

Comparison of frequency comparators

Features	CHK7-51	CHK7-1012	CHK7-1014	CH7-1015
Frequency of measured signals				
10,24 MHz	-	on the PC	on the PC	+
10 MHz	+	on the PC	+	+
5 MHz	+	on the PC	+	+
2,048 MHz	-	on the PC	on the PC	+
1 MHz	-	on the PC	+	+
Frequency of reference signal				
10 MHz	-	+	+	+
5 MHz	+	+	+	+
Characteristics to be measured				
Relative frequency deviation	+	on the PC	+	+
Average frequency deviation	+	on the PC	+	+
Drift	+	on the PC	+	+
Standard deviation	+	on the PC	+	+
Allan variance	+	on the PC	+	+
Max value	-	on the PC	on the PC	+
Min value	-	on the PC	on the PC	+
Scatter	-	on the PC	on the PC	+
Median value	-	-	-	+
Hadamard variance	-	-	-	+
Voltage of input signals	-	-	-	+
Noise analysis	-	on the PC	on the PC	on the PC
Presentation of measurement results				
The calculation of the statistical characteristics of the array measurements in real time	-	on the PC	on the PC	+
Tabular presentation of measurement results	-	on the PC	on the PC	+
Graphical display of measurement results:	-	on the PC	on the PC	+
A plot of the frequency deviation of the time	-	on the PC	on the PC	+
A plot of the Standard deviation and Allan variance of the time	-	on the PC	on the PC	+
Measurement distribution histogram	-	on the PC	on the PC	+
Possibilities of export measurement results				
To Stable32 software format (Hamilton Technical Service)	-	on the PC	on the PC	+
To Shorttime software format (JSC RUKNAR)	-	on the PC	on the PC	+
Possibility of forming a measurement protocol				
In the text format	-	-	-	+
In the PDF format	-	-	-	+
Capabilities of control				
Remote control of all operating modes of the device	full (IEEE-488)	-	-	full (TCP/IP)
Local control of all operating modes of the device	buttons	on the PC	buttons	capacitive touch screen
Information display	LCD, one string	on the PC	LCD, four strings	FullHD, AMOLED
Remote desktop on Windows PC , Linux PC and others	-	-	-	via VNC technology
The ability to switch the interface language (Russian / English)	-	-	-	+
Possibilities of the device without involving an external PC				
Averaging time				
1s	+	-	+	+
10s	+	-	+	+
100s	+	-	+	+
1000s	-	-	+	+
3600s	-	-	+	+
1day	-	-	+	+
Accumulation mode feature	-	-	+	+
The volume of the array of measurements, values	3 .. 99	-	5,10,30,50,100	3 .. 10000
Saving protocols and measurement results in the device memory	-	-	-	+
Automatic fixing of the date and time of measurements	-	-	-	+
Built-in database of popular frequency standards (only in Russian interface)	-	-	-	+
Electrical and metrological characteristics				
Max frequency deviation of measured signals	$\pm 1,0E-06$	$\pm 1,0E-06$	$\pm 1,0E-06$	$\pm 1,0E-06$
The error of measuring of relative frequency deviation (@ averaging time 1s):				
1 MHz	-	8,0E-12	8,0E-12	5,0E-12
2,048 MHz	-	8,0E-12	8,0E-12	5,0E-12
5 MHz	1,0E-11	2,0E-12	2,0E-12	1,2E-12
10 MHz	1,0E-11	1,0E-12	1,0E-12	8,0E-13
10,24 MHz	-	8,0E-12	8,0E-12	5,0E-12
Voltage of input signals, V @ 50 Ohm loading	0,7 - 1,3	0,4 - 1,2	0,4 - 1,2	0,4 - 1,2
Voltage of power supply , V	220 / +27	220 / +27	220 / +27	220
Power consumption, VA	40	20	30	30
Size, mm	459x308x129	215x130x45	150x200x80	330x255x110
Weight, kg	10,5	0,8	1,3	3.1

"On the PC" means a frequency comparator connected to a PC with Shorttime software (JSC "RUKNAR")