Frequency Distribution Amplifier VCH-605

vremya-ch.com/index.php/en/products-en/signgen-en/vch-605-en/index.html

Frequency distribution amplifier is designed for ultra-low-noise distribution of sinusoidal signals 1–100 MHz with unity gain. It allows checking for signals availability via RS-232 interface. The basic model has 3 inputs / 12 outputs (3 modules 1 / 4). For the information about possible modifications, please contact us.

Key applications:
– time and frequency high precision measurement systems;
– time and frequency etalon systems.

Manual for VCH-605
– Operational Manual download

Specifications

Input signals: sinusoidal 1–100 MHz.
Maximal power of the input signals: 17dBm.

Amplifier gain: (0±1) dB.

All characteristics presented below are guaranteed for sinusoidal signals 5±0.00005, 10±0.0001, 100±0.001 MHz and RMS input voltage 1±0.1 V at 50 Ohm

Isolation between channels no more, than the values in the table

	Signal frequency		
	5 MHz	10 MHz	100 MHz
Output/Output	−120 dB	−120 dB	−100 dB
Input/Output	−120 dB	−120 dB	−100 dB
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Harmonic distortions introduced by the amplifier no more than –40 dB at 5, 10 MHz and no more –35 dB at 100 MHz.

Allan deviation 1 sec introduced by the amplifier is no more than $4.0 \cdot 10^{-14}$.

Ultra low phase noise (single-side power spectral density) added by the amplifier is no more than the values in the table

	Signal frequency		
Frequency offset	5 MHz	10 MHz	100 MHz
1 Hz	−141 dBc/Hz	−141 dBc/Hz	−130 dBc/Hz
10 Hz	−150 dBc/Hz	−150 dBc/Hz	−145 dBc/Hz
100 Hz	−155 dBc/Hz	−155 dBc/Hz	−150 dBc/Hz
1 kHz	−161 dBc/Hz	−161 dBc/Hz	−155 dBc/Hz
10 kHz	−163 dBc/Hz	−163 dBc/Hz	−160 dBc/Hz

Temperature coefficient no more than 5 ps/°C.
Power supply: AC (100÷240) V, (50÷60) Hz; DC (22÷30) V.
Power consumption is no more than 45 V·A (for AC) and no more than 40 W (for DC).
Status information is available via RS-232 interface.
Weight is no more than 4 kg.
Dimensions: 310.0×483.0×44.0 mm (1 U)