

■ Pin

Pin No.	Pin Name	Pin No.	Pin Name
1	Head SW Changeover	12	Ch. I, II Side Envelope Detection
2	Initial Stage Bias(Ch. I)	13	Ch. III, IV Side Envelope Detection
3	Initial Stage Input(Ch. I)	14	Envelope Comparative Output
4	Initial Stage Input(Ch. II)	15	Chroma Output
5	Initial Stage Bias(Ch. II)	16	V _{CC}
6	Input Stage GND	17	Envelope Comparative Circuit Stop SW
7	Initial Stage Bias(Ch. III)	18	Peaking Circuit Peak Constant
8	Initial Stage Input(Ch. III)	19	Output Stage GND
9	Initial Stage Input(Ch. IV)	20	AGC Output
10	Initial Stage Bias(Ch. IV)	21	AGC Reverse Phase Output
11	Head Amp. SW Changeover	22	AGC Control Signal Detection

■ Absolute Maximum Ratings (T_a=25°C)

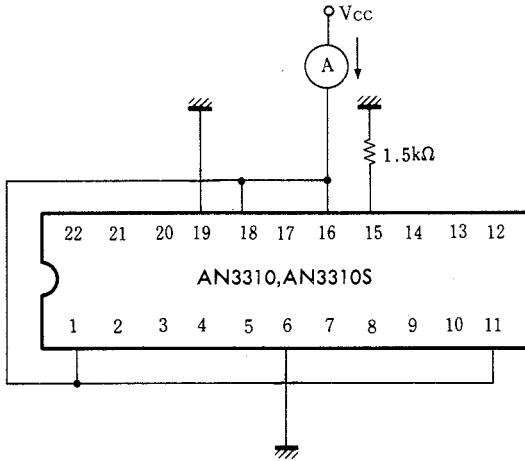
Item	Symbol	Rating	Unit
Supply Voltage	V _C	6.0	V
Power Dissipation(T _a =70°C)	P _D	250	mW
Operating Ambient Temperature	T _{opr}	-20~+70	°C
Storage Temperature	T _{stg}	-55~+150	°C

■ Electrical Characteristics (T_a=25°C)

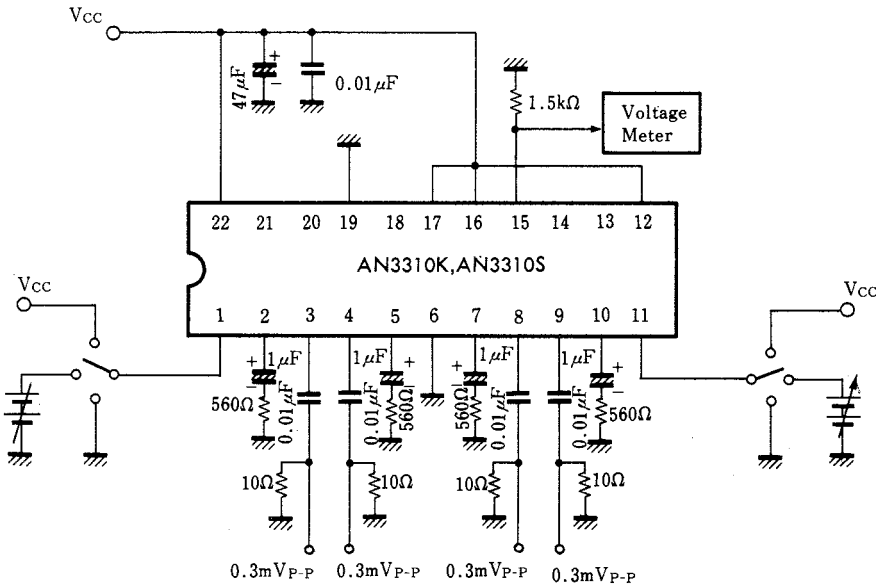
Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
Circuit Current	I ₁₆	1	V _{CC} =5V	16		40	mA
Ch. I Gain	G ₃₋₁₅	2	V _{CC} =5V, f=1MHz	50.5		60.5	dB
Ch. II Gain	G ₄₋₁₅	2	V _{CC} =5V, f=1MHz	50.5		60.5	dB
Ch. III Gain	G ₈₋₁₅	2	V _{CC} =5V, f=1MHz	50.5		60.5	dB
Ch. IV Gain	G ₉₋₁₅	2	V _{CC} =5V, f=1MHz	50.5		60.5	dB
AGC Output Amplitude	v ₂₀	3	V _{CC} =5V, f=4MHz	100		190	mV _{P-P}
AGC Control Sensitivity	v ₂₀	3	V _{CC} =5V, f=4MHz			3	dB
H.SW Changeover Sensitivity	S ₁	2	V _{CC} =5V			1	V
H.A.SW Changeover Sensitivity	S ₁₁	2	V _{CC} =5V			1	V
Noise voltage Referred to Input(I)	V _{ni3-15}	4	V _{CC} =5V, 1MHz BPF			1	μV _{rms}
Noise voltage Referred to Input(II)	V _{ni4-15}	4	V _{CC} =5V, 1MHz BPF			1	μV _{rms}
Noise voltage Referred to Input(III)	V _{ni8-15}	4	V _{CC} =5V, 1MHz BPF			1	μV _{rms}
Noise voltage Referred to Input(IV)	V _{ni9-15}	4	V _{CC} =5V, 1MHz BPF			1	μV _{rms}
Envelope Comparative Output Amplitude	v ₁₄	5	V _{CC} =5V	4.3			V _{P-P}
Envelope Comparative Output Stop Sensitivity	S ₁₇	5	V _{CC} =5V			1.2	V

