

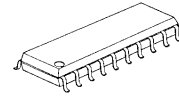
## QUAD VIDEO DRIVER

### ■ 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

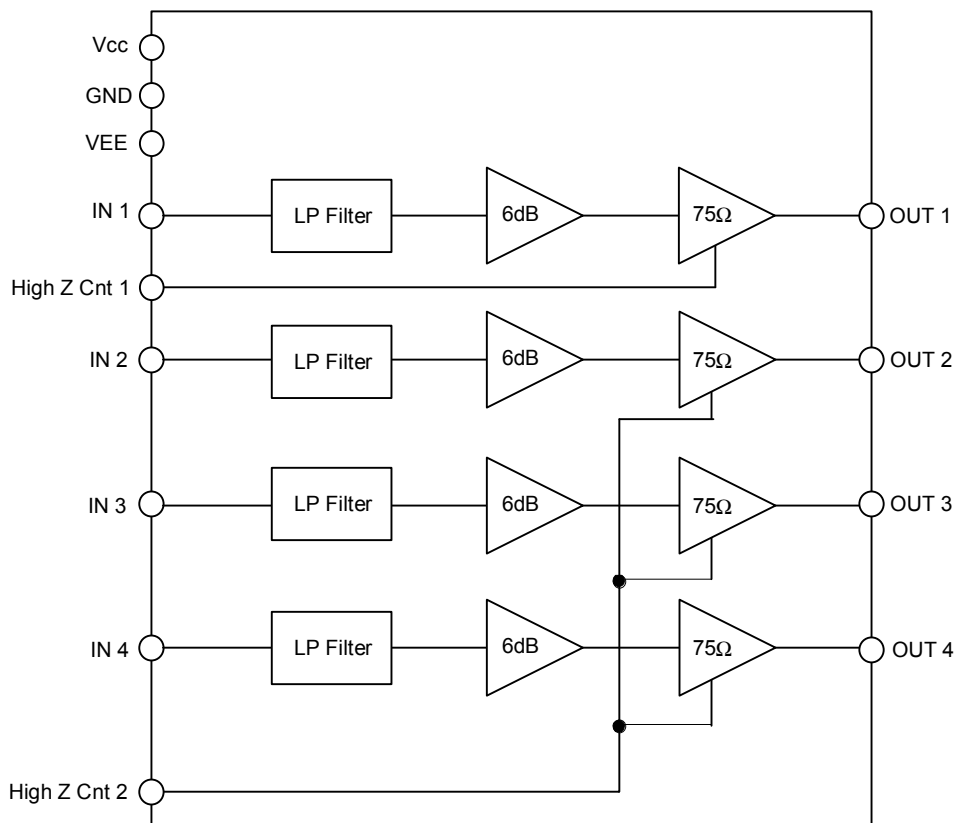


**NJM2577M**

### ■ FEATURES

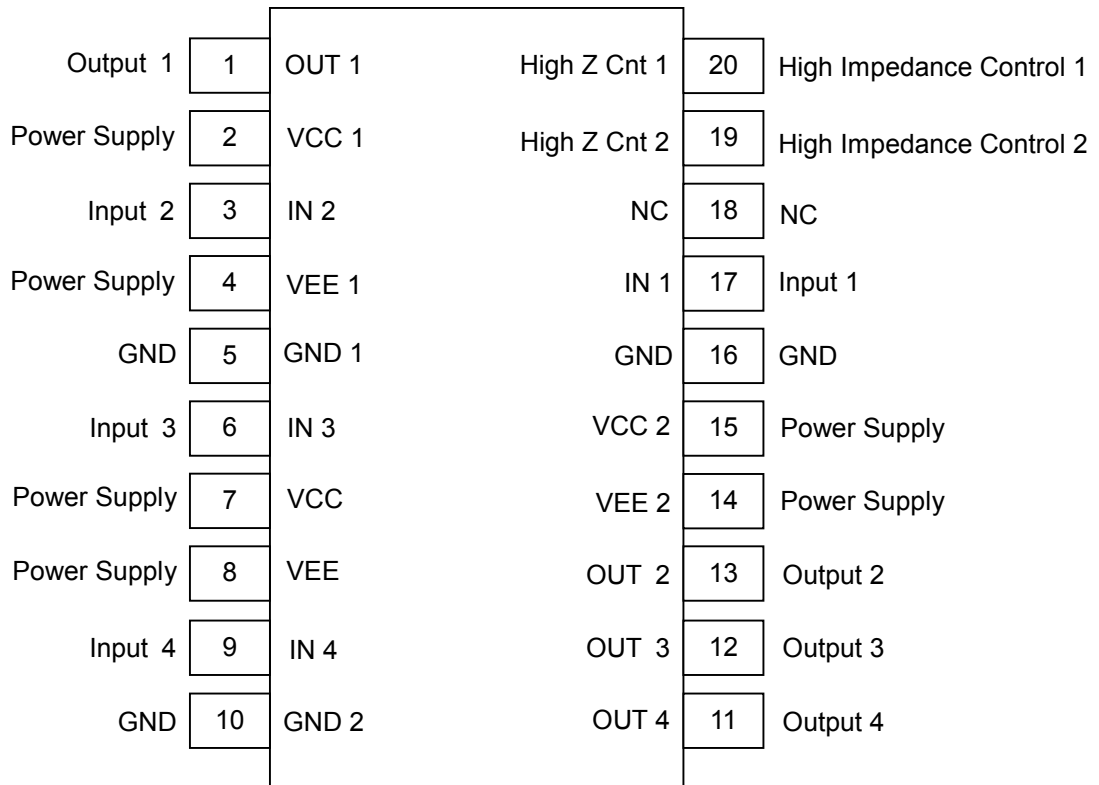
- Operating Voltage            $\pm 5V$
- Internal 6dB Amplifier
- Internal 75Ω Driver Circuit
- Quad 5<sup>th</sup> order Butter worth Low Pass Filter
- Internal High Impedance output control switch
- 41dB Stop Band Rejection at 27MHz
- Bipolar Technology
- Package Outline               DMP20

