

# R&S®SFC

## Compact Modulator

### Test signals for TV and audio broadcasting – compact and cost-effective

The R&S®SFC compact modulator is an economical multistandard signal source offering realtime coding for all established digital and analog TV and audio broadcasting standards.



# At a glance

The R&S®SFC compact modulator is a multistandard signal source that provides realtime support for all established digital and analog TV and audio broadcasting standards.

The 1 HU, ½ 19" instrument is extremely compact and therefore ideal for rack installation in production test systems. Though small in size, the modulator is a full-featured signal generator with integrated transport stream player, audio/video generator and optional noise source, making it very useful for simple applications in development. The R&S®SFC is controlled using a USB mouse, keyboard and monitor, or via LAN using Remote Desktop. It has the same, well-known graphical user interface as the R&S®SFU and R&S®SFE. Remote control via SCPI commands is also possible.

## Highlights

- Highly accurate modulator, with a MER > 40 dB (typ.)
- VHF and UHF frequency range, optionally up to 3 GHz
- Level range from 0 dBm to -31.5 dBm, optionally to -110 dBm
- Transport stream player and audio/video generator
- AWGN generator

# Key features

## Multistandard signal generator with realtime coding

- Digital and analog standards for cable, satellite and terrestrial TV
- Digital and analog audio broadcasting standards
- Realtime signal generation and coding
- Additional standards available as software options

## Integrated baseband signal sources

- Transport stream player
- Transport stream libraries for digital TV standards
- Analog audio/video generator
- Test pattern library for analog TV

## Simple and convenient remote operation

- Local operation using USB mouse, keyboard and monitor
- Remote control and remote operation via LAN

## Optimized for use in production test systems

- Extremely compact housing, ideal for rack installation
- Low power consumption for reduced operating costs
- Compatible with Rohde&Schwarz system control software
- Standalone operation without PC possible

## Additional functions for professional applications

- Integrated AWGN generator
- ASI transport stream input
- Digital I/Q input
- 10 MHz reference input



# Specifications in brief

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<b>RF characteristics</b>		
Frequency range	R&S®SFC base unit	30 MHz to 900 MHz
	with R&S®SFC-K83 option	30 MHz to 3000 MHz
Frequency setting resolution		1 Hz
Level setting range	R&S®SFC base unit	-31.5 dBm to 0 dBm RMS for DVB-T
	with R&S®SFC-K84 option	-110 dBm to 0 dBm RMS for DVB-T
<b>Modulation systems</b>		
Terrestrial TV and mobile TV		DVB-T2
		DVB-T, DVB-H
		DTMB
		CMMB
		T-DMB
		ISDB-T, ISDB-T <sub>tr</sub> , ISDB-T 1 seg.
		ATSC/8VSB, ATSC-M/H
		MediaFLO™
Cable TV		DVB-C2
		DVB-C, ISDB-C
		J.83/B
Satellite TV		DVB-S2
		DVB-S
		DIRECTV
Analog TV		B/G, D/K, I, M/N, L
Digital audio broadcasting		DAB, DAB+
		ISDB-T <sub>SB</sub>
Analog audio broadcasting		AM, FM mono, FM stereo with RDS
<b>Additional functionality</b>		
Transport stream player	file format	TRP, T10, ETI, FLO, MFS, PMS, BIN
Audio/video generator	file format	Rohde&Schwarz proprietary
AWGN	signal-to-noise ratio (SNR)	-30 dB to +60 dB
<b>General data</b>		
Operating temperature range		+5°C to +45°C
Dimensions	W × H × D (without handles)	229 mm × 54.4 mm × 406 mm (9.02 in × 2.14 in × 15.98 in)
Weight		4 kg (8.82 lb)

# Ordering information

Designation	Type	Order No.
Compact Modulator	R&S®SFC	2115.3510.02
<b>Extensions</b>		
Frequency Extension, 30 MHz to 3 GHz	R&S®SFC-K83	2115.5759.02
Electronic Attenuator, 0 dB to 110 dB	R&S®SFC-K84	2115.5736.02
Coder Extension Board	R&S®SFC-B15	2115.5836.02
<b>Modulation systems</b>		
Coder options and signal libraries	Please contact your local Rohde&Schwarz sales office.	

For data sheet, see PD 5214.5910.22 and [www.rohde-schwarz.com](http://www.rohde-schwarz.com)

## Service you can rely on

- | Worldwide
- | Local and personalized
- | Customized and flexible
- | Uncompromising quality
- | Long-term dependability

## About Rohde & Schwarz

Rohde & Schwarz is an independent group of companies specializing in electronics. It is a leading supplier of solutions in the fields of test and measurement, broadcasting, radiomonitoring and radiolocation, as well as secure communications. Established more than 75 years ago, Rohde & Schwarz has a global presence and a dedicated service network in over 70 countries. Company headquarters are in Munich, Germany.

## Environmental commitment

- | Energy-efficient products
- | Continuous improvement in environmental sustainability
- | ISO 14001-certified environmental management system

Certified Quality System  
**ISO 9001**

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