Analog Resource Reserve

1.50

Auto

Features

- Prevents an analog router from using a global analog routing resource
- Allows safe firmware access to a global analog routing resource

General Description

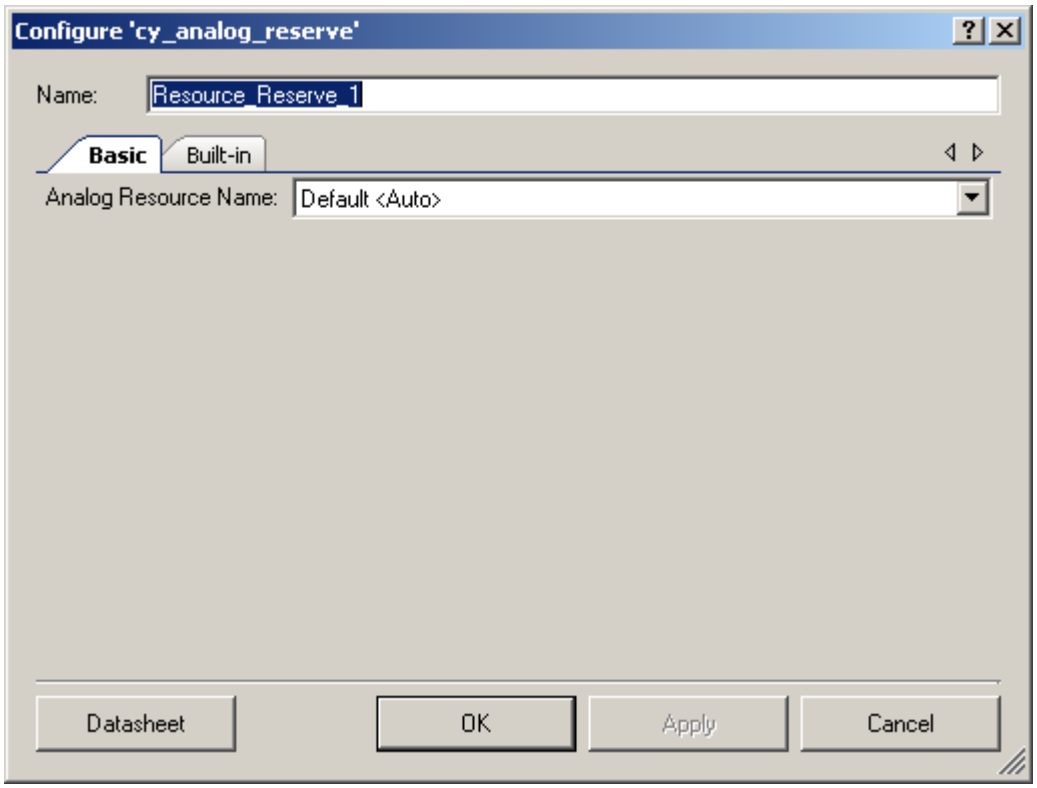
The Analog Resource Reserve component reserves a global analog routing resource so that the resource can be safely used by firmware-based manual analog routing. This is an advanced feature that is not needed for most designs, and should be used with caution.

When to Use an Analog Reserve

You should use the Analog Resource Reserve component when your firmware intends to modify analog routing registers. The Analog Resource Reserve component protects against conflicting use of analog resources by firmware and automatic analog routing.

Component Parameters

Drag an Analog Resource Reserve onto your design and double-click it to open the **Configure** dialog.



The Analog Resource Reserve component provides the following parameter.

Analog Resource Name

The analog resource to reserve. The default value, Auto, has no effect. The routing resource list depends on the selected family. That is, the set of global analog routing resources from which you can choose depends on the underlying family of devices.

Placement

The Analog Resource Reserve component has no independent placement information. The Analog Resource Name controls the resources used.

Resources

The Analog Resource Reserve component consumes the specified routing resource, because it specifies the routing resource that is not used by the analog router. However, this resource is

free for user firmware to route signals, by manually writing the routing registers. Refer to the Registers Technical Reference Manual (TRM) for the applicable device, available on the Cypress website.

Functional Description

The following analog routing resource names are available for PSoC 3 and PSoC 5:

- Analog globals: AGL[0]–AGL[7], AGR[0]–AGR[7]
- Analog local bus: abusl0–abusl3, abusr0–abusr3
- Analog mux bus: AMUXBUSL, AMUXBUSR
- Combined left/right resources: AG[0]–AG[7], abus0–abus3, AMUXBUS

To reserve analog wires connected to pins, comparators, or other components, use the Terminal Reserve component.

Component Changes

This section lists the major changes in the component from the previous version.

Version	Description of Changes
1.50.c	Cosmetic change; updated symbol.
1.50.b	Minor datasheet edits and updates
1.50.a	Minor datasheet edits and updates