

## Application Note AN007

### P7xxx series 1+1 redundancy, utilising separate stand-alone RCU100/ RCUH100 control & switching units

Any identical P7xxx series synthesised rack mounted converters can be used with the RCU100/ RCUH100 series of switching and control units to operate as a 1+1 redundant pair.

RCU100 units are supplied with a basic 'manual' front panel control utilising key switches for **REMOTE/ LOCAL** mode selection, and **A/ AUTO/ B** position selection, along with a standard remote control facility.

RCUH100 units are supplied with a full front panel user interface (keypad and graphics screen) and remote control facility.

All RCU units are available with optional cable sets that include all necessary IF, RF and control interface cables.

As co-axial switches are used for both input and output switching, losses are minimised. Additionally the switch units can be used for either Up or DownConverters.

#### RCU100 Operation

Using the front panel key switches or [remote control] interface, the RCU100 unit is set to either;

'**A**' [**A**]; unit A to be switched online.

'**AUTO**' [**O**]; the unit monitors the online converter and in the event of a fault condition, automatically switches to the standby converter.

'**B**' [**B**]; unit B to be switched online.

Note; the RCU100 does not have the facility to automatically configure the standby converter for gain & frequency, so the converter units would need to be manually configured prior to entering the 'AUTO' [O] mode and both units changed whenever new operational settings are required, for this reason the RCUH100 unit is recommended for use with P7xxx series units.

#### RCUH100 Operation

Using the front panel user menu or [remote control] interface, the RCU unit is set to either manual or automatic mode.

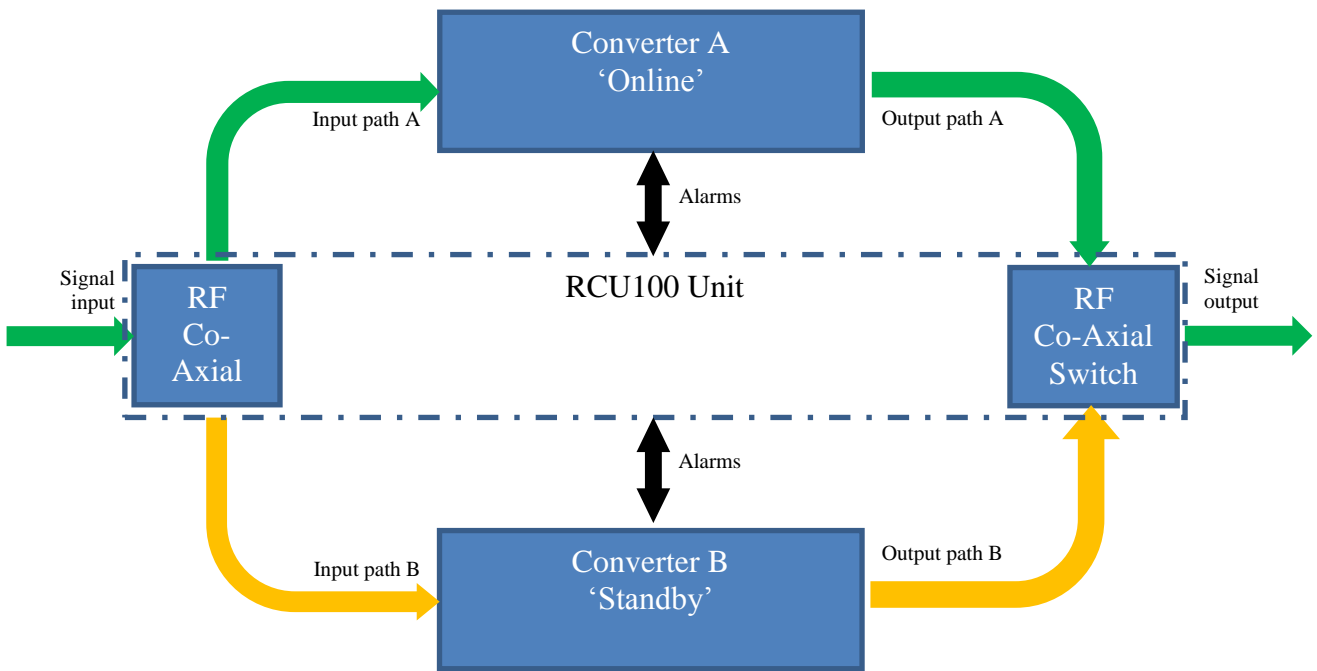
In '**MANUAL**' [**M**] mode the standby converter routing can be selected to be;