Note : Operating Supply Voltage Range : V_{CC(oper)}=4.5~5.5V

Test Circuit 1 (I₁₆)



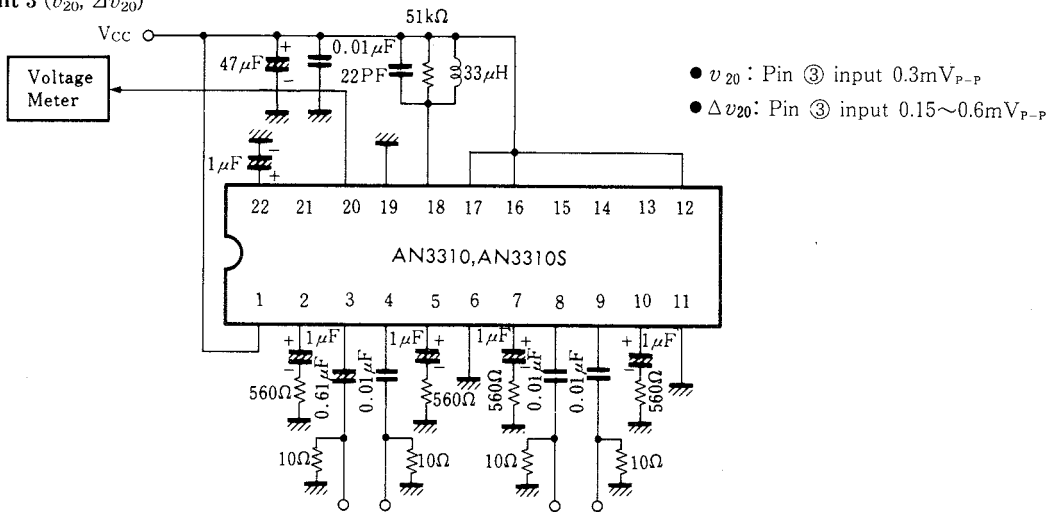
Test Circuit 2 (G₃₋₁₅, G₄₋₁₅, G₈₋₁₅, G₉₋₁₅, S₁, S₁₁)



