

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

MAX9586-MAX9589

概述

MAX9586-MAX9589是集成有重建滤波器和输入钳位电路的小型、低功耗多通道视频放大器。特别适合标清视频信号，可广泛应用在电视和机顶盒等设备中。

数模转换器(DAC)输出的视频信号可交流耦合至MAX9586-MAX9589的输入端。对于直流偏置电平未知的外部视频信号，也可交流耦合至MAX9586-MAX9589的输入端。混合视频信号或亮度信号的直流电平可由输入同步头钳位电路设置，而色度信号的直流电平可由输入偏置电路设置。

重建滤波器在8.5MHz通频带内具有 $\pm 1\text{dB}$ 平坦度(典型值)，在27MHz时衰减为55dB。放大器增益为2V/V，其输出端可直流耦合至一个75 Ω 负载(等效于两个视频负载)，或者交流耦合至一个150 Ω 负载。

MAX9586-MAX9589采用2.7V至3.6V单电源供电，可工作于-40°C至+125°C汽车级温度范围。MAX9586-MAX9589提供小型SOT23和 μMAX ®封装。

应用

机顶盒
电视

特性

- ◆ 单通道(MAX9586)、双通道(MAX9587)、三通道(MAX9588)和四通道(MAX9589)器件
- ◆ 8.5MHz、 $\pm 1\text{dB}$ 通频带
- ◆ 27MHz时衰减为55dB
- ◆ 固定增益为2V/V
- ◆ 低功耗：每通道4.25mA
- ◆ 2.7V至3.6V单电源工作
- ◆ 小型SOT23封装和 μMAX 封装

订购信息

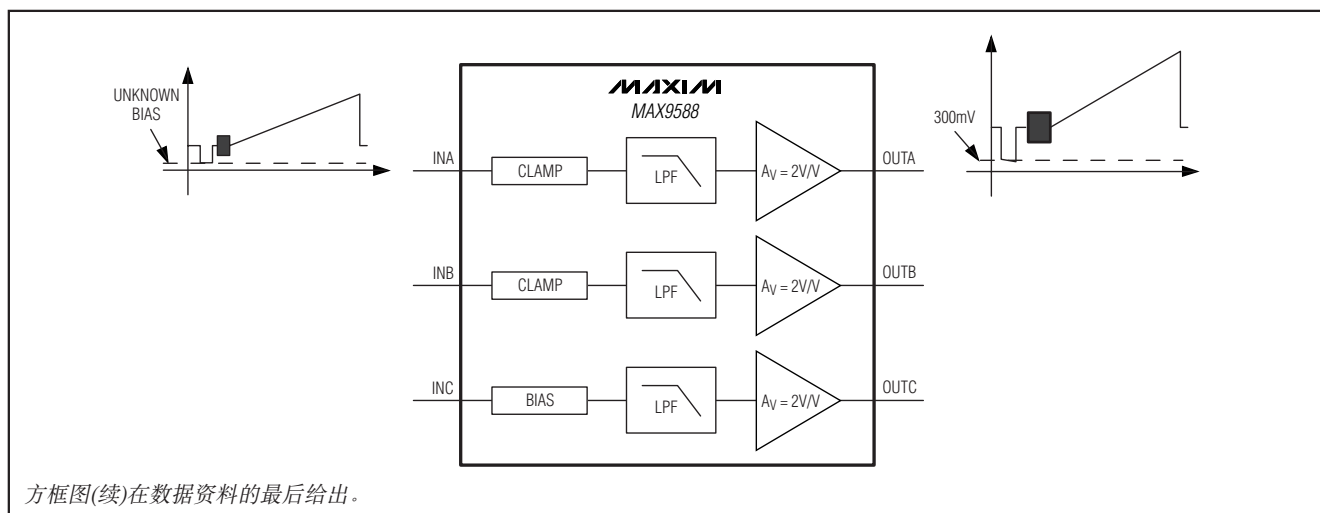
PART	PIN-PACKAGE	CHANNELS
MAX9586AZK+T	5 Thin SOT23	1
MAX9587AZT+T	6 Thin SOT23	2
MAX9588AUA+T	8 μMAX	3
MAX9589AUB+T	10 μMAX	4

注：所有器件额定工作于-40°C至+125°C温度范围。
+表示无铅(Pb)/符合RoHS标准的封装。
T = 卷带包装。

μMAX 是Maxim Integrated Products, Inc.的注册商标。

引脚配置和选型指南在数据资料的最后给出。

方框图



单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

ABSOLUTE MAXIMUM RATINGS

V _{DD} to GND	-0.3V to +4V	6-Pin Thin SOT23 (derate 9.1mW/°C above +70°C).....	727mW
IN ₋ to GND	-0.3V to +4V	8-Pin μMAX (derate 4.5mW/°C above +70°C)	362mW
SHDN to GND.....	-0.3V to +4V	10-Pin μMAX (derate 5.6mW/°C above +70°C)	444mW
OUT ₋ Short Circuit Duration to V _{DD} , GND	Continuous	Operating Temperature Range	-40°C to +125°C
Continuous Input Current		Junction Temperature	+150°C
IN ₋ , SHDN	±20mA	Storage Temperature Range	-65°C to +150°C
Continuous Power Dissipation (T _A = +70°C)		Lead Temperature (soldering, 10s)	+300°C
5-Pin Thin SOT23 (derate 9.1mW/°C above +70°C).....	727mW	Soldering Temperature (reflow)	+260°C

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

(V_{DD} = 3.3V, V_{GND} = 0V, V_{RL} = no load, T_A = T_{MIN} to T_{MAX}, unless otherwise noted. Typical values are at T_A = +25°C.) (Note 1)

PARAMETER	SYMBOL	CONDITIONS		MIN	TYP	MAX	UNITS
Supply Voltage Range	V _{DD}	Guaranteed by PSRR		2.7		3.6	V
Supply Current	I _{DD}	Per channel			4.25	8	mA
Sync-Tip Clamp Level	V _{CCLP}	Sync-tip clamp		0.24		0.41	V
Input Voltage Range	V _{IN}	Guaranteed by DC voltage gain	V _{DD} = 2.7V, sync-tip clamp input			1.05	V _{P-P}
			V _{DD} = 2.7V, bias input			1.05	
			V _{DD} = 3V, sync-tip clamp input			1.2	
			V _{DD} = 3V, bias input			1.2	
Sync Crush		Sync-tip clamp, percentage reduction in sync pulse (0.3V _{P-P}), guaranteed by input clamping current measurement, measured at input				2	%
Input Clamping Current		Sync-tip clamp			1	2	μA
Maximum Input Source Resistance					300		Ω
Bias Voltage	V _{BIAS}	Bias circuit		0.40	0.50	0.62	V
Input Resistance		Bias circuit			11		kΩ
DC Voltage Gain (Note 2)	A _v	R _L = 150Ω to GND	V _{DD} = 2.7V, V _{IN} = V _{CCLP} to (V _{CCLP} + 1.05V)	1.95	2.00	2.04	V/V
			V _{DD} = 3V, V _{IN} = V _{CCLP} to (V _{CCLP} + 1.2V)	1.95	2.00	2.04	
			V _{DD} = 2.7V, V _{IN} = V _{BIAS} ±0.525V	1.95	2.00	2.04	
			V _{DD} = 3V, V _{IN} = V _{BIAS} ±0.600V	1.95	2.00	2.04	
DC Gain Matching		Guaranteed by DC voltage gain		-2	0	+2	%
Output Level		Measured at V _{OUT} , IN ₋ = 0.1μF to GND, R _L = 150Ω to GND	Sync-tip clamp	0.2	0.3	0.4	V
			Bias circuit			1.3	

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ELECTRICAL CHARACTERISTICS (continued)

