*Keyword:* **[**EMD Parts]

*Required:* Yes

*Description:* Maps an EMD part\_name entry to an IBIS component or EMD module.

*Usage Rules:* The [EMD Parts] keyword shall be followed by a list of all the EMD parts (also called part numbers or part names in industry).Each EMD part\_name entry in the list is followed by the file reference of the .ibs or .emd file containing the electrical description of the component or board, then the name of the component or module itself as given by the .ibs or .emd file’s [Component] or [Begin EMD] keyword respectively.  Official names of parts is recommended, but not required. The referenced .ibs or .emd files shall exist in the same directory as the calling .emd file or shall exist in a relative path under this directory.

~~For the context in this~~~~Electrical Module Description section, a “part” declaration shall be one data line under [EMD Parts]. 🡨~~ redundant from above?

A .emd file that describes a part can itself reference different EMD modules. No more than six levels of hierarchy for nested .emd files are permitted.

A .emd file shall not reference itself directly or indirectly in the same .emd file.

The EMD part\_name entry, file reference, and component/module name terms are separated by white space. The EMD part\_name entry is limited to forty characters~~.~~

A part\_name entry shall be listed only once.

NAs in the file reference and component/module name columns are permitted if the part has functionality outside of the scope of the IBIS specification, such as certain analog parts. The NA in the file reference column indicates that the part model is not fully available. However, its designator shall be included under the [EMD Designator List] keyword, and its pinout shall be included as [Designator Pin List] keyword entries described below.

*Other Notes:* It is permitted to use a .ibs or .emd file and a component or module name to show the part pinout and to document some known rails and digital I/O pins that are supported by the IBIS specification. Pins whose functions are not supported by IBIS specification could be documented as ‘NC’ pins or with Terminator models within these .ibs or .emd files.

A [Notes] section or a separate readme file should document these unknown parts or parts where certain pins cannot be modeled in IBIS. Some EDA tools may deal with these special cases in a tool-specific manner.

*Example:*

[EMD Parts]

|

| part\_name file\_reference component/module name

Processor pp100.ibs Processor

Memory\_16X8 simm.emd 16X8\_SIMM

74LS244 ls244.ibs NoName\_74LS244

Res\_10K r10K.ibs My\_10K\_Pullup

|

ABC NA NA | Undocumented Parts

BCD NA NA | without files

|

C555 timer.ibs X555 | Timer with digital control

|

[End EMD Parts]

**ORIGINAL IN DRAFT27**

*Keyword:* **[**EMD Parts]

*Required:* Yes

*Description:* Maps an EMD part to an IBIS component or EMD module.

*Usage Rules:* The [EMD Parts] keyword shall be followed by a list of all the EMD parts (also called part numbers or part names in industry).Each EMD part is followed by the file reference of the .ibs or .emd file containing the electrical description of the component or board, then the name of the component itself as given by the .ibs or .emd file’s [Component] or [Begin EMD] keyword respectively.  While using official names of parts is recommended, this is not required. The referenced .ibs or .emd files shall exist in the same directory as the calling .emd file or shall exist in a relative path under this directory.

For the context in thisElectrical Module Description section, a “part” declaration shall be one data line under [EMD Parts].

A .emd file that describes a part can itself reference an EMD module. This shall be limited to 6 hierarchy levels of nested .emd files.

An EMD file may not reference itself directly or indirectly.

The EMD part, file reference, and component/module name terms are separated by white space.

The EMD part is limited to forty characters.

Every part referenced in the EMD Designator List shall have one and only one entry in this list of parts.

NAs in the file reference and component/module name columns are permitted if the part has functionality outside of the scope of the IBIS specification, such as certain analog parts. The NA in the File reference column indicates that the part model is not available, although its pinout may be known and included as [Designator Pin List] entries.

It is also permitted to use a .ibs file and a component/module name to show the part pinout and to document some known rails and digital I/O pins that are supported by IBIS. Pins whose functions are not supported by IBIS could be documented with NC or with Terminator models.

A [Notes] section or a separate readme file should document these unknown parts or parts where certain pins cannot be modeled in IBIS. Some EDA tools may deal with these special cases in a tool-specific manner.

*Example:*

[EMD Parts]

|

| part\_name file\_reference component/module name

Processor pp100.ibs Processor

Memory\_16X8 simm.emd 16X8\_SIMM

74LS244 ls244.ibs NoName\_74LS244

Res\_10K r10K.ibs My\_10K\_Pullup

|

ABC NA NA | Undocumented Parts

BCD NA NA | without files

|

C555 timer.ibs X555 | Timer with digital control

|

[End EMD Parts]