

# ADIVA ViaPad to ViaPad (Same Net)

# Notice

Representations in this User Guide are meant as an overview and quick reference. Full details can be found in the On-Line manuals located at the *ADIVA Corporation* website - [www.adiva.com](http://www.adiva.com)

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# ADIVA ViaPad to ViaPad (Same Net)

Adiva has always had a ViaPad to ViaPad spacing check which worked on objects assigned to different nets. This new check allows the user to test spacing between Via Pads that are on the same net.

When the check is complete, a **Violation Checklist** will automatically appear reporting the check results – just like any other check. The comment section of the **Violation Checklist** though will identify the results as “Same Net” results.

All typical **Violation Checklist** functionality is available as defined per the **Adiva DRC Check User Guide**.

# ADIVA ViaPad to ViaPad (Same Net)

## Getting Started...

Contained in the default `c:\adiva\data` directory is a Custom Check Command file...

### **95\_viapad2viapad\_SN.mac**

...that pre-defines as an example what a typical ViaPad to ViaPad (Same Net) spacing check command file may look like.

This command file is designed to run standard ViaPad to ViaPad spacing checks on all vias that reside on the SAME net.

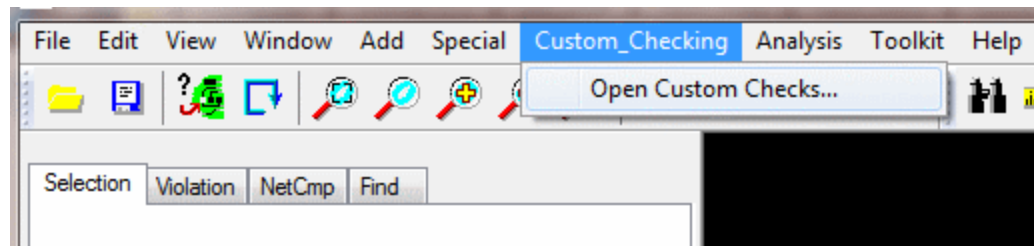
The values contained in this command file should be adjusted and saved by the user to fit their personal checking environment.

An example of this command file is shown on the next slide. Adjust the check parameter to fit your situation.

```
# ViaPad to ViaPad (Same Net) Check Command File - ADIVA Version 9.1+
#
LayerRect
CircuitResolution 4      # Sets check resolution accuracy to 1/4 mil
CircuitLayersOn        # Turns on all circuit layers for checking
#
### Existing Check Commands for Example Only ###
### Basic ViaPad to ViaPad Spacing – DIFFERENT NET ###
#
# Syntax: CircuitOuterViaPadToViaPad <param>
# Syntax: CircuitInnerViaPadToViaPad <param>
#
# Checks all pads marked V for via to one another on different nets
CircuitOuterViaPadToViaPad 0.005
CircuitInnerViaPadToViaPad 0.005
#
#
#
### New Check Commands ###
### Basic ViaPad to ViaPad Spacing – SAME NET ###
#
# Syntax: CircuitOuterViaPadToViaPadSN <param>
# Syntax: CircuitInnerViaPadToViaPadSN <param>
#
# Checks all pads marked V for via to one another on same nets
CircuitOuterViaPadToViaPadSN 0.004
CircuitInnerViaPadToViaPadSN 0.004
#
ViolSave viapad2viapadSN.vio  # saves a violation file containing the results from above
ShowViolChecklist             # opens the Violation Checklist displaying above results
#
# END
```

# ADIVA ViaPad to ViaPad (Same Net) Run the Check...

In the main Adiva GUI, select **Custom\_Checking** then **Open Custom Checks...**





# ADIVA ViaPad to ViaPad (Same Net) View Results...

The chosen command file will automatically begin processing and when it completes, the **Violation Checklist** will appear listing any violations found.

The screenshot shows a window titled "Violation Checklist Report" with standard window controls (minimize, maximize, close). The interface includes:

- An "Adjust Violation Range" button.
- A "Violation File:" text box.
- Buttons for "Save Violation File", "Read Violation File", and "Browse".
- A "Choose Violations to View..." section with checkboxes for "Critical" (red), "Concern" (orange), and "Tol" (yellow).
- A table with columns: "Accepted", "Param", "Layer", "Seq", "Violation Type", and "Comment".
- Buttons at the bottom: "Delete Selected Violations", "Clear Accepted Violation File", "Close Violation Checklist", and "Save Violation Summary Report".

<input type="checkbox"/>	Critical	<input type="checkbox"/>	Concern	<input type="checkbox"/>	Tol	Accepted	Param	Layer	Seq	Violation Type	Comment
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	1	1	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	1	3	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	2	5	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	2	17	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	3	6	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	3	18	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	4	7	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	4	19	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	5	8	Min ViaPad to ViaPad	

Operate the **Violation Checklist** as defined in the **Adiva DRC Check Guide**



# ADIVA ViaPad to ViaPad (Same Net) View Results...

The **Comment** column will differentiate ViaPad to ViaPad results. Comments showing **Same Net** are for the new ViaPad to ViaPad check between pads on the same net. Uncommented results are for ViaPads assigned to different nets.

Violation Checklist Report

Adjust Violation Range      Violation File:

Save Violation File    Read Violation File    Browse

Choose Violations to View...

Critical     Concern     Tol    Accepted    Param    Layer    Seq    Violation Type    Comment

<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	1	1	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	1	3	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	2	5	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	2	17	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	3	6	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	3	18	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	4	7	Min ViaPad to ViaPad	
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00400	4	19	Min ViaPad to ViaPad	Same Net
<input type="checkbox"/>	0	<input type="checkbox"/>	0	<input type="checkbox"/>	0	0	0.00500	5	8	Min ViaPad to ViaPad	

Delete Selected Violations    Clear Accepted Violation File

Close Violation Checklist    Save Violation Summary Report

Different Net Results

Same Net Results

**END**

**ADIVA ViaPad to ViaPad**  
**(Same Net)**