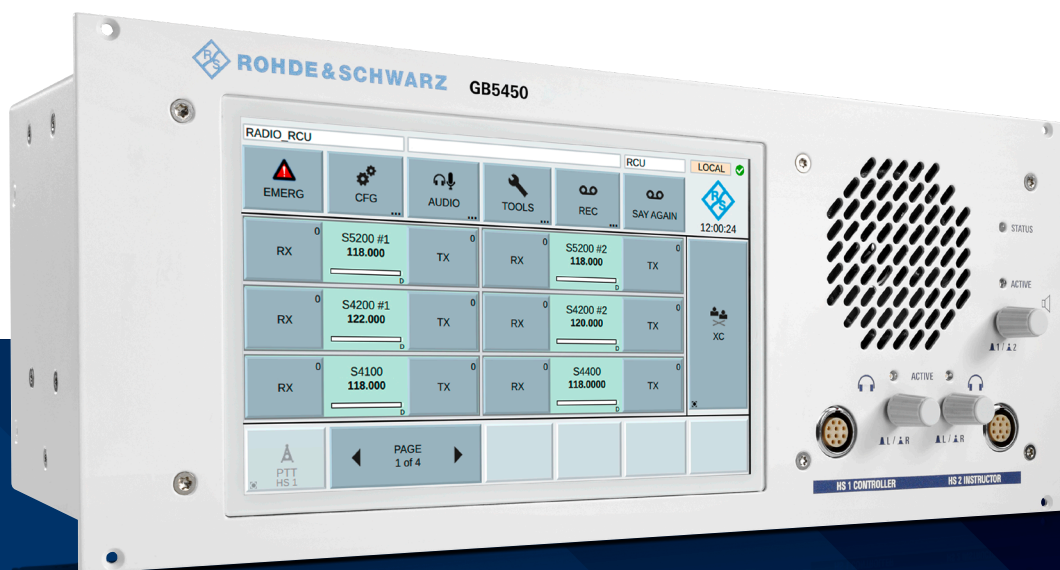


R&S® GB5450

RADIO CONTROL UNIT

Standalone and independent
air-ground communications device



Flyer
Version 01.00

ROHDE & SCHWARZ

Make ideas real



AT A GLANCE

The R&S®GB5450 is an intuitive, user-friendly and full-featured radiocommunications radio control unit.

The R&S®GB5450 radio control unit (RCU) is a terminal for air-ground communications. The radio control unit offers a wide selection of functions in order to provide air traffic controllers with the resources they need.

Based on the B5450R-PL license, the R&S®GB5450 can be operated in standalone mode for air-ground communications without any VCS server components. It can be connected to as many as 12 radios and 2 recording sessions. Optional migration to a centrally managed VCS is also possible. The radio control unit can be monitored using the SNMP protocol from the customer umbrella management (e.g. RCMS).

Depending on the operational task (tower/area control center), the system offers the following functions and services (among others):

- ▶ Air-to-ground communications
- ▶ Radio status monitoring
- ▶ Radio frequency change
- ▶ Radio split site operation
- ▶ Cross coupling
- ▶ Emergency call and PPT

The radio control unit is connected to the radios using the ED-137 communications protocol with two fully redundant Ethernet interfaces which can be linked to two independent Ethernet switches. If there is a network failure, the Ethernet interfaces automatically switch from main to standby and no connected calls are dropped.

ID	Name	Radio Type	Management	SDRP Policy	RX SDRP	TX SDRP	RX/TX SDRP	Assigned Frequencies	Position	Action
3	S5000-1	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	1	✖
4	S4000-1	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	2	✖
5	S4000-2	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	3	✖
6	S4000-3	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	4	✖
7	S4000-4	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	5	✖
8	S4000-5	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	6	✖
9	S4000-6	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	7	✖
10	S4000-7	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	8	✖
11	S4000-8	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	9	✖
12	S4000-9	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	10	✖
13	S4000-10	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	11	✖
14	S4000-11	SDR-IP	GROUP	-	RX00000000000000000000	TX00000000000000000000	-	118.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz, 122.000 MHz	12	✖

