SELECTABLE GAIN TYPE
LOW VOLTAGE VIDEO AMPLIFIER WITH LPF

■ DENERAL DESCRIPTION

The **NJM2560** is a Low Voltage Video Amplifier contained LPF circuit. Internal 75Ω driver is easy to connect TV monitor directly.
The **NJM2560** can respond to various input voltage by gain switch.
The **NJM2560** features low power and small package, and is suitable for low power design on downsizing of DSC and DVC.

■ PACKAGE OUTLINE

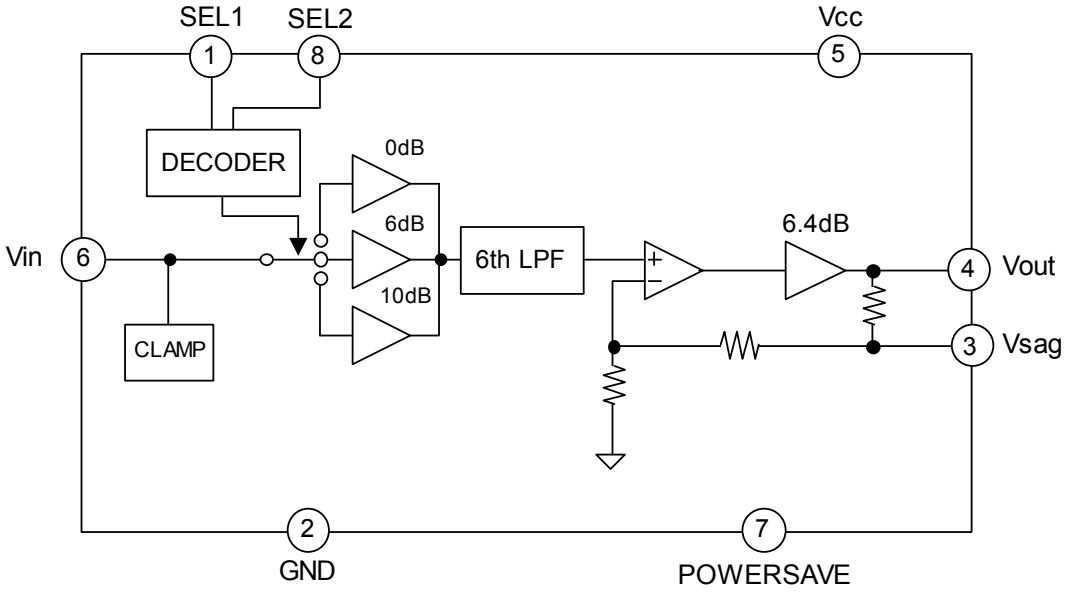


NJM2560RB1

■ FEATURES

- Operating Voltage 2.8 to 5.5V
- Internal LPF 29dB at 19MHz typ.
- Internal gain switch 6dB,12dB,and16dB
- Internal 75Ω driver circuit(2-system drive)
- Internal Power Save circuit
- Package Outline TVSP8

■ BLOCK DIAGRAM



■ **ABSOLUTE MAXIMUM RATING** (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage	V^+	7.0	V
Power Dissipation	P_D	320	mW
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C

