

Oscilloscopes

Bench Type



72-8725 Technical Specification (4 Channels) :

Sample Range		
Sample Method	Real Time	Equivalent
Sample Rate	2 GS / s	50 GS / s
Average	All the channel achieve to sample rate at N times , N times can select on 2, 4, 8, 16, 32, 64, 128 and 256	

Input	
Input Coupling	DC, AC or Grounding (AC, DC, GND)
Input Impedance	1 M Ω $\pm$ 2% and 16 $\pm$ 3pF
Probe Attenuates Coefficient Setting	1 $\times$, 10 $\times$, 100 $\times$, 1,000 $\times$
Maximum Input Voltage	400 V (DC + AC Peak, 1 M Ω input impedance)
Channel Time Delay (Typical)	150 ps

Horizontal	
Interpolation	Sin (x) / x
Records Length	1024 k
Storage Depth	24 k (Max)
Equivalent Storage Depth (double time base)	60 M pts
Scan Range (s / div)	1 ns / div - 50 s / div (300 MHz) 2 ns / div - 50 s / div (200 MHz, 150 MHz) 5 ns / div - 50 s / div (100 MHz) Press 1 - 2 - 5 enter
Sampling Range and Delay Timing Accuracy	$\pm$ 50 ppm (Any One $\geq$ 1 ms time interval)
Time Interval (Δ T) Accuracy (Full bandwidth)	Single Time : $\pm$ (1 sampling time interval + 50 ppm $\times$ Reading + 0.6 ns) >16 mean Value : $\pm$ (1 sampling time interval + 100 ppm $\times$ Reading + 0.4 ns)

Vertical				
Model Number				72-8725
A / D Converter (A / D)	8 bits resolution			
Deflection Factory (V / div)	2 mV / div - 5 V / div (at the input BNC)			
Position Range	±5 div			

www.element14.com
www.farnell.com
www.newark.com
www.cpc.co.uk
www.mcmelectronics.com



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Vertical				
Analogue Bandwidth				100 MHz
Single Bandwidth				100 MHz
Selectable Bandwidth Limit (Typical)	20 MHz			
Low Frequency Response (AC Coupling, -3 dB)	≤10 Hz (at BNC Above)			
Rising Time				≤ 3.5 ns
DC Gain Accuracy	At 2 mV / div ±4% (sampling or mean value sampling method); Vertical accuracy is 5 mV / div -5V / div : ±3 % (sampling or mean value sampling method)			
DC Measurement Accuracy (mean value sampling method)	Vertical position is zero, also $N \geq 16 : \pm (5\% \times \text{Reading} + 0.1 \text{ mV})$, select 2 mV / div $\pm (3\% \times \text{Reading} + 1 \text{ mV})$ and select 5 mv / div - 5 V / div. Vertical position is not zero, then $N \geq 16 : \pm [3\% \times (\text{Reading} + \text{Vertical position reading}) + (1\% \times \text{Vertical position reading})] + 0.2 \text{ div}$ Setting from 5 mV / div to 200 mV / div add 2 mV; setting > 200 mV / div to 5 V / div and add 50 mV			
Voltage Difference (Δ V) accuracy (mean value sampling method)	Under the same setting and environment, the Obtained ≥16 waveforms after getting mean value, the Voltage difference (ΔV) : ±(3% × Reading + 0.05 div)			
Trigger				
Trigger Sensitivity	≤ 1 div			
Trigger Level Range	Internal	Display Centre ±8 div		
	EXT	800 mV		
	EXT / 5	4 V		
Trigger electric level accuracy (typical) accuracy is applicable to rising and failing ≥20 ns signal	Internal	± (0.3 div × V / div) (within display centre ±4 div range)		
	EXT	±(6% setting value +40 mV)		
	EXT / 5	±(6% Setting Value +200 mV)		
Pre-Trigger Capability		Normal mode / Scan mode, Pre-trigger / delayed by time trigger; Pre-trigger depth is adjustable		
Release Range		96 ns - 1.5 s		
Set electric level to 50% (Typical)		Input frequency signal ≥50 Hz		
Edge Triggering				
Edge Type	Rising, Falling, Rising and Falling			
Glitch Trigger				
Trigger Mode	(Higher, lower or equal) forward pulse, (higher, lower, equal) backward pulse			
Pulse Range	20 ns - 10 s			
Video Triggering				
Trigger sensitivity (video trigger , typical)	Internal	2 div		
	EXT	400 mV		
	EXT / 5	2 V		
Signal Mode	Support NTSC and PAL, line range 1 - 525 (NTSC) and 1-625 (PAL)			



