

9. REPAIR

The 16074A is not field repairable. If any of the standards or terminations are damaged or if a significant nominal value change is observed,

return the unit to Hewlett-Packard for service. For complete information on service or calibration, contact the nearest Hewlett-Packard office.

Table-1. Specifications.

Contents:

Resistors --- 0 Ω , 0.1 Ω , 1 Ω , 10 Ω ,
100 Ω , 1k Ω , 10k Ω and 100k Ω

Terminations --- open and short

Inductors --- 100 μ H and 100mH

Useable frequency: DC to 13MHz

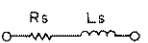
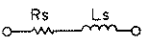
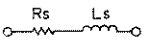
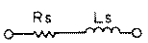
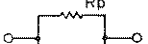
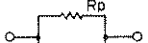
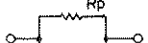
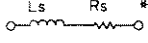
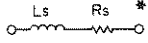
Accessory furnished:

1m cable --- HP P/N: 16074-61600

Environmental temperature:

23°C \pm 5°C

Characteristics:

Nominal Value	Equivalent Circuit	Parameter Main/Sub	Calibration Accuracy	Typical Frequency Characteristic	Typical Temperature Coefficient
0.1 Ω \pm 10% *1		Rs	\pm 0.1% at DC	$\pm \frac{f^2 \text{MHz}}{1000} \%$	\pm 100 PPM
		Ls	0 \pm 1nH up to 1MHz	—	—
1 Ω \pm 10% *1		Rs	\pm 0.1% at DC	$\pm \frac{f^2 \text{MHz}}{1000} \%$	-60 PPM
		Ls	\pm 0.2nH at 1MHz	—	—
10 Ω \pm 10% *1		Rs	\pm 0.03% at DC	$\pm \frac{f^2 \text{MHz}}{1000} \%$	-60 PPM
		Ls	0 \pm 1nH up to 10MHz	—	—
100 Ω \pm 0.1%		Rs	\pm 0.03% at DC	$\pm \frac{f^2 \text{MHz}}{1000} \%$	\pm 10 PPM
		Ls	\pm 20nH at 1MHz	—	—
1k Ω \pm 0.1%		Rp	\pm 0.03% at DC	$\pm \frac{f^2 \text{MHz}}{1000} \%$	\pm 10 PPM
		Cp	\pm 0.2pF at 1MHz	—	—
10k Ω \pm 0.1%		Rp	\pm 0.03% at DC	$\pm \frac{2f^2 \text{MHz}}{100} \%$	\pm 10 PPM
		Cp	\pm 0.2pF at 1MHz	—	—
100k Ω \pm 0.1%		Rp	\pm 0.03% at DC	$\pm 2f^2 \text{MHz} \%$	\pm 10 PPM
		Cp	\pm 0.2pF at 1MHz	—	—
100mH \pm 2k Ω	 Ls = R1 + R2 + C(H) *2	Ls	100nF measurement error \pm 0.1%	$\pm 10f^2 \text{MHz} \%$	\pm 10 PPM
		Rs	\pm 0.03% at DC	$\pm \omega L D$ *4	—
100 μ H \pm 632 Ω	 Ls = R1 + R2 + (C - 7.1pF)(H) *3	Ls	1000pF measurement error \pm 0.2%	$\pm 4 \left(\frac{f \text{MHz}}{10} \right)^2 \%$	\pm 10 PPM
		Rs	\pm 0.03% at DC	$\pm \omega L D$ *4	—

*1 The calibration values of 0.1 Ω thru 10 Ω resistors are defined as the difference (respectively resistance and residual reactance) on the basis of 0 Ω .

*2 Rs is equal to R1 plus R2.

*3 This equation includes a compensation of the stray capacitance associated with the BNC terminals.

*4 D is the dissipation value of the capacitor at the respective setting frequencies.

Dimensions:

423(W) x 120(H) x 186(W) mm

Weight:

Approximately 4.4kg