

November 1996

850MHz, Low Distortion Programmable Gain Buffer Amplifier

Features

- User Programmable for Closed-Loop Gains of +1, -1 or +2 without Use of External Resistors
- Wide -3dB Bandwidth 850MHz
- Very Fast Slew Rate 2400V/ μ s
- Fast Settling Time (0.1%) 11ns
- High Output Current 60mA
- Excellent Gain Accuracy 0.99V/V
- Overdrive Recovery <10ns
- Standard Operational Amplifier Pinout

Applications

- RF/IF Processors
- Driving Flash A/D Converters
- High-Speed Communications
- Impedance Transformation
- Line Driving
- Video Switching and Routing
- Radar Systems
- Medical Imaging Systems
- Related Literature
 - AN9507, Video Cable Drivers Save Board Space

Description

The HFA1112 is a closed loop Buffer featuring user programmable gain and ultra high speed performance. Manufactured on Harris' proprietary complementary bipolar UHF-1 process, the HFA1112 offers a wide -3dB bandwidth of 850MHz, very fast slew rate, excellent gain flatness, low distortion and high output current.

A unique feature of the pinout allows the user to select a voltage gain of +1, -1, or +2, without the use of any external components. Gain selection is accomplished via connections to the inputs, as described in the "Application Information" section. The result is a more flexible product, fewer part types in inventory, and more efficient use of board space.

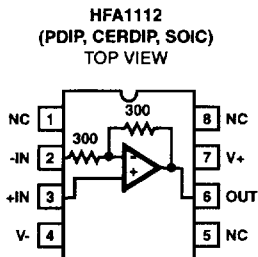
Compatibility with existing op amp pinouts provides flexibility to upgrade low gain amplifiers, while decreasing component count. Unlike most buffers, the standard pinout provides an upgrade path should a higher closed loop gain be needed at a future date.

This amplifier is available with programmable output limiting as the HFA1113. For applications requiring a standard buffer pinout, please refer to the HFA1110 datasheet. For Military product, refer to the HFA1112/883 data sheet.

Ordering Information

PART NUMBER (BRAND)	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HFA1112J	-40 to 85	8 Ld CERDIP	F8.3A
HFA1112IP	-40 to 85	8 Ld PDIP	E8.3
HFA1112IB (H1112I)	-40 to 85	8 Ld SOIC	M8.15
HFA11XEVAL	High Speed Op Amp DIP Evaluation Board		

Pinout



Pin Descriptions

NAME	PIN NUMBER	DESCRIPTION
NC	1, 5, 8	No Connection
-IN	2	Inverting Input
+IN	3	Non-Inverting Input
V-	4	Negative Supply
OUT	6	Output
V+	7	Positive Supply

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STANDARD PRODUCTS