※※00011 } when power-on
(※ = Don't care)

Mode Setting { I B7、 I B6、 I B5、 I B4 }

I B7	I B6	I B5	I B4	Pin5	Pin9	Mode Setting
0	0	0	0	※	※	TV
0	0	0	1	※	※	E1
0	0	1	0	※	※	E2
0	0	1	1	※	※	E3
0	1	0	0	※	※	E4
0	1	0	1	L	※	E3
				Open		S1
0	1	1	0	※	L	E4
				Open	S2	
0	1	1	1	※	※	TV1
1	0	0	0	※	※	TV2
1	0	0	1	※	※	TV
}						
1	1	1	1			

Video Gain { II B2、 II B1、 II B0 }

II B2	II B1	II B0	Gain
0	0	0	2.9dB
0	0	1	4.1dB
0	1	0	5.1dB
0	1	1	6.0dB
1	0	0	6.8dB
1	0	1	7.6dB
1	1	0	8.3dB
1	1	1	8.9dB

(Note 1) : When I B7~ I B4 are set for S1 Mode and S2 Mode, if a voltage not exceeding 1V is applied to the chrome input pin, the mode becomes E3 Mode and E4 Mode, respectively.

(Note 2) : When the values of I B7~ I B4 are within 1001~1111, TV Mode will be selected.

(Note 3) : ※ = Don't care.

System Setting (I B3· I B2)

I B3	System Setting	I B2	System Setting
0	4.43MHz	0	Black and white
1	3.58MHz	1	Color

Comb Filter (II B4)

II B4	Comb Filter
0	×
1	○

Mute On/Off (I B1· I B0)

I B0	Mute I	I B1	MuteII
0	Off	0	Off
1	On	1	On

Modes and Outputs

Mode	II B3	Switch Select	Monitor Output	Y Output	C Output	L Output	R Output
TV	0	1-1, 2-M, 3-M, 6-1	Vtv	See No.1 (on next page.)		Ltv	Rtv
	1	1-1, 2-M, 3-M, 6-4				Ls1	Rs1
E1	※	1-2, 2-M, 3-M	Ve1			Le1	Re1
E2	※	1-3, 2-M, 3-M	Ve2			Le2	Re2
E3	※	1-4, 2-1, 3-M, 6-4	Ys1			Ls1	Rs1
E4	※	1-4, 2-2, 3-M	Ys2			Ls2	Rs2
S1	※	1-5, 2-1, 3-1, 4-2, 5-2, 6-4	Ys1 + Cs1	Ys1	Cs1	Ls1	Rs1
S2	※	1-5, 2-2, 3-2, 4-2, 5-2	Ys2 + Cs2	Ys2	Cs2	Ls2	Rs2
TV1	0	1-4, 2-1, 3-1, 6-4	Ys1	See No.2 (on next page.)		Ls1	Rs1
	1	1-4, 2-1, 3-1, 6-1				Ltv	Rtv
TV2	※	1-4, 2-2, 3-2	Ys2			Ls2	Rs2

(Note) : ※ = Don't care.

