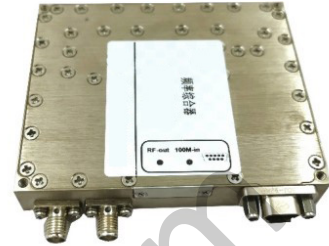


低噪声频率综合器 Low Noise Freq. Synthesizer

特点 Features

- 输出频率 Output Freq.: 200MHz~15GHz
- 小尺寸 Small Size: 80*65*13mm
- 相位噪声 Phase Noise: -107dBc/Hz@1kHz(10GHz)
- 控制方式 Control Mode: SPI



规格 Electrical Specification@+25°C

型号 Model Number	LFS-1003
输出频率范围 Output Freq. (MHz)	200~15000
频率步进 Frequency Step (Hz)	0.1
跳频时间 Frequency Setting Time (us)	≤200
输出功率 Output Power(dBm)	0±4
频率稳定度 Frequency Stability	同步与外参考 Sync With External Reference
杂散 Spurious(dBc)	≤-70dBc/-65dBc(Max)
谐波 Harmonic(dBc)	≤-5
参考输入频率 Reference Input Freq. (MHz)	100
输入参考相位噪声 Reference Input Phase Noise	-125dBc/Hz@100Hz
	-155dBc/Hz@1kHz
	-165dBc/Hz@10kHz
	-165dBc/Hz@100kHz
	-170dBc/Hz@1MHz
参考输入功率 Reference Input Power (dBm)	7±3

