

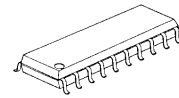
QUAD VIDEO DRIVER

■ GENERAL DESCRIPTION

The **NJM2577** is a quad video driver. The **NJM2577** includes LPF, 6dB amplifier and 75Ω Driver on all channels.

The **NJM2577** enable to control the Output Impedance. It is suitable for Video system for Europe.

■ PACKAGE OUTLINE

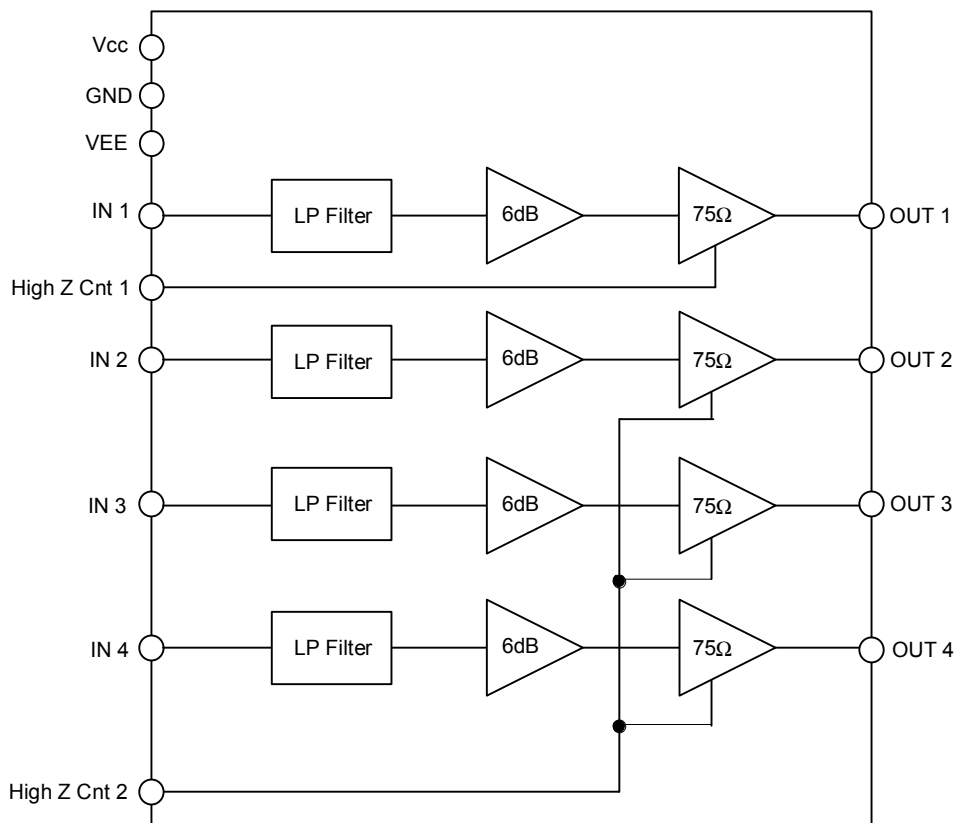


NJM2577M

■ FEATURES

- Operating Voltage $\pm 5V$
- Internal 6dB Amplifier
- Internal 75Ω Driver Circuit
- Quad 5th order Butter worth Low Pass Filter
- Internal High Impedance output control switch
- 41dB Stop Band Rejection at 27MHz
- Bipolar Technology
- Package Outline DMP20

■ FUNCTION BLOCK DIAGRAM



NJM2577

■ PIN CONFIGURATION

Output 1	1	OUT 1	High Z Cnt 1	20	High Impedance Control 1
Power Supply	2	VCC 1	High Z Cnt 2	19	High Impedance Control 2
Input 2	3	IN 2	NC	18	NC
Power Supply	4	VEE 1	IN 1	17	Input 1
GND	5	GND 1	GND	16	GND
Input 3	6	IN 3	VCC 2	15	Power Supply
Power Supply	7	VCC	VEE 2	14	Power Supply
Power Supply	8	VEE	OUT 2	13	Output 2
Input 4	9	IN 4	OUT 3	12	Output 3
GND	10	GND 2	OUT 4	11	Output 4

■ ABSOLUTE MAXIMUM RATING (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC} /V _{EE}	±7.5	V
Power Dissipation	P _D	450 (Note)	mW
Operating Temperature Range	T _{opr}	-40 to +85	°C
Storage Temperature Range	T _{stg}	-40 to +125	°C

(Note) At on a board of EIA/JEDEC specification. (11.43 x 76.2 x 1.6mm Two layers, FR-4)