No.1

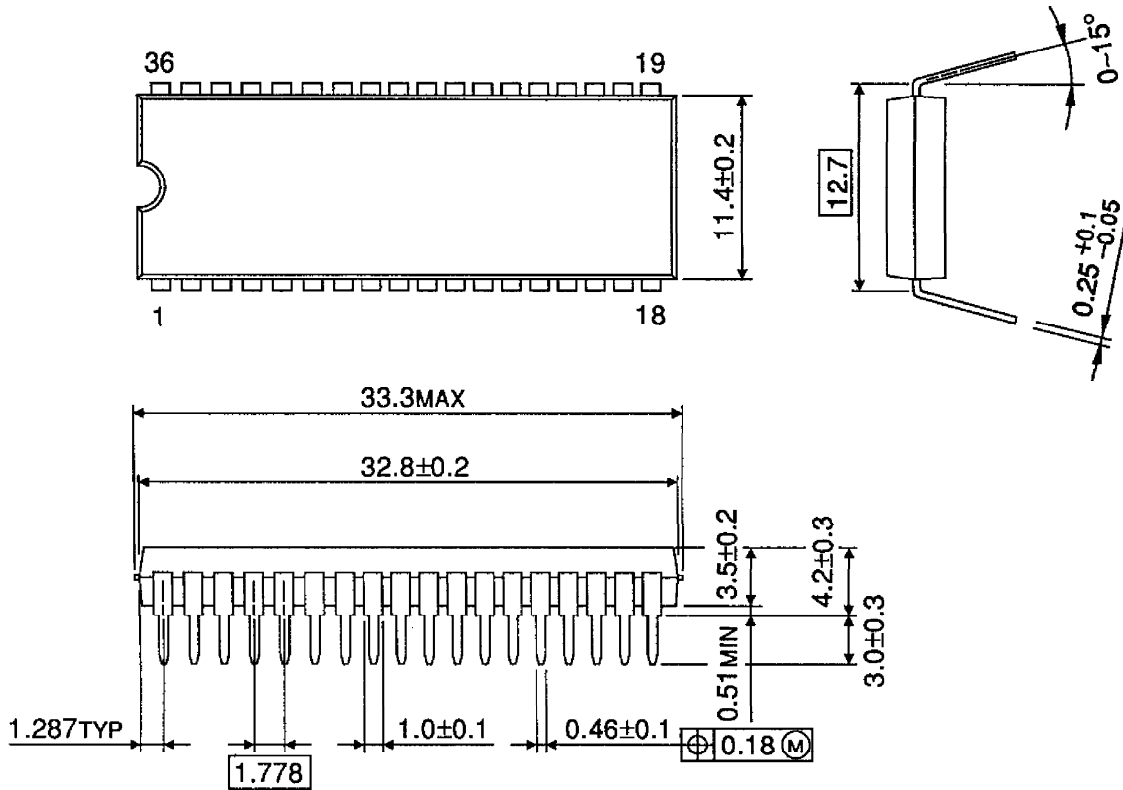
I B3	I B2	II B4	Switch Select	Y Output					C Output				
				TV	E1	E2	E3	E4	TV	E1	E2	E3	E4
0	0	0	4-1, 5-1	Vtv	Ve1	Ve2	Ys1	Ys2	Vtv	Ve1	Ve2	Ys1	Ys2
		1	4-3, 5-3	Y1 Input					C Input				
	1	0	4-4, 5-1	Y2 Input					Vtv	Ve1	Ve2	Ys1	Ys2
		1	4-3, 5-3	Y1 Input					C Input				
1	0	0	4-1, 5-1	Vtv	Ve1	Ve2	Ys1	Ys2	Vtv	Ve1	Ve2	Ys1	Ys2
		1	4-3, 5-3	Y1 Input					C Input				
	1	0	4-4, 5-1	Y1 Input					Vtv	Ve1	Ve2	Ys1	Ys2
		1	4-3, 5-3	Y1 Input					C Input				

No.2

I B3	I B2	II B4	Switch Select	Y Output		C Output	
				TV1	TV2	TV1	TV2
0	0	0	4-2, 5-2	Ys1	Ys2	Cs1	Cs2
		1	4-2, 5-2	Ys1	Ys2	Cs1	Cs2
	1	0	4-4, 5-2	Y2 Input		Cs1	Cs2
		1	4-3, 5-3	Y1 Input		C Input	
1	0	0	4-2, 5-2	Ys1	Ys2	Cs1	Cs2
		1	4-2, 5-2	Ys1	Ys2	Cs1	Cs2
	1	0	4-4, 5-2	Y1 Input		Cs1	Cs2
		1	4-3, 5-3	Y1 Input		C Input	

PACKAGE DIMENSIONS
SDIP36-P-500-1.78

Unit : mm



Weight : 2.98 g (Typ.)

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000707EBA

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