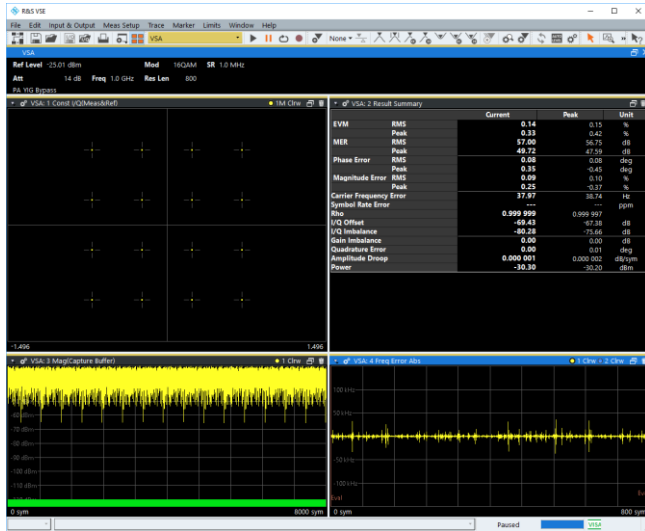


# R&S®VSE-K70 Vector Signal Analysis

## Flexible modulation analysis down to the bit level



### Flexible modulation analysis down to the bit level

The R&S®FSW-K70 option analyzes digitally modulated single-carrier signals down to the bit level. The clearly structured operating concept simplifies measurements despite the wide range of analysis tools.

Numerous standard-specific default settings, including

- User-definable constellations and mappings
- GSM, GSM/EDGE
- 3GPP WCDMA, EUTRA/LTE, CDMA2000®
- TETRA, APCO25
- Bluetooth®, ZigBee
- DECT
- DVB-S2

### Key specifications

- Modulation formats:
- 2FSK, 4FSK
  - MSK, GMSK, DMSK
  - BPSK, QPSK, offset QPSK, DQPSK, 8PSK, D8PSK,  $\pi/4$ -DQPSK,  $3\pi/8$ -8PSK,  $\pi/8$ -D8PSK
  - 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 512QAM, 1024QAM, 2048QAM, 4096QAM
  - 16APSK (DVB-S2), 32APSK (DVB-S2), 2ASK, 4ASK,  $\pi/4$ -16QAM (EDGE),  $-\pi/4$ -16QAM (EDGE), SOQPSK

### Common uses

- Troubleshooting digital transmitters and signal path components
- Analysis of digital modulation signals
- Finding signal errors such as incorrect filtering and spurious emissions
- Equalizer helps in finding the optimum filter design
- Signal transmitter characterization
- Bit error calculation on known data sequences

► For more information,  
see [www.rohde-schwarz.com/product/FPL1000](http://www.rohde-schwarz.com/product/FPL1000)

## Analysis of Bluetooth Low Energy signal



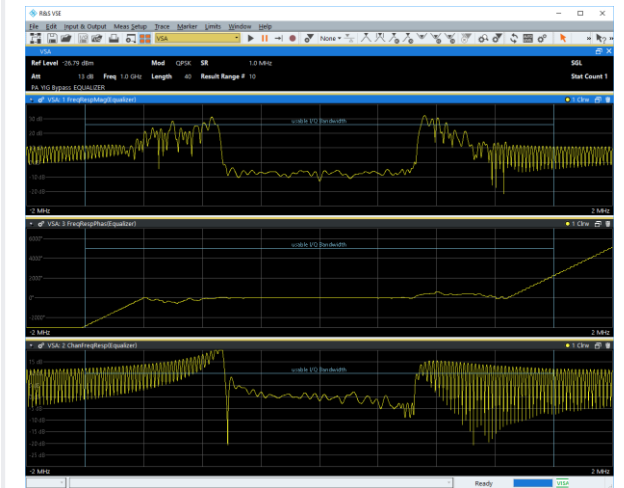
Analysis of a Bluetooth Low Energy signal. FSK modulation with 250 kHz deviation.

## Analysis of a DVB-S2 signal



Analysis of a DVB-T2 signal with the R&S®VSE-K70 VSA. 8PSK modulation with 27.5 MHz symbol rate.

## Characterizing the channel with the equalizer



In-depth analysis of a transmission channel with the built-in equalizer function

## Ordering information

R&S®VSE	VSE base software
R&S®VSE-K70	Vector signal analysis
R&S®FSPC	License dongle
R&S®VSE-SWM	VSE software maintenance
Instruments supported by R&S®VSE-K70 include	
R&S®FPL1003	Spectrum analyzer, 5 kHz to 3 GHz
R&S®ZNL3 (requires option R&S®ZNL-B1)	Vector network analyzer, two ports, 3 GHz

Rohde & Schwarz Representative

## Rohde & Schwarz GmbH & Co. KG

Europe, Africa, Middle East | +49 89 4129 12345  
 North America | 1 888 TEST RSA (1 888 837 87 72)  
 Latin America | +1 410 910 79 88  
 Asia Pacific | +65 65 13 04 88  
 China | +86 800 810 82 28 | +86 400 650 58 96  
[www.rohde-schwarz.com](http://www.rohde-schwarz.com)  
[customersupport@rohde-schwarz.com](mailto:customersupport@rohde-schwarz.com)

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