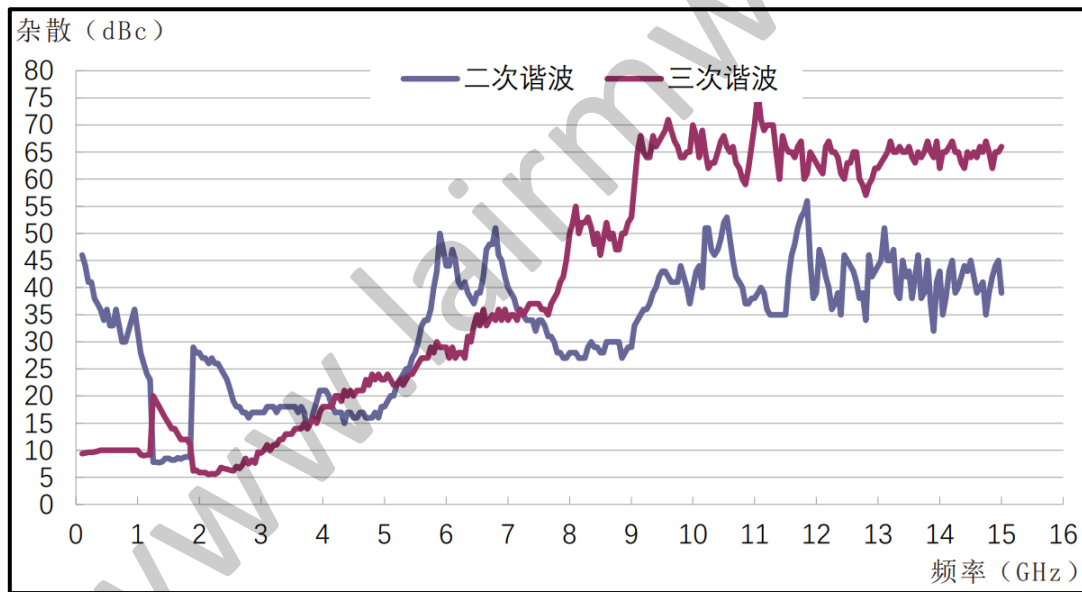
低噪声频率综合器 Low Noise Freq. Synthesizer

性能 Typical Performance@+25°C

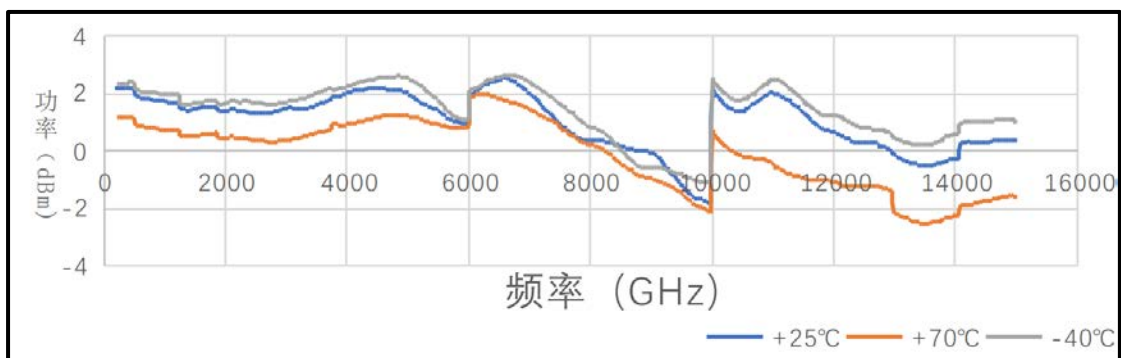
相位噪声 Phase Noise

频率 Frequency	500MHz	1GHz	5GHz	10GHz	15GHz
dBc/Hz@100Hz	≤-111	≤-105	≤-91	≤-85	≤-81
dBc/Hz@1kHz	≤-133	≤-127	≤-113	≤-107	≤-105
dBc/Hz@10kHz	≤-141	≤-135	≤-122	≤-116	≤-114
dBc/Hz@100kHz	≤-141	≤-135	≤-122	≤-116	≤-114
dBc/Hz@1MHz	≤-141	≤-135	≤-122	≤-116	≤-114

