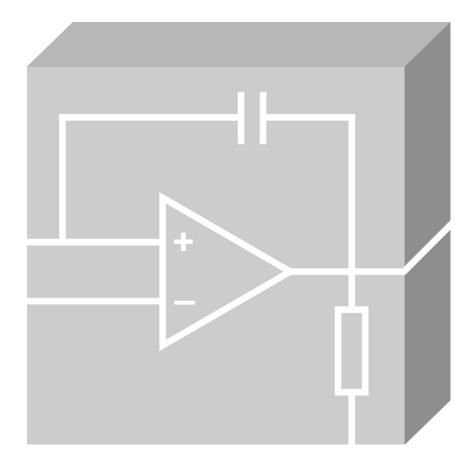


# **Ref Des Pattern**



Allegro Design Entry HDL Application Note | V2.0



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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.

or

• 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.



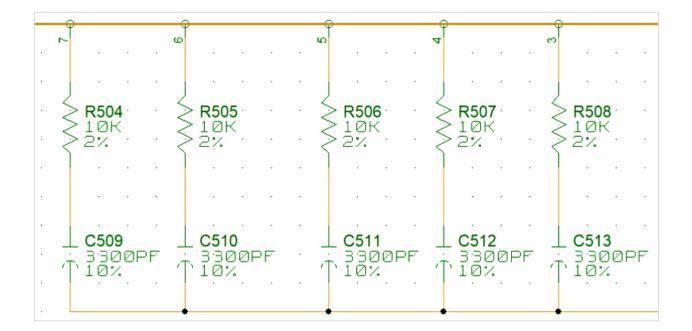
For example:

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)

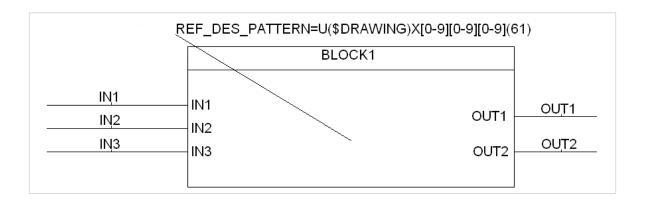
Packager Setu	up - D:\Projel	kte\17_4\03_Trai	inings\HDL	_2020_01\f	tb\reference\	reference.cp	×
Properties	State File	From Layout	Report	Layout	Subdesign		
Ref D	es Pattern						
Patter	n: (SPHYS	DES_PREFIX)[0	-9](501)				
F	Reset Ref Des	counter for new p	ages and R	ef Des prefit	ĸ		
	leset her Des	counter for new p	ages and H	er Des preti	C		



#### Note

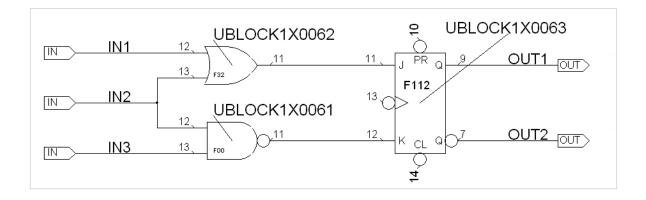
You can use the PHYS\_DES\_PREFIX property as part of your REF\_DES\_PATTERN directive. The following pattern uses the PHYS\_DES\_PREFIX property as the first character of the reference designator and begins incrementing from number 501 to complete the pattern.





## **1.3** Example [of Inheritance on a Module Basis]

Starting from the instance of a part or module (BLOCK1) REF\_DES\_PATTERN will be inherited to the lower-level primitives.



U(\$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

ackager Seti	up - D:\Projeł	cte\17_4\03_Trai	nings\HDL	_2020_01\f	tb\reference\refe	rence.cp
Properties	State File	From Layout	Report	Layout	Subdesign	
Ref D	es Pattern					
Patter	n: U(\$PAG	E)X[0-9](61)				