DATA SHEET

Part No.	AN5833SA
Package Code No.	SSOP 024 - P - 0300E

Publication date: February 2005 SDB00098AEB

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AN5833SA

Silicon Monolithic Bipolar IC

■ Features

- Supports both I^2C bus and parallel control
- Integrated SIF demodulation
- Fully adjustment - free (when used with SIF input)
  2 adjustment points when used with baseband input
- Integrated voice AGC circuit
- Reduced peripheral component count
- Low power consumption (typ. V_{CC} = 5 V, I_{TOT} = 28 mA)
- Near pin to pin compatible with AN5832SA (US TV audio multiplex demodulation IC)

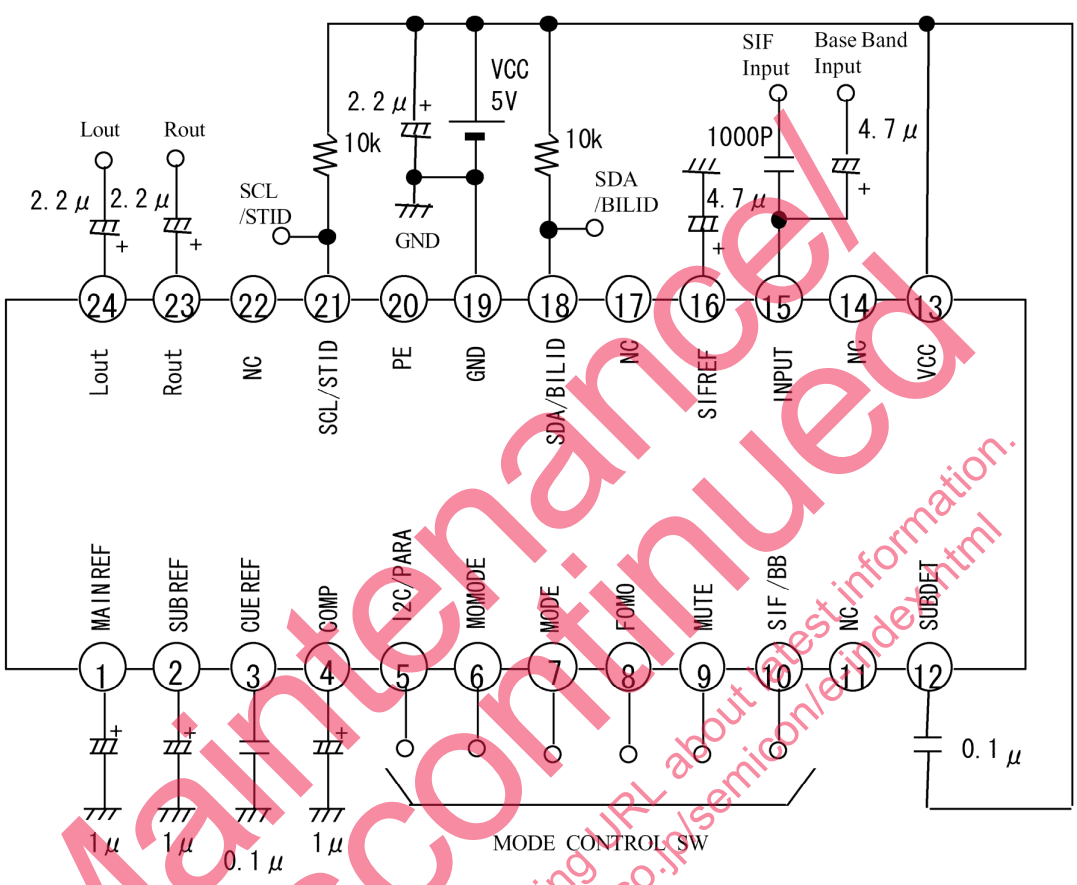
■ Applications

- TV sets, VCRs, DVD recorders, PCs, car navigation systems, and similar products for Japanese market

■ Package

- DIL-24PIN Plastic Package (SO Type)

■ Application Circuit



< Instructions of Application Circuits >

1) In case of using base band input, ICs were adjusted to perform good separation when input level ismatched with 100 mV[rms] (= 283 mV[p-p]) on condition of mono 100% mod pre-emphasis OFF.
However, if good enough separation can't be taken in the cause of un-matching frequency characteristic and so in input signal, it can adjust separation by the input volume.

