

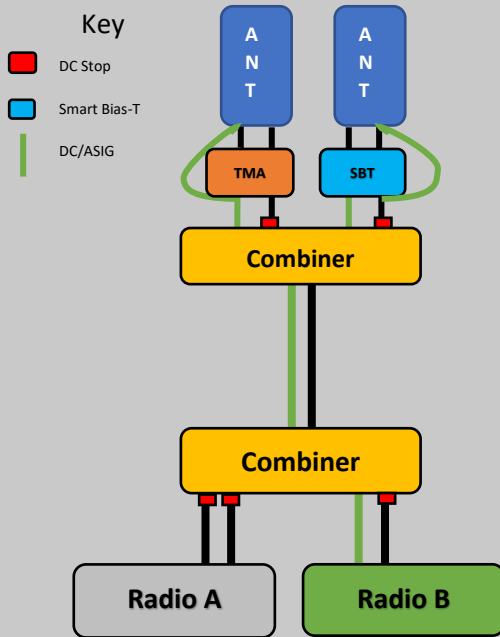


# Auto Bypass™ Combiners

## Self-configuring DC and AISG Routing

Radio frequency (RF) combiners have long been key building blocks in cell site design, facilitating cost effective roll outs through the sharing of feeders and antennas between radios. Radio Design's Auto Bypass™ Combiners are being mass deployed to ensure fast, accurate installation and to provide flexibility for the future.

### Traditional Solution



The fact that the DC / AISG bypass is hardwired has introduced several problems, each with significant associated costs penalties or disadvantages:

- ☒ Increased insertion loss and degraded PIM due to DC stops being fitted to manage DC / AISG
- ☒ Installation errors from incorrect connection of combiner and associated external DC stops, leading to costly site revisits to debug
- ☒ No future flexibility as the DC / AISG path cannot be changed without a site visit to modify the hardware
- ☒ Procurement difficulties, as different combiner variants are required to satisfy different bypass requirements
- ☒ Inventory and logistical issues, as several combiner variants to manage and correct variant has to be sent to each site
- ☒ No support for change in AISG master or RET requirement.

### Auto Bypass™ Solution

Due to their ability to auto configure, Auto Bypass™ Combiners deliver numerous specific advantages:

- ✓ Improved insertion loss and PIM, as need for DC stops completely removed
- ✓ Associated installation errors removed, leading to quicker installation and fewer site revisits providing massive cost savings
- ✓ Future flexibility as DC / AISG path will configure as required without a site revisit
- ✓ Straightforward procurement as only one variant required
- ✓ Inventory issues relieved, as only need to manage stock of one variant
- ✓ Straightforward logistics, as same variant can be used for both splitting and combining
- ✓ Support change in AISG master and to RET configurations.