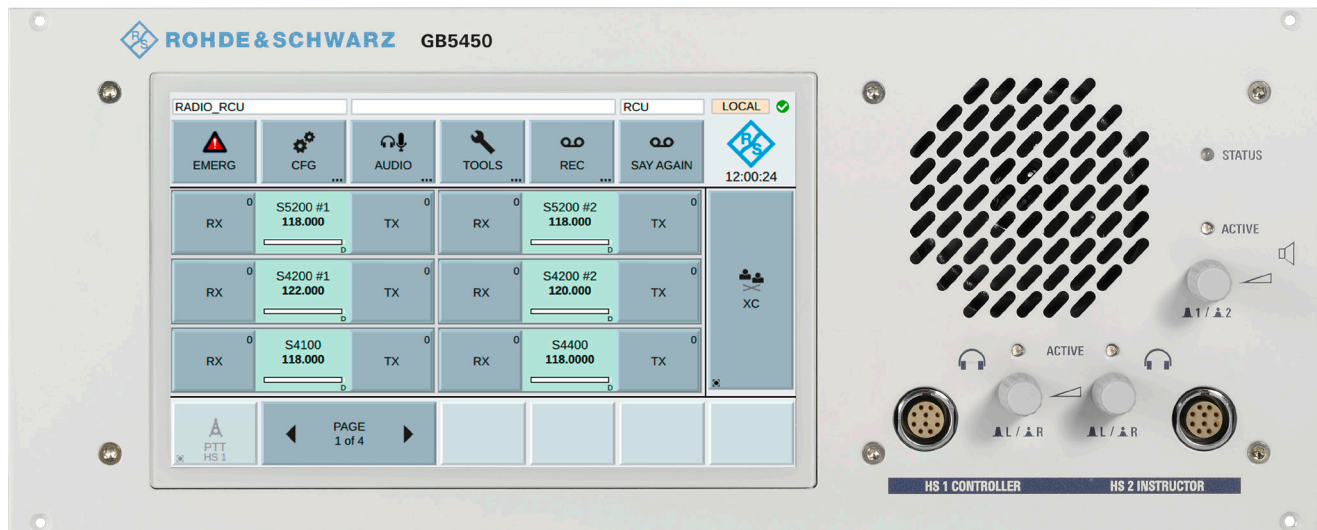
Local setup and configuration directly via the web interface.

Easy configuration via the web interface

The radio control unit can be set up without any server component. The simple web configuration makes the radio control unit ideal for small- to medium-sized airports as well as emergency communications or installation in technical rooms.

Radio communications with up to 12 frequencies (RX, TX or RTX)

The main RCU screen has a large area for the radio operational button. This is where controllers can operate allocated radio resources, change the radio selection, control the radios and view the main status of the radio resources.

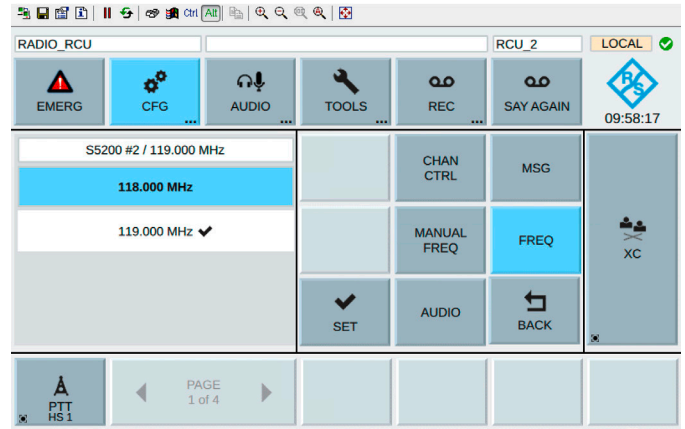


Cross coupling (XC)

The cross coupling (XC) radio function enables automatic retransmission of received signals on one radio frequency to other radio frequencies in the cross coupling group. Cross coupling can combine a number of radio resources into a logical group. This allows a transmission to be heard by all group members, depending on the selected cross coupling mode.

Rich air-ground functionality

Besides radio-specific functions, the system offers several general features that improve the user experience and ensure safety during ATC operations. These features include short-term recording for instant replay of recent radiocommunications at the radio control unit along with a second option for short-term replay. Known as the “say again” function, this feature allows controllers to listen to the most recent communications.



Radio resource management submenu example: radio frequency changes.

SPECIFICATIONS IN BRIEF

Specifications		
Power feed		
Input voltage range	DC	21 V to 54 V DC floating
Maximum input current	DC	1.2 A
Maximum power consumption	DC	25 W
Protection by DC fuses		2 A
Interfaces	Ethernet	2 × RJ-45 10/100/1000 Mbps Ethernet copper connectors
	optical	2 × slots for SFP modules
Audio and voice	audio connectors	2 × push-pull 10-pin connector for headsets, handsets or microphones
	loudspeaker	one loudspeaker embedded, one additional external loudspeaker can be added
	voice	<ul style="list-style-type: none"> ▶ voice codes: G.711 (A-law and μ-law) ▶ air-to-ground signaling in line with ED-137B/C volume 1 ▶ ground-to-ground signaling in line with ED-137B/C volume 2 ▶ recording in line with ED-137B/C volume 4
Dimensions	W × H × D	319.8 mm × 128.4 mm × 111.2 mm (12.59 in × 5.06 in × 4.38 in)
Weight		max. 2.2 kg (4.85 lb)

ORDERING INFORMATION

Designation	Type	Order No.
Radio control unit	R&S®GB5450	6200.9350.09

Note: The latest software must be ordered additionally.

Service that adds value

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- ▶ Customized and flexible
- ▶ Uncompromising quality
- ▶ Long-term dependability

Rohde & Schwarz

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Certified Environmental Management

ISO 14001

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ISO 27001

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