

Mother-board

In personal computers, a [motherboard](#) is the central printed circuit board (PCB) in many modern computers and holds many of the crucial components of the system, providing connectors for other peripherals.

The first references I found are in [1956](#) to "mother" board, "mother-board" and "mother board"; the quotes suggest this is new terminology.

- EIA's [1956 Proceedings](#):

shown in Fig. 3, an example of the use of identical units other than sub-module boards. The units incorporate all of the sub-module features which we previously described, but here the repetitive components are mounted on what might be termed a "mother" board.

The results of a survey of the electronic components used in present equipment define

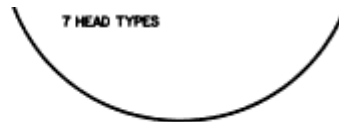


Fig. 4--Component utilization.

machine head types capable of inserting the

- IRE's [1956 International Convention Record](#), Volume 4, Part 2:

form from the assembly point of view. These elements represent various degrees of machine complexity but do not, in general, define circuit functions. With the use of this analysis, a common store of tube and circuit sub-modules may be developed. The statistical analysis previously described indicates that this is possible. Thus, a library of physically standardized sub-modules is made available to the circuit designer. With the extension of the standards

an oscillator. This is the functional module. On the right, the oscillator is combined with five almost identical circuit sub-modules to form an eight tube counter chain. This is the functional sub-assembly. Fig. 12 is an illustration of the so-called "baby-board" to "mother-board" package where the tube sub-modules are mounted on the larger board and the circuit sub-modules on the right angle small boards. The arrangement can easily be reversed.

- Ziff-Davis's [1956 Popular Electronics](#), Volume 4, Issues 1-6:

was mounted on a large "mother board." Two other boards were used: one was for the power supply, and the other was for the readout subassembly.

- Hayden's [1956 Electronic Design](#), Volume 4, Part 2:

... coils up to 0.5" in length and from 0.6 to 1" in length will utilize 40% of all coils used. Overall, the machine head types capable of inserting the components just described would utilize 72% of the total number of components suitable for automatic insertion in printed wiring boards. "A Functional Approach to Automatic Systems and Standardization" by F. C. Collins and K. Hendorfer, Radio Corp.

Top, subassembly made of sub-modules. A variant is the if strip, below, where repetitive components are mounted on "mother" board.

Baby-board

The observant will have noticed one of these early uses of *mother-board* are in conjunction with *baby-board*, and not today's common *daughterboard*. A mother-baby relationship seems more appropriate in this context than mother-daughter.

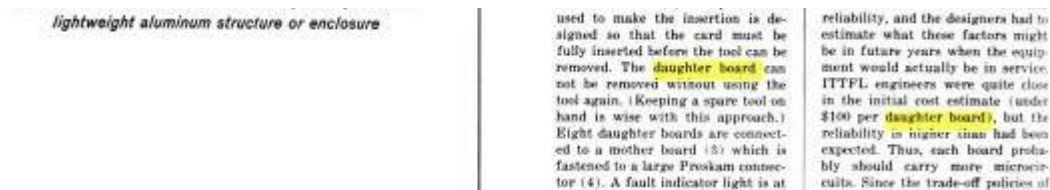
Daughter-board

A [daughterboard](#), daughtercard or piggyback board is a circuit board meant to be an extension or "daughter" of a motherboard (or 'mainboard'), or occasionally of another card.

Daughterboard is the most common term nowadays. When did this replace *baby-board*?

The earliest I found was ten years later, in [1965](#) as *daughter board*, "*motherboard-daughter board*" and *mother-daughter board*.

- Hayden's [1965](#) *Electronic Design*, Volume 13, Part 3



- Rogers' [1965](#) *Advances in Electronic Circuit Packaging*:

thick boards only), allow the plug-in connection at right angles, in "*motherboard-daughter board*" fashion.

The sockets can also receive pins of relays or standard connectors, provided that the configuration

- McGraw-Hill's [1965](#) *Electronics*, Volume 38:

**Ever try putting
a square peg
in a round hole?**

is now the rule rather than the exception. There are flatpacks, micro-modules, film structures, mother-daughter board combinations and matrix configurations that defy description. And the only thing standard about them is that they're all different.

Regardless of the problem, AMP has an answer. We've been able to offer many exciting solutions to a variety of packaging problems. Examples: Headers for transistor cans or interconnection modules plugged to circuit boards through AMP's miniature spring sockets . . . flat flexible cable plugged to micromodules by way of AMPMODU* grid plate headers . . . functional flatpacks plugged together with AMP's new active pin multi-