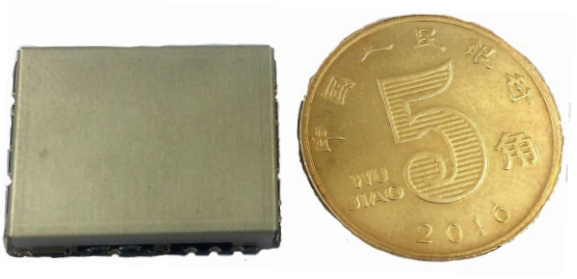
Small size synthesizer

TFS10-06
SMT synthesizer



Features

- High frequency up to 6GHz
- SMT type , easy for use
- Compact size 20*16*4 (mm)
- Low cost

Specifications

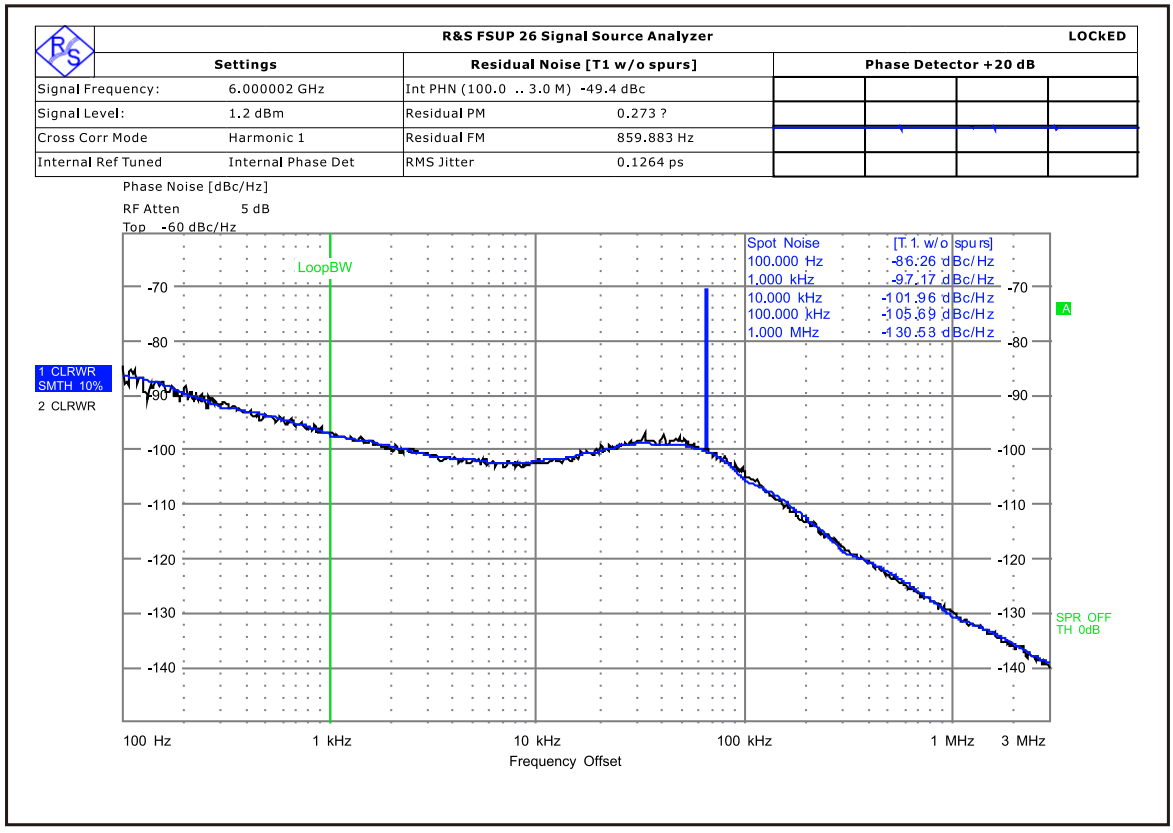
Model		TFS10-06
Frequency Range (MHz)		50 ~ 6000
Minimum frequency step (MHz) ★[1]		10
Frequency Switching Time (ms)		≤1
Power (dBm)		3±3
Frequency stability		Same as reference
Spur (dBc)★[2]		≤-70
Harmonic (dBc)		≤-7
Ref input frequency (MHz)		100
Ref phase-noise Ref input power	dBc/Hz@100Hz	-125
	dBc/Hz@1kHz	-153
	dBc/Hz@10kHz	-160
	dBc/Hz@100kHz	-160
	dBc/Hz@1MHz	-165
Ref input power (dBm)		0 ~ +7dBm

★ Notes : 1、spur and phase-noise can’ t be meet when minimum frequency step is 1MHz
2、spur is -50dBc when minimum frequency step is 1MHz

