

3547860 FERRANTI ELECTRIC INC

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F100-L 16-BIT MICROPROCESSOR SYSTEMT-52-33-13
T-49-17-16**MEMORY INTERFACES F113-L and F114-L**

For the small system using only memory and memory-mapped input/output the Memory Interfaces provide direct control of RAM and ROM and include two sets of timing circuits and generate the necessary control signals (e.g. Write, Memory Enable) for connection to two speeds of memory.

The choice of device depends on the memory system being used:

F113-L High Speed Interface

F114-L Medium Speed Low Power version

Both types are encapsulated in 24 lead DIL packages (H24 or ceramic chip carriers (M24))

REAL TIME INTERRUPT CHIPS F115-L and F117-L

The F115-L has an on-chip oscillator and when used with an external crystal can generate real time interrupts at any of fifteen rates selectable by hardwiring or software control. An external device can also generate interrupts using the F115-L logic.

Full vectoring capability is provided, enabling the F100-L to differentiate between real time interrupts, external device interrupts, and interrupts generated by other external devices not connected to the F115-L. The F115-L is encapsulated in a 24 lead package (H24).

The F117-L Two Channel interrupt controller provides full vectored interrupt capability for two external devices connected to an F100-L system. On receiving an interrupt accept signal the device will pass vector data, via the bus, to the F100-L program counter and remove vector data from the bus once the counter is loaded.

The F117-L has an on-chip oscillator for use with an external crystal and provides a buffered clock output plus a half clock frequency output.

The device is supplied in a 24 lead package (H24).

F100 PROCESSOR HYBRID FBH5092

This thick film module contains an F100-L Microprocessor, F101-L Multiply and Divide Unit, Clock Generation, and two F112-L Data Interfaces acting as buffers to drive the F100-L bus. The active LSI components are packaged in leadless ceramic chip carriers which are soldered to the ceramic (alumina) substrate of the 64 lead hybrid assembly.

Using the Processor Hybrid saves approximately half of the board area normally occupied by DIL's and therefore offers significant savings in applications where space is at a premium. The unit also reduces the number of soldered joints required and, of course, has the advantage in that it can be pretested to the required specification.