The SFG-830 Series 30MHz Arbitrary Function Generator is one of the most versatile and highly qualitative signal generators utilizing DDS techniques. It not only offers the standard functions of ordinary generators, but also provides the accurate modulations, sweep, and arbitrary waveform generation. The free editing software allows professionals obtain, edit, or create frequency and amplitude characteristics as desired thru interfaces of RS-232 or GPIB (available only in SFG-830G). The SFG-830 is suited to simulate all of the signal conditions encountered including both ideal and anomalies. For applications such as product design, manufacturing testing, automotive, and sensor stimulation, SFG-830 is the best solution provider for generating arbitrary waveforms.

SFG-830/SFG-830G (30MHz)

CE | RS-232 | GPIB | PC Software | LabVIEW Driver

FEATURES

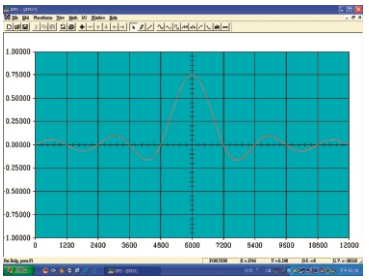
* 30MHz Direct Digital Synthesized Source
* 20mHz Frequency Resolution
* ±10ppm Frequency Accuracy
* 12 Bit, 5M Sample/S Arbitrary Waveforms
* Internally Synthesized FM , AM and Phase Modulation (PSK)
* Linear and log Sweeps
* Arbitrary Modulation
* Standard Interface : RS-232C
* GPIB Interface (SFG-830G)

SPECIFICATIONS	
OUTPUT FUNCTION	
	SINE, TRIANGLE, RAMP, SQUARE, SYNC OUTPUT, ARBITRARY WAVE
FREQUENCY RANGE	
Sine **Square** **Triangle** **Ramp**	20mHz ~ 30MHz 20mHz ~ 30MHz 100mHz ~ 100kHz 100mHz ~ 100kHz
FREQUENCY RESOLUTION	
Sine **Square** **Triangle** **Ramp**	20mHz 20mHz 10mHz 10mHz
FREQUENCY ACCURACY	
	±10ppm
FREQUENCY AGING	
	±5ppm/year
OUTPUT IMPEDANCE	
Source Impedance	50 ±10%
AMPLITUDE	
Range **Resolution** **Accuracy**	10mV ~ 10Vpp (into 50) 8 amplitude range,|Vac peak| + |Vdc| ≤ 5V 3 digits ±0.5dB (±5mVrms) (sine out) ; ±12% (±5mVrms) (square out) ±5% (±5mVrms) (triangle out) ; ±5% (±5mVrms) (arbitrary out)
DC OFFSET	
Range **Resolution** **Accuracy**	±5V (into 50), |Vac peak| + |Vdc| ≤ 5V 3 digits ± 1.5% of setting + 1mV
SYNC OUTPUT	
Sync Output **Sync Fan-Out**	TTL levels > 10 TTL load
SINE OUTPUT	
Harmonics	DC ~ 100kHz : -50dBc, 0.1M ~ 1MHz : -40dBc 1M ~ 10MHz : -30dBc, 10M ~ 30MHz : -25dBc
SQUARE OUTPUT	
Rise/Fall Time **Overshoot** **Asymmetry**	≤15nS ≤5% (at full scale output) ±1% of period + 4nS
TRIANGLE AND RAMP	
Linearity	±0.1% of full scale output
ARBITRARY WAVEFORMS	
Sample Rate **Waveform Length** **Vertical Resolution**	42.949600MHz / N, N = 8, 10, 12.....2^{15} 12000 points max 12 bits
SWEEP	
Sweep Functions **Sweep Range** **Sweep Time**	LIN or LOG 20mHz ~ 30MHz 0.001S ~ 1000S

SFG-830/SFG-830G

Rear Panel

Waveform Editing Software



SPECIFICATIONS

MODULATION

AM Modulation Function	External,internal(sine,triangle,ramp,square)
Modulation Rate	10mHz~10kHz(internal)50kHz max(external)
Modulation Span	0 ~ 100%
Ext Input	±5V for 100% modulation
Ext Input Impedance	100kΩ
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
Optional : GPIB Interface (SFG-830G)

POWER SOURCE

AC100V/120V/220V/240V±10%, 50/60Hz

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 RS-232C & GPIB Interface

ACCESSORIES :
User manual x 1, Power cord x 1, GTL-110 x 1

Optional Accessories

GTL-232 RS232C Cable, 9-pin Female to 9-pin, null Modem for Computer