

30MHz Arbitrary Function Generator



FEATURES

- * 30MHz Direct Digitally Synthesized Source
- * 20mHz Frequency Resolution
- * ± 10 ppm Frequency Accuracy
- * 12 Bit, 5M Sample/S Arbitrary Waveforms
- * Internally Synthesized FM, AM and Phase Modulation (PSK)
- * Linear and log Sweeps
- * Arbitrary Modulation
- * Standard Interface : RS-232C
- * IEEE-488 Interface (SFG-830G)

SFG-830/SFG-830G

SPECIFICATIONS	
OUTPUT FUNCTION	SINE, TRIANGLE, RAMP, SQUARE, SYNC OUTPUT, ARBITRARY WAVE
FREQUENCY RANGE	Sine 20mHz ~ 30MHz Square 20mHz ~ 30MHz Triangle 100mHz ~ 100kHz Ramp 100mHz ~ 100kHz
FREQUENCY RESOLUTION	Sine 20mHz Square 20mHz Triangle 10mHz Ramp 10mHz
FREQUENCY ACCURACY	± 10 ppm
FREQUENCY AGING	± 5 ppm/year
OUTPUT IMPEDANCE	Source Impedance 50 Ω \pm 10%
AMPLITUDE	Range 10mV ~ 10Vpp (into 50 Ω) 8 amplitude range, Vac peak + Vdc \leq 5V Resolution 3 digits Accuracy ± 0.5 dB (± 5 mVrms)(sine out) ; $\pm 12\%$ (± 5 mVrms)(square out) ; $\pm 5\%$ (± 5 mVrms)(triangle out) ; $\pm 5\%$ (± 5 mVrms)(arbitrary out)
DC OFFSET	Range ± 5 V (into 50 Ω), Vac peak + Vdc \leq 5V Resolution 3 digits Accuracy $\pm 1.5\%$ of setting + 1mV
SYNC OUTPUT	Sync Output TTL levels Sync Fan-Out > 10 TTL load
SINE OUTPUT	Harmonics DC ~ 100kHz : -50dBc, 0.1M ~ 1MHz : -40dBc 1M ~ 10MHz : -30dBc, 10M ~ 30MHz : -25dBc
SQUARE OUTPUT	Rise/Fall Time ≤ 15 nS Overshoot $\leq 5\%$ (at full scale output) Asymmetry $\pm 1\%$ of period + 4nS
TRIANGLE AND RAMP	Linearity $\pm 0.1\%$ of full scale output

ARBITRARY WAVEFORMS

Sample Rate	42.949600MHz / N, N = 8, 10, 12.....2 ¹⁵
Waveform Length	12000 points max
Vertical Resolution	12 bits

SWEEP

Sweep Functions	LIN or LOG
Sweep Range	20mHz ~ 30MHz
Sweep Time	0.01S ~ 1000S

MODULATION

AM Modulation Function	External, internal(sine, triangle, ramp, square)
Modulation Rate	10mHz~10kHz(internal)50kHz max(external)
Modulation Span	0 ~ 100%
Ext Input	± 5 V for 100% modulation
Ext Input Impedance	100k Ω
FM Modulation Function	Sine, triangle, ramp, square
Modulation Rate	10mHz ~ 10kHz
Modulation Span	30MHz (100kHz for triangle, ramp)
PM Modulation Span	360 Degrees
Modulation Rate	20mHz ~ 10kHz

INTERFACE

Standard : RS-232C
 Arbitrary waveform composer software (for windows) SFG-S1
 GPIB Interface (SFG-830G)

POWER SOURCE

AC100V/120V/220V/240V $\pm 10\%$, 50/60Hz

ACCESSORIES

Instruction Manual x 1, Power cord x 1, GTL-110 x 1

DIMENSIONS & WEIGHT

214(W) x 89(H) x 370(D) mm, Approx. 6.5kg

ORDERING INFORMATION

SFG-830	30MHz Arbitrary Function Generator with RS-232C Interface
SFG-830G	30MHz Arbitrary Function Generator with GPIB Interface