(V_{DD} = 3.3V, V_{GND} = 0V, V_{RL} = no load, T_A = T_{MIN} to T_{MAX}, unless otherwise noted. Typical values are at T_A = +25°C.) (Note 1)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Output-Voltage Swing	Sync-tip clamp	Measured at output, V _{DD} = 2.7V, V _{IN} = V _{CCLP} to (V _{CCLP} + 1.05V), R _L = 150Ω to -0.2V		2.1		V _{P-P}
		Measured at output, V _{DD} = 2.7V, V _{IN} = V _{CCLP} to (V _{CCLP} + 1.05V), R _L = 150Ω to V _{DD} /2		2.1		
		Measured at output, V _{DD} = 3V, V _{IN} = V _{CCLP} to (V _{CCLP} + 1.2V), R _L = 150Ω to -0.2V		2.4		
		Measured at output, V _{DD} = 3V, V _{IN} = V _{CCLP} to (V _{CCLP} + 1.2V), R _L = 150Ω to V _{DD} /2		2.4		
		Measured at output, V _{DD} = 3.135V, V _{IN} = V _{CCLP} to (V _{CCLP} + 1.05V), R _L = 75Ω to -0.2V		2.1		
	Bias Circuit	Measured at output, V _{DD} = 2.7V, V _{IN} = V _{BIAS} ±0.525V, R _L = 150Ω to -0.2V		2.1		
		Measured at output, V _{DD} = 2.7V, V _{IN} = V _{BIAS} ±0.500V, R _L = 150Ω to V _{DD} /2		2.0		
		Measured at output, V _{DD} = 3V, V _{IN} = V _{BIAS} ±0.600V, R _L = 150Ω to -0.2V		2.4		
		Measured at output, V _{DD} = 3V, V _{IN} = V _{BIAS} ±0.500V, R _L = 150Ω to V _{DD} /2		2.0		
		Measured at output, V _{DD} = 3.135V, V _{IN} = V _{BIAS} ±0.525V, R _L = 75Ω to -0.2V		2.1		
Output Short-Circuit Current		Short to GND (sourcing)		140		mA
		Short to V _{DD} (sinking)		70		
Output Resistance	R _{OUT}	V _{OUT} = 1.5V, -10mA ≤ I _{LOAD} ≤ +10mA		0.2		Ω

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ELECTRICAL CHARACTERISTICS (continued)

(V_{DD} = 3.3V, V_{GND} = 0V, V_{RL} = no load, T_A = T_{MIN} to T_{MAX}, unless otherwise noted. Typical values are at T_A = +25°C.) (Note 1)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Power-Supply Rejection Ratio		2.7V ≤ V _{DD} ≤ 3.6V	48			dB
		f = 1MHz, 100mV _{P-P}		29		
Standard-Definition Reconstruction Filter		±1dB passband flatness		8.5		MHz
		V _{OUT_} = 2V _{P-P} , reference frequency is 100kHz	f = 5.5MHz		-0.15	dB
			f = 9.5MHz		-3	
			f = 27MHz		-55	
Differential Gain	DG	5-step modulated staircase of 129mV step size and 286mV peak-to-peak subcarrier amplitude, f = 4.43MHz		0.1		%
Differential Phase	DP	5-step modulated staircase of 129mV step size and 286mV peak-to-peak subcarrier amplitude, f = 4.43MHz		0.4		Degrees
2T Pulse-to-Bar K Rating		2T = 200ns, bar time is 18μs; the beginning 2.5% and the ending 2.5% of the bar time are ignored		0.6		K%
2T Pulse Response		2T = 200ns		0.2		K%
2T Bar Response		2T = 200ns, bar time is 18μs; the beginning 2.5% and the ending 2.5% of the bar time are ignored		0.2		K%
Nonlinearity		5-step staircase		0		%
Group Delay Distortion		100kHz ≤ f ≤ 5.5MHz, outputs are 2V _{P-P}		9		ns
Peak Signal to RMS Noise		100kHz ≤ f ≤ 5.5MHz		71		dB
Output Impedance		f = 5.5MHz		4.8		Ω
All-Hostile Crosstalk		f = 4.43MHz		-64		dB

Note 1: All devices are 100% production tested at T_A = +25°C. Specifications over temperature limits are guaranteed by design.

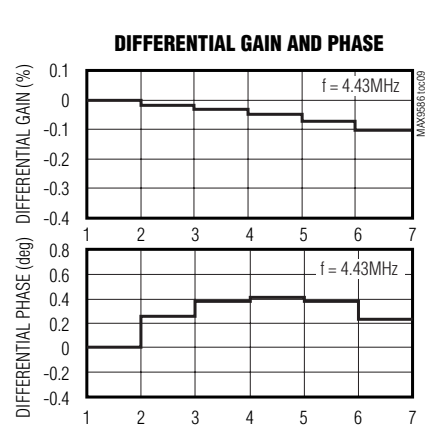
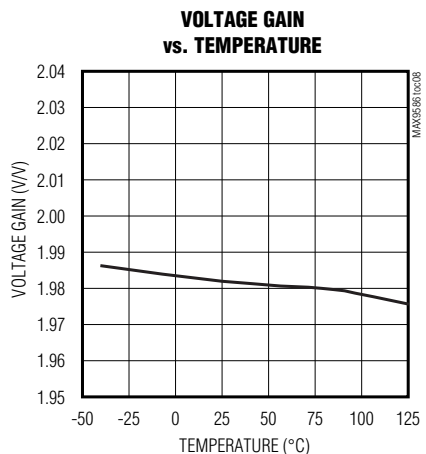
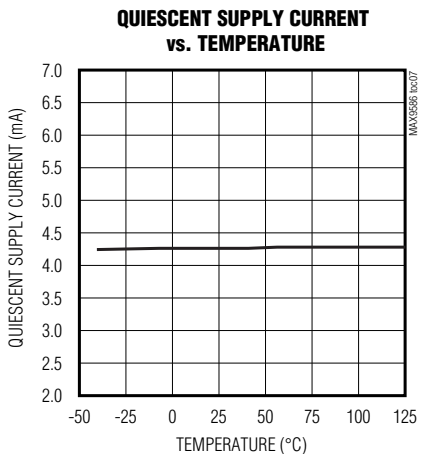
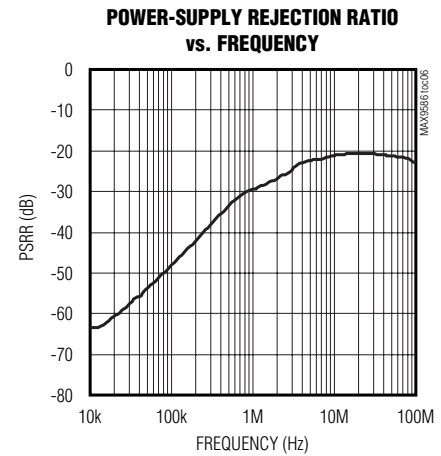
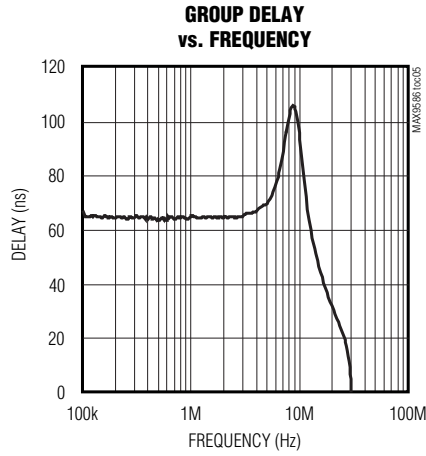
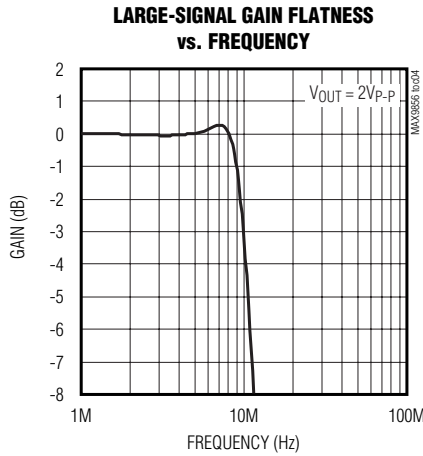
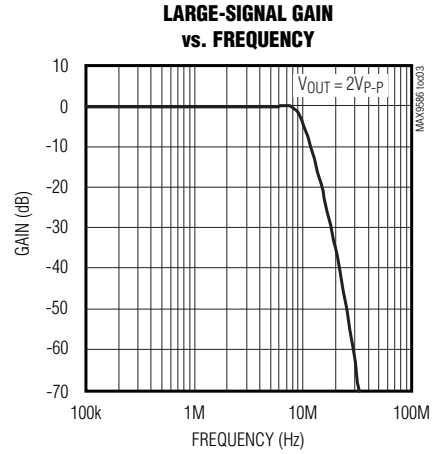
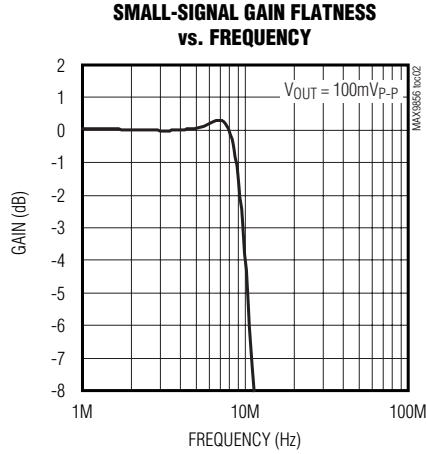
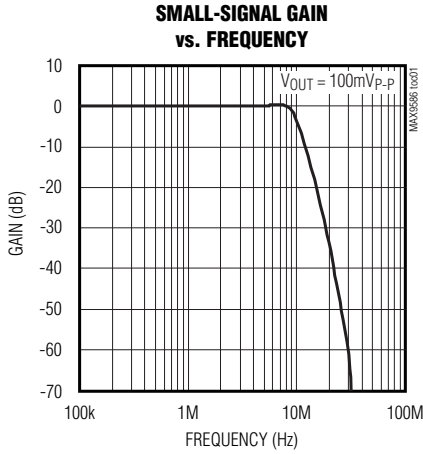
Note 2: Voltage gain (A_v) is a two-point measurement in which the output-voltage swing is divided by the input-voltage swing.

