



CHIP RESISTOR PROBE

CARDS

Probing the World
of Microelectronics

FOR GSI-724 and 770 LASER TRIM SYSTEMS
Including Resistor Networks

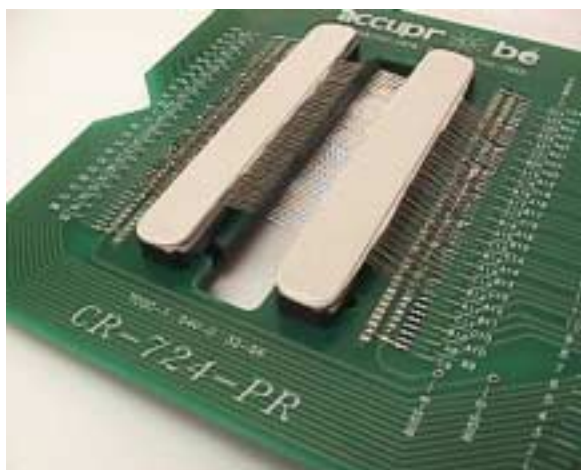
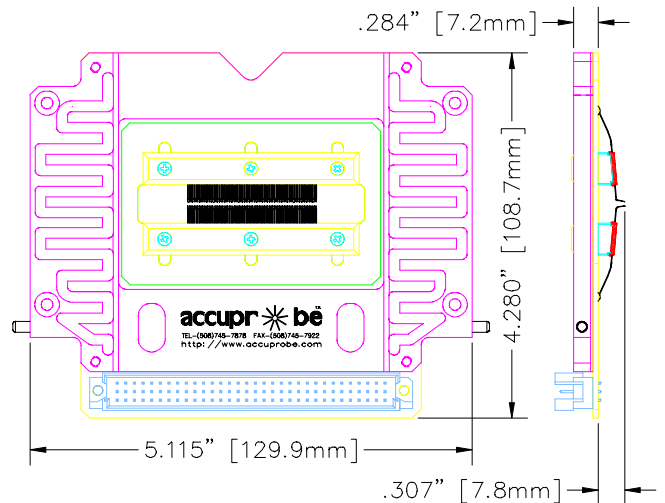


Probe Card assemblies are available for the GSI-724 and 770 Laser trim systems. Laser Trim probe cards are offered for 1206, 0805, 0603 and 0402 chip formats. Other chip formats can be accommodated on a custom basis. These probe card assemblies utilize Accuprobe's Probe Ring style epoxy probe arrays or traditional metal blade probes, and the entire probe fixture concept has been separated into three modules for easy repair and replacement and to minimize cost for the laser trim operation.

The complete probe card assembly with the card frame attached.

Accuprobe offers the basic card assembly, a card frame to hold and support the card for attachment to the laser, and a cable assembly for the measurement system interface. This modular concept provides an economic solution to lower the overall cost of trim by separating the consumable portion of the probe card from the support frame and cable assembly that can be used with multiple card assemblies. As can be seen below, even the probe arrays can be replaced by the customer for fast repair and lower costs.

The probe card frame is designed with positive stop pins to simplify card installation in the laser to help facilitate initial alignment. Please order each module separately as described below.



CR-7XX-PR

BOTTOM VIEW

CR-7XX-PR Probe Card

Model 724 and model 770 Lasers use the same card assemblies. Cards are suitable for either laser.

Accuprobe's Probe Ring style probe card is intended to be applied for 0402, 0603 and larger devices. The card is designed with some flexibility for common pins and full channel assignment and measurement.

To order a complete Probe Ring card assembly, please order as follows:

CR-7XX-PR-XXXX-XTX-##

XXXX=DEVICE e.g.:0603)

2T=Measurement Config.

2TC=2 Termination with common

2TF=2 Termination with full channels

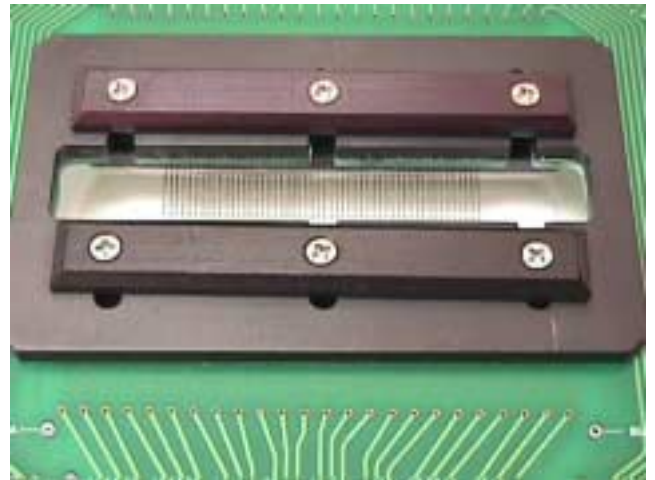
##=No. of resistors in column

All probe card assemblies and probe arrays are assembled with Tungsten probes as standard. Alternative materials including BeCu are available at additional cost. Please make a special note when requesting an alternative probe tip material.

The probe array is divided into two independent banks of probes. The probe arrays are repairable and individual probes can be replaced (with some limitations and skill) or one or both complete banks of probes can be replaced to extend the life of the probe card assembly.

