

R&S®FSC Spectrum Analyzer



Compact and cost-effective spectrum analyzer

- ▶ Performance
 - The R&S®FSC features very good RF performance. Its DANL, TOI and phase noise make it ideal for many standard measurement applications
 - General purpose spectrum analysis presets for spectral characteristics, e.g. harmonics, AM modulation depth and ACLR are included as standard
- ▶ Compact form factor:

The R&S®FSC has the smallest footprint in its class at only 3 HU, ½ 19". It takes up very little space on a bench. Two R&S®FSC analyzers or one R&S®FSC and an R&S®SMC signal generator fit in just 3 HU of rack space
- ▶ Cost-effective:

Total cost of ownership is excellent due to affordable initial and calibration costs, plus very low operating cost with only 12 W power consumption

Model overview

| Model | Frequency range | Preamplifier | Resolution bandwidth | Phase noise | Level measurement uncertainty | DANL | TOI |
|------------------------------------------|-----------------|--------------|----------------------|-----------------------------------------|-------------------------------|----------------------------|----------------------------|
| R&S®FSC3, model .03 (base) | 9 kHz to 3 GHz | optional | 10 Hz to 3 MHz | –95 dBc (1 Hz), typ. –105 dBc (1 Hz) | up to 1 dB, typ. 0.5 dB | –161 dBm, typ. –165 dBm | > +10 dBm, typ. +15 dBm |
| R&S®FSC3, model .13 (tracking gen.) | 9 kHz to 3 GHz | | | | up to 1.5 dB, typ. 0.5 dB | –161 dBm, typ. –165 dBm | > +10 dBm, typ. +15 dBm |
| R&S®FSC6, model .06 (base) | 9 kHz to 6 GHz | | | | up to 1.5 dB, typ. 0.5 dB | –155 dBm, typ. –159 dBm | > +3 dBm, typ. +10 dBm |
| R&S®FSC6, model .16 (tracking generator) | 9 kHz to 6 GHz | | | | up to 1.5 dB, typ. 1 dB | –155 dBm, typ. –159 dBm | > +3 dBm, typ. +10 dBm |

Important facts

| Specification | R&S®FSC | Why this is important |
|----------------------------------|-----------------------|-----------------------------------------------------------------------------------|
| Tracking generator dynamic range | typ. 90 dB | Provides higher dynamic range when performing filter measurements. |
| Phase noise | | |
| 30 kHz | up to –95 dBc (1 Hz) | Lower phase noise enables greater signal detection accuracy close to the carrier. |
| 100 kHz | up to –100 dBc (1 Hz) | |
| 1 MHz | up to –120 dBc (1 Hz) | |

Recommended options/accessories

| Description | Type |
|----------------------------------------------|-------------|
| Preamplifier for spectrum analyzer | R&S®FSC-B22 |
| 19" rackmount kit for two R&S®FSC | R&S®ZZA-T33 |
| 19" rackmount kit for one R&S®FSC | R&S®ZZA-T34 |
| Headphones | R&S®FSH-Z36 |
| Near-field probes, 30 MHz to 3 GHz | R&S®HZ-15 |
| Preamplifier for R&S®HZ-15, 100 kHz to 3 GHz | R&S®HZ-16 |