■ **ELECTRICAL CHARACTERISTICS**(V^+=3.0V,RL=150Ω,Ta=25°C, Select 6dB unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I_{CC}	No signal	-	9.0	12.0	mA
Supply Current at Power save	Isave	Power save mode	-	50	60	uA
Maximum Output Level 1	Vomv1	Select 6dB,f=100kHz,THD=1%	2.2	2.5	-	Vp-p
Maximum Output Level 2	Vomv2	Select 12dB, f=100kHz,THD=1%	2.2	2.5	-	Vp-p
Maximum Output Level 3	Vomv3	Select 16dB,f=100kHz,THD=1%	2.2	2.5	-	Vp-p
Voltage Gain 1	Gv6	Select6dB, Vin=100kHz, 1.0Vp-p,Sin-signal	6.0	6.4	6.8	dB
Voltage Gain 2	Gv12	Select 12dB, Vin=100kHz, 0.5Vp-p,Sin-signal	12.0	12.4	12.8	dB
Voltage Gain 3	Gv16	Select 16dB, Vin=100kHz, 0.3Vp-p,Sin-signal	16.0	16.4	16.8	dB
LPF Characteristics 1	Gfy4.5M1	Select 6dB, Vin=4.5MHz/100kHz,1.0Vp-p	-0.6	-0.1	0.4	dB
	Gfy19M1	Select 6dB, Vin=19MHz/100kHz,1.0Vp-p	-	-29	-19	
LPF Characteristics 2	Gfy4.5M2	Select 12dB, Vin=4.5MHz/100kHz,0.5Vp-p	-0.6	-0.1	0.4	dB
	Gfy19M2	Select 12dB, Vin=19MHz/100kHz,0.5Vp-p	-	-29	-19	
LPF Characteristics 3	Gfy4.5M3	Select 16dB, Vin=4.5MHz/100kHz,0.3Vp-p	-0.7	-0.1	0.3	dB
	Gfy19M3	Select 16dB, Vin=19MHz/100kHz,0.3Vp-p	-	-29	-19	
Differential Gain 1	DG1	Select 6dB, Vin=1.0Vp-p,10step video signal	-	0.8	-	%
Differential Gain 2	DG2	Select 12dB, Vin=0.5Vp-p,10step video signal	-	1.4	-	%
Differential Gain 3	DG3	Select 16dB, Vin=0.3Vp-p,10step video signal	-	2.0	-	%
Differential Phase	DP	Vin=1.0Vp-p,10step video signal	-	0.5	-	deg
S/N Ratio	SNv	Vin=1.0Vp-p, 100% White video signal, RL=75Ω,100KHz to 6MHz	-	+60	-	dB
2^{nd} Distortion	Hv	Vin=1.0Vp-p, 3.58MHz Sin Video signal, RL=75Ω	-	-45	-	dB
SW High Level	VthH		1.8	-	V^+	V
SW Low Level	VthL		0	-	0.3	

■ CONTROL TERMINAL FUNCTION

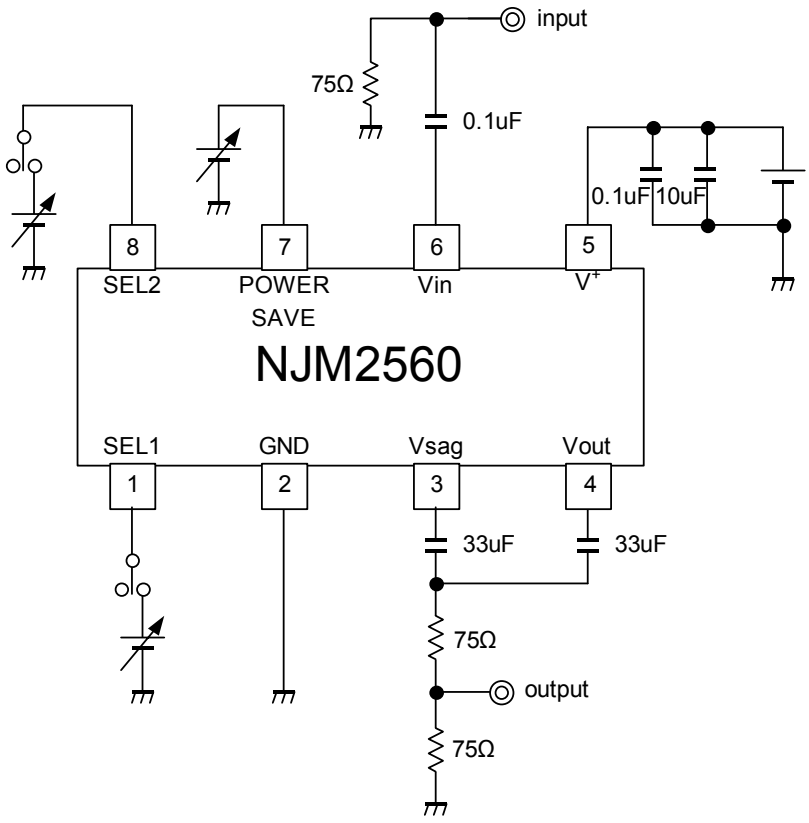
POWER SAVE

TERMINAL	CONTROL	STATE
Power Save	H	Power Save: OFF
	L	Power Save: ON
	OPEN	Power Save: ON

