



Ballantine Laboratories, Inc.

# 1396A: DC to 1GHz



## Voltage and Frequency Ranges

Model	Usable Voltage Range	Frequency Range
1396A-1	.20 to 1.35 V	$\pm$ dc to 1 GHz
1396A-2.4	.48 to 3.25 V	$\pm$ dc to 1 GHz
1396A-7	.40 to 9.45 V	$\pm$ dc to 1 GHz

## Replacement Thermal Elements

### Thermal Elements for Ballantine TVC's

BLI P/N	Application
27-07946-1	5 mA .04% Reversal Error, used in 1394 and 1395, and 1396 Option -10 for 1394, 1395 and 1396 TVC's
27-10000-1	5 mA .005% Reversal Error

### Thermal Elements for Micro Pot's

BLI P/N	Application
27-02951-0	5 mA, 0.2% R/E, used in 1351-05 housing
27-02952-0	10 mA, 0.2% R/E, used in 1351-10 housing
27-02953-0	15 mA, 0.2% R/E, used in 1351-15 housing
27-02954-0	25 mA, 0.2% R/E, used in 1351-25 housing
27-02955-0	50 mA, 0.2% R/E, used in 1351-50 housing
27-02975-0	100 mA, 0.2% R/E, used in 1351-100 housing

## Calibration Uncertainty

From DC to 1 GHz the uncertainty in comparison to Ballantines standard is  $\pm 1\%$  (NIST uncertainty) of the RF/DC difference as measured at the end of a female Type NB connector assembled on the output built-in Tee of the 1396A.

All 1396A series converters are furnished complete with a Ballantine production certificate and correction data to within  $\pm 1\%$ , referenced to Ballantines standards which are traceable to NIST at 100, 300, 500, 700 MHz, and 1 GHz.

## Flatness

$\pm 20\%$

## Input Vswr (with 50 W termination)

< 1.3 to 500 MHz, < 2.2 to 1 GHz

Other Specifications: Similar to 1394A

## Connectors

Signal Input: Type N male

Signal Output: Accommodates Type N female

Couple Output: 3-pin male MS3102A-10SL-3P

## Environmental

Operating Temperature: 4 °C to 40 °C

Operating Humidity: 0 to 90% RH

Operating Altitude: Sea level to 10,000 ft

## Size & Weight

Dimensions: 6.4 cm (2-1/2") diam. x 11.6 cm (4-5/8") long, except 10.5 cm (4-18") for 7 V rating.

Weight: 1.1 kg (2 lbs 4 oz)