Система коммутации и управления OSP

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47
Россия (495)268-04-70
Казахстан (772)734-952-31

https://rohdeschwarz.nt-rt.ru || rwz@nt-rt.ru

R&S®OSP Open Switch and Control Platform

At a glance

The modular R&S®OSP open switch and control platform can be used to perform RF switch and control tasks.

The R&S®OSP is available in two models (R&S®OSP120, R&S®OSP130), plus an extension unit (R&S®OSP150) and a satellite box (R&S®OSP-B200S2) to meet the requirements of diverse test scenarios – ranging from desktop configurations for laboratory measurements to complex, rack-integrated test systems. The R&S®OSP130 model comes with a control panel and display for manual control.

The R&S®OSP120 and R&S®OSP130 models can be controlled via Ethernet. They have three module slots on the rear, allowing users to implement application-specific configurations, from simple RF switch functions to automatic path switchover in complex RF test systems such as EMC systems.

The R&S®OSP120 base unit and the R&S®OSP150 extension unit additionally offer two module slots on their front panels.

The R&S®OSP150 extension unit allows users to set up more complex switching systems or to expand existing R&S®OSP systems.

The R&S®OSP-B200S2 satellite box enables remote RF switch and control tasks. It can be equipped with up to two R&S®OSP modules.

Benefits and key features

Modular, reliable, cost-efficient

The modularity provided by the R&S®OSP family facilitates the fast setup of test and measurement configurations for applications in production, test labs and development. The ability to implement complex wiring by means of a single switch and control platform is an essential prerequisite for reliable and reproducible measurements that can be automated to enable cost-efficient test sequences.

Compact and flexible

Each R&S®OSP unit is comes in a compact 19" cabinet of two height units. The powerful CPU provides maximum flexibility for controlling switch and control modules and enables the use of high-performance internal and external interfaces.

The three module slots on the rear of each base unit, as well as the two module slots on the R&S®OSP120 and R&S®OSP150 front panel, can be integrated into one, extra-wide triple or double module slot to accept larger modules with an extended range of functions.

Powerful control and RF relay modules

Switch and control modules are inserted into the three rear module slots [1]. Users can choose among universal electromechanical RF relay modules (from DC to 12.4 GHz and DC to 67 GHz), solid-state relay (SSR) modules (up to 10 GHz), digital I/O modules and modules with terminated relays. These modules can be combined in any desired way, allowing users to configure their R&S®OSP platform cost-efficiently as required for the application at hand.

Special modules such as the R&S®OSP-B104, R&S®OSP-B114 and R&S®OSP-PM-I make it easier to implement EMS test systems.

[1] The R&S®OSP120 and the R&S®OSP150 additionally have two module slots on the front panel.

Expandability

Up to four R&S®OSP150 extension units can be connected via the CAN bus port of the base unit. This makes it possible to enhance the base unit's functionality when setting up an R&S®OSP system, and also provides an economical way to expand existing R&S®OSP systems in order to meet future requirements.

In addition to the R&S®OSP150 extension unit, the compact R&S®OSP-B200S2 satellite box is available to enhance the R&S®OSP platform's functionality. The satellite box enables remote operation, i.e. it shifts RF switch and control tasks close to the DUT or the antennas. This reduces the number of long RF cables required, improving RF performance and saving cost. The satellite box is controlled via a serial electrical bus cable (wired link) or a fiber-optic link (FOL), as required in a given application.