LFS-1003 谐波曲线 Harmonic Curve

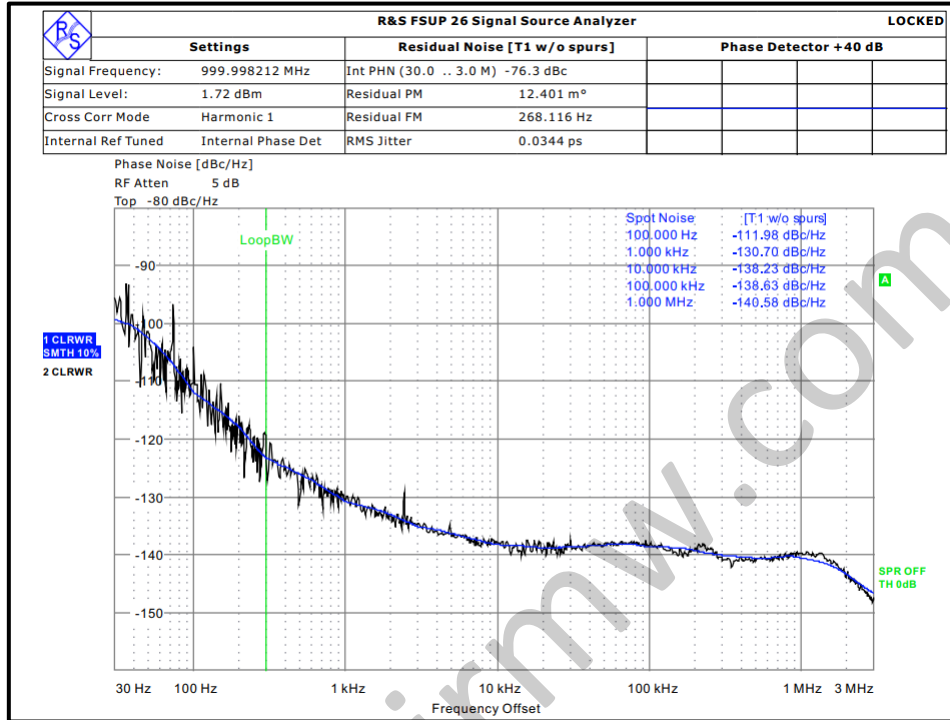


LFS-1003 输出功率 Output Power

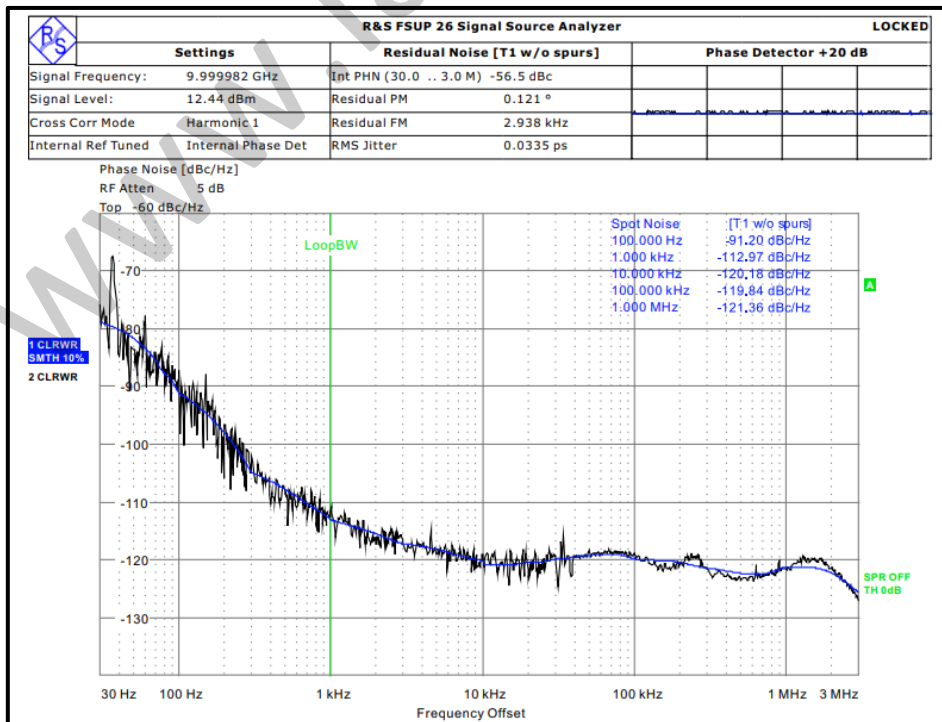


低噪声频率综合器 Low Noise Freq. Synthesizer

1GHz 相位噪声测试曲线 Phase Noise Curve



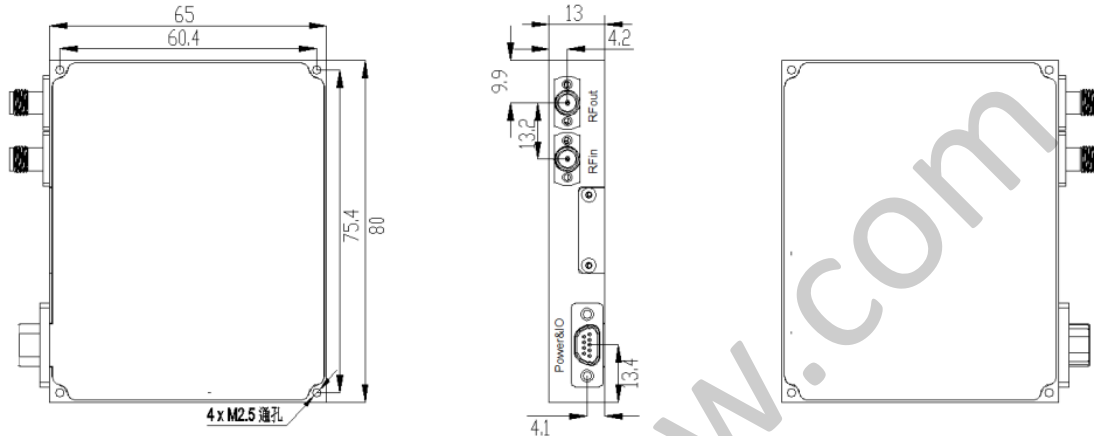
10GHz 相位噪声测试曲线 Phase Noise Curve



低噪声频率综合器 Low Noise Freq. Synthesizer

外观 Outline

安装尺寸 Installation Dimension



连接器定义 Connector Definition

RF in		SMA-K (可拆卸 Detachable) (Φ0.38)			
RF out		SMA-K (可拆卸 Detachable) (Φ0.38)			
电源和控制 Power Supply & Control		J30J-9-ZKP			
J30J 管脚定义 Pin Definition					
1	+12V(电源)	4	GND(地)	7	MISO(SPI 通信接口)
2	+12V(电源)	5	LD(锁定指示:高电平锁定)	8	SCK(SPI 通信接口)
3	GND(地)	6	MOSI(SPI 通信接口)	9	LE(SPI 通信接口)

工作电压 Operating Voltage

供电 Power Supply	+12V±0.5(V/A)
最大电压 Max Voltage	+15V
工作电流 Operating Current	≤0.85A/0.75A(启动 Activate/稳定 Stabilize)
控制方式 Control Mode	SPI

运行环境及外形封装 Operating Environment & Package

工作温度 Operating Temperature	-40~+70℃
储存温度 Storage Temperature	-55~+85℃
重量 Weight	≤160g
外形尺寸 Size	80*65*13mm