



Auto-sense Combiner

Simplifying Site Configurations



MOBILE COMMUNICATION

KATHREIN

Introduction

In order to enable the control of ALDs¹⁾ when deploying standard multi-band combiners in mobile communication networks, such combiners are fitted with integrated DC/AISG bypass circuits. Depending on the application, different bypass configurations are available. The correct bypass combination needs to be selected in order to ensure the proper control and configuration of the ALDs.

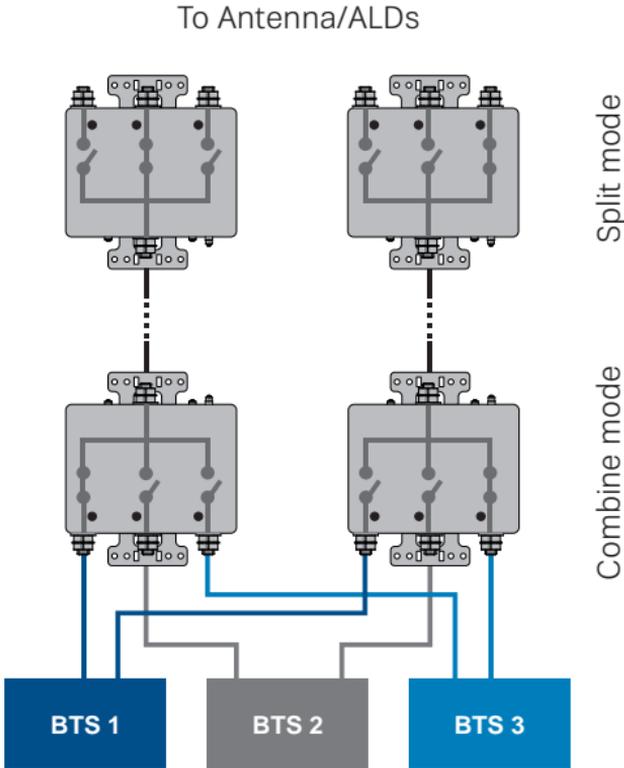
Kathrein's auto-sense combiners simplify the selection of the correct combiner since there is no need to choose one fixed AISG bypass version. The correct bypass is automatically detected, thereby enabling safe and easy deployment of the auto-sense combiners in universal applications.

¹⁾ ALD = Antenna Line Device (including, where appropriate, secondary AISG devices)

How does an auto-sense combiner work?

- Automatic detection of DC voltage on the input port
- Short-circuit detection to acknowledge connected ALDs
- DC/AISG signal is bypassed to connected ALDs
- Allocation of the ALDs to the different base stations can be performed on a "first-in and first-out" basis (default) or in a customised fashion

Portfolio

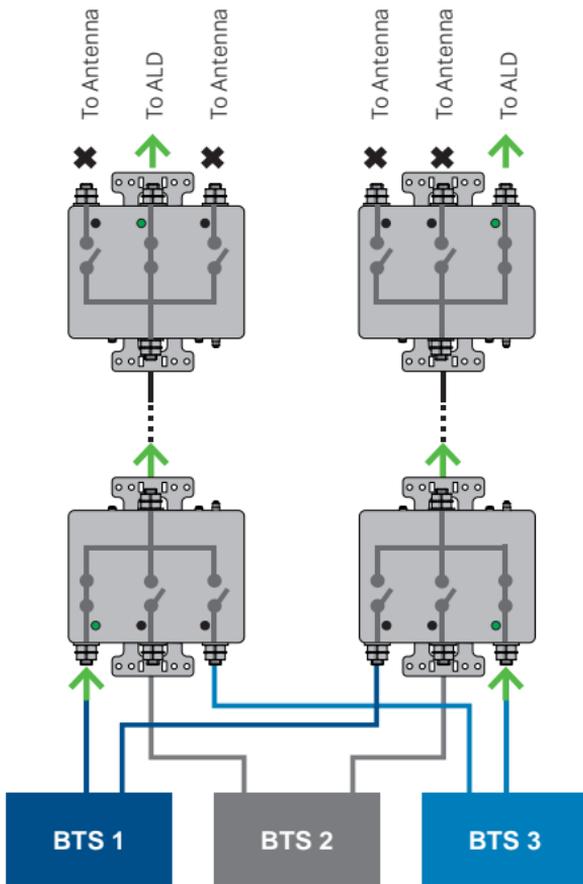


- DC detection:
Combiner automatically switches into correct mode
- Combine mode (BTS side):
DC power detected at one of the input ports
- Split mode (antenna/ALD side):
DC power detected at the common port



Please ask your local Kathrein sales contact for a delivery plan, or advise if further auto-sense combiner types are required. A detailed manual describing the setup and behaviour of Kathrein auto-sense combiners is available at www.kathrein.com.

Application



When the combiner operates in combine mode, the unit has the ability to operate in three different functions. These functions define the prioritisation of the DC input signals.

- First-in, first-out (factory default setting): the first base station which supplies the combiner with DC voltage at any input port is bypassed to the common port
- Priority controlled: a corresponding priority table has been stored in the combiner
- Exclusive user: the first base station which supplies an appropriate DC voltage at any input port is bypassed to the common port. If a second DC/AISG signal is erroneously fed into the combiner, none of the DC/AISG signals will be allowed to bypass to the common port

FEATURES/BENEFITS

- Prevent installation mistakes (e.g. incorrect cabling and/or DC bypass selection)
- Simplification of type choice: same type for bottom and top, one type for all DC bypass situations
- Reduce warehouse stock
- Reduce ordering logistics and number of parts
- No external DC stops required
- Flexible retrofitting of networks
- LED status indication
- AISG and CWA functionality
- Customised prioritisation of different ports



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