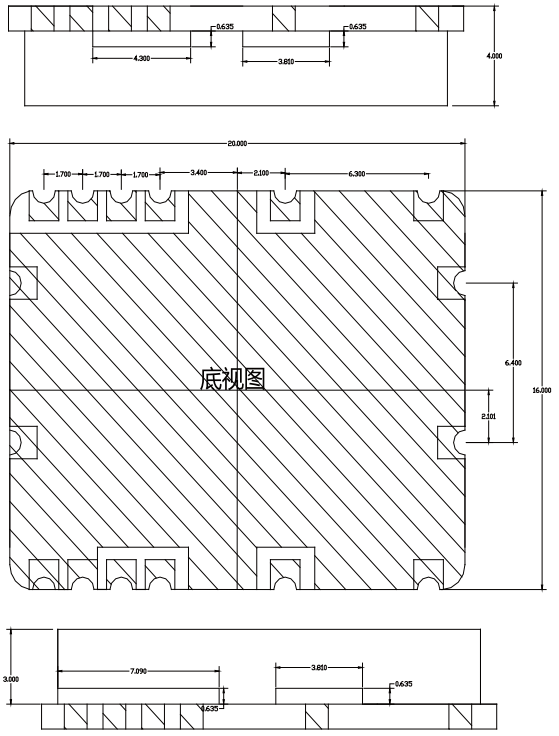
Phase noise

TFS10-06	Frequency			
Phase-noise	1GHz	2GHz	4GHz	6GHz
dBc/Hz@100Hz	≤-97	≤-91	≤-85	≤-82
dBc/Hz@1kHz	≤-106	≤-98	≤-94	≤-92
dBc/Hz@10kHz	≤-108	≤-102	≤-98	≤-98
dBc/Hz@100kHz	≤-114	≤-106	≤-100	≤-98
dBc/Hz@1MHz	≤-142	≤-134	≤-128	≤-124

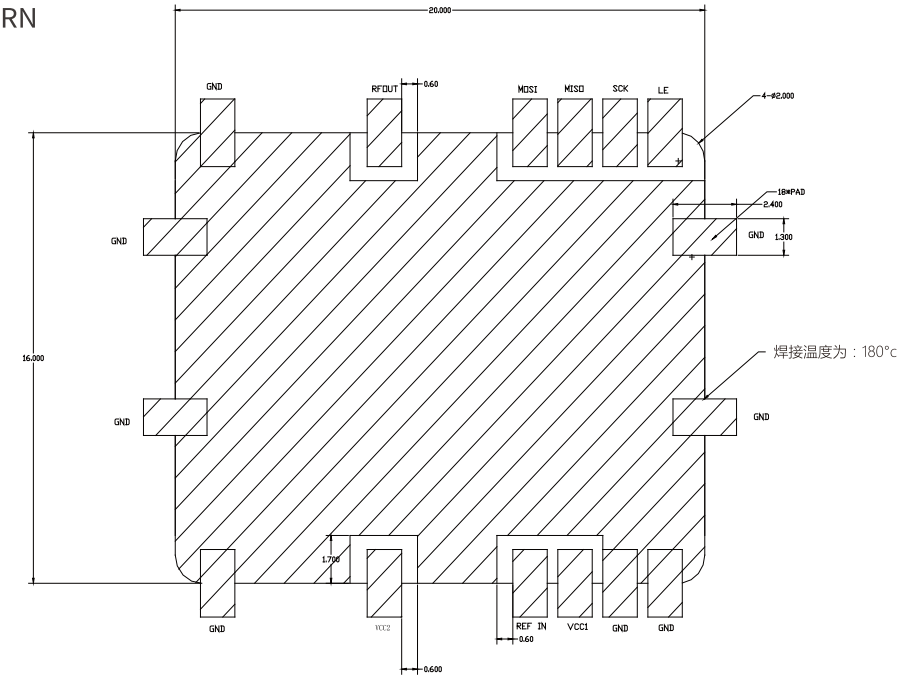
★ Notes:Phase-noise specification at 10 MHz frequency stepping, and is deteriorated by 3 dBc if the frequency step is 1 MHz.



outline Drawing



PCB LAND PATTERN



pin name	Description	pin name	Description
GND	Gnd	MOSI	SPI communication data input
RFOUT	RF output	MISO	SPI communication data output (use as lock detect output in single frequency mode , TTL high when locked)
REFIN	Ref input	SCk	SPI communication clock
VCC1	power of digital 3.3V/10mA	LE	SPI communication enable
VCC2	power of analog 5V/260mA		

General & Environmental Specifications

power (V/A)	power1:+5V1/340mA(analog) power2:+3.3V2/10mA(digital)
Control Interface	SPI
Temperature Range (operating/non-operating)	-40~+70/-55~+85
Size (mm)	20*16*4mm

Ordering Information

Part Number	Description
TFS10-06P-xxxx	For single frequency out, xxxx is output frequency in MHz unit
TFS10-06-xxxx	Frequency output range:xxxx is the initial frequency