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Triggering Frequency		
Reading Determination	6 Digits	
Accuracy	±51 ppm	
Frequency Range	AC coupling, from 10 Hz to full	
Trigger Type	Edge / Pulse	
Measurement		
Cursors	Manual made	Cursor voltage difference (ΔV), cursor time difference (ΔT)
		ΔT Reverse reading (Hz) (1 / ΔT)
	Chase Mode	The Voltage Value and time value of waveform point
Automatic Measurement		Peak to peak, maximum, minimum, top, bottom, mean, RNS, overshoot, pre shoot, frequency, period, rising falling, positive pulse, negative pulse, positive duty cycle, delay time and etc..
Mathematics		Add, Subtract, Multiply, Divide
Storage Waveform		10 waveforms, 10 setting
FFT	Window	Hanning, Hamming, Blackman - Harris, Rectangular
	Sampling Point	1024 Pts
X - Y Phase difference	Phase difference	±3 Degrees
Multimeter Function		
DC Voltage	Range	: 400 mV, 4 , 40, 400 V
	Accuracy	: ± (1% + 5 Digits)
AC Voltage (40 Hz ~ 400 Hz)	Range	: 400 mV, 4 V, 40 V, 400 V
	Accuracy	: ± (1.2% +5 Digits)
Resistance	Range	: 400 Ω, 4 kΩ, 40 kΩ, 400 kΩ, 4 MΩ, ,40 MΩ
	Accuracy	: ± (1.5% + 5 Digits)
Continuity Buzzer	< 70 Ω	
Diode	Positive decline 0.5 to 0.8 V	
DC Current	Range	: 4 mA, 40 mA, 400 mA
	Accuracy	: ± (1%+5 Digits)
	Range	: 4 A
	Accuracy	: ± (1.5% +5 Digits)
Display		
Display Type	5.7 inch LCD display	
Display Resolution	320 × RGB × 240 (TFT)	
LCD	Colour	
Backlight	300 nit	
Language Support	Chinese, English	
Voltage Output (Typical)		About 3 V, Peak value ≥1 MΩ
Frequency (Typical)		1 kHz

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Ports	
Standard	1 × USB DEVICE 1 × USB HOST Multimeter Host
Optional	GPIB and LAN

Power	
Power Voltage	100 -240 V ac RMS, 45 - 440 Hz, CAT II
Power Consumption	Less than 50 VA
Fuse	F1.6 AL 250 V Locate and nearly In power socket

Environment	
Temperature	Operating Environment : 0°C to +40°C
	Non-Operating Environment : -20°C to +60°C
Cool Down Method	Auto cool down
Temperature	+10°C to +30°C : ≤95% ±5% RH
	+30°C to +30°C : ≤75% ±5% RH
High Temperature	+10°C to +30°C : ≤95% ±5% RH
	+30°C to +30°C : ≤75% ±5% RH
High Temperature	Operating 3,000 *
	Non-Operating 15,000 *

Specification		
Size (For Reference only)	Widen	336 mm
	Height	177 mm
	Depth	147 mm
Weight (Gross Weight)	Weight without gift box	3.8 kg
	with Gift Box	6.5 kg

IP Protection	IP2X
Calibration Period	One Year (Recommendation)

Part Number Table

Description	Part Number
DSO, 100 MHZ, 4 CH, 2 GS / S, 1024K PTS	72-8725

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