CR-7XX-PR

TOP VIEW



The **CR-7XX-CF** support frame is precision machined from lightweight, super flat aluminum jig plate material. The support frame is fitted with two stop pins to simplify the insertion and setup of the card in the W7XX laser. These stop pins provide a repeatable insertion location for the probe card and speeds setup time and initial device alignment. The CR-7XX-CF is supplied with all necessary probe card-mounting screws. The card frame can be used with both CR-7XX-PR and CR-7XX-BLD type probe cards.

To Order the probe card support frame, please order model CR-7XX-CF



REPLACEMENT PROBE ARRAYS

Replacement probe arrays are available for all device formats. Replacement probe arrays are offered as one individual bank of probes. Two banks of probe arrays would be required to completely rebuild a probe card.

To order a replacement probe array, please order as follows:
CR-XXXX-XT-##-PR-RA

XXXX=DEVICE (e.g.:0603)

XT=Measurement Config.

2T=2 Termination

4T=4 Termination

##-No. of resistors in column

BLADE PROBE CARD

Traditional metal blade probes can be used with the model CR-7XX-BLD card. This card can be assembled with Accuprobe's PCAM-100 probe card assembly machine using the CR-7XX-CA card adapter. This configuration is suitable for use when trimming 0805 and larger chip formats. A complete probe card assembly can be ordered for any device format or the various components can be ordered so that card assemblies can be assembled or repaired in-house.

To order a complete blade probe card assembly, please order as follows:

CR-7XX-BLD-XXXX-XTX-##
 XXXX=DEVICE (e.g.: 1206) XT=Measurement
 Config. 2TC=2 Termination with common
 2TF=2 Termination with full channels
 ##=No. of resistors in column

CR-7XX-BLD Probe Card

To order a blank blade probe card only, please order as follows:CR-7XX-BLD for card only

BLADE PROBES FOR CR-7XX-BLD

Accuprobe model BCL metal blade probes are available for use with the CR-7XX-BLD probe card. The probes are available with Tungsten, Tungsten Rhenium or BeCu probe tips. Probe needle diameters are 12 mils and tip diameters are 5 mils on all models.

To order metal blade probes for use with the CR-7XX-BLD probe card, please order as follows:

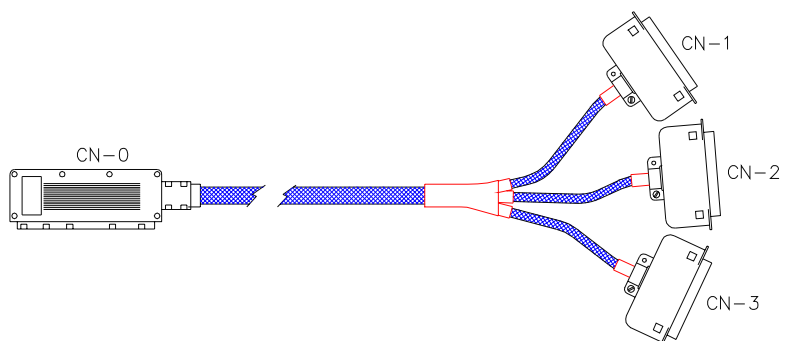
- BCSE7D (with tungsten probe)
- BCSER7D (with tungsten rhenium probe)
- BCSC7D (with BeCu probe)



CA-7XX-CA2 CARD ADAPTER

The CA-7XX-CA2 card adapter is required building or repairing Blade probe card assemblies and when repairing Probe Ring style probe card assemblies for the GSI-7XX Laser Trim system. The adapter is manufactured from super flat aluminum jig plate to assure that the card assemblies are held flat and parallel to the device chuck or planarization pedestal.

MEASUREMENT CABLE INTERFACE



The measurement system interface from the probe card utilizes a standard 96 pin DIN connector and is connected to the measurement system with standard Cinch 48 pin connectors. Interface cables can be assembled by the user or can be ordered complete as shown below.

The measurement system interface cable is available for the following configurations:

DEVICE	CONFIG.	MODEL	
0402	2TC	CR-7XX-96CBL-0402-2TC-##	##= No. of resistors in column
0603	2TC	CR-7XX-96CBL-0603-2TC-##	
0805	2TC	CR-7XX-96CBL-0805-2TC-##	
0805	2TF	CR-7XX-96CBL-0805-2TF-##	
0805	4TC	CR-7XX-96CBL-0805-4TC-##	
1206	2TC	CR-7XX-96CBL-1206-2TC-##	
1206	2TF	CR-7XX-96CBL-1206-2TF-##	
1206	4TC	CR-7XX-96CBL-1206-4TC-##	

Cables for Resistor Networks are typically custom configured for each network.



PCAM-100 PROBE CARD ASSEMBLY MACHINE

The probe card assembly machine is intended for assembly and repair of probe cards that utilize Blade probes. The PCAM is also suitable for hand repair of Probe Ring card assemblies and for checking probe alignment. The PCAM-100 accommodates probe cards from 2 inches to 6.5 inches in width including both rectangular and round probe cards with various round card adapters. The PCAM was designed with multiple axis probe position controls to provide for complex probe manipulation to span a wide range of device geometry's. See the complete PCAM data sheet for more detailed information.

Rev 090199A4

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