



DDS Function Generator

NEW



CE

SFG-2104/2107/2110 (4/7/10MHz)

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SFG-2004/2007/2010 (4/7/10MHz)

FEATURES

- * DDS Technology and FPGA Chip Design
- * Frequency Range: 0.1Hz~4MHz/7MHz/10MHz
- * High Frequency Accuracy : ± 20 ppm
- * High Frequency Stability : ± 20 ppm
- * Frequency Resolution : 100mHz
- * Low Distortion Sine Wave : -55dBc, 0.1Hz~200KHz
- * Built-in 6 Digits, 150MHz/High Resolution Counter (SFG-2100 Series Only)
- * INT/EXT AM/FM Modulation (SFG-2100 Series Only)
- * LIN/LOG Sweep Mode (SFG-2100 Series Only)
- * Front Panel Setting Save/Recall with 10 Groups of Setting Memories

SPECIFICATIONS

| | | SFG-2000 Series | | | SFG-2100 Series | | |
|-----------------------|---|--|------------|-------------|---|------------|-------------|
| | | SFG-2004 | SFG-2007 | SFG-2010 | SFG-2104 | SFG-2107 | SFG-2110 |
| MAIN | Frequency | 0.1Hz~4MHz | 0.1Hz~7MHz | 0.1Hz~10MHz | 0.1Hz~4MHz | 0.1Hz~7MHz | 0.1Hz~10MHz |
| | Range(For Sine, Square) Range(For Triangle) Resolution Stability Accuracy Aging | 0.1Hz~1MHz 0.1Hz ± 20 ppm ± 20 ppm ± 5 ppm / year | | | | | |
| | Output Function Amplitude Range Flatness(Sinewave relative to 1kHz) Impedance Attenuator DC Offset Duty Control | Sine, Square, Triangle 10Vpp(into 50 Ω load) $< \pm 0.3$ dB, 0.1Hz~1MHz; $< \pm 0.5$ dB, 1MHz~4MHz; $< \pm 2$ dB, 4MHz~10MHz 50 $\Omega \pm 10\%$ -20dB ± 1 dB $\times 2$ $< -5V \sim > +5V$ (into 50 Ω load) 20% to 80% below 1MHz (Square wave only) | | | | | |
| | Display Range Resolution | 1% 9 digits LED display | | | | | |
| SINE WAVE | Harmonics Distortion | -55dBc, 0.1Hz~200kHz; -40dBc, 0.2MHz~4MHz; -30dBc, 4MHz~10MHz (Specification applied from MAX. to 1/10 level) | | | | | |
| TRIANGLE WAVE | Linear | $\geq 98\%$, 0.1Hz~100kHz; $\geq 95\%$, 100kHz~1MHz | | | | | |
| SQUARE WAVE | Symmetry | $\pm 1\%$ of period +4ns to 0.1Hz~100kHz; Rise or Fall Time ≤ 25 ns at maximum output.(into 50 Ω load) | | | | | |
| CMOS OUTPUT | Level | 4Vpp ± 1 Vpp~14.5Vpp ± 0.5 Vpp adjustable; Rise or Fall Time; ≤ 120 ns | | | | | |
| TTL OUTPUT | Level | ≥ 3 Vpp; Fan Out; 20 TTL load; Rise or Fall Time; ≤ 25 ns | | | | | |
| SWEEP OPERATION | Sweep/Rate Sweep/Time Sweep/Mode | — | | | 100:1 ratio max. and adjustable 0.5Sec~30Sec adjustable Lin./Log. switch selector | | |
| AMPLITUDE MODULATION | Depth & MOD. Frequency Carrier BW EXT Sensitivity | — | | | 0~100% ; 400Hz(INT), DC~1MHz(EXT) 100Hz~5MHz(-3dB) ≤ 10 Vpp for 100% modulation | | |
| FREQUENCY MODULATION | Deviation & MOD. Frequency EXT Sensitivity | — | | | 0~ $\pm 5\%$; 400Hz(INT), 1kHz(EXT) ≤ 10 Vpp for 10% modulation | | |
| FREQUENCY COUNTER | Range Accuracy Time base Resolution Input Impedance Sensitivity | — | | | 5Hz~150MHz Time base accuracy ± 1 count ± 20 ppm(23 $^{\circ}$ C $\pm 5^{\circ}$ C) after; 30 minutes warm up The maximum resolution is 10nHz for 1Hz and 0.1Hz for 100MHz 1M Ω /150pf ≤ 35 mVrms(5Hz~100MHz) ≤ 45 mVrms(100MHz~150MHz) | | |
| STORE/RECALL FUNCTION | | 10 groups of Setting memories | | | | | |
| POWER SOURCE | | AC115V, 230V $\pm 15\%$, 50/60Hz | | | | | |
| ACCESSORIES | | Instruction manualx1, Power Cord x 1, GTL-101x1 | | | Instruction manualx1, Power Cord x 1, GTL-101x2 | | |
| DIMENSION & WEIGHT | | 107(W) \times 266(H) \times 293(D) m/m; Approx. 3.1kg | | | 107(W) \times 266(H) \times 293(D) m/m; Approx. 3.2kg | | |

ORDERING INFORMATION

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|----------|------------------------------|----------|--|
| SFG-2004 | 4MHz DDS Function Generator | SFG-2104 | 4MHz DDS Function Generator with Counter, Sweep & AM, FM Modulation |
| SFG-2007 | 7MHz DDS Function Generator | SFG-2107 | 7MHz DDS Function Generator with Counter, Sweep & AM, FM Modulation |
| SFG-2010 | 10MHz DDS Function Generator | SFG-2110 | 10MHz DDS Function Generator with Counter, Sweep & AM, FM Modulation |