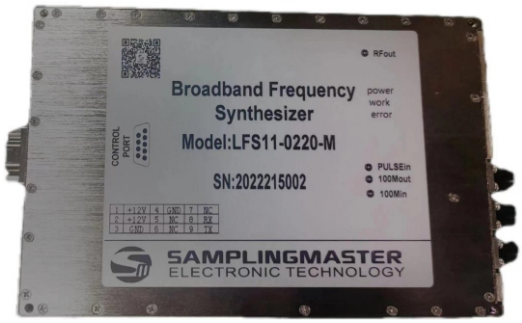
SIMON
Elektronika Teknologio Co.,Ltd

LFS11

Broadband Frequency Synthesizer



Features

1. Frequency Range: 200MHz~40GHz
2. size：146*95*21mm
3. Spur: -70dBc
4. Low Phase Noise（10GHz)：-112dBc/Hz@1kHz.

External reference

Ref input frequency	10MHz
Ref input power	7±3dBm
Frequency stability	≤2E-8
Frequency accuracy	≤2E-8
Phase Noise	-155dBc/Hz@1kHz
Input impedance	50Ω

Frequency output

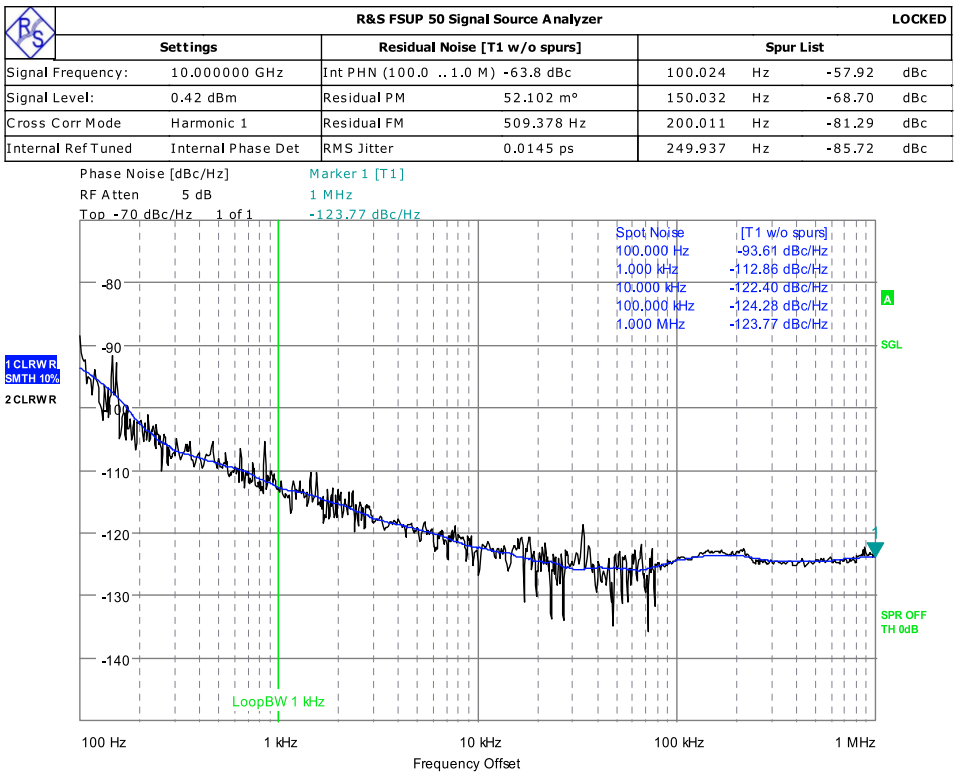
RF Output Range	200~20000MHz（Standard）
	200~40000MHz(0240 Options)
Frequency stability (Internal reference)	±2E-7 (Same as reference)
Frequency accuracy (External reference)	±2E-7 (Same as reference)
Resolution	0.1mHz (200MHz~20GHz)
	0.2mHz（ 20GHz~40GHz）
Switching speed	200uS
Spur	≤-70dBc(TYP)/ ≤-65dBc(MAX) (0dBm Test)
	≤-65dBc(TYP)/ ≤-60dBc(MAX)(20~40GHz) (0dBm Test)
Harmonics	≤-20dBc
Output power	-40~10dBm
Power step	0.1dBm
Power stability	±1dB(-0~+10dBm)
	±2.0dB(-40~0dBm)

Pulse modulation

Modulation depth	-60dBc
Pulse form	Internal/External pulse
Pulse width	100ns~10ms
Rising edge/falling edge	50ns/100ns

Phase Noise（dBc/Hz)：

LFS11 Phase noise					
Frequency	1GHz	5GHz	10GHz	20GHz	40GHz
100Hz	-108	-98	-92	-85	-79
1kHz	-127	-116	-112	-105	-99
10kHz	-137	-125	-120	-114	-108
100kHz	-137	-125	-120	-114	-108
1MHz	-137	-125	-120	-114	-108

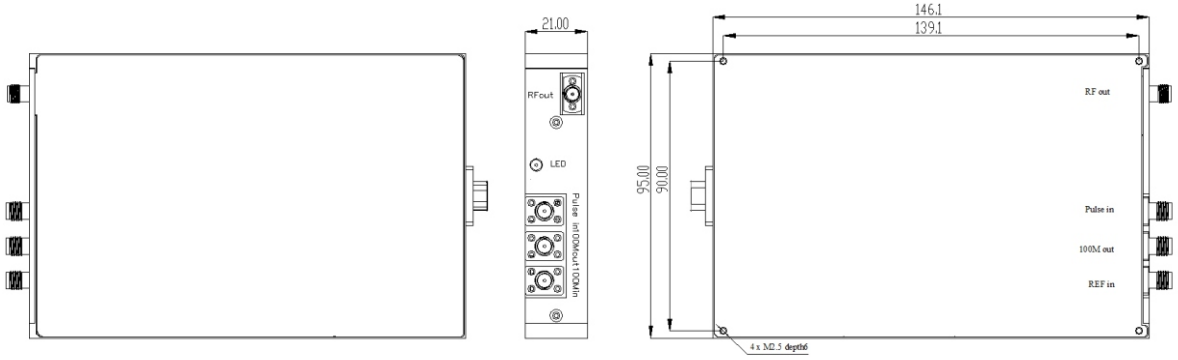


Electrical

Input Voltage	+12±0.5v
Maxe Voltage	+15v
Current	2.0A（Warm-up）/1.4A(Stable)
	2.0A（Warm-up）/1.6A(Stable) (0240 Options)

Environmental

Operating Temperature	-40° to +70° C
Storage Temperature	-55° to +85° C
Dimensions	146.1×95×20mm
Weight	≤580g



Interface Connector					
Interface Connector：SMA-K（200MHz~20GHz）/ 2.92-K（20GHz~40GHz） Power and digital：J30J-9-ZKP					
J30J discipline definition					
1	+12V	2	+12V	3	GND
4	GND	5	NC	6	NC
7	NC	8	RX	9	TX

Ordering Information

Product Code	Frequency Range
LFS11-0220-M	200MHz ~ 20GHz
LFS11-0240-M	200MHz ~ 40GHz