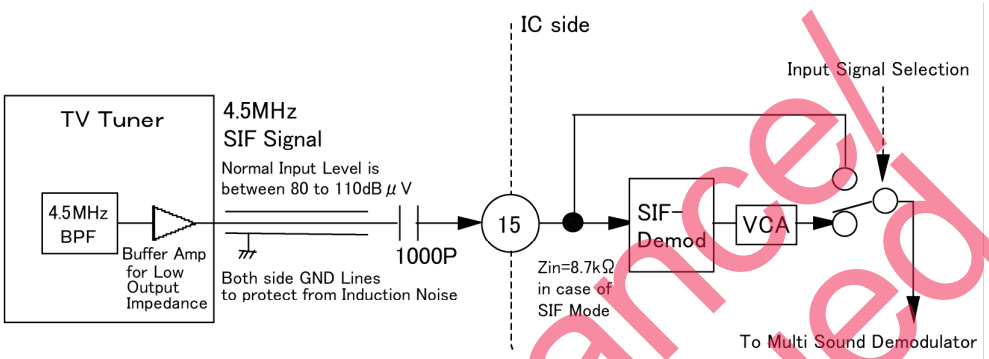
2) In case of using SIF input, please set up the SIF input level from tuners between 80 dBμV to 110 dBμV in standard RF input conditions. Please select SIF - BPFs that group delay of 4.5 MHz ±42 kHz is flat as possible.
And also its gain band width is wide enough to don't loss the CUE signal that locate at 4.5 MHz ±55 kHz.

3) About the characteristic of tuners, Please take the demodulation linearity to be over 250% to don't reduce the sub carrier when the over-modulation occur in high frequency sound by pre-emphasis is.

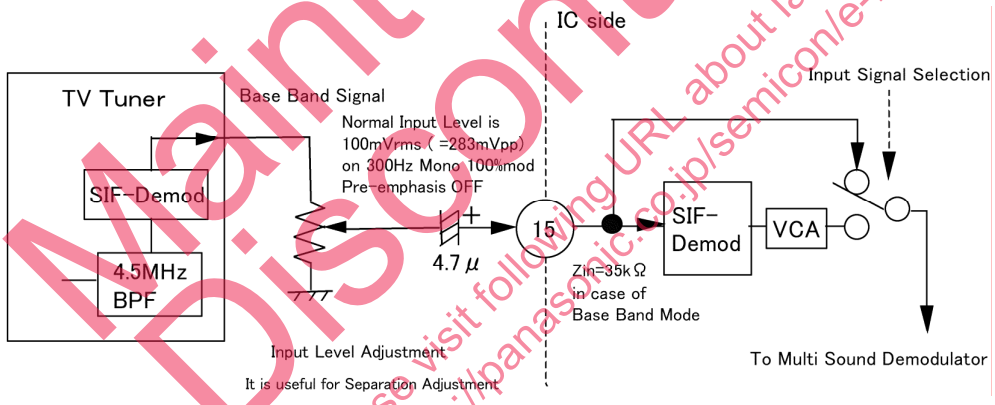
4) In measuring characteristics of separation, please use the stereo modulator that perform good characteristic on encoder and corrected well.
In case of using SIF input, please correct FM modulation band to ±25 kHz exactly at mono 100% mod pre-emphasis OFF with the 0 carrier method.
And, please use LPFs that reduce 30 kHz signal over 20 dB setting between line-outs and AB level meter

■ Application Circuit (continued)