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典型工作特性

($V_{DD} = V_{SHDN} = +3.3V$, video outputs have $R_L = 150\Omega$ connected to GND, $T_A = +25^\circ C$, unless otherwise noted.)

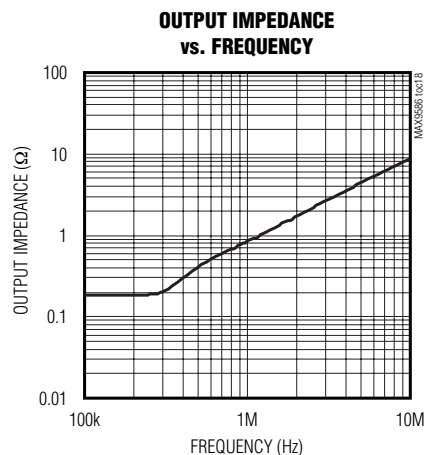
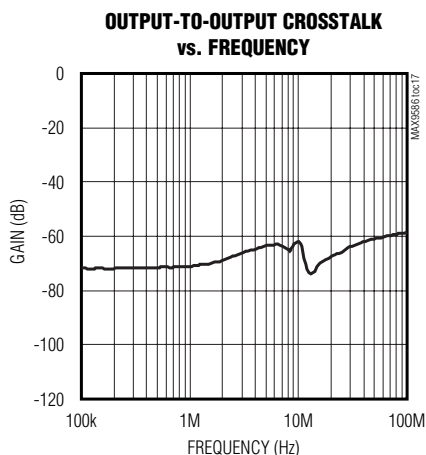
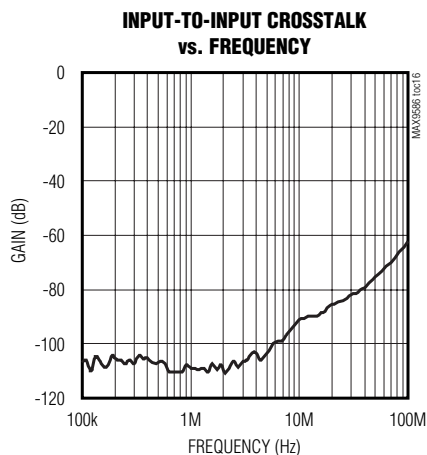
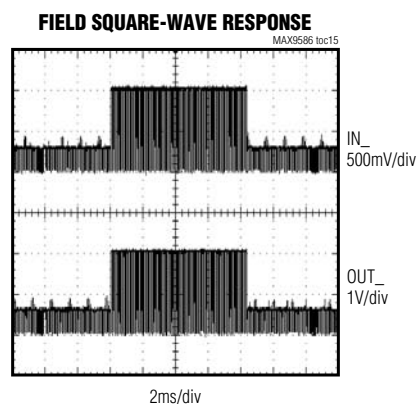
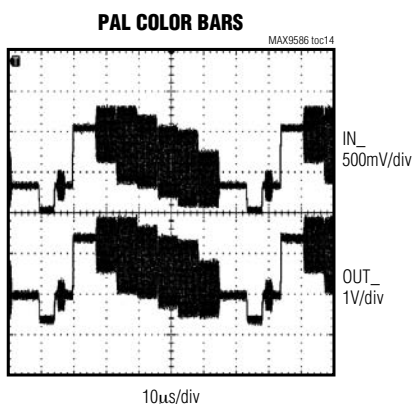
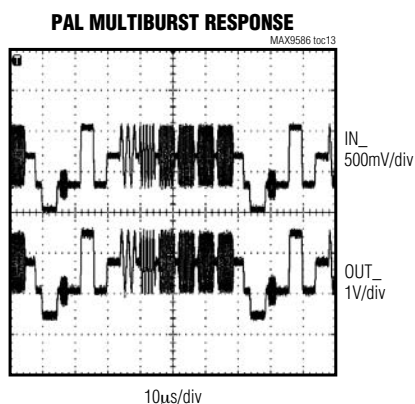
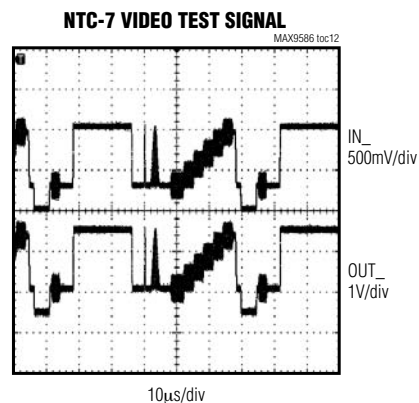
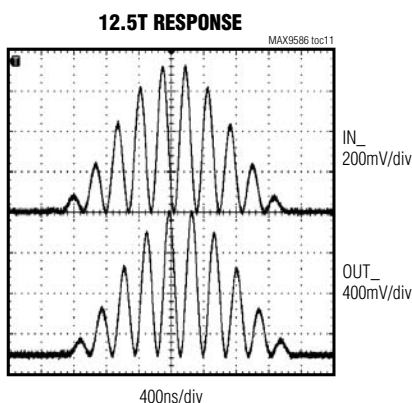
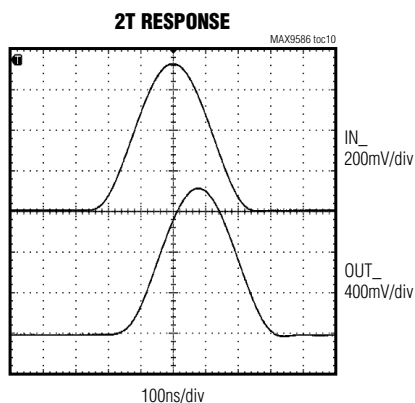
MAX9586-MAX9589



单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

典型工作特性(续)

($V_{DD} = V_{SHDN} = +3.3V$, video outputs have $R_L = 150\Omega$ connected to GND, $T_A = +25^\circ C$, unless otherwise noted.)



单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

引脚说明

MAX9586-MAX9589

引脚				名称	功能
MAX9586	MAX9587	MAX9588	MAX9589		
5 SOT23	6 SOT23	8 μ MAX	10 μ MAX		
1	—	—	—	SHDN	低电平有效关断输入，接GND时关断。
2	2	4	5	GND	地。
3	—	—	—	IN	视频输入。
—	3	1	1	INA	视频输入A。
—	1	2	2	INB	视频输入B。
—	—	3	3	INC	视频输入C。
—	—	—	4	IND	视频输入D。
4	—	—	—	OUT	视频输出。
—	4	7	9	OUTA	视频输出A。
—	6	6	8	OUTB	视频输出B。
—	—	5	7	OUTC	视频输出C。
—	—	—	6	OUTD	视频输出D。
5	5	8	10	VDD	正电源，应采用一只0.1 μ F的电容旁路至GND。

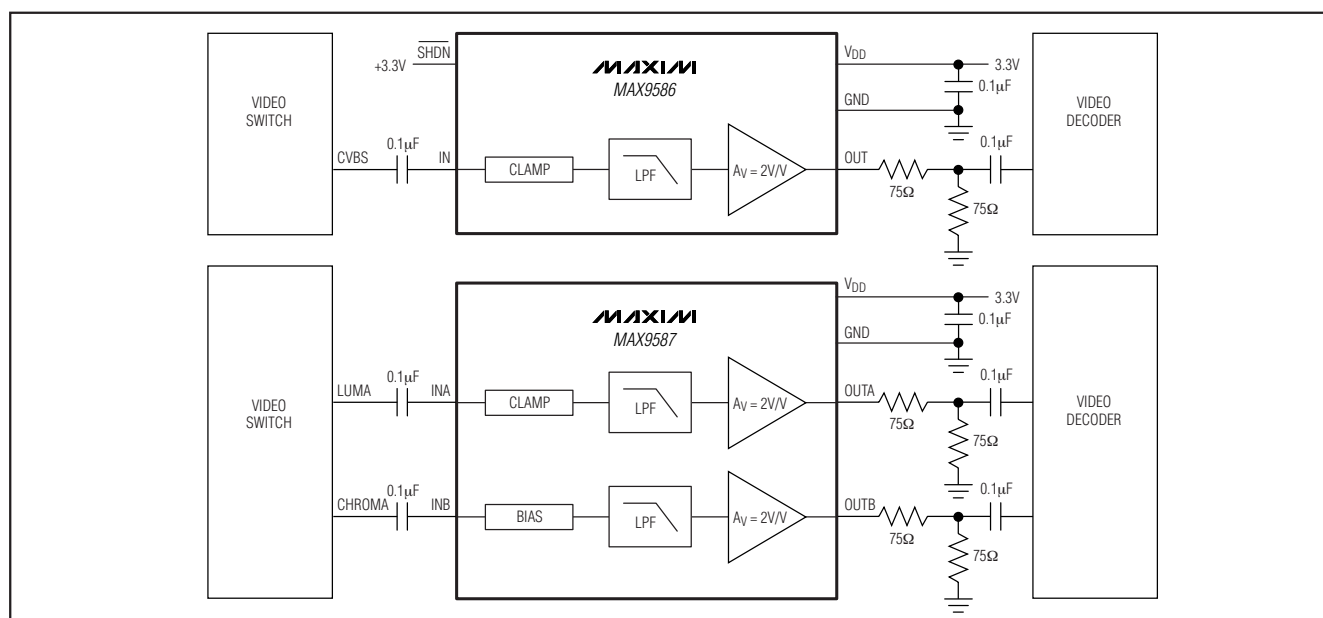


图1. MAX9586/MAX9587典型应用电路(抗混叠滤波器)

