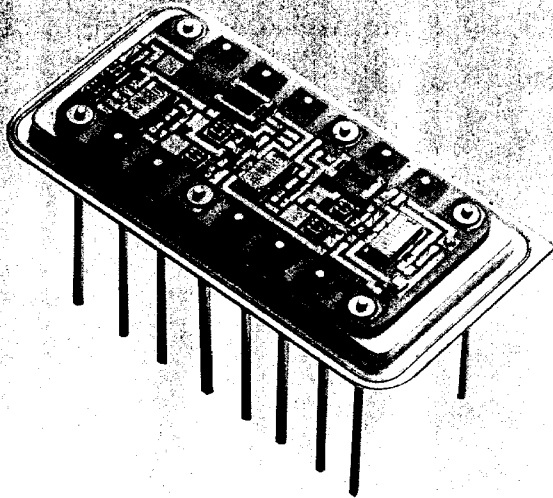


White Technology, Inc.

DUAL TRACKING VOLTAGE REFERENCE 8010/8011 SERIES



FEATURES

- Highly Stable Output Voltage Over a Very Wide Temperature Range
- Fully Buffered Tracking Outputs
- Very High Stability with Wide Input Variation
- Available in Wide Range of Voltages
- Low Noise (1 μ V pk/pk - Typical)
- Hermetically Sealed Metal Package
- Mil-Temp Version 10 ppm/ $^{\circ}$ C

DESCRIPTION

The 8010 Series are highly stable Dual Tracking Voltage References. Standard voltages through 8.192 volts are provided with OP AMP buffers which provide up to 5mA output. Optional transistor buffers increase current output to ≥ 10 mA.

Device 8011B is a precision ± 10.0 volt tracking reference that is transistor buffered for in-

creased output current and uses sense inputs to facilitate precision voltages to remote loads.

Input voltage range for the series is ± 12 volts through ± 18 volts with dc PSRR ≥ -100 dB.

Standard units provide voltage match between outputs of better than 0.2%.

 White Technology, Inc.

4246 EAST WOOD STREET • PHOENIX, ARIZONA 85040
TEL: 602-437-1520 • TWX: 910-951-4203

DUAL TRACKING VOLTAGE REFERENCE - 8010/8011 SERIES

ABSOLUTE MAXIMUM RATINGS

Input Voltage: $\pm 20V_{dc}$

Operating and Storage Temperatures: -55° to $+200^{\circ}C$

Power Supply Current: $\pm 18mA$

ELECTRICAL CHARACTERISTICS

Output Voltage Tolerance at $+25^{\circ}C$	(MODEL C) 5%	(MODEL D) 1%	(MODEL E*) .1%	(MODEL F) CF
Temperature Coefficient ppm/ $^{\circ}C$	(MODEL 8) 50	(MODEL 9) 25**	(MODEL 10) 10	(MODEL 11) <10 (CF)
Output Current (mA) $\pm 15V_{IN}$ at $+25^{\circ}C$	8010		8011B	
	(MODEL A)	(MODEL B)	(MODEL B ONLY)	
	± 5	± 10	≥ 10 w/SENSE at LOAD	
Power Supply Current (mA)	8010		8011B	
	TYP.	MAX.	TYP.	MAX.
	+12 -14	± 18	± 10	± 14
Line Regulation	$\leq 50ppm/V$ Max.			
Load Regulation	$\leq 50ppm/mA$ Max.			
Input Voltage Range	$\pm 12V_{dc}$ to $\pm 18V_{dc}$			

*Model 8011B is available only at .1% (E) tolerance.

**10 ppm/ $^{\circ}C$ from $-55^{\circ}C$ to $+125^{\circ}C$.

ORDERING INFORMATION

8010-X-X-X-X

A—OP AMP Buffers
B—Transistor Buffers

500111 ✓
500112 ✓
500113 ✓
500114 ✓
500115 ✓
500116 ✓
500117 ✓
500118 ✓
500119 ✓
500120 ✓

Standard Voltage Table

1	4.096	Note 1
2	4.6	—
3	5.0	—
4	6.4	Note 2
5	7.5	—
6	8.192	Note 1
7	CF	Note 3

NOTES:

- Available in "E" tolerance only
- Available in "C" tolerance only.
- Consult Factory for other voltages.