### ■ FUNCTION BLOCK DIAGRAM



# NJM2577

## ■ PIN CONFIGURATION



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

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub> /V <sub>EE</sub>	±7.5	V
Power Dissipation	P <sub>D</sub>	450 (Note)	mW
Operating Temperature Range	T <sub>opr</sub>	-40 to +85	°C
Storage Temperature Range	T <sub>stg</sub>	-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 <sub>CC</sub> /V <sub>EE</sub>		±4.5	±5.0	±5.5	V
Supply Current	I <sub>CC</sub>	No Signal, No Load	20	30	39	mA

● **VIDEO SYSTEM** (Ta=25°C, V<sub>CC</sub>=5.0V, V<sub>EE</sub>=-5V, R<sub>L</sub>=150Ω unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gain	GV	V <sub>in</sub> =1.0Vp-p 100kHz	6.0	6.4	6.8	dB
Frequency Response Characteristics	FBW	V <sub>in</sub> =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 <sub>in</sub> =4.43MHz, 1.0Vp-p	-	-60	-	dB
Differential Gain	DG	V <sub>in</sub> =1Vp-p, 10step Stairs-signal	-	0.4	-	%
Differential Phase	DP	V <sub>in</sub> =1Vp-p, 10step Stairs-signal	-	0.4	-	deg
Input Impedance	R <sub>in</sub>	All Channel	-	50	-	KΩ
Output Impedance	R <sub>o1</sub>	High Z Cont="0"	10	20	-	KΩ
Output Impedance	R <sub>o2</sub>	High Z Cont="1"	-	45	-	mΩ
Equivalent Output Capacitance	C <sub>o</sub>	High Z Cont="0"	-	3	-	pF
Group Delay	T <sub>pd</sub>	V <sub>in</sub> =1Vp-p, 100kHz	-	70	-	nS

● **SWITCH CONTROL** ( Ta=25°C, V<sub>CC</sub>=5.0V, V<sub>EE</sub>=-5V, R<sub>L</sub>=150Ω unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
High Z Control Logic-High level	V <sub>ihz</sub>		2.0	-	-	V
High Z Control Logic-Low level	V <sub>ilz</sub>		-	-	0.8	V

● **SWITCH CONTROL TABLE**

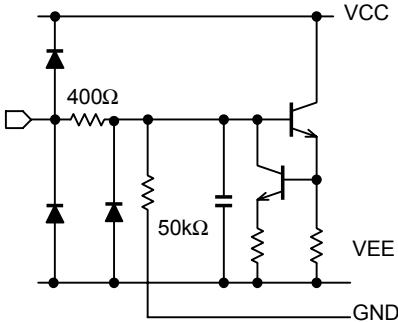
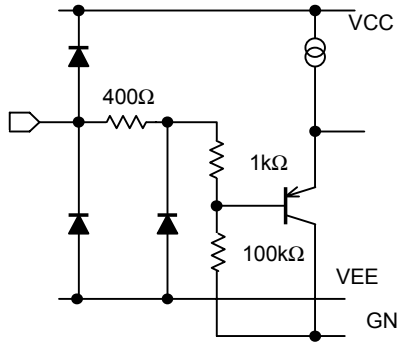
Control Signal	Outputs Impedance
0*	High Impedance
1	Through