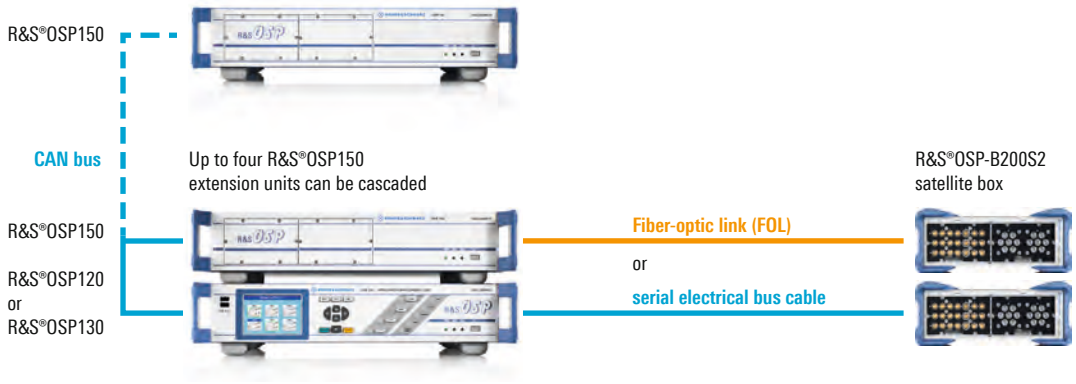
Easy control and system integration

All base units can be controlled via the Ethernet interface. This interface makes it possible to connect the platform to a PC, integrate it into a test system or remotely operate it via a corporate network.

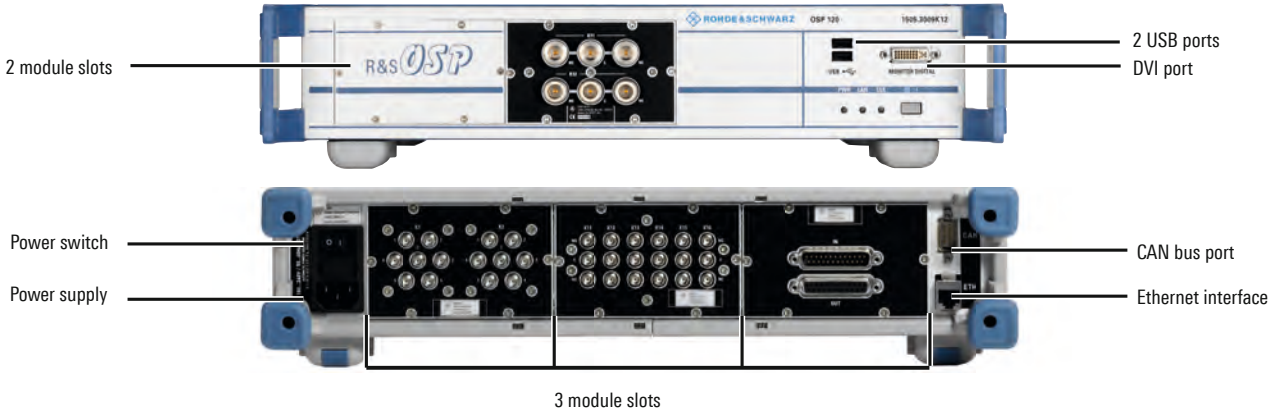
The R&S®OSP130 model has a control panel and display for manual operation of the R&S®OSP130 and any connected extension units. Manual operation of the R&S®OSP120 is possible by connecting an external keyboard, mouse and monitor. The supplied operating software or a web GUI can be used for easy, direct control of the switch and control modules; no special software knowledge is required.

It is also possible to control the platform from application programs such as LabVIEW, LabWindows/CVI, Keysight VEE, C++, C#, Visual Basic, Visual Basic .NET.