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

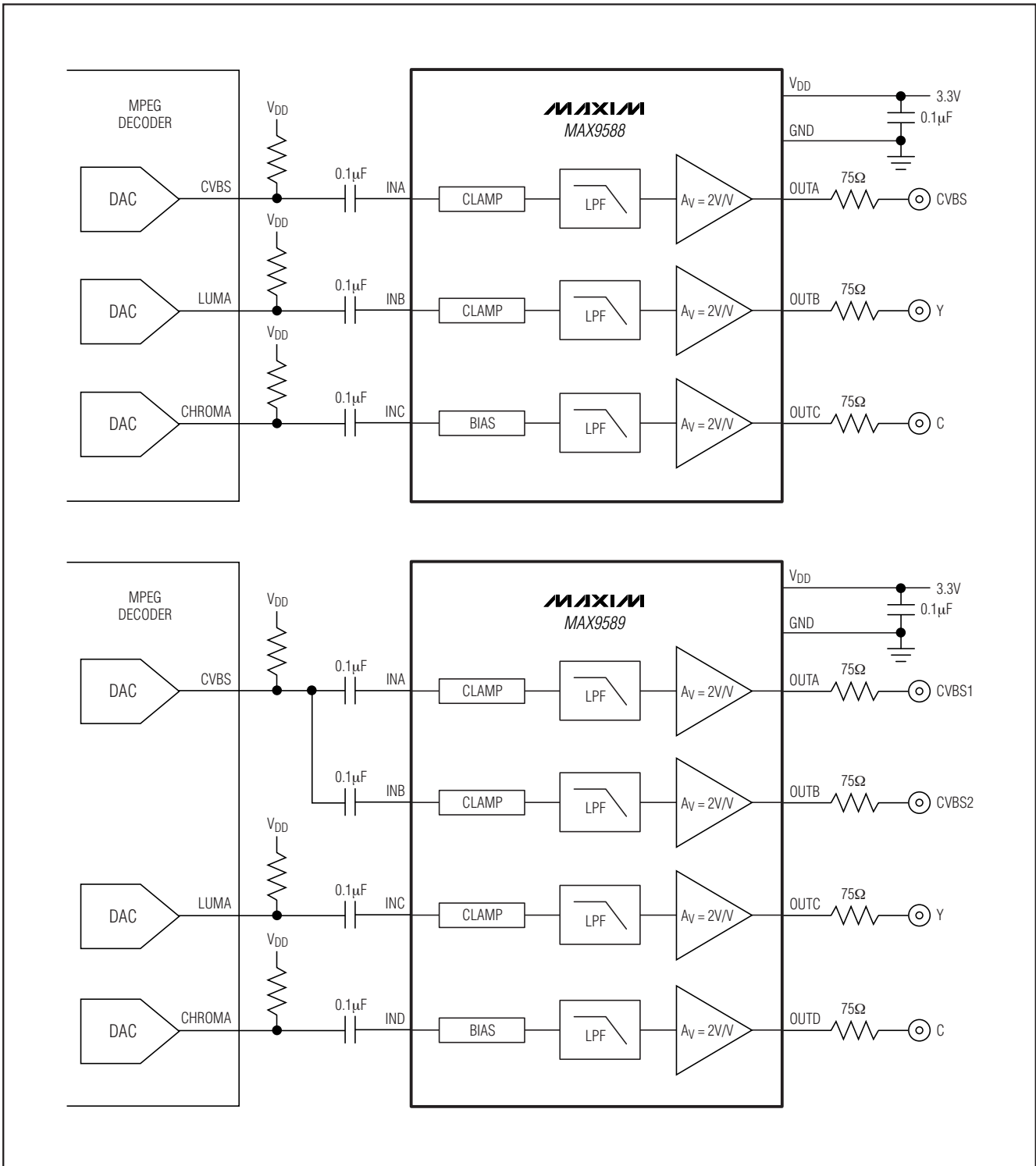


图2. MAX9588/MAX9589典型应用电路(重建滤波器)

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

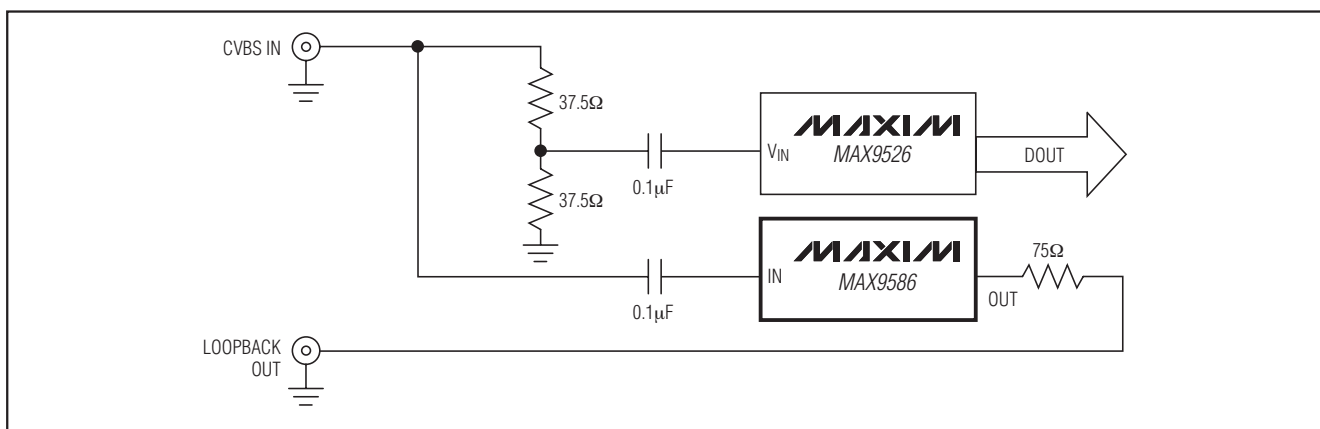


图3. 回路电路图

MAX9586-MAX9589

详细说明

输出

MAX9586-MAX9589可对机顶盒和电视等应用中的视频DAC输出进行滤波和放大。该系列器件由输入钳位电路、输入偏置电路、低通滤波器和增益为2V/V的输出放大器构成，能够驱动标准的150Ω对地视频负载。

视频输出放大器可以源出和吸收负载电流，允许输出负载采用直流或交流耦合。放大器的输出级需要在电源电压摆幅的两端留有约300mV的余量。该系列器件具有内部电平偏移电路，可将输出端同步头设定为约300mV。

输入

MAX9586-MAX9589的输入级包括同步头钳位电路或偏置电路。同步头钳位电路接受带有同步脉冲的交流耦合CVBS或亮度视频信号。同步头电平在内部设置为300mV。偏置电路输入接受交流耦合的色度信号，即带有色度信息的副载波调制信号。偏置电路的偏置电压约为500mV。

如果电源电压大于3.135V（比3.3V电源低5%），每个放大器可驱动两路以地为参考的直流耦合视频负载。如果电源电压低于3.135V，每个放大器只能驱动一路直流耦合或交流耦合视频负载。

关断(MAX9586)

$\overline{\text{SHDN}}$ 置低时，MAX9586消耗的电源电流小于1μA。在关断模式下，放大器输出端变为高阻态。

视频滤波器

该系列滤波器通频带(±1dB)典型值为8.5MHz，这使得该器件适用于各种信号源(例如，广播或DVD)的标清视频信号。广播视频信号受信道限制：NTSC信号的带宽为4.2MHz，PAL信号的带宽为5MHz。而来自DVD播放器的视频信号则不受信道限制，因此DVD视频信号的带宽可能接近6.75MHz奈奎斯特频带限制(ITU-R BT.601-5指定标清视频信号的采样率为13.5MHz)。因此，信号的最大带宽为6.75MHz。为了降低滤波要求，大多数现代视频系统采用两倍过采样，因此电流型视频DAC的时钟为27MHz。

