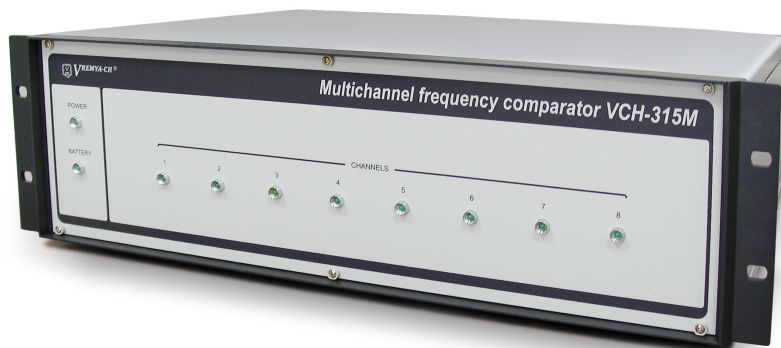


# Multichannel Frequency Comparator VCH-315M

 [vremya-ch.com/index.php/en/products-en/freq-comparators-en/vch-315m-en/index.html](http://vremya-ch.com/index.php/en/products-en/freq-comparators-en/vch-315m-en/index.html)



Multichannel Frequency Comparator VCH-315M  
Multichannel frequency comparator VCH-315M is intended for precise phase and frequency instability measurements. It contains 8 identical measuring channels and performs synchronous high precision phase and frequency comparison of 5, 10 and 100 MHz signals,

which allows using cross-correlation methods for instability estimation. Each channel includes two inputs for measured signals (“fx” and “fy”).

## Key applications

- verification of metrological parameters of precision frequency signals sources;
- time and frequency etalon systems;
- computed control measurement systems;
- scientific research measurements.

Device control, collecting and display of measurement results are carried out by computer using RS-232, USB or LAN interfaces.

## Manual for VCH-315M

- Operational Manual download
- User Guide download

## Specifications

**Input signals:** 5, 10 or 100 MHz nominal frequency, (0.8–1.2) V into (50±1) Ohm load.

**Maximal measured relative frequency difference:**  $\pm 5.0 \cdot 10^{-9}$

**Noise passband:** 3 Hz.

Frequency instability, introduced by multichannel frequency comparator VCH-315M (at zero frequency difference between input signals, and on condition of temperature changing not more than  $\pm 1,0$  °C per hour within the operating temperature range), is displayed in the table:

**Frequency instability, noise floor \***

Averaging interval	1 channel mode (ADEV)	2 channel mode (cross-ADEV)
1 s	$6.0 \cdot 10^{-14}$	$2.0 \cdot 10^{-14}$
10 s	$2.0 \cdot 10^{-14}$	$3.0 \cdot 10^{-15}$
100 s	$3.0 \cdot 10^{-15}$	$1.0 \cdot 10^{-15}$
1 hour	$3.0 \cdot 10^{-16}$	$2.0 \cdot 10^{-16}$
1 day	$1.0 \cdot 10^{-16}$	

\*Specified under condition: ambient temperature changing rate <1 °C/hour.

**Power:** AC (220±22) V, (50±2) Hz, or DC (22–30) V.

**Power consumption** is not more than 40 VA (for AC) and not more than 35 W (for DC)

**Weight** is not more than 12 kg.

**Warranty:** 3 years.

**Dimensions (W×H×D):** 133.0×483.0×325.0 mm.

