Title: Ref Des Pattern

Product: Allegro Design Entry HDL

Summary: Specifies a reference designator that is different from the default.

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1 Ref Des Pattern Definition
Specifies a reference designator that is different from the default. The default reference designator uses the PHYS_DES_PREFIX property as the base name plus a number, which is appended by Packager-XL. If you require a different naming scheme from the default, you can specify a new naming scheme.

1.1 REF_DES_PATTERN
The REF_DES_PATTERN directive specifies the format of reference designators (that is, location properties) assigned to the physical parts in the design. The REF_DES_PATTERN directive applies to all parts in your design. If you want to specify a pattern for a particular part or instance, use the REF_DES_PATTERN property instead. The REF_DES_PATTERN directive is only applied to unpackaged parts in the design.

To change the existing reference designators:

- Use the REPACKAGE directive.
- Manually edit the LOCATION properties in the schematic.

Note: You can specify REF_DES_PATTERN as a property or a directive.

REF_DES_PATTERN overrides the default naming convention used by Packager-XL.

Syntax
Default  REF_DES_PATTERN pattern

pattern  ($PHYS_DES_PREFIX)[0-9](1)

The pattern can be a combination of the following:

- Ordinary characters
- Value to be incremented

Note: Spaces are not allowed in a pattern
This value is specified within square brackets [ ] and you can use this value more than once. The letters 0-9 indicate a numeric value, while the letters A-Z indicate an alphabetic value.

A value in parentheses is specified to modify the value in square brackets (place parentheses after brackets).

You can only specify this value once in a pattern. This value indicates a starting number or character other than 0 or A. The number of characters in this value controls the number of place holders in the reference designator. For example:

You can use a property name preceded by a dollar sign ($) in parentheses to add design properties such as page or drawing name.

1.2 Example [as a Directive]

REF_DES_PATTERN ($PHYS_DES_PREFIX)[0-9](501)
**1.3 Example [on a instance basis]**

U($PAGE)X[0-9](61) attaches the name, U1X61 starting from the first instance of a part on page one.

**Note:** You can use the PHYS_DES_PREFIX property as part of your REF_DES_PATTERN directive. The following pattern uses the PHYS_DES_PREFIX property as the first character of the reference designator and begins incrementing from number 501 to complete the pattern.

**1.4 Example [of inheritance on a module basis]**

U($PAGE)X[0-9](61) attaches the name, U1X61 starting from the first instance of a part on page one.
Starting from the instance of a part or module (BLOCK1) REF_DES_PATTERN will be inherited to the lower level primitives.

\[ U(\text{DRAWING})X[0-9][0-9][0-9](61) \] attaches the name, UBLOCK1X0061 starting from the first instance of a part on the module BLOCK1.

## 2 REF_DES_LENGTH

The REF_DES_LENGTH directive controls the maximum length of physical reference designators generated by Packager-XL.

The REF_DES_LENGTH directive does not affect the user-assigned LOCATION properties. However, if the LOCATION property value (user assigned or synthesized from the REF-DES-PATTERN directive) exceeds the maximum length of physical reference designators, an error message is generated.

### Syntax

REF_DES_LENGTH number;

*number*  The maximum number of characters in the reference designator.

The default value for the REF_DES_LENGTH directive is 31 characters.
2.1 Example

[Image of Packager Setup with Ref Des Pattern settings]

- **Pattern:** `U($PAGE)×[0-9](61)`
- **Default Ref Des Prefix:** `U`
- **Ref Des Length:** `31`