\* : Default setting

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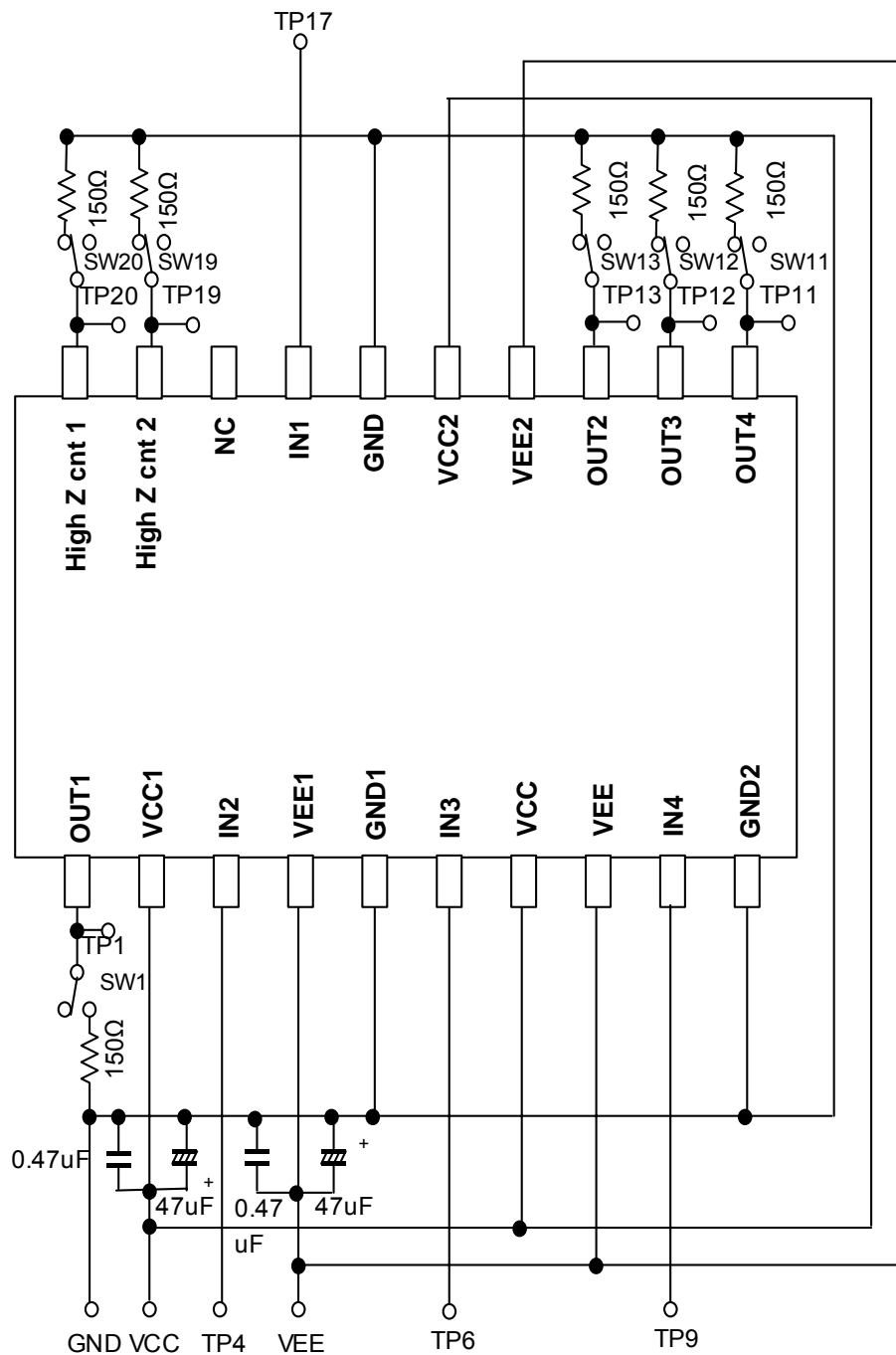
## ■ PIN DESCRIPTION

