Proposed revision of Subparameters for the Interconnect Specification Document Draft 18

Bob Ross, 3/6/15, revised 4/1/15, 4/8/15

Param rules:

The subparameter Param is optional and only legal with the File\_IBIS-ISS subparameter documented below. Param is illegal with the File\_TS subparameter documented below. Param shall be followed by three arguments: an unquoted string argument giving the name of the parameter to be passed into the IBIS-ISS, a reserved word for the parameter format, and one numerical value or one string value (surrounded by double quotes) for the parameter value to be passed into IBIS-ISS.

The only valid format is Value, but the format column allows for adding more formats in the future. Several Param lines are permitted as long as each name entry is unique within the [Begin Interconnect Model]/[End Interconnect Model] group.

The numerical value rules follow the scaling conventions in Section 3, GENERAL SYNTAX RULES AND GUIDELINES. The EDA tool is responsible for translating IBIS specified parameters into IBIS-ISS parameters. For example, 1 megaohm, would be represented as 1M in Param value according to The Section 3 rules, but would be converted by the EDA tool to case-insensitive 1meg (1X is not recommended) or 1E6 for IBIS-ISS use. Quoted string parameters in IBIS are converted to the string parameter syntax in IBIS-ISS. For example, the Param value "typ.s2p" would be converted to str('typ.s2p') in IBIS-ISS.

*Examples:*

| Param name format value

Param abc Value 2m | 2E-3 in IBIS

Param def Value 4k | 4E3 in IBIS

Param ts\_file Value "typ\_s2p" | file name string passed

 | into IBIS-ISS

File\_IBIS-ISS rules:

Either File\_IBIS-ISS or File\_IBIS-TS (documented next) is required for a [Begin Interconnect Model]/[End Interconnect Model] group*.* The File\_IBIS-ISS subparameter is followed by two string arguments consisting of the file\_name, and circuit\_name (.subckt name) for an IBIS-ISS file. These entries are not surrounded by double quotes to be consistent with the [External Model] and [External Circuit] convention for the Corner subparameter. The referenced file under file\_name is located in the same directory as the .ibs file.

*Example:*

| file\_type file\_name circuit\_name(.subckt name)

File\_IBIS-ISS net.iss netlist\_typ

File\_TS rules:

Either File\_TS or File\_IBIS-ISS is required for a [Begin Interconnect Model]/[End Interconnect Model] group.File\_TS is followed by the file name entry for a Touchstone file. The Touchstone file under file\_name is located in the same directory as the .ibs file.

*Example:*

| file\_type file\_name

File\_TS typ.s8p