Combination of R&S®OSP base, extension unit and satellite box



Front view of the R&S®OSP120 and rear view of the R&S®OSP



Universal R&S®OSP modules with RF coaxial relays

Coaxial relays	0 Hz	9 kHz	to	6 GHz	8 GHz	10 GHz	12.4 GHz	18 GHz	26.5 GHz	40 GHz	50 GHz	67 GHz
RF solid-state relays (SSR)		6 × SPDT, 1 W, R&S®OSP-B107										
		3 × DP3T, 10 W, terminated, R&S®OSP-B142										
		6 × SPDT, 1 W, terminated, R&S®OSP-B127 3 × SP6T, 1 W, terminated, R&S®OSP-B128										
Electro-mechanical RF relays [2]	3 × BNC + 3 × SPDT (N), R&S®OSP-B106 2 × SPDT (N), R&S®OSP-B131 6 × SPDT (N), R&S®OSP-B132 1 × SP6T (N), R&S®OSP-B133 2 × DPDT (N), R&S®OSP-B136											
	6 × SPDT, R&S®OSP-B101 2 × SP6T, R&S®OSP-B102 2 × DPDT, R&S®OSP-B116											
	6 × SPDT, latching, R&S®OSP-B101L 2 × SP6T, latching, R&S®OSP-B102L											
	3 × SPDT, terminated, R&S®OSP-B121 1 × SP6T, terminated, R&S®OSP-B122 6 × SPDT + 1 × SP6T, terminated, R&S®OSP-B123 3 × SPDT + 2 × SP6T, terminated, R&S®OSP-B124 6 × SPDT + 3 × SP6T, terminated, R&S®OSP-B125 3 × SP6T, terminated, R&S®OSP-B128											
	6 × SPDT + 3 × SP6T, terminated, R&S®OSP-B125E											
	6 × SPDT, R&S®OSP-B111 2 × SP6T, R&S®OSP-B112 2 × DPDT, R&S®OSP-B116H											
	3 × SPDT, terminated, R&S®OSP-B121H 1 × SP6T, terminated, R&S®OSP-B122H 6 × SPDT + 3 × SP6T, terminated, R&S®OSP-B125H											
	6 × SPDT, latching, R&S®OSP-B111UL 1 × SP6T, latching R&S®OSP-B112UL											
	3 × SPDT, latching R&S®OSP-B111VL 6 × SPDT, latching R&S®OSP-B111VL											

[2] Relays are failsafe, non-terminated unless otherwise specified.

