



UM1671

CMOS IC

**LOW VOLTAGE OPERATING
75Ω DRIVER**

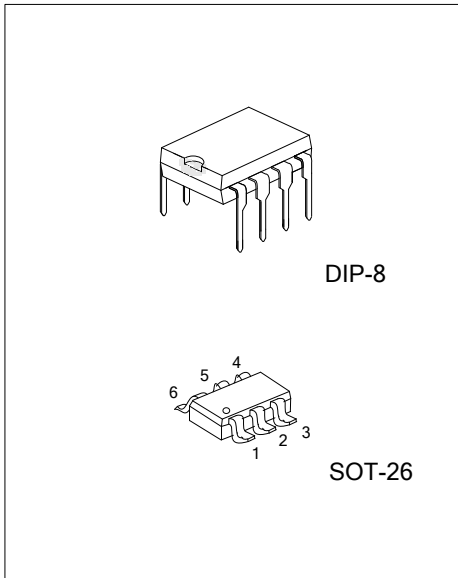
■ **DESCRIPTION**

The UTC **UM1671** is a low voltage operating 75Ω driver, operating supply voltage from 2.8V to 5.5V. Including a high-performance 4-order LPF, a available output gain built-in amp and a sag auxiliary circuit, etc.

The UTC **UM1671** is suitable for video signal output in devices ranging from portable equipment such as digital still cameras to stationary equipment such as DVD players.

■ **FEATURES**

- * Supports 3V and 5V systems
- * High-precision voltage gain
- * Including a high-performance 4-order LPF, a available output gain built-in amp and a sag auxiliary circuit



■ **ORDERING INFORMATION**

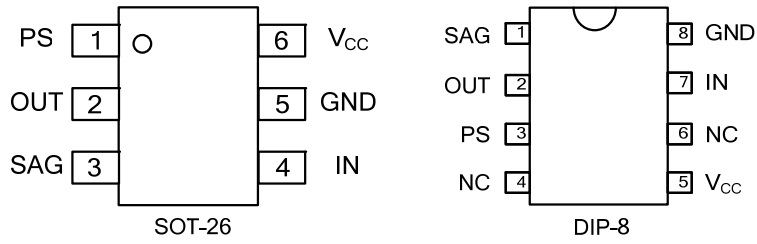
Ordering Number		Package	Packing
Lead Free	Halogen Free		
UM1671L-AG6-R	UM1671G-AG6-R	SOT-26	Tape Reel
UM1671L-D08-R	UM1671G-D08-R	DIP-8	Tube

<p>UM1671G-AG6-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) AG6: SOT-26, D08: DIP-8 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ **MARKING**

SOT-26	DIP-8
<p>L: Lead Free G: Halogen Free</p>	<p>Date Code L: Lead Free G: Halogen Free Lot Code</p>

