Sinolink Technologies

- Your RF Team for **QUANTUM COMPUTING**

Multi-Channel Phase-Coherent Signal Generator

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Multi-Channel Phase-Coherent Signal Generator

Multi-channel phase-coherent signal generator (SLFS0218F) is a 5Ch-output, phase-coherent, and low phase noise signal generator. With 3 channels frequency range from 2GHz to 11.95 GHz. And the other 2 channels frequency range from 2GHz to 18 GHz. Output power level range from -50dBm to +22dBm. Every channel can be independently fully adjusted.

The SLFS0218F is perfect for Quantum Computing, where good signal quality and very stable phase coherence among all channels are required.

A high-stability OCXO reference provides excellent frequency accuracy and stability. Moreover, the SLFS0218F features a pair of high-frequency reference ports (one input and one output) which enable excellent phase synchronization among the outputs from multiple SLFS0218F units.

The SLFS0218F comes in a standard 19 inches 3U rack-mount form and offers LAN control interface, which allows easy and fast communication. Remote control of the instrument can be quickly attained from any host system. Application programming interface (API) or programming examples make the control implementation very easy.

Features:

- Frequency range:2-18GHz
- 5 RF output channels which can operate individually
- Phase coherent among every channel
- Channel to channel Relative Phase drift (10GHz, 24h) ≤±1°
- Low phase noise, high output power
- Narrow pulse modulation
- Fast frequency switching time

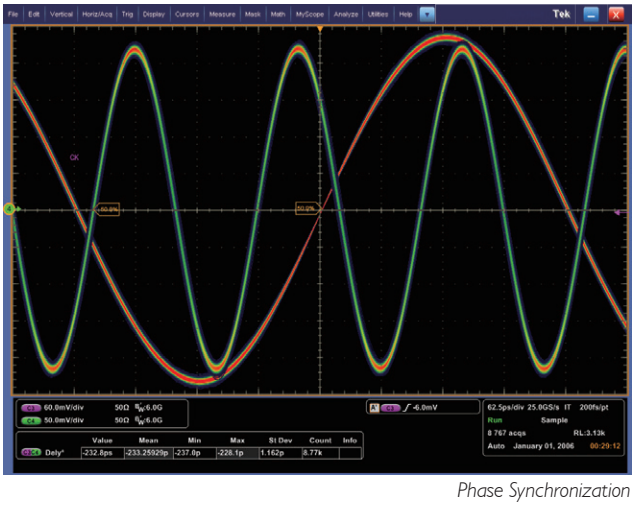
Applications:

- modulator LO
- Sampling clock of distributed acquisition system
- Synchronizing clock of particle accelerator

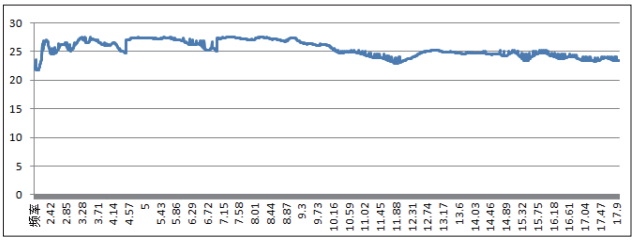
Specifications

Output

Model	SFLS0218F
Frequency range	2～11.95GHz 3Ch
	2～18GHz 2Ch
Output channel	5Ch
Frequency resolution	0.01Hz
Max output power	+22dBm @<8GHz
	+20dBm @8～12GHz
	+18dBm @>12GHz
Min output power	-50dBm
Power resolution	0.01dB
Power level uncertainty	≤±1.3dB @>-20dBm
	≤±1.5dB @≤-20dBm
Non-harmonic spurious	≤-70dBc @≤12GHz
	≤-65dBc @>12GHz
Harmonic spurious	≤-50dBc @10dBm output
Channel to channel isolation	≥80dB
Channel to channel Relative Phase Stability	≤±1°(10GHz, 24h)
SSB (10GHz)	≤-75dBc/Hz@100Hz
	≤-108dBc/Hz@1KHz
	≤-113dBc/Hz@10KHz
	≤-113dBc/Hz@100KHz
	≤-120dBc/Hz@1MHz
	≤-138dBc/Hz@10MHz



Phase Synchronization



Maximum Output Power

Frequency reference

Internal reference frequency temperature stability	±5e-8 0°C～+50°C
Internal reference frequency	10MHz
Internal reference output power	≥5dBm
External reference input level range	5～10dBm
Both external and internal reference supported	
SSB of internal reference	≤-125dBc/Hz@10Hz
	≤-140dBc/Hz@100Hz
	≤-150dBc/Hz@1KHz
	≤-155dBc/Hz@10KHz
	≤-155dBc/Hz@100KHz

High-frequency reference for multi-units

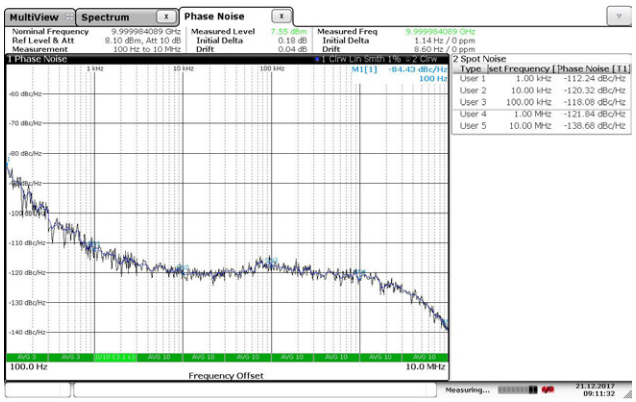
Output frequency	1.6GHz
Input frequency	1.6GHz

Environmental

Operational temperature	0°C～+50°C
Operational humidity	20%～80% (+30°C)

General

LAN control	RJ-45 (TCP/IP over Ethernet)
Power Supply	85～264VAC， 50Hz～60Hz, 270W
Dimension	483mm*134mm*559mm
Weight	≤20kg
Warranty	Three-years parts and labor



Phase Noise @10GHz

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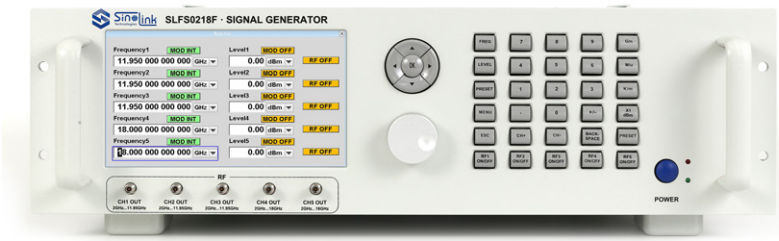
Order Information

MODEL: SLFS0218F

5Ch-output, phase-coherent, and low phase noise signal generator



For more information on Sinolink Technologies' products, applications or services please contact Sinolink Technologies (Beijing) Co., Ltd.
The complete list is available at: www.sinolink-technologies.com

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3 Year Warranty
The combination of superior product reliability and 3-year warranty service helps you achieve the following goals: increased measurement confidence, reduced cost of ownership, and increased ease of operation.