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Manufacturer : Matrix

The function generator MFG series are reliable devices that generate frequencies up to 3 MHz (**MFG-8216A-1**) and up

to 5 MHz (**MFG-8255A-1**). Typical application are: testing response of audio circuits, vibration testing, checking control systems with servomechanisms, ultrasonic systems, etc.

The generators generate the following functions: logarithmic and linear for time base (**MFG-8255A-1**) and have built-in frequency meter. Trigger function facilitates finding speakers resonance points, filtering mains and other circuits interferences. Built-in frequency meter can measure and display frequency of external signals up to 100 MHz.

#### Features:

- 6-digit LED display
- low distortion waveforms (sine, triangle and square) and ramp waveform
- output signal in 7 ranges, 0,5 Hz to 5 MHz for **MFG-8255A-1**, 0,3 Hz to 3 MHz for MFG-8216A-1
- adjustable trigger point and base time width, both inlinear and logarithmic mode (**MFG-8255A-1**)
- Duty-Cycle control with reverse function
- frequency external voltage control (VCF)
- AM or FM internal or external modulation (**MFG-8255A-1**)
- second output for TTL or CMOS pulses
- 50 W main signal output with DC offset and 20 dB amplification function

Model:	<b>MFG-8216A-1</b>	<b>MFG-8255A-1</b>
AM/FM		x
Time base		x
Frequency meter int/ext	x	x
Output GCV (0,2-2V)	x	x

TTL/CMOS	x	x
VCF	x	x
Duty-cycle control	x	x
Characteristics:		
Frequency range	0,3 Hz ~ 3 MHz	0,5 Hz ~ 5 MHz
Amplitude	≥10Vpp (on 50 Ω)	
Attenuation	-20 dB ± 1 dB x 2	
Impedance	50Ω±10%	
Offset	<-5V ~ >5V (on 50 Ω)	
Adjustable duty-cycle	80% : 20% : 80% at 1 MHz	
Sine waveform:		
Distortions	≤1%, 0,3 Hz ~ 200 kHz	
Flatness	<0,3 dB, 0,3Hz~300kHz <0,5dB, 300kHz~3MHz	≤0,3 dB, <500kHz ≤1 dB, <5MHz
Triangle waveform:		
Linearity	≥98%, 0,3Hz~100kHz ≥95%, 100kHz~3MHz	≥98%, 0,5Hz~100kHz ≥95%, 100kHz~5MHz
Square wave:		
Symmetry	±2%, 0,3Hz~100kHz	±2%, 1Hz~100kHz
Rise/fall time	≤100ns	≤50ns
Frequency meter:		
Range	0,3 Hz~3MHz	0,5 Hz~5 MHz (5 Hz ~ 100 MHz ext.)
Input impedance	1 MΩ / 150 pF	
CMOS output:		
Level	4 Vpp ±1 Vpp ~ 14.5 Vpp ± 0,5 Vpp adjustable	
TTL output:		
Level	≥3Vpp (20 TTL load)	
VCF output:		
Input volt.	0 V ~ 10 V ±1V (100:1), impedance 10 kΩ	
Time base trigger:		
Time	0,5 s ~ 30 s adjustable	
Supply	: 115 / 230VAC ± 15%, 50 / 60 Hz	
Dimensions	: 251x 91x 291mm	
Weight	: approx 2,2 kg	

**Standard equipment:**

- mains power cable
- 2 test cables with BNC connector