**XDRC** • Enhanced Design Rule Checker

Design Workshop Technologies XDRC surpasses standard DRC with improved performance, increased capacity, and expanded set of unique selection and query commands that provide designers with the flexibility to combine these rules into complex scripts. With the XDRC's massive set of features, it is without a doubt the tool of choice to tackle the most sophisticated rules for designing Optoelectronic, Analog, Mixed Signal and RF devices.

### Rich set of Rules and Features

The XDRC large set of rules enable designers to describe very complex checks that may be required for specific technology requirements. This is useful for designers who need "in-house" rules targeted for their specific manufacturing process or for complementing existing foundry rules.

### Off-grid and Acute Rules

Certain processes or technologies require that all geometries (or objects) be on a specified grid or have no segments forming acute angles. The XDRC includes rules for these specified checks along with many other rules (i.e., area and perimeter) that can be applied to geometries.

### Bend Radius Rules

When creating rounded corners or waveguides with bends, designers have to ensure that the curvature does not go below a certain value. Performing this task manually is both time consuming and prone to errors. The XDRC provides a fast and accurate way to immediately identify all errors of this type and fix them.

### Misaligned features

Misalignment occurs when two consecutive polygons that form a device do not have the correct offset or when there is an invalid space between them (i.e., a gap). The XDRC automatically finds these layout errors, and in seconds they can be easily corrected
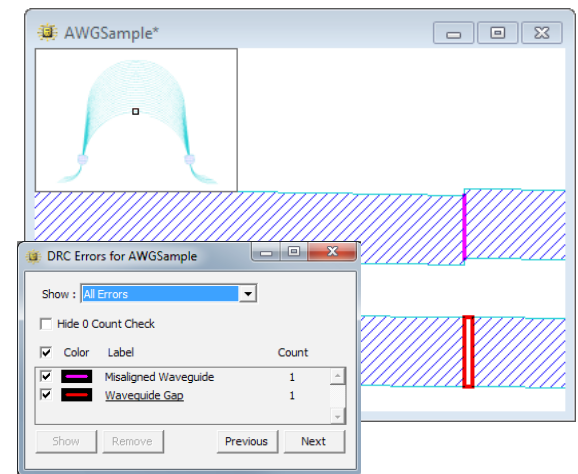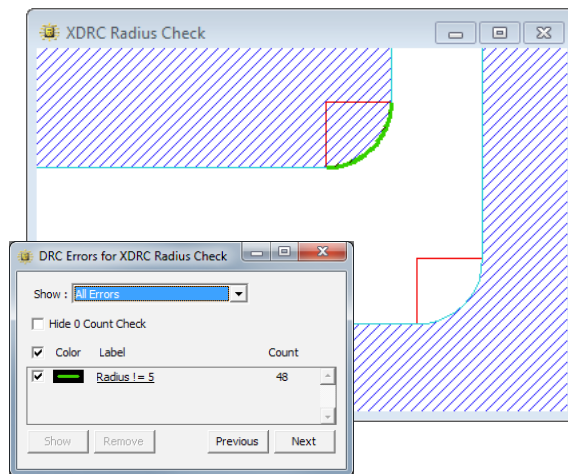




XDRC

# XDRC

## Optimize your yield
### with high quality verification software


DESIGN WORKSHOP TECHNOLOGIES

## XDRC *Highlights*

- Integrated LVS and DRC
- Verifies all-angle geometries
- Edge, Shape and Segment Selection
- Net based selection
- Conditional checks such as angle, edge length
- Reduce false errors using advanced filters
- Query commands for Critical Dimensions
- Ranges for Selections and Rule Checks
- 64bit for Capacity and Performance
- Error filtering such as projection
- Easy error navigation
- Microelectronic features
  - Antenna rules
  - Off-grid rules
  - End of line rules
- Photonic features
  - Identifies gaps in waveguides
  - Identifies misaligned waveguides
  - Checks bend radius

## dw-2000 *Highlights*

- Integrated LVS and DRC
- Native 64bit editions for increased speed and performance
- Hierarchical layout
- All-angle Boolean and resize
- Fully customizable
- Programming language environment
- Automatic layout generation
- Fully-featured
- Unlimited undo/redo
- View at different aspect ratios
- Snapping using Gravity
- Conversion to/from other formats
- Parametric Cells (P-Cells)

## Selection Commands



Circles within a specified radius

Shapes with specific hole counts

Select Holes

Reference

Avoid

Touching

Acute Angle Shapes

Edge "3 <= Length < 4"

Acute Angle Edges

## Query Commands



| | | |
|---|---|---|
| ☑ | Largest Area Shape = 44.31 | 1 |
| ☑ | Largest Extension = 5 | 1 |
| ☑ | Maximum (Horz) Width = 19.5 | 1 |
| ☑ | Smallest Overlap = 0.5 | 1 |
| ☑ | Smallest Separation = 0.5 | 1 |
| ☑ | Smallest Width = 1 | 1 |

## Design Workshop Technologies

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**Optimize** your resources with **proven technology**

rev: 2015.03