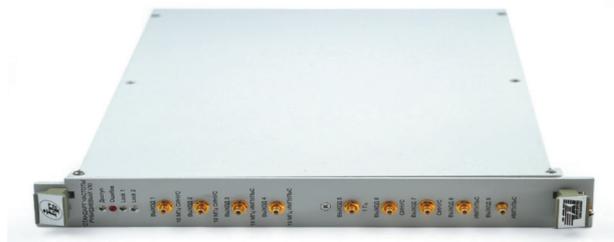


## Rubidium frequency standard **RFS VXI**

RFS VXI is designed to be used as a highly stable laboratory signal source for calibration of generator devices, time-frequency measuring equipment and other equipment, and synchronization of navigation systems.



RFS VXI is designed to work as part of information measuring systems based on the VXI bus as a rubidium frequency standard.

RFS VXI contains two independent rubidium reference oscillators: primary and backup.

RFS VXI is made in the VXI standard, is a register-based device and has the dimensions of C-1.

RFS VXI implements the "Self-control" mode, which consists in checking the output frequencies of the rubidium standard.

### Specifications

Formation and software on / off of the following highly stable and high-precision frequencies from the main block of the rubidium generator, depending on the modifications	Formation and software on / off of the following highly stable and high-precision frequencies from the backup block of the rubidium generator, depending on the modifications						
<table border="1"> <thead> <tr> <th>Designation</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>RFS VXI</td> <td>10 MHz, 1 Hz</td> </tr> <tr> <td>RFS VXI-01, RFS VXI-02, RFS VXI-03, RFS VXI-04</td> <td>10 MHz</td> </tr> </tbody> </table>	Designation	Frequency	RFS VXI	10 MHz, 1 Hz	RFS VXI-01, RFS VXI-02, RFS VXI-03, RFS VXI-04	10 MHz	Amplitude: <ul style="list-style-type: none"> <li>from 0.5 to 0.8 V at a load of 50 Ohms for sinusoidal signals (RMS value),</li> <li>2.5 to 3.5 V for pulse TTL signals and 1 Hz pulse with a duration of not more than 1.5 <math>\mu</math>s</li> </ul>
Designation	Frequency						
RFS VXI	10 MHz, 1 Hz						
RFS VXI-01, RFS VXI-02, RFS VXI-03, RFS VXI-04	10 MHz						
Phase Noise: <ul style="list-style-type: none"> <li>at a detuning of 10 Hz - 100 dBc;</li> <li>at a detuning of 100 Hz - 125 dBc;</li> <li>at a detuning of 1000 Hz - 145 dBc</li> </ul>	Root mean square relative two-sample frequency deviation during the measurement time (no more): <ul style="list-style-type: none"> <li><math>\pm 2 \times 10^{-11}</math> for 1 s;</li> <li><math>\pm 1 \times 10^{-11}</math> for 10 s;</li> <li><math>\pm 2 \times 10^{-12}</math> for 100 s</li> </ul>						
Average relative frequency change per day ( $\Delta$ ): no more than $\pm 5 \times 10^{-12}$	Relative error in frequency upon release from production no more $\pm 1 \times 10^{-11}$						
Spurious generation: no more than -55 dBc	Relative error in frequency for a year no more $\pm 2 \times 10^{-9}$						