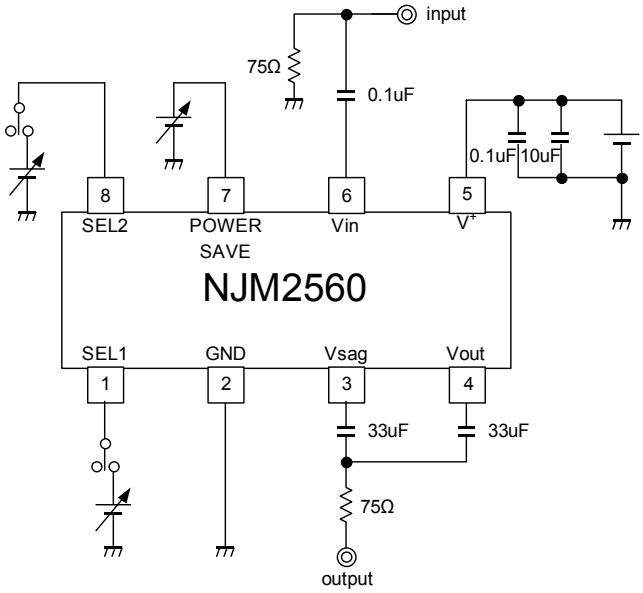
VOLTAGE GAIN

TERMINAL	SEL 1	SEL 2	STATE
SEL	L / OPEN	L / OPEN	6dB
	H	L / OPEN	12dB
	Don't care	H	16dB

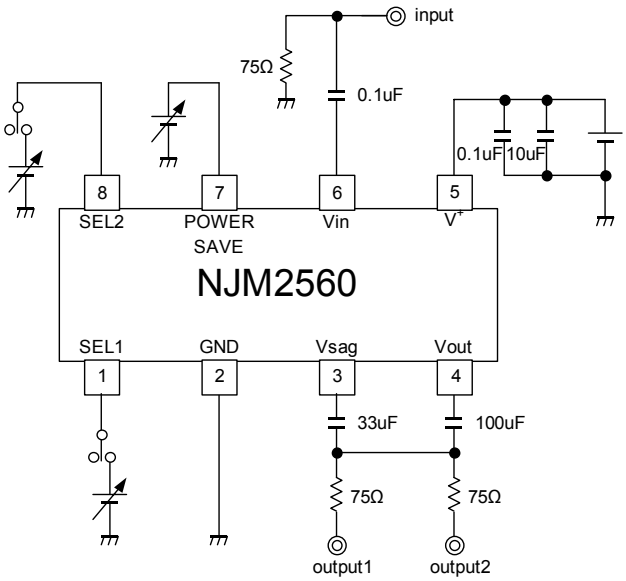
■ TEST CIRCUIT



■ APPLICATION CIRCUIT

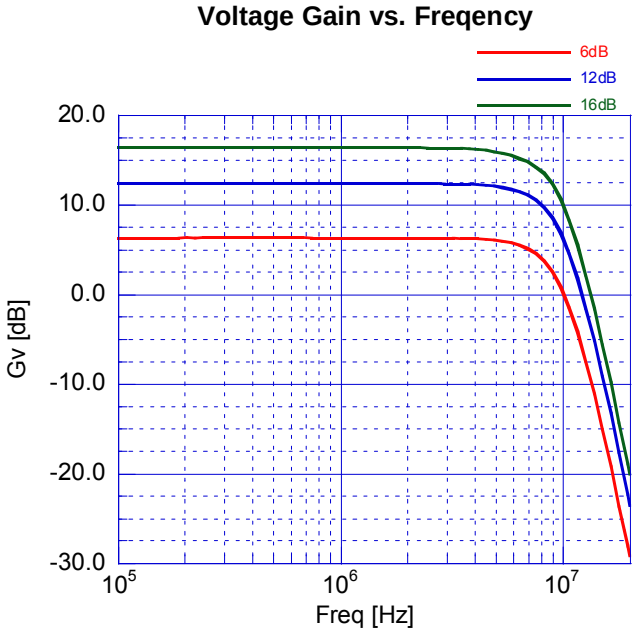


(1-system drive)



(2-system drive)

■ TYPICAL CHARACTERISTICS



[CAUTION]
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