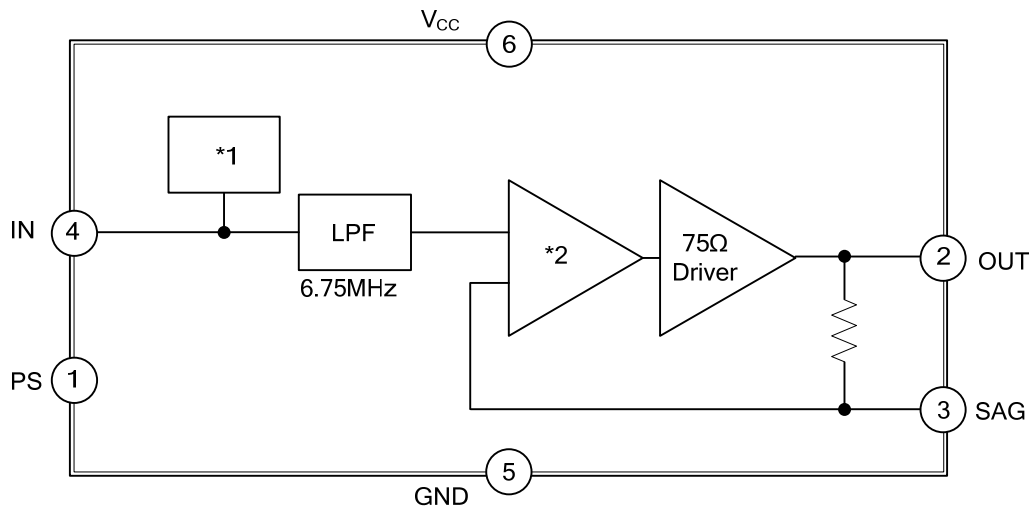
PIN CONFIGURATION



PIN DESCRIPTION

PIN NO.		PIN NAME	DESCRIPTION	INTERNAL EQUIVALENT CIRCUIT DIAGRAM
SOT-26	DIP-8			
1	3	PS	Power Save	
2	2	OUT	Signal Output	
3	1	SAG	SAG Correction	
4	7	IN	Signal Input	
5	8	GND	GND	
6	5	V _{CC}	V _{CC}	
-	4, 6	NC	No Connect	

■ BLOCK DIAGRAM



*1 INPUT CLAMP	*2 BUILT-IN AMPLIFIER
clamp	6dB(*2)

■ ABSOLUTE MAXIMUM RATING (T_A=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Supply Voltage		V _{CC}	7 (MAX.)	V
Power Dissipation	SOT-26	P _D	200	mW
	DIP-8		600	mW
Storage Temperature		T _{STG}	-65~+150	°C
Operating Temperature		T _{OPR}	-40~+85	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ RECOMMENDED OPERATING CONDITIONS

PARAMETER		SYMBOL	RATINGS	UNIT
Operating Voltage		V _{CCOP}	2.8~5.5	V
Operating Temperature		T _{OPR}	-40~+85	°C

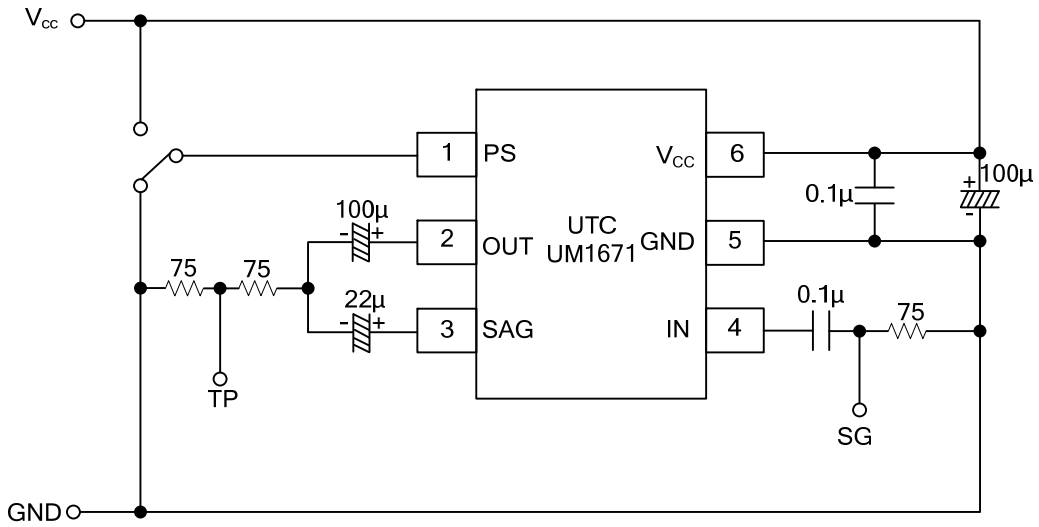
■ ELECTRICAL CHARACTERISTICS (Except where noted otherwise, T_A=25°C, V_{CC}=3V)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Current		I _{CC1}	No Signal		7	10	mA
Supply Current (At Power Save Mode)		I _{CC2}	No Signal, PS: ON			1	μA
Power Save Terminal Input Current	H	I _{PSH}	1PIN V _H =2.8V			360	μA
	L	I _{PSL}	1PIN V _L =0.2V			18	μA
Power Save Terminal Input Voltage	H	V _{PSH}		2.0		V _{CC}	V
	L	V _{PSL}				0.5	V
Input Terminal Voltage		V _{IN}	4PIN		1.2		V
Output Terminal Voltage		V _{OUT}	2PIN	0.15	0.3	0.45	V
Voltage Gain		G _V	SIN Wave: 1V, f=100kHz	5.7	6.0	6.3	dB
Frequency Characteristic 1		f _{C1}	SIN Wave: 1V, 6.75MHz/100kHz	-1.0	0	1.0	dB
Frequency Characteristic 2		f _{C2}	SIN Wave: 1V, 27MHz/100kHz		-40	-27	dB
Differential Gain		DG	Staircase Signal 1V		0.7	1.5	%
Differential Phase		DP	Staircase Signal 1V		0.7	1.5	°
Output Dynamic Range		DR	SIN Wave: 100kHz, THD=1.0%	2.2	2.4		V
S/N		SN	BW: 100k~6MHz		74		dB
Group Delay		t ₁	at 100kHz		50	80	ns
Group Delay	Δt ₁		to 3.58MHz		4	10	ns
			to 4.43MHz		6	10	ns
			to 6MHz		12	20	ns