Voltage Tolerance

C	5%
D	1%
E	.1%
F	CF

Temperature Coefficient

No.	ppm/ $^{\circ}C$
8	50
9	25
10	10
11	CF

Ordered as **8010-A-2-E-10** is a Dual Tracking Voltage Reference with : (A) OP AMP buffers; (2) tracking voltage of 4.6 volts; (E) voltage tolerance of .1%; and (10) temperature coefficient of 10 ppm/ $^{\circ}C$.

039153 add 500 # 500 and 500111

NOTE: Model **8011B** is only available with transistor buffers, voltage reference at ± 10 volts, voltage tolerance of .1%, and a temperature coefficient of 10 ppm/ $^{\circ}C$.

CF—Consult Factory

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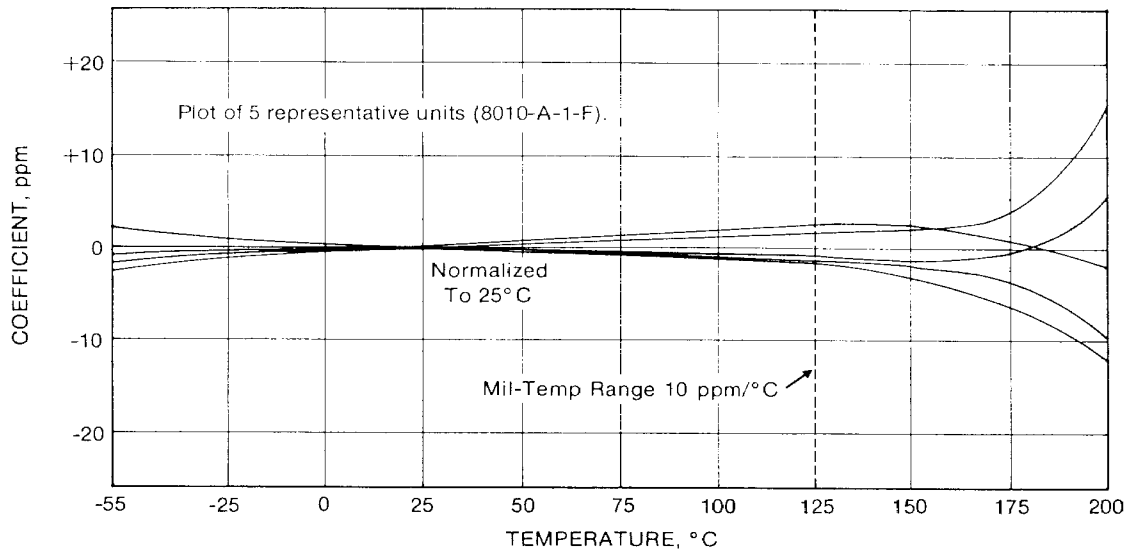
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White Technology, Inc. reserves the right to change any electrical or mechanical characteristics as specified herein.

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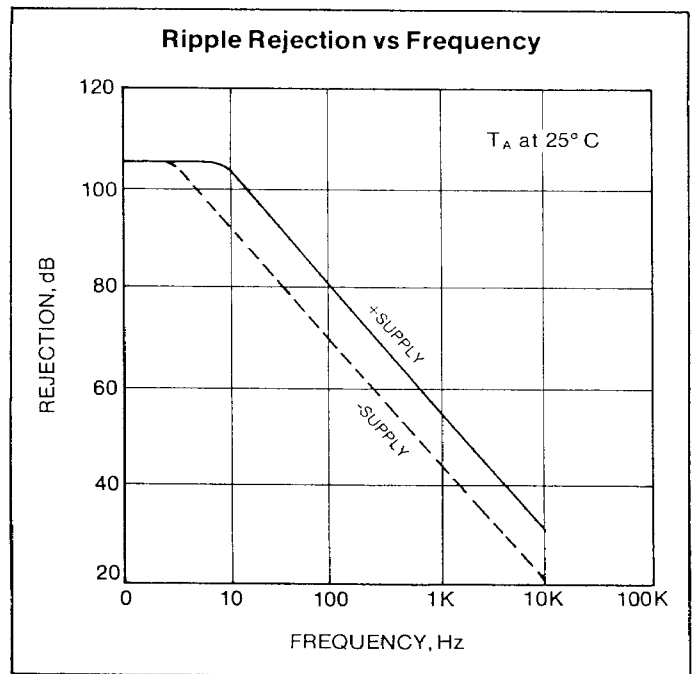
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Voltage Deviation vs Temperature



