

82C611 and 82C612

MicroCHIPS Micro Channel Interface

The MicroCHIPS (Micro Channel Interface Parts) family of components integrate most of the interface logic required on an adapter card for the Micro Channel.

MicroCHIPS provides many benefits to designers of add-in adapters for the Micro Channel:

- Space savings because of the single-chip VLSI approach
- Cost savings because of the integration of many components into one
- Time savings because of the ease of design

There are currently two members of the MicroCHIPS family: The 82C611 is optimized for memory and I/O interfaces such as those on multi-function cards. It does not support the DMA arbitration and handshaking signals.

The 82C612 adds full support for DMA arbitration and handshaking including single cycle and burst modes. It also supports both “pre-empt” and “fairness” modes as defined by IBM. Both chips are available in either a 68-pin plastic leadless chip carrier or an 80-pin plastic flat package.

Features

- Implements 100% IBM PS/2 compatible Micro Channel Adapters
- 82C611 supports multi-function, I/O and memory adapters
- 82C612 supports controller-type adapters, including all DMA slave arbitration functions
- Programmable option Select (POS) support including:
 - Adapter ID support
 - Flexible I/O and memory relocation support
 - POS Port decode logic and handshaking
- Full micro channel interface including:
 - Command and status decoding
 - Response signal generation
 - Full DMA slave arbitration and handshake (82C612 only)

- Meets all IBM specified timing and drive specifications
- Simplifies migration of XT/AT adapter designs to the micro channel
- Available as 68-pin PLCC or 80 pin PFP components

In addition to the standard functions supplied by the 82C611 and 82C612, Chips has the capability to customize these standard devices for dedicated high-volume applications. The macrocells for these parts can be integrated into custom controller designs.

Figure 1-3. 82C611/12 Simplified System Block Diagram

