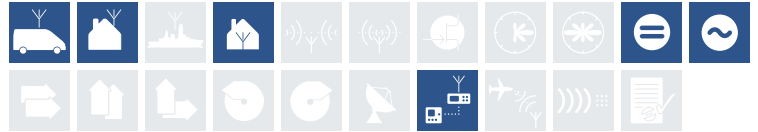


R&S®FU129 ANTENNA FILTER UNIT

Antenna switching, rotator control and signal attenuation, amplification and filtering



The R&S®FU129 antenna filter unit is placed close to the receiving antennas. It comes with an antenna input selector for remote controlled switching of up to six antenna inputs to one output. Unwanted signals, such as those caused by nearby mobile radio base stations or strong sound and TV broadcast transmitters, can be reduced to levels suitable for the connected receiver by applying optional filters. Both strong useful signals and interfering signals can be suppressed.

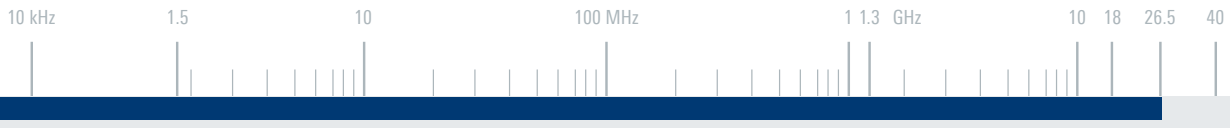
All R&S®FU129 functions are controlled either directly by a control PC (connected to the R&S®FU129 via a LAN cable) or by the tried-and-tested R&S®MSD antenna control unit.

Excellent documentation for both interfaces ensures that end customers and system integrators can easily integrate the R&S®FU129 into customized systems and existing projects.

Key facts

- ▶ 1-out-of-6 antenna input selector
- ▶ Wide frequency range from DC to 26.5 GHz
- ▶ Suitable for outdoor use very close to antennas
- ▶ Integrated rotator control (azimuth and polarization/ elevation)
- ▶ Powerful options:
 - Five selectable attenuators for reducing strong signal levels
 - Two selectable amplifiers for different frequency ranges
 - Up to ten selectable filters with different characteristics
- ▶ DC power supply for active antennas





Specifications

Frequency range		DC to 26.5 GHz
Impedance		50 Ω
Insertion loss of base unit	models .03 and .04 (up to 3 GHz; 3 GHz to 8 GHz) model .03 (8 GHz to 12 GHz; 12 GHz to 26.5 GHz)	≤ 1.0 dB; ≤ 1.4 dB ≤ 1.7 dB; ≤ 3.0 dB
Input VSWR of base unit	up to 6 GHz 6 GHz to 12 GHz 12 GHz to 26.5 GHz	≤ 1.4 ≤ 1.8 ≤ 2.0
Contact switching time		≤ 15 ms
Attenuator option (DC to 26.5 GHz)	without attenuation stages 2 to 6	bypassed 3/6/10/20/40 dB (typ.)
Amplifier option	without amplification: DC to 26.5 GHz amplifier 1: 20 MHz to 8 GHz amplifier 2: 1 GHz to 26.5 GHz	bypassed +14 dB (typ.) +30 dB (typ.)
Filter option	without filter: DC to 26.5 GHz stages 2 to 6 (11): for frequency ranges, see filter type	bypassed attenuation depends on filter
Power supply	AC DC	100 V to 240 V, 50 Hz to 60 Hz 10 V to 30 V
	power consumption, depends on options installed power consumption, with both rotators in operation	25 W to 40 W/25 VA to 40 VA (typ.) 100 W/100 VA (typ.)
MTBF		21 500 h
Permissible temperature range	without direct sun exposure	-40°C to +55°C
Storage temperature range		-40°C to +70°C

Ordering information

	Type	Order No.
Antenna filter unit, DC to 26.5 GHz, SMA connectors	R&S®FU129	3040.3300.03
Antenna filter unit, DC to 8 GHz, N connectors	R&S®FU129	3040.3300.04

Options

Attenuator option (max. 1)	R&S®FU129-ATT	3040.3400.02
Amplifier options		
Bypass	R&S®FU129-A0	3040.3516.02
Amplifier, 20 MHz to 8 GHz	R&S®FU129-A1	3040.3522.02
Amplifier, 1 GHz to 26.5 GHz	R&S®FU129-A2	3040.3539.02
Filter option, for up to five filters (max. 2 filter options can be installed)	R&S®FU129-FIL	3040.3600.02

Filters for filter option

Lowpass filter, DC to 80 MHz	R&S®FU129-F1	3040.3616.02
Lowpass filter, DC to 530 MHz	R&S®FU129-F2	3040.3622.02
Lowpass filter, DC to 3000 MHz	R&S®FU129-F3	3040.3639.02
Highpass filter, 27.5 MHz to 800 MHz	R&S®FU129-F4	3040.3645.02
Highpass filter, 133 MHz to 1 GHz	R&S®FU129-F5	3040.3651.02
Highpass filter, 225 MHz to 3 GHz	R&S®FU129-F6	3040.3668.02
Highpass filter, 910 MHz to 3 GHz	R&S®FU129-F7	3040.3674.02
Highpass filter, 1.9 GHz to 2.7 GHz	R&S®FU129-F8	3040.3680.02
Highpass filter, 2.3 GHz to 5.5 GHz	R&S®FU129-F9	3040.3697.02
Highpass filter, 3.9 GHz to 9.8 GHz	R&S®FU129-F10	3040.3700.02
Highpass filter, 6 GHz to 11.5 GHz	R&S®FU129-F11	3040.3716.02
Bandpass filter, 0.8 GHz to 1.05 GHz	R&S®FU129-F12	3040.3722.02
Bandpass filter, 1.73 GHz to 2.27 GHz	R&S®FU129-F13	3040.3739.02
Bandpass filter, 2 GHz to 2.26 GHz	R&S®FU129-F14	3040.3745.02
Bandstop filter, 88 MHz to 108 MHz	R&S®FU129-F15	3040.3751.02
Other filters and options on request.		
Outdoor DC feed	R&S®FU129-H1	3059.7500.02
Outdoor control box for R&S®HL050S7	R&S®FU129-H2	3059.7600.02
Outdoor SHF preamplifier	R&S®FU129-H3	3059.7800.02
Support of additional rotators	R&S®FU129-ARS	3040.3416.02