

## **Testing Telecommunications Transformers**

### **Customer Inquiry**

A major US manufacturer of small telecommunications transformers was faced with a high-volume testing requirement on a variety of transformers. The major need was for L and Q measurements at selected frequencies with sustained drive levels.

### **QuadTech Solution**

The standard 7400 Precision LCR Meter was very close to a complete solution except for a couple of areas. The manufacturer needed to reduce setup time in a production environment when changing between different types of transformers. This manufacturer also needed to sustain a high drive level to the devices independent of load impedance. QuadTech was able to meet the customer needs with a product tailored towards telecommunications transformer manufacturers, PN 7400-9004.

### **Measurement Procedure & Benefits**

The measurement procedure is pass/fail testing of L and Q at specified drive levels, at one or two selected frequencies. Since this manufacturer had a wide variety of devices with different specifications some challenging test requirements came into play.

#### Setup Recall

Different devices mean different test conditions, therefore the setup storage/recall feature of the 7400 was ideal.

#### Quick Zero

When changing between different device types and test fixtures the need to zero the instrument quickly is important to save time in the production environment. The Quick Zero feature (in 30 seconds or less at the one frequency of interest) proved invaluable. This is now standard on all 7400 Precision LCR Meters.

#### Frequency Range & Flexibility

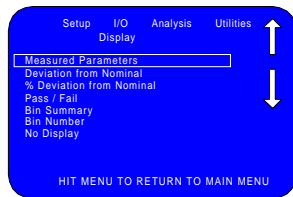
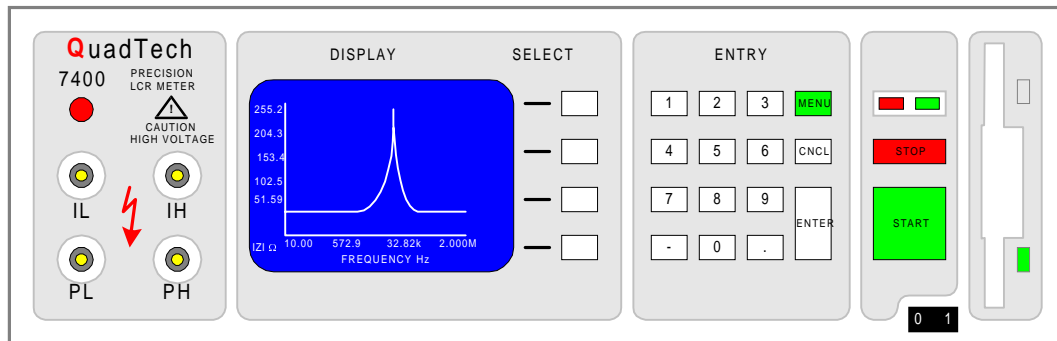
The ability to select any frequency up to 500kHz and make accurate measurements offered a substantial improvement over the previously existing capability.

## More Measurement Benefits

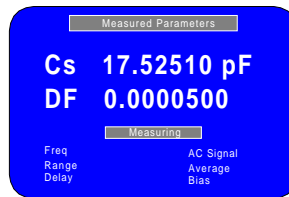
[Flexible Drive Levels](#) Probably the most important feature incorporated into the 7400 is the ability to maintain a constant drive level, programmable up to 5V, at the device terminals. The 7400-9004 monitors the voltage to the DUT and self adjusts to maintain this voltage.

[Pass/Fail Results](#) Go-NoGo testing is the only result needed, the 7400 pass/fail result is displayed to the operator.

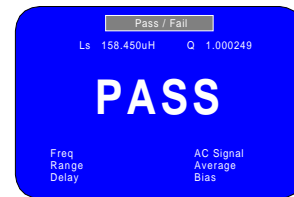
[User Friendly](#) The 7400's menu programming made the instrument easy to use and quick to bring on line.



Display Type



Measured Parameters



Pass / Fail

## Summary

The 7400 instrument's ease-of-use and its flexibility to provide different frequencies and voltage levels resulted in a more streamlined test process and eventual replacement of the ESI 2150 and 2160 units.

For complete product specifications on the 7000 Series Precision LCR meters or any of QuadTech's products, visit us at <http://www.quadtech.com/products>. Do you have an application specific testing need? Call us at 1-800-253-1230 or email applications at [jkramer@quadtech.com](mailto:jkramer@quadtech.com) and we'll work with you on a custom solution. Put QuadTech to the test because we're committed to solving your testing requirements.

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