Ordering information

Ordering information

Designation	Type	Order No.
Base units, extension unit and satellite box		
Open Switch and Control Platform, with monitor interface[3]	R&S®OSP120	1505.3009K12
Open Switch and Control Platform, with display and control panel[3]	R&S®OSP130	1505.3009K03
Extension Unit[2]	R&S®OSP150	1505.3009K15
Satellite Box, for up to two R&S®OSP modules	R&S®OSP-B200S2	1528.3134K02/K04
Options		
Modules with electromechanical RF relays		
Modules with non-terminated relays up to 67 GHz		
RF Switch Module, 6 × coaxial changeover relays SPDT (SMA), 0 Hz to 18 GHz	R&S®OSP-B101	1505.5101.02
RF Switch Module, 6 × SPDT (SMA), 0 Hz to 18 GHz, latching	R&S®OSP-B101L	1505.5101.52
RF Switch Module, 2 × coaxial multiposition relays SP6T (SMA), 0 Hz to 18 GHz	R&S®OSP-B102	1505.5201.02
RF Switch Module, 2 × SP6T (SMA), 0 Hz to 18 GHz, latching	R&S®OSP-B102L	1505.5201.52
RF Switch Module, 6 × coaxial changeover relays SPDT (SMA 2.92, K), 0 Hz to 40 GHz	R&S®OSP-B111	1505.4605.02
RF Switch Module, 3 × SPDT (2.4 mm), 0 Hz to 50 GHz, latching	R&S®OSP-B111UL	1528.1531.13
RF Switch Module, 6 × SPDT (2.4 mm), 0 Hz to 50 GHz, non-terminated, latching	R&S®OSP-B111UL	1528.1531.16
RF Switch Module, 3 × SPDT (1.85 mm), 0 Hz to 67 GHz, latching	R&S®OSP-B111VL	1515.5991.13
RF Switch Module, 6 × SPDT (1.85 mm), 0 Hz to 67 GHz, latching	R&S®OSP-B111VL	1515.5991.16
RF Switch Module, 2 × coaxial multiposition relays SP6T (SMA 2.92, K), 0 Hz to 40 GHz	R&S®OSP-B112	1505.4611.02
RF Switch Module, 1 × SP6T (2.4 mm), 0 Hz to 50 GHz, latching	R&S®OSP-B112UL	1528.1548.11
RF Switch Module, 2 × DPDT (SMA), 0 Hz to 18 GHz	R&S®OSP-B116	1515.5827.02
RF Switch Module, 2 × DPDT (2.92 mm, K), 0 Hz to 40 GHz	R&S®OSP-B116H	1515.5827.40
RF Switch Module, 1 × SP8T (SMA), 2 × SPDT (SMA), 0 Hz to 18 GHz	R&S®OSP-B119	1515.5856.02
Modules with terminated relays up to 40 GHz		
RF Switch Module, 3 × SPDT (SMA), 0 Hz to 18 GHz, terminated	R&S®OSP-B121	1515.5504.02
RF Switch Module, 3 × SPDT (SMA 2.92, K), 0 Hz to 40 GHz, terminated	R&S®OSP-B121H	1515.5504.40
RF Switch Module, 1 × SP6T (SMA), 0 Hz to 18 GHz, terminated	R&S®OSP-B122	1515.5510.02
RF Switch Module, 1 × SP6T (2.92 mm), 0 Hz to 40 GHz, terminated	R&S®OSP-B122H	1528.1525.02
RF Switch Module, 6 × SPDT (SMA) and 1 × SP6T (SMA), 0 Hz to 18 GHz, terminated	R&S®OSP-B123	1515.5527.02
RF Switch Module, 3 × SPDT (SMA) and 2 × SP6T (SMA), 0 Hz to 18 GHz, terminated	R&S®OSP-B124	1515.5533.02
RF Switch Module, 6 × SPDT (SMA) and 3 × SP6T (SMA), 0 Hz to 18 GHz, terminated	R&S®OSP-B125	1515.5540.02
RF Switch Module, 6 × SPDT (SMA) and 3 × SP6T (SMA), 0 Hz to 26.5 GHz, terminated	R&S®OSP-B125E	1515.5540.26
RF Switch Module, 6 × SPDT (2.92 mm) and 3 × SP6T (2.92 mm), 0 Hz to 40 GHz, terminated	R&S®OSP-B125H	1515.5540.40
RF Switch Module, 3 × SP6T (SMA), 0 Hz to 18 GHz, terminated	R&S®OSP-B126	1515.5556.02
RF Switch Module, 1 × SP8T (SMA), terminated and 2 × SPDT (SMA), non-terminated, 0 Hz to 18 GHz	R&S®OSP-B129	1517.7004.02
Modules with relays with N (f) connectors up to 12.4 GHz		
RF Switch Module, 3 × SPDT (N), 0 Hz to 12.4 GHz, and 3 × SPDT (BNC), 0 Hz to 900 MHz	R&S®OSP-B106	1505.5601.02
RF Switch Module, 2 × SPDT (N), 0 Hz to 12.4 GHz	R&S®OSP-B131	1505.4740.02
RF Switch Module, 6 × SPDT (N), 0 Hz to 12.4 GHz	R&S®OSP-B132	1505.4757.02
RF Switch Module, 1 × SP6T (N), 0 Hz to 12.4 GHz	R&S®OSP-B133	1528.3157.02
RF Switch Module, 2 × DPDT (N), 0 Hz to 12.4 GHz	R&S®OSP-B136	1522.4500.02
Modules with RF solid-state relays (SSR)		
RF Switch Module, 6 × SPDT (SMA), SSR, 9 kHz to 6 GHz	R&S®OSP-B107	1505.5901.02
RF Switch Module, 6 × SPDT (SMA), SSR, 9 kHz to 10 GHz, terminated	R&S®OSP-B127	1505.4728.02
RF Switch Module, n × SP6T (SMA), SSR, 9 kHz to 10 GHz, terminated, n = 1 to 3	R&S®OSP-B128	1505.4734.1n
RF Switch Module, 3 × DP3T (SMA), power SSR 10 W, 9 kHz to 8 GHz, ext. termination optional	R&S®OSP-B142	1505.4792.03