应用信息

交流耦合输出

如图4所示，由于输出级可以源出或吸收电流，因此输出端可以采用交流耦合。耦合电容必须为220μF或更大，以保证该电容与视频传输线的150Ω等效电阻所形成的高通滤波器具有4.8Hz或更低的转角频率。PAL系统的帧频率为25Hz，NTSC系统的帧频率为30Hz。转角频率应远低于帧频率。

电源旁路与接地

MAX9586-MAX9589可采用低至2.7V的单电源工作，允许低功耗运行。应采用一只0.1μF的电容将 V_{DD} 旁路至GND。尽可能将所有外部元件靠近器件放置。

单、双、三、四通道标清视频滤波放大器，
具有交流耦合输入缓冲器

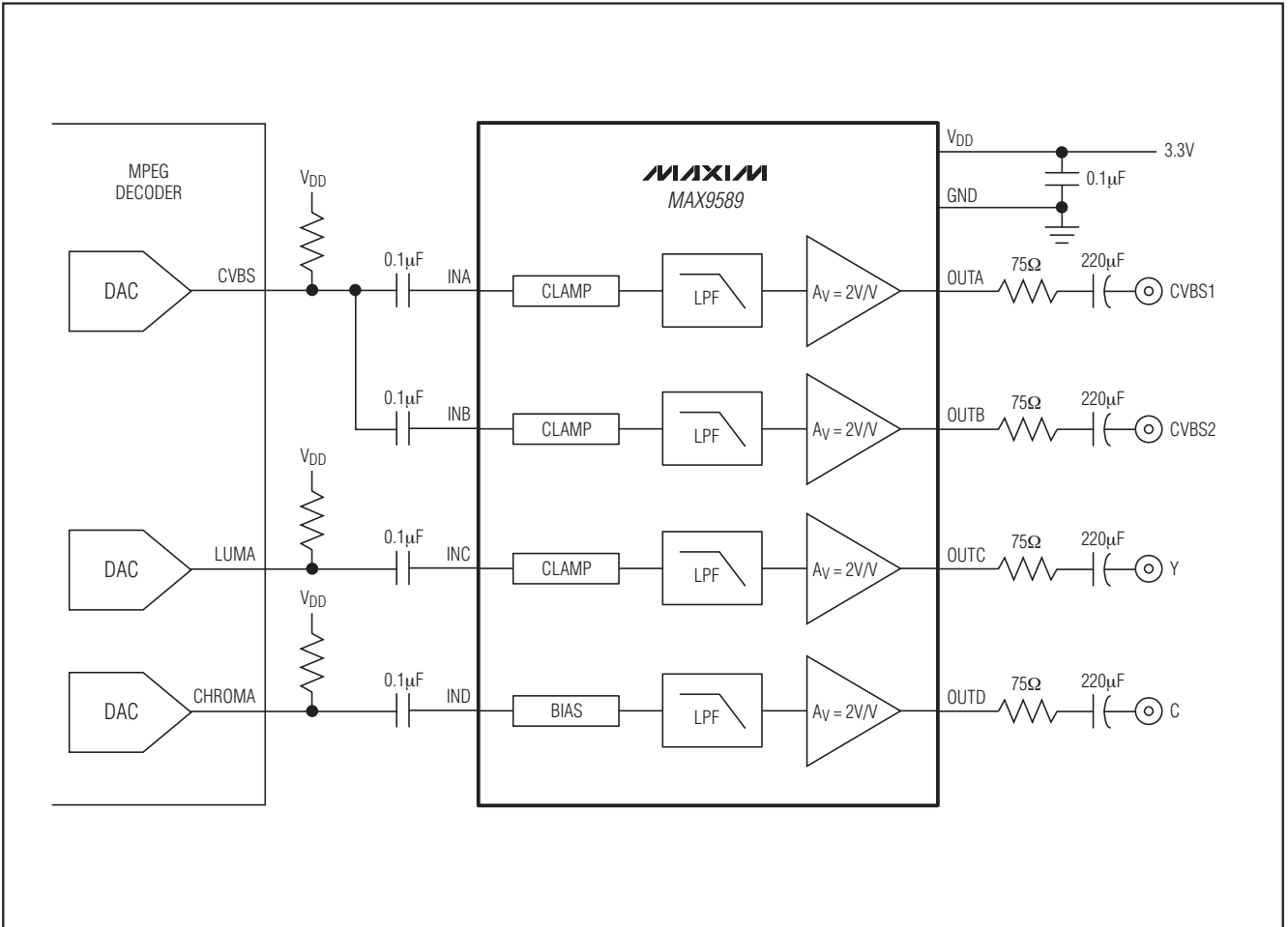
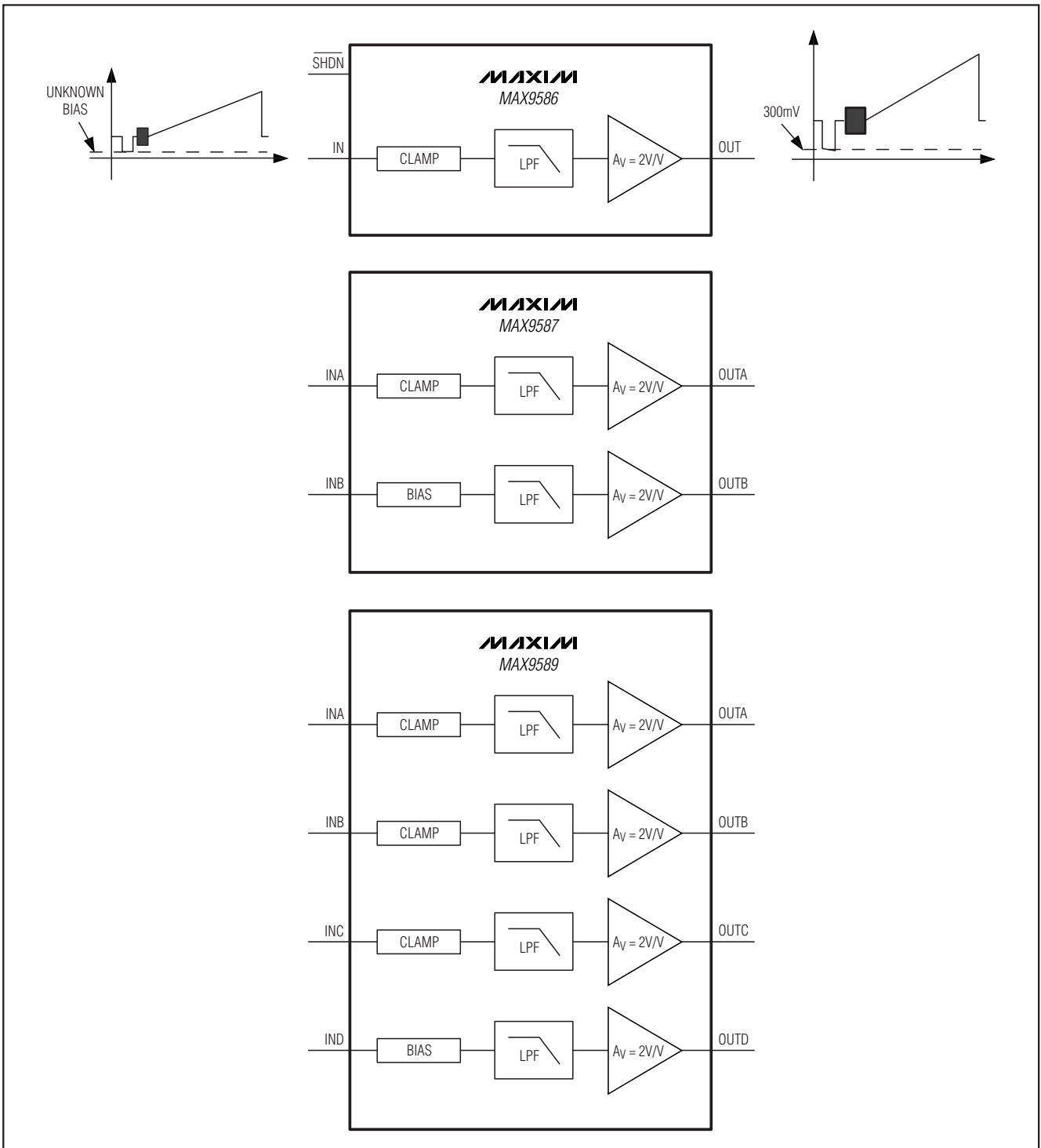


