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**R&S®UPZ Audio Switcher** Multichannel switcher for audio channel inputs and outputs

Years of Driving Innovation



Data Sheet | 03.00

est& Measurement

## R&S<sup>®</sup>UPZ Audio Switcher At a glance

Multichannel switcher for audio channel inputs and outputs

As an add-on unit to the R&S<sup>®</sup>UPV audio analyzer, the R&S<sup>®</sup>UPZ audio switcher can be used whenever input or output signals have to be switched over to multiple channels or DUTs. Users can directly operate the switcher from the graphical user interface of the audio analyzer. Control via any PC is also possible.

#### Key facts

- I Available as input and output switcher
- I Cascading of up to 128 channels
- I Operation directly from the R&S®UPV audio analyzer
- I Control via RS-232-C for handling universal applications

Rear view of the R&S®UPZ.



Several R&S®UPZ switchers can be cascaded.



### R&S<sup>®</sup>UPZ Audio Switcher Benefits and key features

The R&S<sup>®</sup>UPZ together with the R&S<sup>®</sup>UPV.



#### Switch paths with the R&S®UPZ switcher



### Wide variety of applicatons for all kinds of audio measurements

Surround applications in homes, multichannel mixing consoles in sound studio environments, multichannel amplifiers as well as the adaptation of several DUTs in production are just some examples of the wide variety of applications that are possible using the R&S<sup>®</sup>UPZ audio switcher. As an add-on unit to the R&S<sup>®</sup>UPV audio analyzer, the R&S<sup>®</sup>UPZ is directly operated from the R&S<sup>®</sup>UPV graphical user interface. Remote control, e.g. in production environments, also runs via the R&S<sup>®</sup>UPV audio analyzer.

Users can also control the R&S<sup>®</sup>UPZ audio switcher directly from a PC via its RS-232-C interface.

#### Available as input and output switcher

The R&S<sup>®</sup>UPZ audio switcher – like the R&S<sup>®</sup>UPV audio analyzer – is provided with XLR connectors. Since there is a difference between male and female connectors in the XLR system, the R&S<sup>®</sup>UPZ is available both as an input and as an output model.

Both models feature two switching channels, enabling users to simultaneously operate the two generator or measurement channels of the R&S<sup>®</sup>UPV.

Up to 16 input switchers plus 16 output switchers can be cascaded, allowing up to 128 input or output channels to be switched.

#### Applications for testing multichannel amplifiers

The standard application is a paired or individual switchover of the DUTs or measurement channels to be tested. In each case, one signal path is connected to an assigned channel.

A special feature is measuring the crosstalk of the individual channels for multichannel amplifiers, which requires a particularly critical measurement. The signal coupled into a channel will then be measured while all other amplifier channels are driven at the same time. For this application, the output switcher enables users to switch signal path B through to all channels in parallel, while signal path A can be switched to any one selectable channel.

# **Specifications**

Electrical data				
Signal amplitude <sup>1)</sup>		30 V (rms)/2 A (42 V (peak))		
Crosstalk (balanced 600 $\Omega$ load) $^{\scriptscriptstyle 2)}$	20 kHz	typ. –140 dB		
	100 kHz	typ. –126 dB		
Series resistance	per signal pin	typ. <0.3 Ω		
Shunt capacitance	each signal pin to ground	typ. <90 pF		

General data		
Operating temperature range	in line with EN 60068-2-1/-2-2	0°C to +50°C
Storage temperature range		-40°C to +70°C
Humidity	in line with EN 60068-2-78	95% relative humidity at +40°C, (no condensation)
Electromagnetic compatibility	in line with EMC Directive 2004/108/EC	
Disturbance		EN 55011
Immunity		EN 61326
Safety standards		EN 61010-1, IEC 61010-1, UL 61010-1, CAN/ CSA C 22.2, No. 1010, 1-92
Test mark		VDE-GS, cCSAus
Power supply		100 V to 120 V AC ±10% 220 V to 240 V AC ±10% 50 Hz to 60 Hz ±5%
Power consumption	input switcher	typ. 5 VA, max. 10 VA
	output switcher	typ. 5 VA, max. 15 VA
	output switcher, all channels active	typ. 12 VA, max. 15 VA
Remote control		via RS-232-C
Dimensions	W x H x D	427 mm x 43 mm x 350 mm, 1 HU (16.81 in x 1.69 in x 13.78 in)
Weight		3.7 kg (8.2 lb)

 $^{\scriptscriptstyle 1)}$   $\,$  For max. relay life: max. 5 W or 0.2 A.

 $^{\scriptscriptstyle 2)}~$  Between any two channels into 600  $\Omega.$ 

# **Ordering information**

Designation	Туре	Order No.		
Base unit (including supplied accessories such as power cable, manual, etc.)				
Audio Switcher (input, female)	R&S®UPZ	1120.8004.02		
Audio Switcher (output, male)	R&S®UPZ	1120.8004.03		
Accessories supplied				
Power cable				
Operating and service manual				
RS-232-C extension cable				
Recommended extras				
19" Rack Adapter	R&S®ZZA-111	1096.3254.00		

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\*0.14 €/min within German wireline network; rates may vary in other networks (wireline and mobile) and countries.