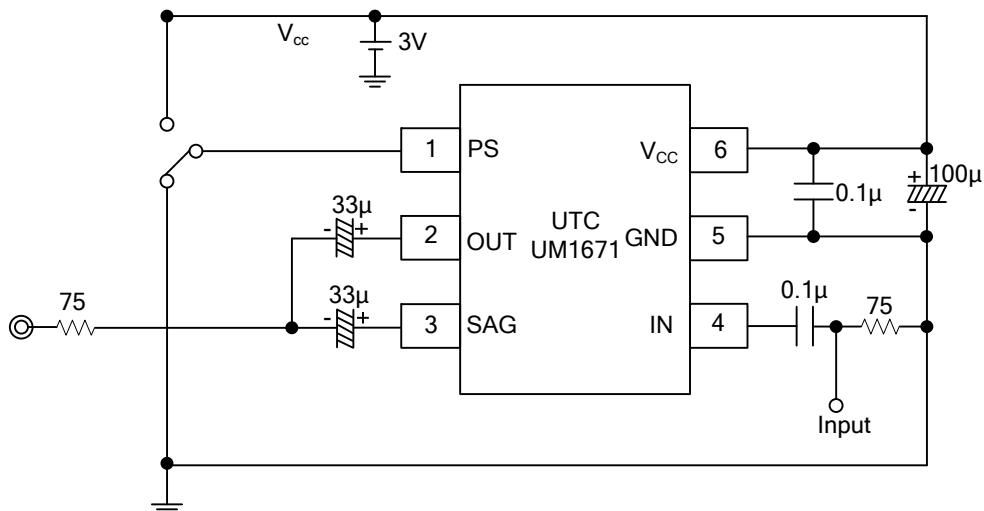
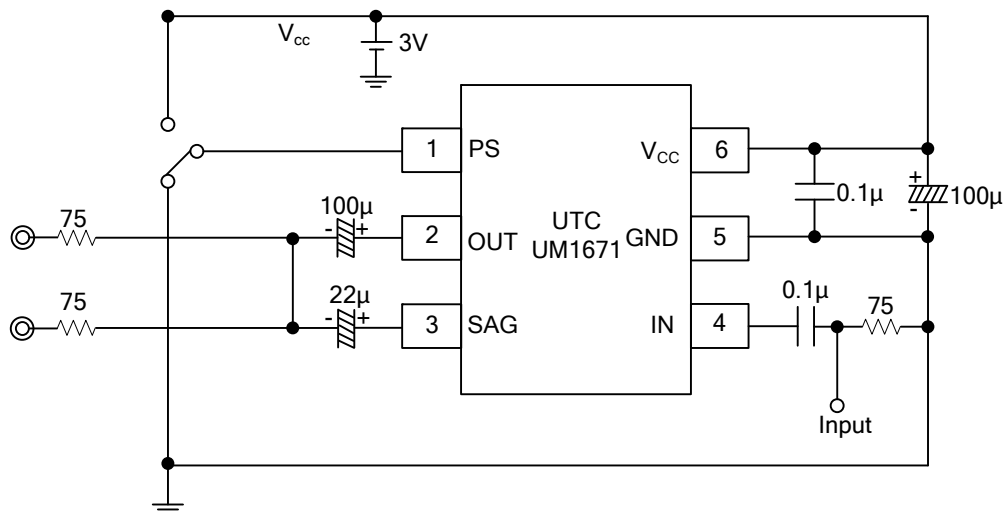
■ SWITCH CONTROL TABLE

PS-PIN	POWER SAVE
H	OFF
L	ON
OPEN	ON

■ TEST CIRCUIT



■ TYPICAL APPLICATION CIRCUIT



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