



ZXFV201, ZXFV202, ZXFV203, ZXFV204

QUAD, SINGLE, TRIPLE, AND DUAL VIDEO AMPLIFIERS

Description

The ZXFV201, ZXFV202, ZXFV203 and ZXFV204 are quad, single, triple and dual, respectively, high speed amplifiers designed for video and other high-speed applications.

Their low differential gain and phase performance make them ideal for video amplifier buffer applications.

The quad allows one IC to drive RGBS format component video signals, while the triple provides RGB component video buffer/driver. The dual amplifier is a mainstay of the video market providing two channels in the space of 1 single in SO8. The small size of the ZXFV202 in SOT23 allows it to be placed where needed for position/size critical applications.

Together with high output drive and slew rate capability, they bring high performance to video applications.

Features

Absolute Maximum Ratings (over operating free-air temperature (unless otherwise stated ^(a))

Supply voltage (V_{S+} to V_{S-})	-0.5V to +11V
Input voltage (V_{IN-} , V_{IN+}) ^(b)	V_{S-} -0.5V to V_{S+} +0.5 V
Differential input voltage (V_{ID})	±3V
Inverting input current (I_{IN-}) ^(c)	±5mA
Output current (continuous, $T_J < 110^{\circ}\text{C}$)	±60mA
Internal power dissipation	See power dissipation derating table
Storage temperature range	-65°C to +150°C
Operating ambient junction temperature (T_{JMAX})	150°C

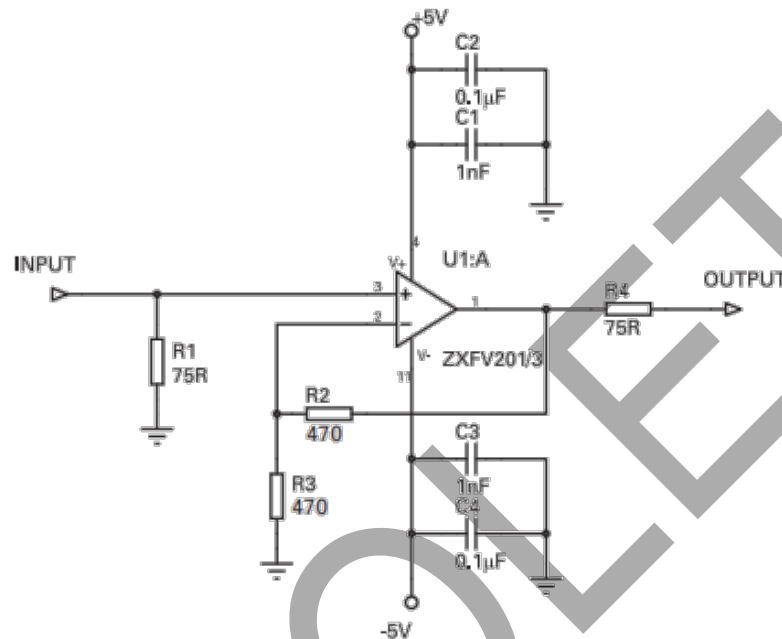
Electrical Characteristics (@ $T_A = +25^\circ\text{C}$, unless otherwise specified.)

DC electrical characteristics ($\pm 5\text{V}$ power supplies, $T_{\text{amb}} = 25^\circ\text{C}$ unless otherwise stated. $R_f = 1\text{k}\Omega$, $R_L = 150\Omega$, $C_L \leq 10\text{pF}$)

Parameter	Conditions	Test	Min.	Typ.	Max.	Unit
Supply voltage V_+ operating range			4.75	5	5.25	V
Supply voltage V_- operating range			-5.25	-5	-4.75	V
Supply current/per channel		P	5.0	7.5		