'**Unit 1**' [**1**]; unit 1 to be switched online

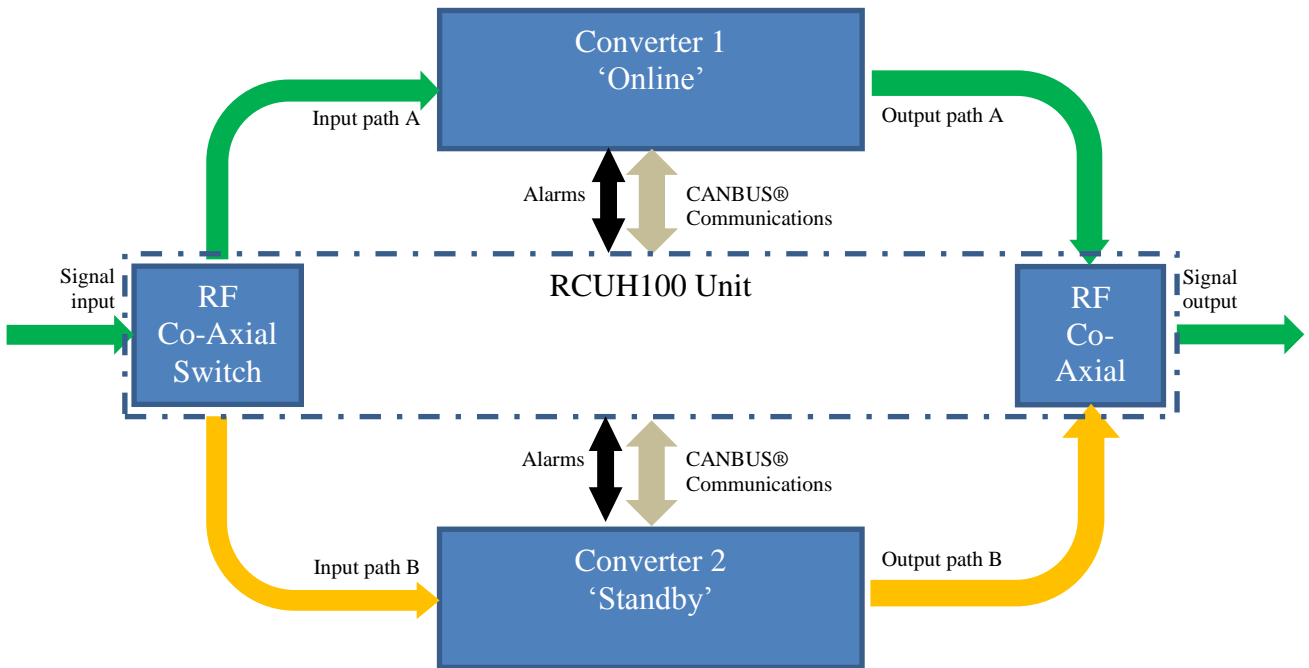
'**Unit 2**' [**2**]; unit 2 to be switched online

In '**AUTO**' [**A**] mode, the RCUH100 unit will automatically configure the gain and frequency settings (unless this facility is deactivated by the user) of the offline converter unit to replicate the online converter at the time of change-over. This is performed via the CANBUS® interface.

Changeovers are minimised, i.e. a unit taken off line due to an alarm, will remain 'off line' even if it returns to the non-alarm state. If it does return to the non-alarm state then it will act as the [standby] unit.



**P7xxx series Converter in 1+1 redundancy using RCU100**



**P7xxx series Converter in 1+1 redundancy using RCUH100**