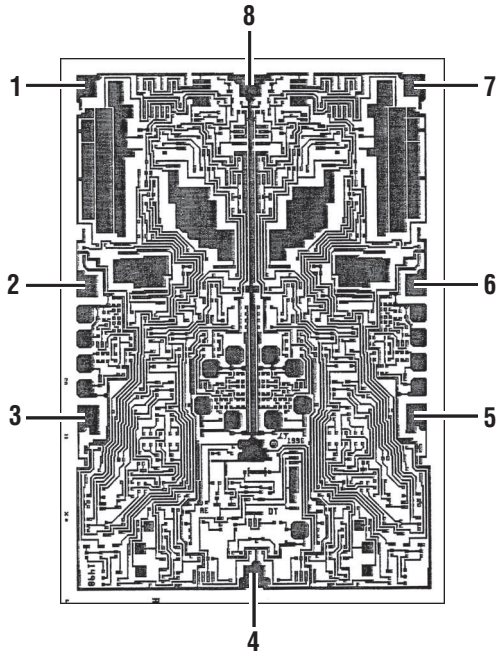


**10MHz, 6V/ μ s Rail-to-Rail
 Input and Output Precision
 C-Load Op Amp**

PAD FUNCTION

1. OUTPUT A
2. -INA
3. +INA
4. V^-
5. +INB
6. -INB
7. OUTPUT B
8. V^+

DIE CROSS REFERENCE

LTC Finished Part Number	Order Part Number
RH1498	RH1498DICE
RH1498	RH1498DWF*

Please refer to LTC standard product data sheet for other applicable product information.

*DWF = DICE in wafer form.

117mils \times 82mils,
 12mils thick.

Backside (substrate) is an alloyed gold layer.
 Connect backside to V^+ .

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DICE/DWF ELECTRICAL TEST LIMITS (Pre-Irradiation) $V_S = \pm 15V$; $V_{CM} = V_{OUT} = 0V$, $T_A = 25^\circ C$, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
V_{OS}	Input Offset Voltage	$V_{CM} = V^+, V^-$		800	μV
	Input Offset Voltage Match (Channel-to-Channel) (Note 1)	$V_{CM} = V^+ \text{ to } V^-$		1400	μV
I_B	Input Bias Current	$V_{CM} = V^+$ $V_{CM} = V^-$	0 -715	715 0	nA nA
	Input Bias Current Match (Channel-to-Channel) (Note 1)	$V_{CM} = V^+, V^-$	0	200	nA
I_{OS}	Input Offset Current	$V_{CM} = V^+, V^-$		70	nA
A_{VOL}	Large-Signal Voltage Gain	$V_O = -14.5V \text{ to } 14.5V, R_1 = 10k$	1000		V/mV
		$V_O = -10V \text{ to } 10V, R_1 = 2k$	500		V/mV
CMRR	Common Mode Rejection Ratio	$V_{CM} = V^+ \text{ to } V^-$	90		dB
	CMRR Match (Channel-to-Channel) (Note 1)	$V_{CM} = V^+ \text{ to } V^-$	84		dB
PSRR	Power Supply Rejection Ratio	$V_S = \pm 2V \text{ to } \pm 16V$	90		dB
	PSRR Match (Channel-to-Channel) (Note 1)	$V_S = \pm 2V \text{ to } \pm 16V$	83		dB
V_{OL}	Output Voltage Swing (Low) (Note 2)	No Load		30	mV
		$I_{SINK} = 1mA$		100	mV
		$I_{SINK} = 10mA$		500	mV

DICE/DWF SPECIFICATION

RH1498

DICE/DWF ELECTRICAL TEST LIMITS (Pre-Irradiation) $V_S = \pm 15V$; $V_{CM} = V_{OUT} = 0V$, $T_A = 25^\circ C$, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
V_{OH}	Output Voltage Swing (High) (Note 2)	No Load		10	mV
		$I_{SOURCE} = 1mA$		150	mV
		$I_{SOURCE} = 10mA$		800	mV
I_{SC}	Short-Circuit Current		± 15		mA
I_S	Supply Current per Amplifier			2.5	mA
GBW	Gain-Bandwidth Product	$f = 100kHz$	6.8		MHz
SR	Slew Rate	$A_V = -1$, $R_L = 10k$ $V_O = \pm 10V$, Measure at $V_O = \pm 5V$	3.5		V/ μs

DICE/DWF ELECTRICAL TEST LIMITS (Pre-Irradiation) $V_S = 5V$; $V_{CM} = V_{OUT} = \text{Half Supply}$, $T_A = 25^\circ C$, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNITS
V_{OS}	Input Offset Voltage	$V_{CM} = V^+, V^-$		800	μV
	Input Offset Voltage Match (Channel-to-Channel) (Note 1)	$V_{CM} = V^+ \text{ to } V^-$		1400	μV
I_B	Input Bias Current	$V_{CM} = V^+$	0	650	nA
		$V_{CM} = V^-$	-650	0	nA
	Input Bias Current Match (Channel-to-Channel) (Note 1)	$V_{CM} = V^+, V^-$	0	180	nA
I_{OS}	Input Offset Current	$V_{CM} = V^+, V^-$		65	nA
A_{VOL}	Large-Signal Voltage Gain	$V_S = 5V$, $V_O = 75mV \text{ to } 4.8V$, $R_1 = 10k$	600		V/mV
CMRR	Common Mode Rejection Ratio	$V_S = 5V$, $V_{CM} = V^+ \text{ to } V^-$	76		dB
	CMRR Match (Channel-to-Channel) (Note 1)	$V_S = 5V$, $V_{CM} = V^+ \text{ to } V^-$	75		dB
PSRR	Power Supply Rejection Ratio	$V_S = 4.5V \text{ to } 12V$; $V_{CM} = V_O = 0.5V$	88		dB
	PSRR Match (Channel-to-Channel) (Note 1)	$V_S = 4.5V \text{ to } 12V$; $V_{CM} = V_O = 0.5V$	82		dB
V_{OL}	Output Voltage Swing (Low) (Note 2)	No Load		30	mV
		$I_{SINK} = 1mA$		100	mV
		$I_{SINK} = 2.5mA$		200	mV
V_{OH}	Output Voltage Swing (High) (Note 2)	No Load		10	mV
		$I_{SOURCE} = 1mA$		150	mV
		$I_{SOURCE} = 2.5mA$		250	mV
I_{SC}	Short-Circuit Current		± 12		mA
I_S	Supply Current per Amplifier			2.2	mA

Note 1: Matching parameters are the difference between amplifiers A and B.

Note 2: Output voltage swings are measured between the output and power supply rails.

Wafer level testing is performed per the indicated specifications for dice. Considerable differences in performance can often be observed for dice versus packaged units due to the influences of packaging and assembly on certain devices and/or parameters. Please consult factory for more information on dice performance and lot qualifications via lot sampling test procedures.

Dice data sheet subject to change. Please consult factory for current revision in production.