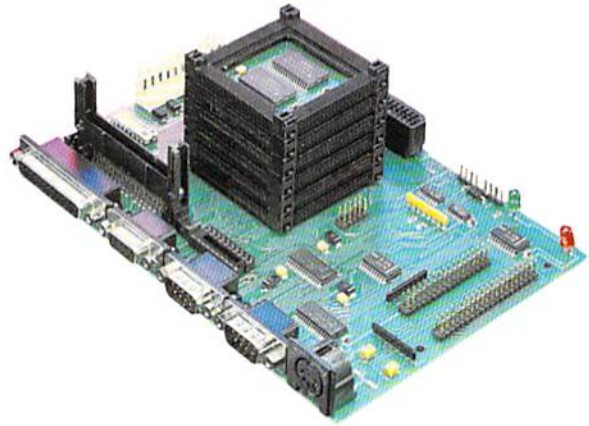
# HARWiN

# CHIPRACK ™

# A UNIQUE ELECTRONICS PACKAGING SYSTEM

## ● What is Chiprack?

Chiprack is an electronics packaging system which facilitates modular development, assembly and test. The Chiprack system permits circuit "blocks" to be rapidly and flexibly stacked together into electronic products.



## ● Modular Design, Manufacture and Test

Chiprack based products are designed, manufactured and tested as a number of small modules. Partitioning the product divides problems and allows easy upgrade or repair of just the part of the product which needs it.

## ● Simplified Modular assembly

High assembly rates are possible because of the unique clip-together Chiprack system.

## ● Modular Expansion or Modification

It is easy to incorporate new technology or additional functions into any Chiprack based design, which can greatly prolong product life.

## ● Space Saving

volume reductions of up to 80% are possible compare with equivalent DIL printed circuit board assemblies.

## ● Three Dimensional Circuitry

Chiprack designed products are unique in that they allow three-dimensional freedom for signal routing up and down any stack. Short, controlled-impedance lines or point to point optical or cable links may be used between the stacks.

## ● Chiprack Connector Features

Chiprack connectors feature sub-miniature 1mm pitch contacts positioned around the periphery. These are also used to conduct heat away from the stack, which acts as a convoluted heat sink.

## How to use Chiprack

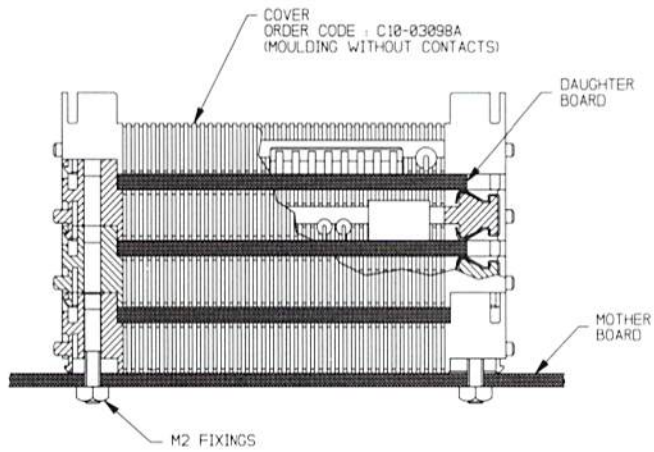
1. The pc boards and chiprack connectors can be built up into a stack using the integral plastic latches. Note that the pc boards and connectors are polarised and will only assemble in their correct orientation.

2. Once fully assembled as a stack, place the "T" bolts through the fixing holes, position the stack on the mother board, apply and tighten the fixing nuts.

3. The stack can be separated at any level simply be removing the fixing bolts and undoing the latched by hand using the release buttons.

4. For later upgrade, add-on or repair, remove the stack from the mother board, unlatch where required, re-latch the stack back together and bolt to the mother board.

## Typical Stack Assembly



# CHIPRACK SPECIFICATIONS

## ELECTRICAL:

| | |
|---|---|
| Current rating (at 85° C T amb) | 0.5A all contacts simultaneously |
| Working voltage | 120 V DC or AC peak |
| Contact resistance | 40 milliohms max. after conditioning |
| Insulation resistance | 1000 Megohms min. initially |

## MECHANICAL:

| | |
|---|---|
| Working temp | -55° C to +85° C |

## MATERIALS:

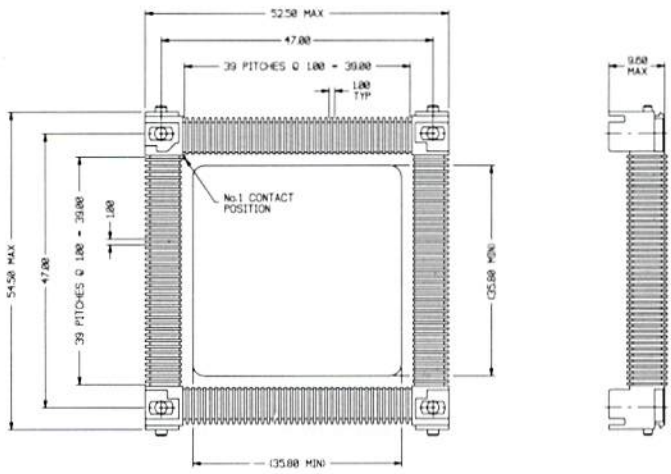
| | |
|---|---|
| Contacts | Beryllium copper, tin or gold plated |
| Insulator | High temperature thermoplastic, UL94V-0 |
| Carrier | Accommodates PCB laminate thickness 1.6mm to 2.0mm |

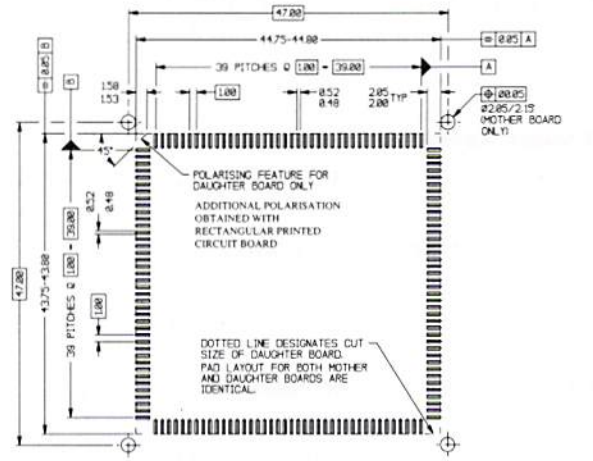
## CHIPRACK DIMENSIONS AND ORDER CODES

Note: 240 way Chiprack is still under development. For custom sizes please contact Technical Sales.

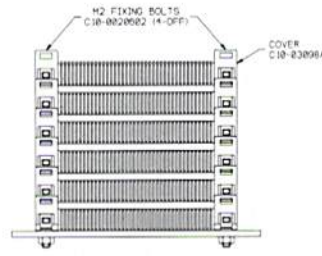
| Order Code (160 Way) | C10-16006A | Tin Plating |
|---|---|---|
| | C10-16005A | Gold Plating |

**Board Dimensions and Layout**




## Fixing Bolts

| Order Code | Number of stacked connectors (including cover) | Example |
|---|---|---|
| C10-0020202 | 2 |  |
| C10-0020302 | 3 | |
| C10-0020402 | 4 | |
| C10-0020502 | 5 | |
| C10-0020602 | 6 | |
| C10-0020702 | 7 | |



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