

Introduction

Product Facts

- Designs meet various Military Specifications and DSCC requirements for 2-piece printed circuit board connectors
- Choice of .050 [1.27], .075 [1.91], and .100 [2.54] contact centerline spacing
- Contacts duplex plated Military gold over nickel
- Housings made of high temperature thermoplastic material
- Connector designs for surface mount, solder, Wrap-Type, and Press Fit Tail terminations
- Wide range of pin counts depending on application
- Choice of AMP Insertion and Termination Equipment for, low cost, high quality mass production

Tyco Electronics offers the industry's most diversified lines of printed circuit board connectors designed specifically for applicable Military Specifications.

As electronic technology continues to advance it is paramount that the interconnection industry continues to keep pace, and in many instances, keep ahead of the fast changing technology. Tyco Electronics

accomplishes this feat by working closely with our customers, both in the military and commercial electronic fields.

This is reflected in the AMP 2-piece printed circuit family of connectors.

The vast array of electronic equipment employed by the military industry necessitates a variety of answers to their interconnection

requirements. There must be a common starting point where a decision is to be made regarding the type of connection needed for a given application. From decades of experience, working with our military customers.

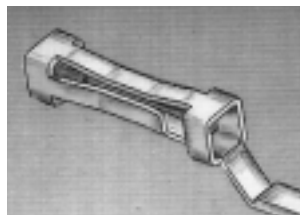
The following is the sequence of connectors cataloged by centerline spacing:

2-Piece Connector Systems

Product	MIL Qual.	C/L Spacing	Contact	Pos.	Ins. Force	Current Rtg.	Overwipe	Mismatch
Mini-Box	55302	.050 1.27 In Line	4-Beam Box	20-320	2.5 Oz. Avg.	1.5 AMP Max.	.065 1.65	.035 0.89
AMP-HDI Series 50	—	.050 1.27 In Line	4-Beam Box	600	2 Oz. Max.	.5 AMP Max.	.050 1.27	.050 1.27
AMP-HDI LRM	*	.080 & .075 2.03 & 1.91 Stag	4-Beam Box	306-428	3 Oz. Avg.	1.5 AMP Max.	.106 2.69	.050 1.27
Box	55302	.075 1.91 In Line	4-Beam Box	10-180	2.5 Oz. Avg.	3 AMP Max.	.050 1.27	.025 0.64
Box	55302	.100 2.54 In Line	4-Beam Box	10-300	2.5 Oz. Avg.	3 AMP Max.	.050 1.27	.025 0.64
Box II	—	.100 2.54 In Line	4-Beam Box	20-300	8 Oz. Max.	3 AMP Max.	.075 1.91	.02 0.89
AMPMODU	55302	.100 2.54 In Line	2-Beam Box	2-130	6 Oz. Max.	3 AMP Max.	.056 1.42	.038 0.97
AMP-BLADE	21097	.100 2.54 Stag	3PT Oval	17-47	8 Oz. Max.	5 AMP Max.	.09 2.29	0.02 0.51

*Meets DSCC 89065 performance requirements

Four-Beam Box Contact

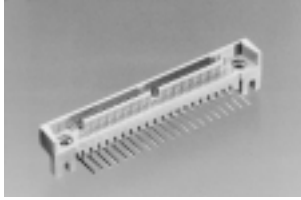


The key to the Mini-Box, AMP-HDI and Box Connector families is the use of the unique, reliable four-beam receptacle contact design. The four elliptical spring beams provide four areas of redundant electrical contact with low mating force. This allows highly-reliable connector performance in harsh environments.

Sealed versions of receptacle and pin header connectors are available for the Box and Mini-Box connector families. The sealing prevents wicking of fluxes and conformal coating into the contact engagement area during PCB assembly processes.

Introduction (Continued)

Mini-Box .050 [1.27] Centerline Connectors



Mini-Box Contact Connectors, per MIL-C-55302 are available in 2-row configurations with pin counts from 20 to 200 positions and uses the reliable 4-beam box contact and 4-row configurations up to 320 positions. The tighter centerline spacing, .050 x .150 [1.27 x 3.81] in 2-row, .050 x .100 [1.27 x 2.54] in 4-row, provides more pins within a specified distance and the staggered footprint allows for easier manufacturing of the pc boards.

Standard receptacles are thru-hole flow solder, surface mount, press fit tail and straddle mount. Standard pin headers are available in a choice of surface mount, straddle mount or right-angle configurations.