■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V _{CC} /V _{EE}		±4.5	±5.0	±5.5	V
Supply Current	I _{CC}	No Signal, No Load	20	30	39	mA

● VIDEO SYSTEM (Ta=25°C, V_{CC}=5.0V, V_{EE}=-5V, R_L=150Ω unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gain	GV	V _{in} =1.0Vp-p 100kHz	6.0	6.4	6.8	dB
Frequency Response Characteristics	FBW	V _{in} =1.0Vp-p, 5MHz /100kHz	-1.0	0	1.0-	dB
Stop Band Rejection	Fsb	f=27MHz/100kHz, 1Vp-p	-35	-41	-	dB
-3dB Bandwidth	Fc		-	7.1	-	MHz
Gain matching level	Gm	Out2, Out3, Out4	-5	0	5	%
Total Harmonic Distortion	THD	f=1kHz, 1Vp-p input	-	0.1	-	%
Cross talk	CT	V _{in} =4.43MHz, 1.0Vp-p	-	-60	-	dB
Differential Gain	DG	V _{in} =1Vp-p, 10step Stairs-signal	-	0.4	-	%
Differential Phase	DP	V _{in} =1Vp-p, 10step Stairs-signal	-	0.4	-	deg
Input Impedance	R _{in}	All Channel	-	50	-	KΩ
Output Impedance	R _{o1}	High Z Cont="0"	10	20	-	KΩ
Output Impedance	R _{o2}	High Z Cont="1"	-	45	-	mΩ
Equivalent Output Capacitance	Co	High Z Cont="0"	-	3	-	pF
Group Delay	T _{pd}	V _{in} =1Vp-p, 100kHz	-	70	-	nS

● SWITCH CONTROL (Ta=25°C, V_{CC}=5.0V, V_{EE}=-5V, R_L=150Ω unless otherwise specified.)

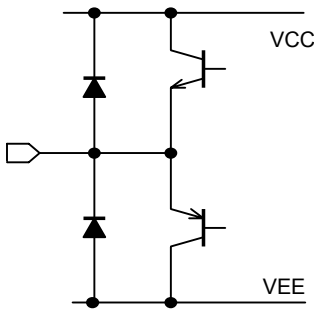
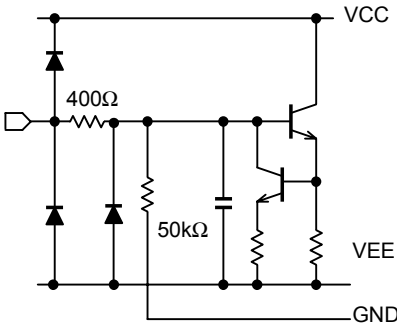
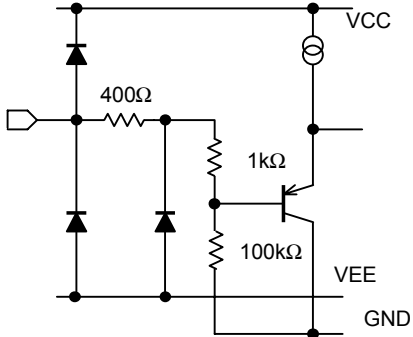
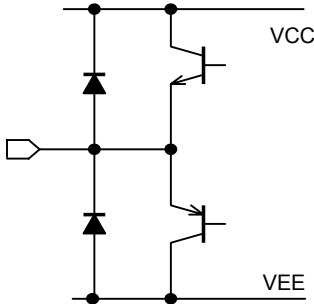
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
High Z Control Logic-High level	V _{ihz}		2.0	-	-	V
High Z Control Logic-Low level	V _{ilz}		-	-	0.8	V

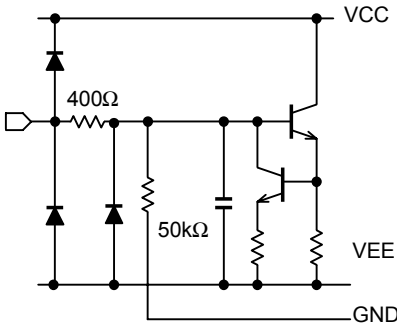
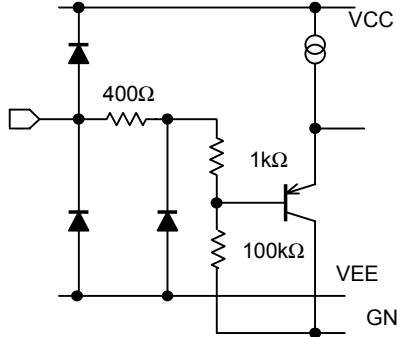
● SWITCH CONTROL TABLE

