



## Function generator

## 3MHZ AM-FM

- sine square pulse triangle TTL CMOS
- Frequency: 0.01Hz to 3.3 MHz
- Variable DC offset . Duty control
- Output overload protection
- AM / FM modulation, int/ext. lin/log
- Built-in 6 digits counter int/ext
- 3 step attenuators -20dB



REF	GFG8219
WAVEFORMS	sine - square - pulse - triangle
	TTL - VCF - AM - FM
FREQUENCY	0.01Hz to 3.3 MHz 7 ranges
RANGES	x1 x10 x100Hz x1 x10 x100kHz x1MHz
VARIABLE	from 0.01 to 3.3
PRECISION	Same as the precision of the counter
OUTPUT VOLTAGE	20 Vpp into 600 $\Omega$ 10Vpp into 50 $\Omega$
FIXED ATTENUATORS	2 attenuators -20dB ± 1 dB
VARIABLE CONTROL	Continuously variable from 0 to -20dB
OUTPUT IMPEDANCE	50 Ω ± 10%
OVERLOAD PROTECTION	Protected against all short circuits, also permanents short circuits
OFFSET	Continuously variable from -10V to +10V into $600\Omega$
DUTY	Variable 20% to 80% - Calibrate to 50%
TTL OUTPUT	± 3VPP . Rise time < 25ns Load: 20TTL gates
CMOS OUTPUT	Adjust 4 to 14.5Vcc. Rise time < 120ns
VCF	$\Delta f/f = 1/100$ for a voltage step of 10VDC
GCV	signal 0 to 2V image of modulation signal
DISTORSION	<u> </u>
SINUS	1% from 0.3Hz to 200kHz.
TRIANGLE	Linear and symetry > 98% from 0.1Hz to 100kHz
	>95% after
SQUARE	Rise time < 100ns into $50\Omega$
	Symetry: 2% from 0.3Hz to 100kHz
INTERNAL SWEEP	
SWEEP RATE	Variable from Δf/f 1/1 to 1/100 / Lin & log
SWEEP TIME	Continuously variable from 0.5 to 30s
AMPLITUDE MODULATION	Depth of modulation: 0 to 100 %
CARRIER BANDWITH	100 Hz to 3 MHz ( to - 3dB)
INTERNAL AM MODULATION	By an internal signal 400 Hz
EXTERNAL AM MODULATION	By external signal from DC to 1MHz < 10Vpp for 100%
	of depth. Input on the rear panel
FREQUENCY MODULATION	
DEVIATION	0 to 5%
INTERNAL FM MODULATION	By an internal signal 400 Hz
EXTERNAL FM MODULATION	By ext signal DC-20kHz < 10Vpp for 10% mod.
COUNTER	6 DIGITS
MODE	Internal & external BNC on the rear panel
FREQUENCY RANGES	Intern 0.01Hz to 3.3MHz. Ext. 0.01Hz to 150MHz
SENSITIVITY	35mV from 5Hz to 100MHz- 45mV after
INPUT IMPEDANCE	1MΩ // 150 pF
PRECISION / TIME BASE	Time base precision $\pm 1$ digit $/ \pm 10$ ppm (23°C after 30mn)
SUPPLY	115 - 230 VAC 50/60Hz
DIMENSIONS / WEIGHT	251 x 91 Depth 291mm. Weight 2.2kg