图4. 交流耦合输出

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

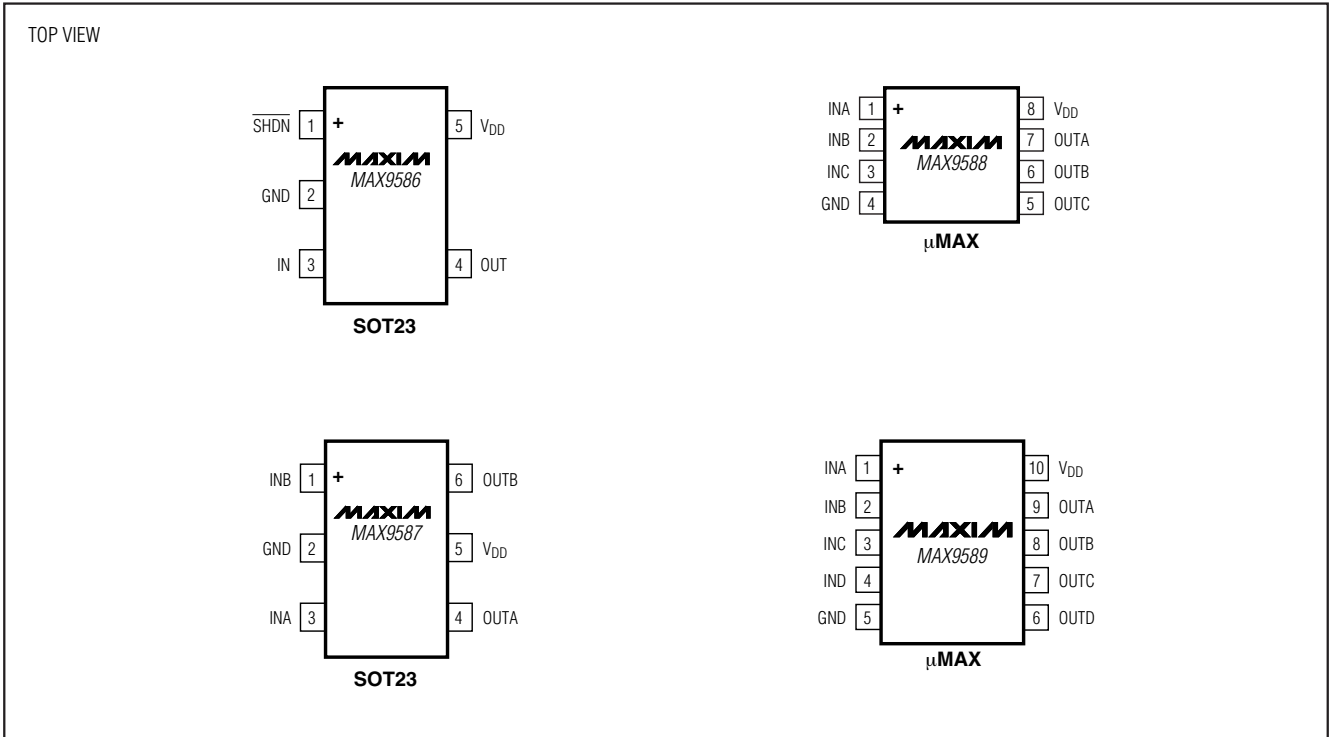
方框图(续)



MAX9586-MAX9589

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

引脚配置



选型指南

PART	PIN-PACKAGE	PACKAGE SIZE	CHANNELS	TOP MARK
MAX9586AZK+T	5 SOT23-5	2.9mm x 1.6mm	1	ADSH
MAX9587AZT+T	6 SOT23-6	2.9mm x 1.6mm	2	AADI
MAX9588AUA+T	8 μMAX-8	3mm x 3mm	3	—
MAX9589AUB+T	10 μMAX-10	3mm x 3mm	4	—

注：所有器件工作于-40°C至+125°C温度范围。
+表示无铅封装。

芯片信息

PROCESS: BiCMOS

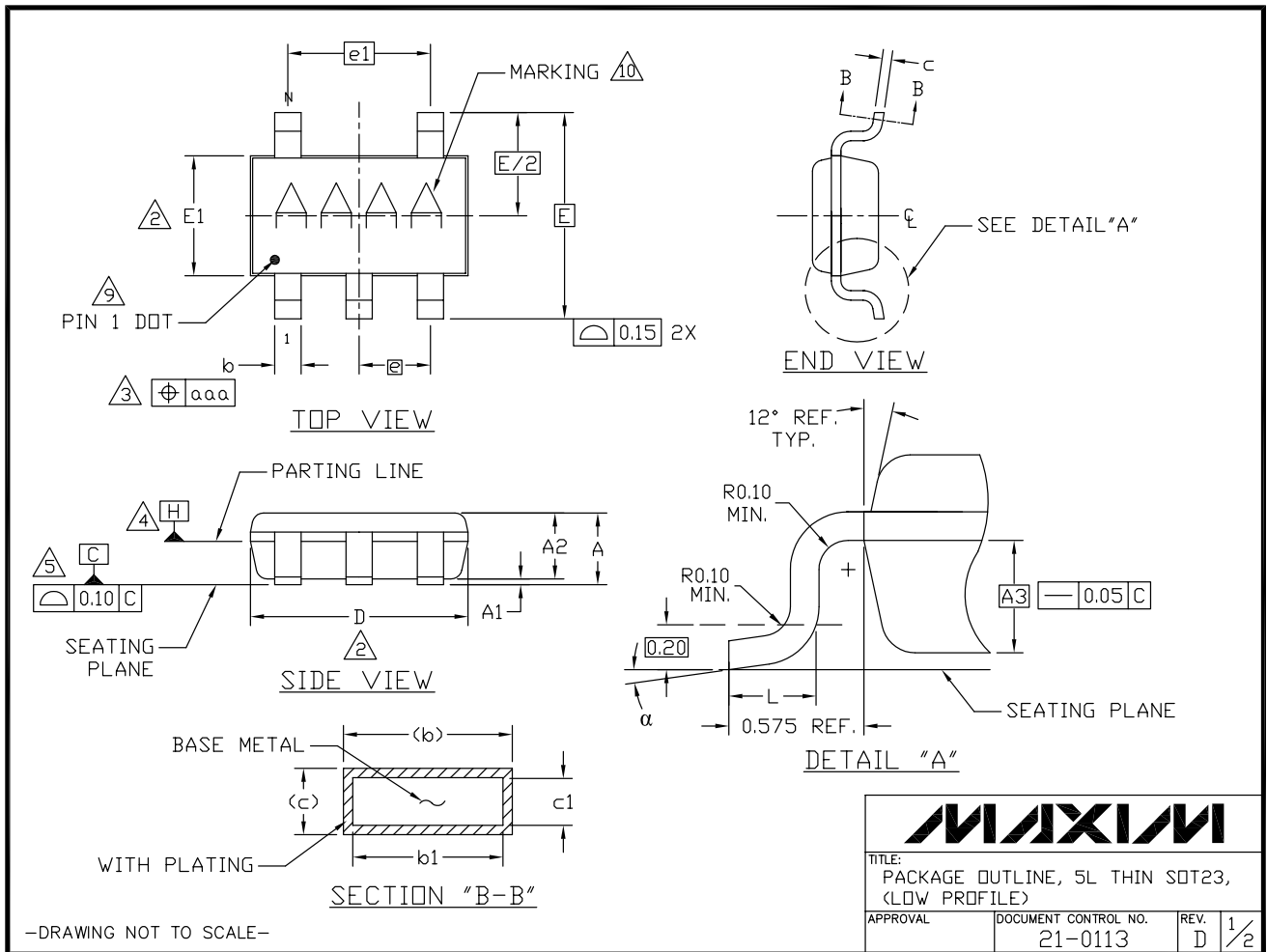
单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

封装信息

如需最近的封装外形信息和焊盘布局(器件封装), 请查询 china.maxim-ic.com/packages. 请注意, 封装编码中的“+”、“#”或“-”仅表示RoHS状态。封装图中可能包含不同的尾缀字符, 但封装图只与封装有关, 与RoHS状态无关。

封装类型	封装编码	外形编号	焊盘布局编号
5 TSOT23	Z5+1	21-0113	90-0241
6 TSOT23	Z6+1	21-0114	90-0242
8 μ MAX	U8+1	21-0036	90-0092
10 μ MAX	U8+2	21-0061	90-0330

MAX9586-MAX9589



单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

封装信息(续)

