

FC-7150U / FC-7150

UNIVERSAL / FREQUENCY COUNTER



FC-7150U

FC-7150U Universal Counter

- Frequency measuring range : 0.1Hz~100MHz in A,B input
80MHz~1.5GHz in C input(7150U only)
- Trigger level adjustment for input A
- Separate and Common mode selectable for input A and B
- Period and Total measurement for input A
- Time interval and Ratio measurement for input A and B
- Slope mode selectable for input A and B

FC-7150 Frequency Counter

- Frequency measuring range : 0.1Hz~100MHz in A,B input, 80MHz~1.5GHz in C input(7150 only)
- Period measurement for input A
- Total measurement for input A
- RPM measurement for input A

FEATURES

- 9 Digit display with 0.01mHz resolution in 1sec
- RS-232C serial interface for communication with computer(Optional)
- High sensitivity external reference input function ($\geq 20\text{mVrms}$)
- Microprocessor controlled
- Reciprocal technique for high resolution at low counting frequencies
- Self check function executed to perform an automatic self diagnosis of various counter function
- Push – scanning for selecting function and gate time
- Low – pass filter(100kHz, -3dB)installed for removing noise signal in low frequency measuring
- AC/DC coupling function(Selectable X1/X10 Attenuator)
- Data-Hold function

Specifications

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SPEC	MODEL	FC-7150U	FC-7150
Frequency Measurement	Display	9digit large green LED display (Overflow, Gate time, mHz, kHz, MHz, μ s, ms, s, Hold)	
	Range	0.1Hz~1.5GHz	0.1Hz~1.5GHz
	Gate time	0.01sec, 0.1sec, 1sec, 10sec	
	Resolution	1nHz ~ 10Hz	
	Accuracy	$\pm$ Resolution $\pm$ timebase error $\pm$ 1 count	
Input Characteristics	Terminal	A, B, C	A, C
	Sensitivity	A, B input : 20mVrms, C input : 30mVrms	
	Impedance	A, B input : 1M Ω <40pF, C input : 50 Ω	
	Max. Voltage	A, B input : 250Vrms, C input : 3Vrms	
	Attenuator	A, B input : $\times 1$, $\times 10$	
	Slope A, B	+, - selectable	
	Trigger A	Preset or Variable	
	L.P.Filter	A,B input : 100kHz, -3dB	
Multi Function for Input A	Period	Range : 10ms ~ 10s, Resolution : 1ps ~ 1ns Accuracy : $\pm$ Resolution $\pm$ Trigger Error $\pm$ 1 count	
	Totalize	Range : 5Hz ~ 30MHz, Count capacity : 0 ~ 999999999(Max)	
	RPM	-	6 ~ 900 $\times 10^6$ RPM
Comparison Function for Input A, B	Time Interval(A $\rightarrow$ B)	Range : 0.1 μ s ~ 10s LSD Display : 100ns Resolution : $\pm$ LSD $\pm$ Trigger Error Accuracy : $\pm$ Resolution $\pm$ 1 count	
	Ratio(A / B)	Range : A input : 0.1Hz ~ 10MHz B input : 0.1Hz ~ 10MHz LSD Display : A $\times$ N / B, N = 1~1000 Accuracy : $\pm$ 1count of A $\pm$ B Trigger Error $\pm$ A	
Time Base Characteristics	Internal Time base	- Frequency : 10MHz TCO(TCXO : Option) - Aging Rate : $< \pm 5 \times 10^{-6}$ / month - Temperature Stability : $< 5 \times 10^{-6}$ (0~+50 $^{\circ}$ C) - Line Voltage : $< 1 \times 10^{-6}$ for 10% variation	
	Frequency Output	Frequency : 10MHz, Amplitude : 2.5Vp-p, Impedance : Approx. 500 Ω	
	External Input	Frequency : 10MHz, input level : 20mV ~ 5Vrms, Impedance : Approx. 500 Ω	
General	Power Requirement	AC115 / 230V $\pm 10\%$ (50 / 60Hz)	
	Operating Temperature	0 ~ 40 $^{\circ}$ C (specified at 25 $^{\circ}$ C $\pm 5^{\circ}$ C)	
	Dimension	240(W) $\times$ 270(D) $\times$ 90(H)mm	
	Weight / Accessories	Approx. 2.5kg / Power cord, BNC cable, Fuse, Operator's manual	