HARRIS
SEMICONDUCTOR

HFA1114

850MHz Video Cable Driving Buffer

Features

- **Access to Summing Node Allows Circuit Customization**
- **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/µs**
- **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**

Description

The HFA1114 is a closed loop Buffer featuring user programmable gain and ultra high speed performance. Manufactured on Harris' proprietary complementary bipolar UHF-1 process, the HFA1114 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.

For applications requiring a standard buffer pinout, please refer to the HFA1110 datasheet.

Ordering Information

PART NUMBER (BRAND)	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HFA1114IP	-40 to 85	8 Ld PDIP	E8.3
HFA1114IB (H1114I)	-40 to 85	8 Ld SOIC	M8.15
HFA11XXEVAL	DIP Evaluation Board for High Speed Op Amps		

Pinout

HFA1114
(PDIP, SOIC)
TOP VIEW
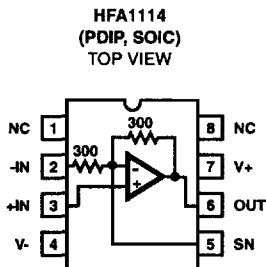
Pin Descriptions

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

File Number **3151.3**