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NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. "D" AND "E1" ARE REFERENCE DATUM AND DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS, AND ARE MEASURED AT THE BOTTOM PARTING LINE. MOLD FLASH OR PROTRUSION SHALL NOT EXCEED 0.15mm ON "D" AND 0.25mm ON "E" PER SIDE.
3. THE LEAD WIDTH DIMENSION DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.07mm TOTAL IN EXCESS OF THE LEAD WIDTH DIMENSION AT MAXIMUM MATERIAL CONDITION.
4. DATUM PLANE $\square\square$ LOCATED AT MOLD PARTING LINE AND COINCIDENT WITH LEAD, WHERE LEAD EXITS PLASTIC BODY AT THE BOTTOM OF PARTING LINE.
5. THE LEAD TIPS MUST LIE WITHIN A SPECIFIED TOLERANCE ZONE. THIS TOLERANCE ZONE IS DEFINED BY TWO PARALLEL LINES. ONE PLANE IS THE SEATING PLANE, DATUM $\square\square$ AND THE OTHER PLANE IS AT THE SPECIFIED DISTANCE FROM $\square\square$ IN THE DIRECTION INDICATED. FORMED LEADS SHALL BE PLANAR WITH RESPECT TO ONE ANOTHER WITH 0.10mm AT SEATING PLANE.
6. THIS PART IS COMPLIANT WITH JEDEC SPECIFICATION MO-193 EXCEPT FOR THE "e" DIMENSION WHICH IS 0.95mm INSTEAD OF 1.00mm. THIS PART IS IN FULL COMPLIANCE TO EIAJ SPECIFICATION SC-74.
7. COPLANARITY APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS. COPLANARITY SHALL NOT EXCEED 0.08mm.
8. WARPAGE SHALL NOT EXCEED 0.10mm.
9. THE TERMINAL #1 IDENTIFIER AND TERMINAL NUMBERING CONVENTION SHALL CONFORM TO JE5D 95-1 PP-012. DETAILS OF TERMINAL #1 IDENTIFIER ARE OPTIONAL. THE TERMINAL #1 IDENTIFIER MAY BE EITHER A MOLD OR MARKED FEATURE.
10. MARKING IS FOR PACKAGE ORIENTATION REFERENCE ONLY.
11. MATERIAL MUST COMPLY WITH BANNED AND RESTRICTED SUBSTANCES SPEC # 10-0131.
12. ALL DIMENSIONS APPLY TO BOTH LEADED (-) AND LEAD FREE (+) PACKAGE CODES.

DIMENSIONS			
	MIN	NOM	MAX
A	-	-	1.10
A1	0.00	0.075	0.10
A2	0.85	0.88	0.90
A3	0.50 BSC		
b	0.30	-	0.45
b1	0.25	0.35	0.40
c	0.15	-	0.20
c1	0.12	0.127	0.15
D	2.80	2.90	3.00
E	2.75 BSC		
E1	1.55	1.60	1.65
L	0.30	0.40	0.50
e1	1.90 BSC		
e	0.95 BSC		
α	0°	4°	8°
aaa	0.20		
PKG CODE	Z5-1, Z5-2, Z5-3		

TITLE:
PACKAGE OUTLINE, 5L THIN SOT23,
(LOW PROFILE)

APPROVAL	DOCUMENT CONTROL NO. 21-0113	REV. D	2/2
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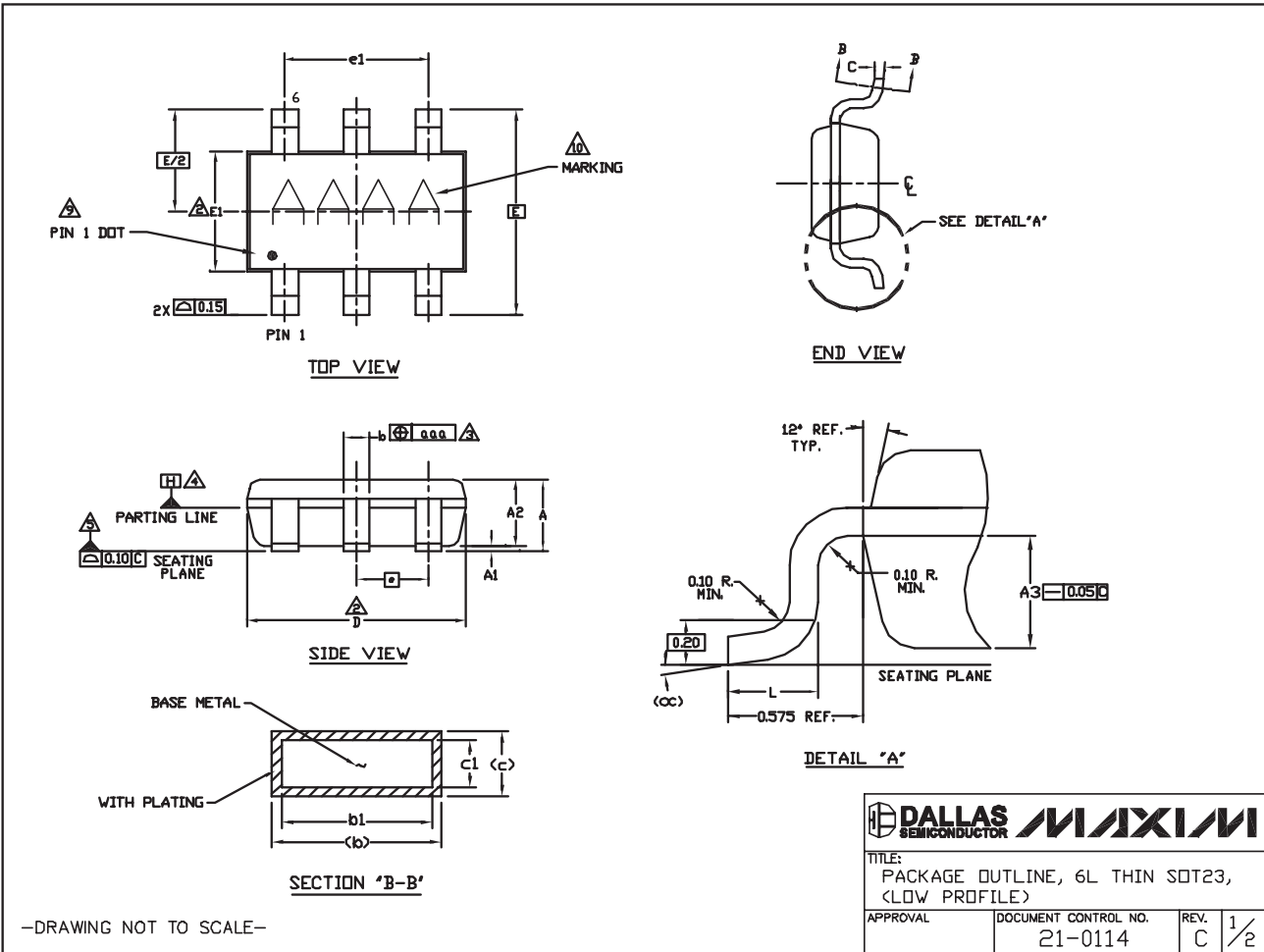
-DRAWING NOT TO SCALE-

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

封装信息(续)

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MAX9586-MAX9589



单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

封装信息(续)

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NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.

2. 'D' AND 'E1' ARE REFERENCE DATUM AND DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS, AND ARE MEASURED AT THE BOTTOM PARTING LINE. MOLD FLASH OR PROTRUSION SHALL NOT EXCEED 0.15mm ON 'D' AND 0.25mm ON 'E' PER SIDE.

3. THE LEAD WIDTH DIMENSION DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.07mm TOTAL IN EXCESS OF THE LEAD WIDTH DIMENSION AT MAXIMUM MATERIAL CONDITION.

4. DATUM PLANE 'H' LOCATED AT MOLD PARTING LINE AND COINCIDENT WITH LEAD, WHERE LEAD EXITS PLASTIC BODY AT THE BOTTOM OF PARTING LINE.

5. THE LEAD TIPS MUST LIE WITHIN A SPECIFIED TOLERANCE ZONE. THIS TOLERANCE ZONE IS DEFINED BY TWO PARALLEL LINES. ONE PLANE IS THE SEATING PLANE, DATUM [C-C-J] AND THE OTHER PLANE IS AT THE SPECIFIED DISTANCE FROM [C-C-J] IN THE DIRECTION INDICATED. FORMED LEADS SHALL BE PLANAR WITH RESPECT TO ONE ANOTHER WITH 0.10mm AT SEATING PLANE.

6. THIS PART IS COMPLIANT WITH JEDEC SPECIFICATION MO-193 EXCEPT FOR THE 'e' DIMENSION WHICH IS 0.95mm INSTEAD OF 1.00mm. THIS PART IS IN FULL COMPLIANCE TO EIAJ SPECIFICATION SC-74.

7. COPLANARITY APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS. COPLANARITY SHALL NOT EXCEED 0.08mm.

8. WARPAGE SHALL NOT EXCEED 0.10mm.

9. THE TERMINAL #1 IDENTIFIER AND TERMINAL NUMBERING CONVENTION SHALL CONFORM TO JEDEC 95-1 PP-012. DETAILS OF TERMINAL #1 IDENTIFIER ARE OPTIONAL. THE TERMINAL #1 IDENTIFIER MAY BE EITHER A MOLD OR MARKED FEATURE.