Extended receptacles are vertical thru-hole and pin headers are available in straddle mount or right-angle thru-hole versions.

In addition, Mini-Box 2-row connectors are available with 4 or 6 hybrid cavities which accept micro-miniature coax contacts or a choice of high voltage pin and socket contacts.

AMP Mini-Box connectors are also available in 4-row connector configurations. Vertical mount receptacle assemblies and pin headers with flexible circuit tails. (See page 325-326)

AMP-HDI .050 [1.27] and .075 [1.91] Centerline Connectors

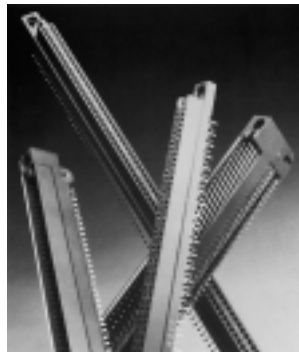


This family includes .050 [1.27] stacking connectors and 6 & 8 Row LRM (Line Replaceable Module) Connectors

Designed specifically to be the next generation, high density electronic packaging system, the AMP-HDI 6 Row, .075 [1.91] centerlines and 8 Row, .080 [2.03] centerlines, LRM Interconnection System meets applicable DSCC 89065 LRM specifications. This advanced system features high temperature plastic housings compatible with IR reflow solder techniques. Added advantage of the AMP-HDI LRM System is its capability of accepting MIL SPEC fiber optic contacts per MIL-T29504/5. Six-row configurations available in 306 contact positions. Eight-row configurations feature two 214 position plug halves which mate with one 428-position receptacle. This technological leader is offered with standard tin-lead plated solder tails and for those applications where maintaining a light weight system is a factor. The 8-row configuration is made available with weight saving, flexible film tails.

Equally important are Application Costs. The AMP-HDI LRM interconnection system offers advanced tooling that simplifies contact alignment to the pc board, substantially reducing overall applied labor costs. (See pages 330-337)

.075 [1.91] & .100 [2.54] Centerline Box Contact Connectors

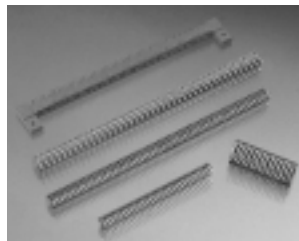


Box Contact Connectors with contacts on .075 [1.91] & .100 [2.54] centerline spacing are available in 2, 3 and 4-row configurations with pin counts up to 300 contact positions. Box contact connectors use this unique, reliable four-beam design which offers low applied cost while maintaining high reliability and performance. (See pages 338-378)

Commercial military versions are available for both pin headers and receptacles.

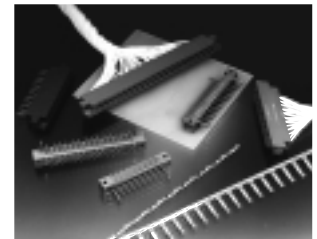
Box II vertical receptacles with ACTION PIN Posts and Solder Post Contacts are also available. When mated with AMP-HDI pin assemblies, these permit horizontal stacking of motherboards. 2, 3, and 4-row connector versions are available.

.100 [2.54] Centerline Connectors



AMPMODU Board-Mount Receptacle Assemblies are

qualified to MIL-C-55302, and provide a compact and versatile means of interconnecting today's complex electronic modules. Right-angle receptacle connectors mate with .025² [0.64²] posts, have dual cantilever spring contact design and built-in anti-overstress, duplex gold-over-nickel plating, and wide misalignment tolerances. Contacts are on .100 [2.54] centerlines, and are available in single or double row, blue diallyl phthalate housings. Assemblies will accommodate pcb .062 [1.57] or .093 [2.36] thick. (See pages 391-398)



AMP-BLADE Two-Piece PC Edge Connectors provide high levels of conductivity and reliability to meet the performance specifications of MIL-C-21097, and the design requirements of MIL-E-5400. Blade and receptacle contacts, on .100 [2.54] centerlines provide multiple areas of contact for maximum conductivity. Blade contacts are gold plated in the contact mating area, with tin-lead on the solder tails all over nickel underplate.

PC board housings are available with or without mounting hole while cable-mount connectors are designed for maximum versatility, and will accept a variety of receptacle contact designs.