Control Signal	Outputs Impedance
0*	High Impedance
1	Through

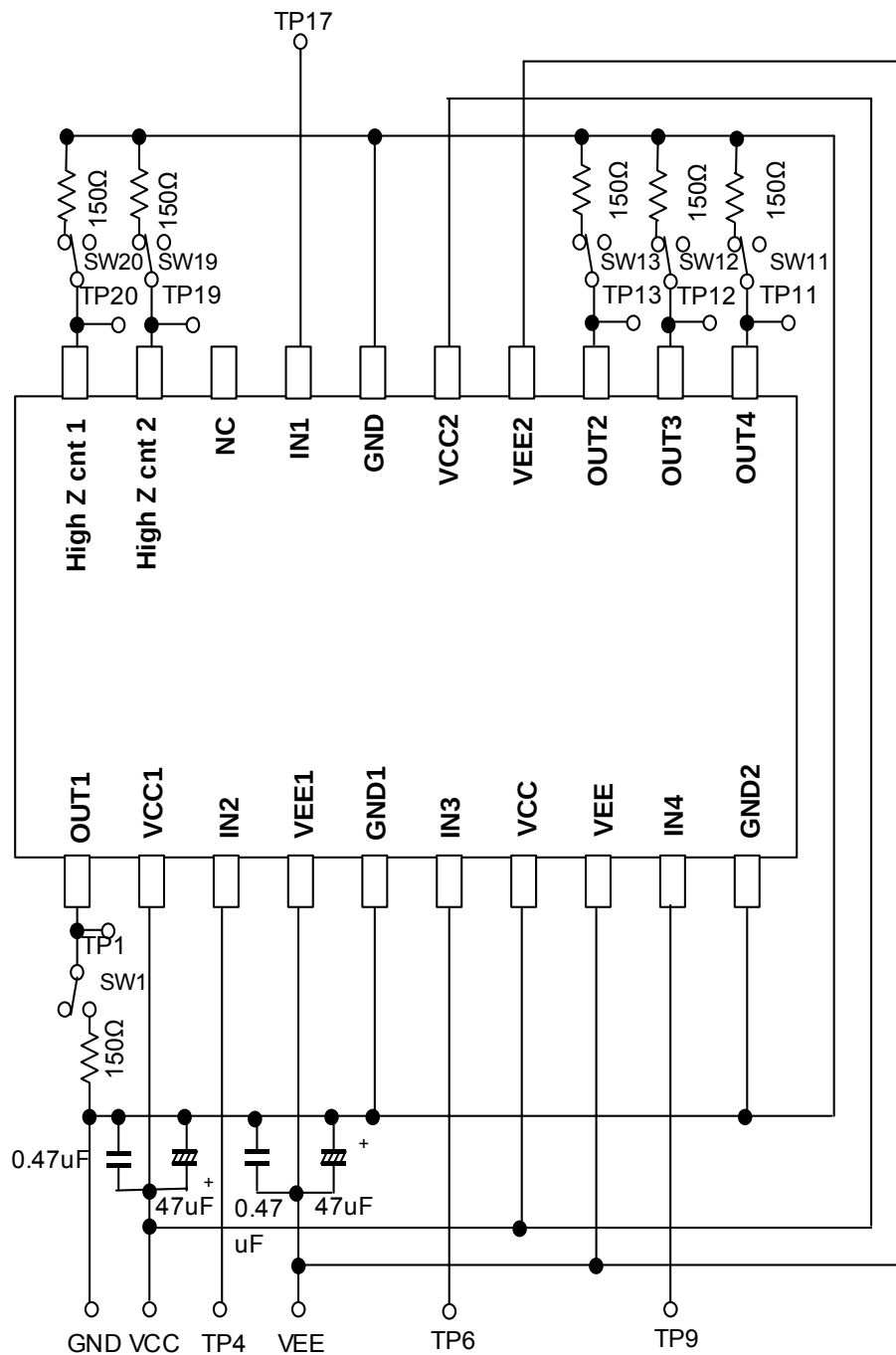
* : Default setting

PIN DESCRIPTION

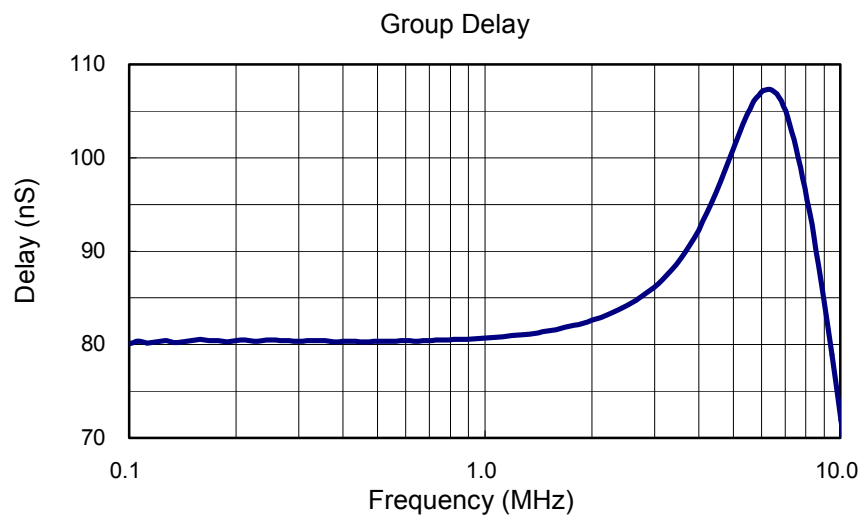
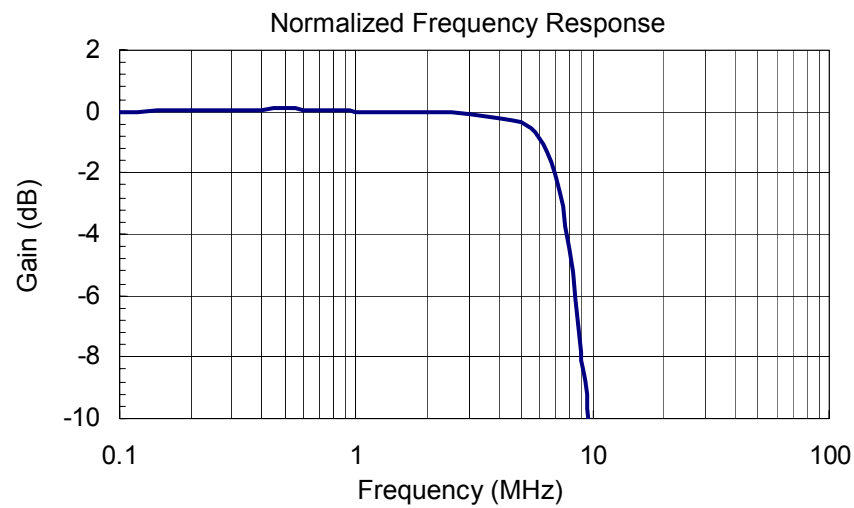
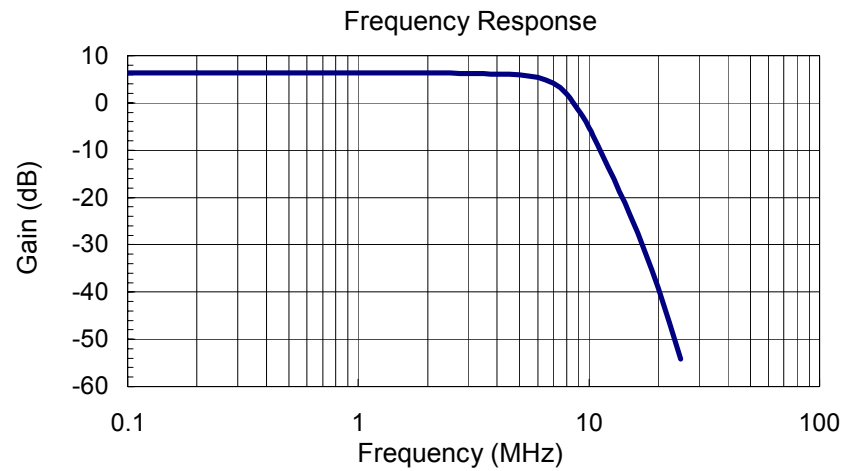
PIN No.	SYMBOL	INSIDE EQUIVALENT CIRCUIT	VOLTAGE
1 11 12 13	OUT1 OUT3 OUT4 OUT2		0V
3 6 9 17	IN2 IN3 IN4 IN1		0V
19 20	HighZCnt1 HighZCnt2		0V
2 7 15	Vcc1 Vcc Vcc2		+5V

PIN No.	SYMBOL	INSIDE EQUIVALENT CIRCUIT	VOLTAGE
5 10 16	GND1 GND2 GND		0V
4 8 14	VEE1 VEE VEE2		-5V

■ TEST CIRCUIT



■ TYPICAL CHARACTERISTICS



[CAUTION]

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