Temperature Coefficient is specified as maximum error at 200°C. Worst slope generally occurs above 175°C. Typical slope at lower temperatures is far less than specification implies. (See Voltage Deviation vs Temperature chart above.)

Ripple Rejection vs Frequency

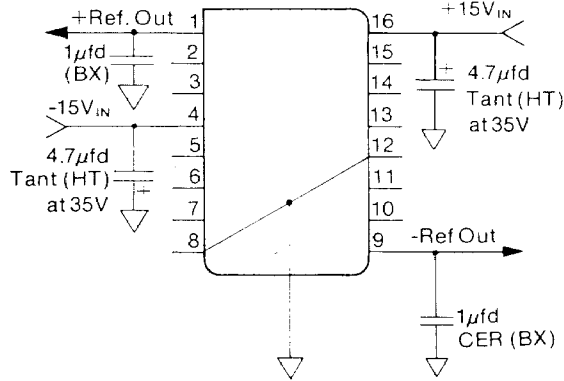


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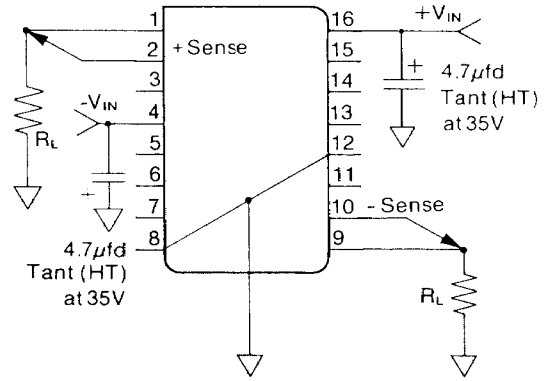
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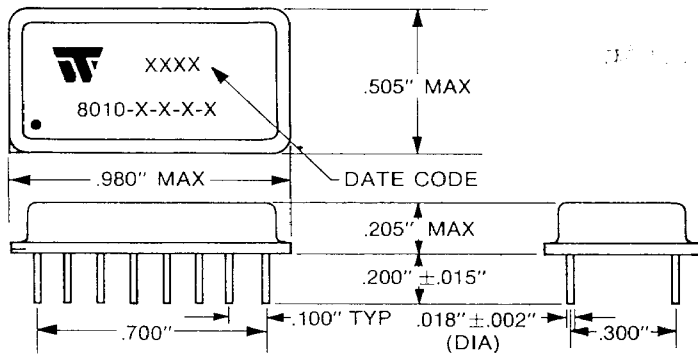
CONNECTION DIAGRAM 8010X1 THRU 8010X6



CONNECTION DIAGRAM 8011B



CASE OUTLINE



PIN DESCRIPTION

8010				8011			
1	+REF	16	V _{IN}	1	+REF SOURCE	16	NC
2	NC	15	NC	2	+REF SENSE	15	NC
3	NC	14	NC	3	NC	14	NC
4	-V _{IN}	13	NC	4	NC	13	NC
5	NC	12	GND	5	NC	12	NC
6	NC	11	NC	6	NC	11	NC
7	NC	10	NC	7	NC	10	-REF SENSE
8	GND	9	-REF	8	GND	9	-REF SOURCE

Ver. 1.0

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