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

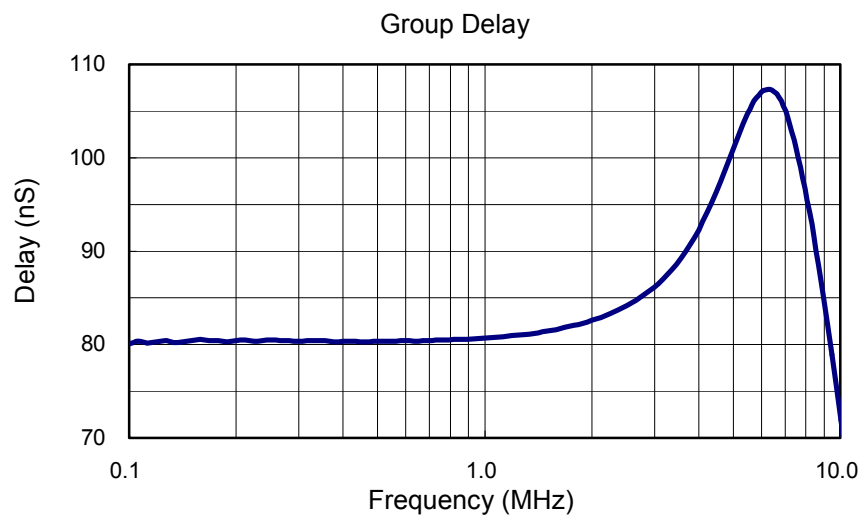
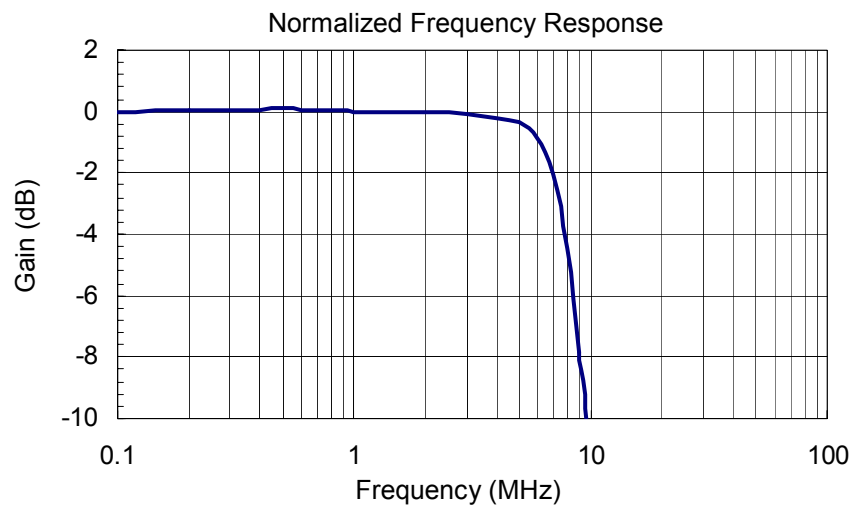
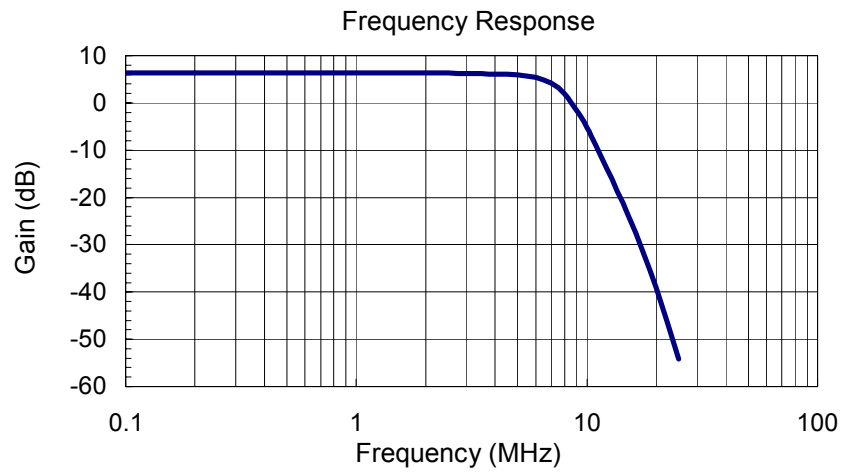
PIN No.	SYMBOL	INSIDE EQUIVALENT CIRCUIT	VOLTAGE
<p style="text-align: center;">5 10 16</p>	<p style="text-align: center;">GND1 GND2 GND</p>		<p style="text-align: center;">0V</p>
<p style="text-align: center;">4 8 14</p>	<p style="text-align: center;">VEE1 VEE VEE2</p>		<p style="text-align: center;">-5V</p>

# NJM2577

## TEST CIRCUIT



## ■ TYPICAL CHARACTERISTICS



**[CAUTION]**

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