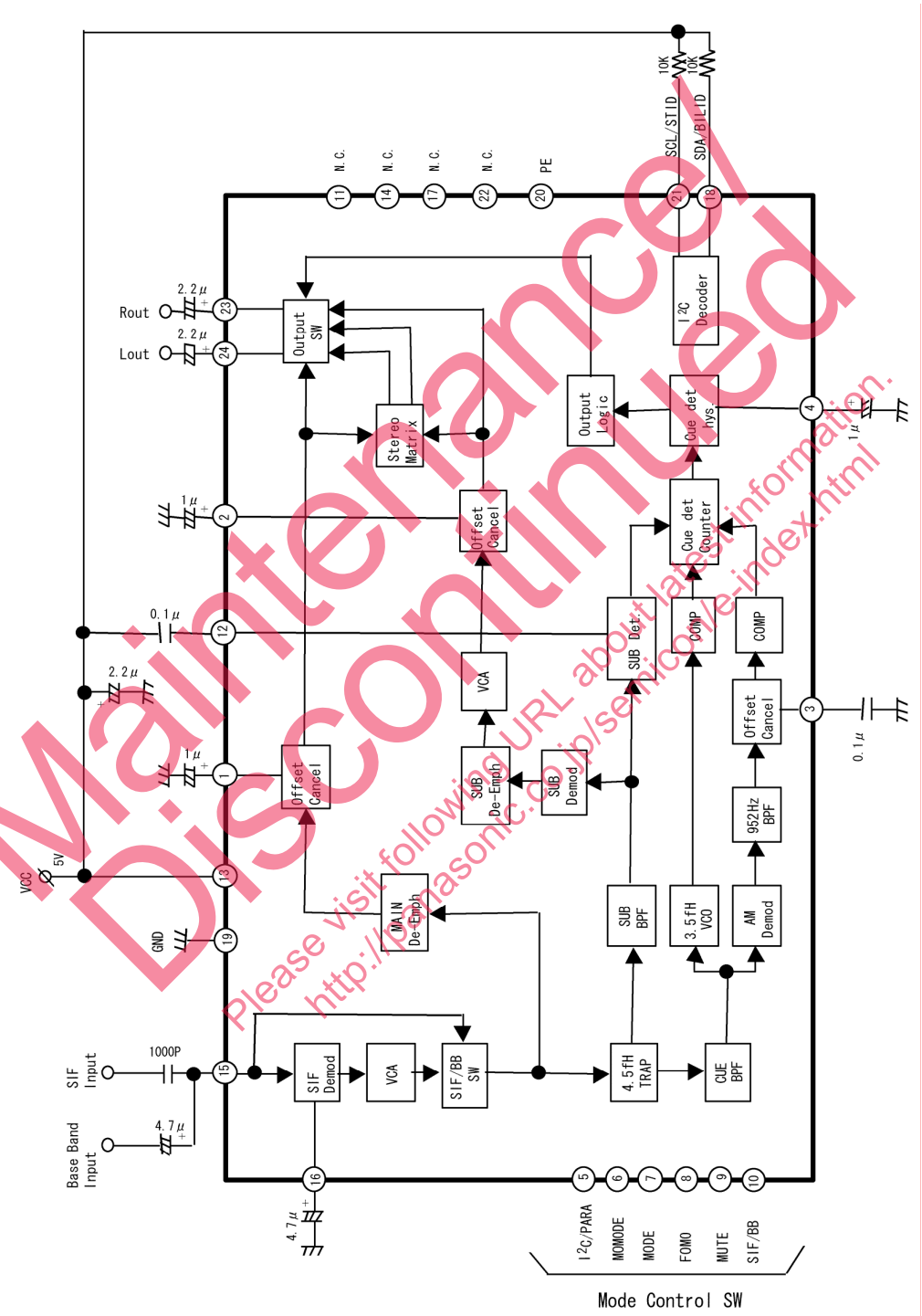
(1) Example of No Adjustments Application Circuits in case of SIF Input



(2) Example of No Adjustments Application Circuits in case of Base Band Input



■ Block Diagram



■ Pin Descriptions

Pin No.	Function
1	MAIN REF
2	SUB REF
3	CUE DET
4	COMP
5	I^2C / Parallel SW
6	MOMODE SW
7	MODE SW
8	Force monaural SW
9	Mute SW
10	SIF / Base band SW
11	N. C.
12	SUB DET
13	V_{CC}
14	N. C.
15	Input
16	SIF REF
17	N. C.
18	SDA / BILID
19	Ground
20	PE
21	SCL / STID
22	N. C.
23	Right - channel output
24	Left - channel output

■ Absolute Maximum Ratings

No.	Parameter	Symbol	Rating	Unit	Note
1	Storage temperature	T_{stg}	–55 to +125	°C	*1
2	Operating ambient temperature	T_{opr}	–20 to +85	°C	*1
3	Operating ambient atmospheric pressure	P_{opr}	$1.013 \times 10^5 \pm 0.61 \times 10^5$	Pa	
4	Operating constant gravity	G_{opr}	9 810	m/s^2	
5	Operating shock	S_{opr}	4 900	m/s^2	
6	Supply voltage	V_{CC}	6.0	V	
7	Supply current	I_{CC}	32	mA	
8	Power dissipation	P_D	192	mW	T_a = 85°C

Note) *1 : Ta = 25°C except storage temperature, and operating ambient temperature.

■ Operating Supply Voltage Range

Operating supply voltage range	V_{CC}	4.5 V to 5.5 V

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