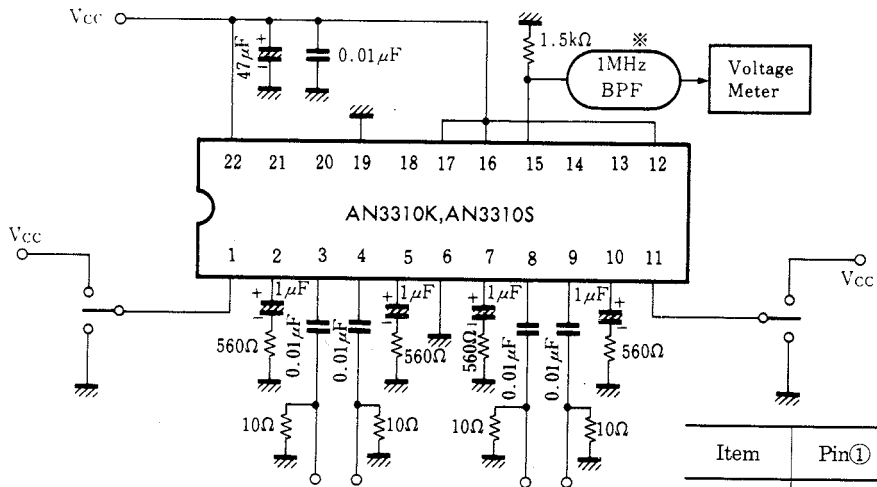
Item	①Pin	⑩Pin	Input Pin
G ₃₋₁₅	V _{CC}	GND	③
G ₄₋₁₅	GND	GND	④
G ₈₋₁₅	V _{CC}	V _{CC}	⑧
G ₉₋₁₅	GND	V _{CC}	⑨

- S₁, S₁₁ : Pin ④ 0.3mV_{p-p} input (f_{in}=1MHz)
- S₁ : Decreasing the electric potential of Pin ① from V_{CC}, measure the electric potential of Pin ① when Pin ⑮ output appears.
- S₁₁ : Decreasing the electric potential of Pin ⑩ from V_{CC}, measure the electric potential of Pin ⑩ when Pin ⑮ output appears.

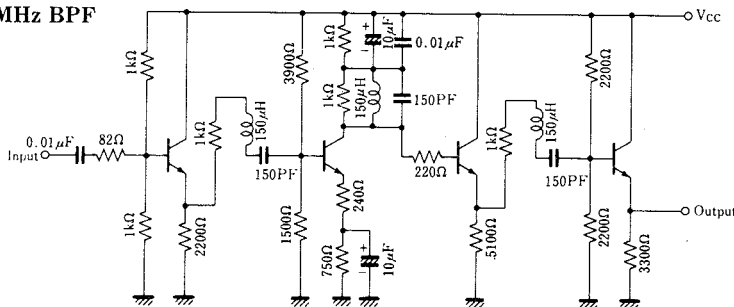
Test Circuit 3 (v_{20} , Δv_{20})



Test Circuit 4 (V_{ni3-15} , V_{ni4-15} , V_{ni8-15} , V_{ni9-15})