10. MARKING IS FOR PACKAGE ORIENTATION REFERENCE ONLY.

11. ALL DIMENSIONS APPLY TO BOTH LEADED (-) AND LEAD FREE (+) PACKAGE CODES.

SYMBOLS

	MIN	NDM	MAX
A	-	-	1.10
A1	0.00	0.075	0.10
A2	0.85	0.88	0.90
A3	0.50 BSC		
b	0.30	-	0.45
b1	0.25	0.35	0.40
c	0.15	-	0.20
c1	0.12	0.127	0.15
D	2.80	2.90	3.00
E	2.75 BSC		
E1	1.55	1.60	1.65
L	0.30	0.40	0.50
e1	1.90 BSC		
e	0.95 BSC		
OC	0°	4°	8°
aaa	0.20		
Pkg. codes: Z6-1; Z6-2			

-DRAWING NOT TO SCALE-

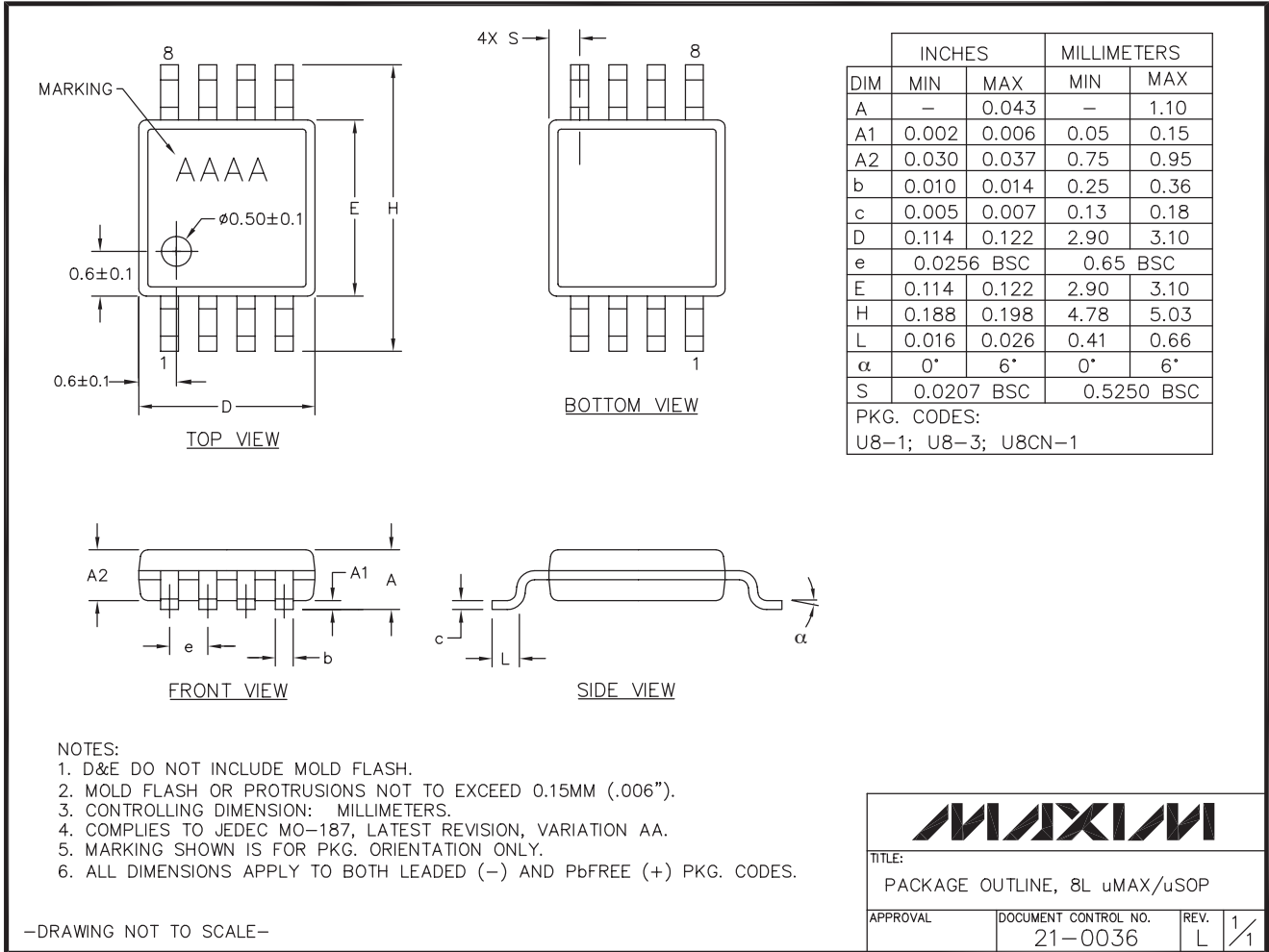
		
TITLE:		
PACKAGE OUTLINE, 6L THIN SOT23, (LOW PROFILE)		
APPROVAL	DOCUMENT CONTROL NO.	REV.
	21-0114	C 2/2

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

封装信息(续)

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MAX9586-MAX9589

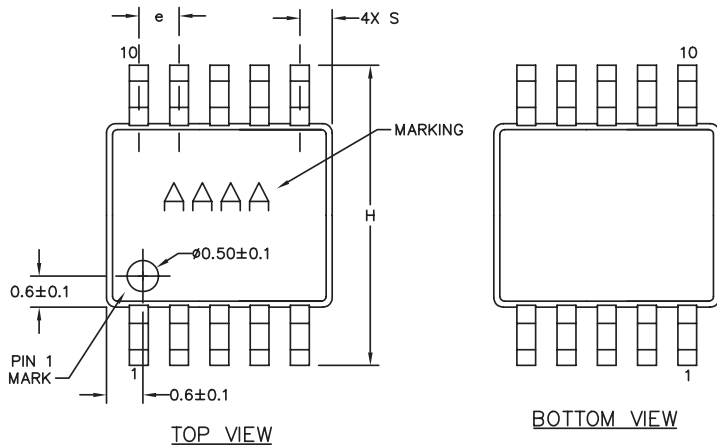


单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

封装信息(续)

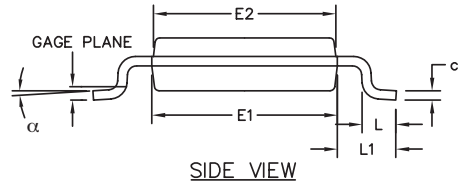
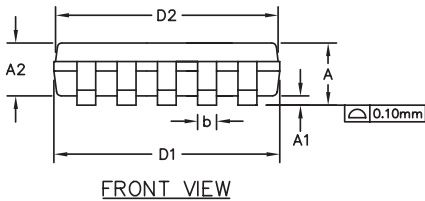
如需最近的封装外形信息和焊盘布局(器件封装), 请查询 china.maxim-ic.com/packages. 请注意, 封装编码中的“+”、“#”或“-”仅表示RoHS状态。封装图中可能包含不同的尾缀字符, 但封装图只与封装有关, 与RoHS状态无关。

10LUMAXEPS



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	—	0.043	—	1.10
A1	0.002	0.006	0.05	0.15
A2	0.030	0.037	0.75	0.95
D1	0.116	0.120	2.95	3.05
D2	0.114	0.118	2.89	3.00
E1	0.116	0.120	2.95	3.05
E2	0.114	0.118	2.89	3.00
H	0.187	0.199	4.75	5.05
L	0.0157	0.0275	0.40	0.70
L1	0.037	REF	0.940	REF
b	0.007	0.0106	0.177	0.270
e	0.0197	BSC	0.500	BSC
c	0.0035	0.0078	0.090	0.200
S	0.0196	REF	0.498	REF
α	0°	6°	0°	6°

Pkg Codes: U10-2; U10CN-1



- NOTES:
1. D&E DO NOT INCLUDE MOLD FLASH.
 2. MOLD FLASH OR PROTRUSIONS NOT TO EXCEED 0.15mm (.006”).
 3. CONTROLLING DIMENSION: MILLIMETERS.
 4. COMPLIES TO JEDEC MO-187, LATEST REVISION, VARIATION BA.
 5. MARKING SHOWN IS FOR PKG. ORIENTATION ONLY.
 6. ALL DIMENSIONS APPLY TO BOTH LEADED (-) AND PbFREE (+) PKG. CODES.

-DRAWING NOT TO SCALE-

MAXIM			
TITLE: PACKAGE OUTLINE, 10L uMAX/uSOP			
APPROVAL	DOCUMENT CONTROL NO. 21-0061	REV. L	1/1

单、双、三、四通道标清视频滤波放大器， 具有交流耦合输入缓冲器

修订历史

修订号	修订日期	说明	修改页
6	2/11	增加了回路电路图。	9

MAX9586-MAX9589

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