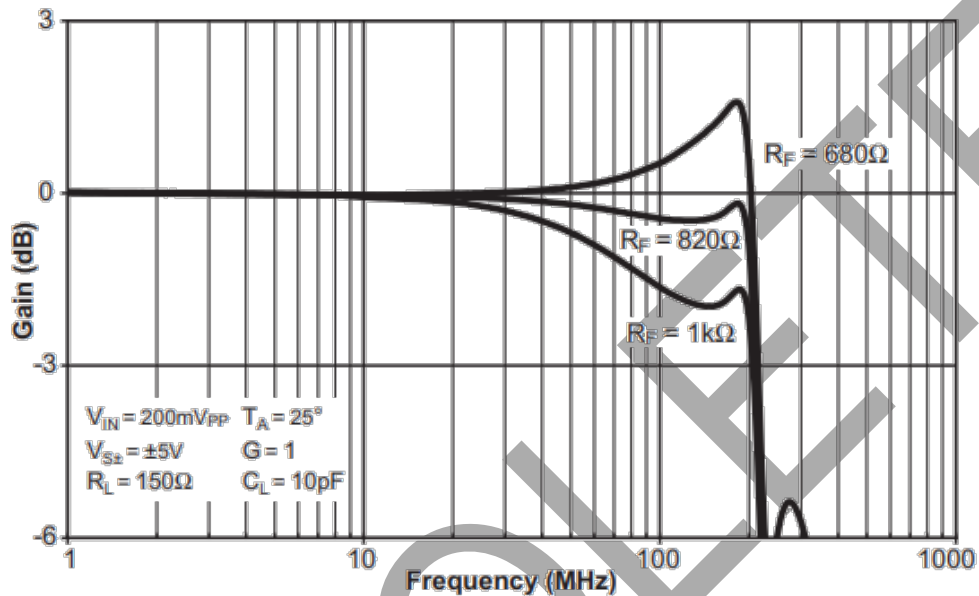
Applications Information

A typical circuit application is shown in Figure 1. This is suitable for 75Ω transmission line connections at both the input and the output and is useful for distribution of wide-band signals such as video via cables. The 75Ω reverse terminating resistor R4 gives the correct matching condition to a terminated video cable. The amplifier load is then 150Ω in parallel with the local feedback network.



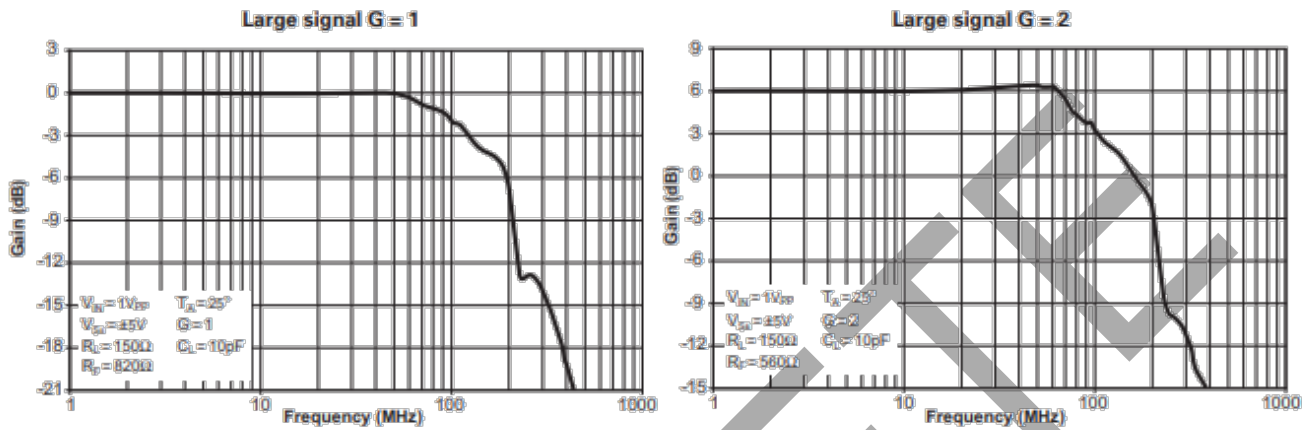
Applications Information (cont.)

The frequency response and pulse response will vary according to particular values of resistors and layout capacitance. The response can be tailored for the application to some extent by choice of the value of feedback resistor. Figures 2 and 3 show the small signal unity gain and gain of 2 frequency responses.



Applications Information (cont.)

Figures 4 and 5 show the large signal unity gain of 2 frequency responses.



Ordering Information

Part Number	Description	Status	Part Mark	Tape and reel	
				Size (inches)	Quantity
ZXFV202E5TA	Single	Obsolete	V202	7	3,000
ZXFV202E5TD	Single	Obsolete	V202	7	500
ZXFV202N8TA	Single	Obsolete	ZXFV202	7	500
ZXFV204N8TA	Dual	Obsolete	ZXFV204	7	500

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