※1MHz BPF

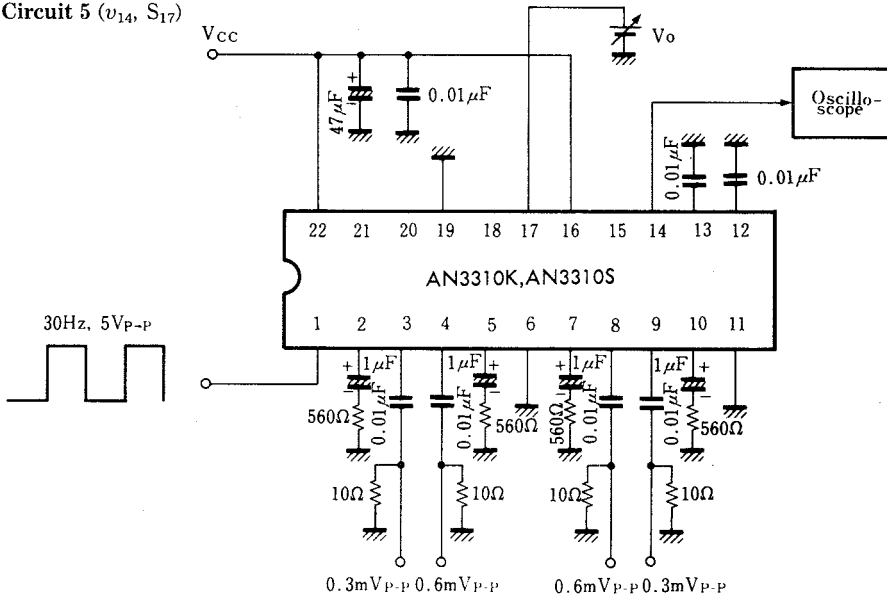


Item	Pin①	Pin②
V_{ni3-15}	V_{CC}	GND
V_{ni4-15}	GND	GND
V_{ni8-15}	V_{CC}	V_{CC}
V_{ni9-15}	GND	V_{CC}

◎ Notes for Handling

Since deterioration or destroy of characteristics may occur due to flow of overcurrent caused by the wrong insertion careful attention should be taken to handling.

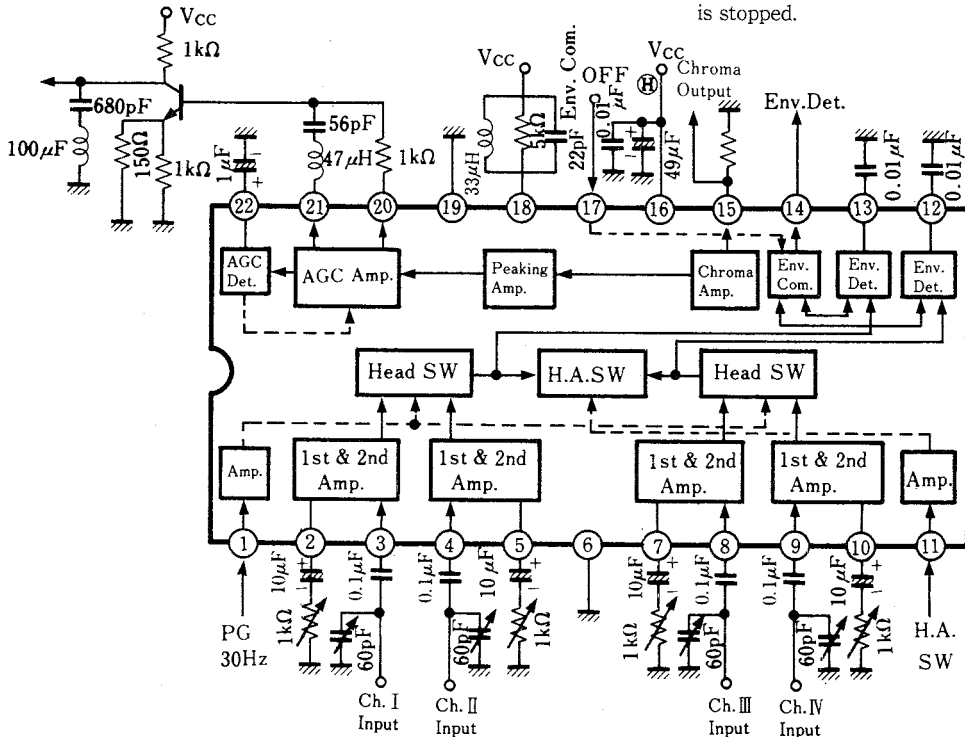
Test Circuit 5 (v_{14} , S_{17})



$V_{14} : V_o = 0V$

S_{17} : Increasing the electric potential of V_o from 0V, measure the electric potential of V_o when Pin ⑭ output is stopped.

Application Circuit



Request for your special attention and precautions in using the technical information and semiconductors described in this book

- (1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.
- (2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products. No license is granted in and to any intellectual property right or other right owned by Panasonic Corporation or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information described in this book.
- (3) The products described in this book are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
Consult our sales staff in advance for information on the following applications:
 - Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
 - Any applications other than the standard applications intended.
- (4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.
- (5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment.
 - Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.
- (6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.
- (7) This book may be not reprinted or reproduced whether wholly or partially, without the prior written permission of our company.