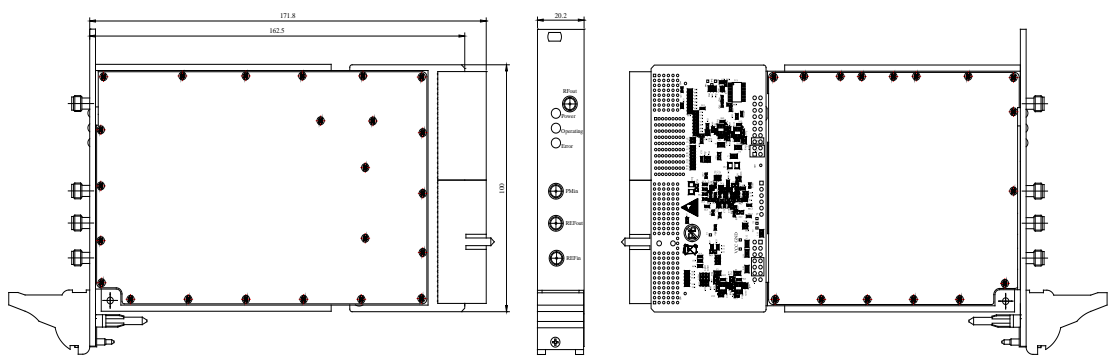


## Broadband Low Phase Noise Frequency Synthesizer



<b>Description:</b>					
1. Excellent phase noise and spurious performance;					
2. Using standard PXI structure and communication protocol, to facilitate system integration.					
Frequency range (MHz)		80~20000			
Step (Hz)		0.001			
Frequency switching (uS)		≤100			
Output Level (dBm)		-25~+14			
Output Level flatness (dB)		±1.5 (20°C~+40°C) ±2.5 (-40°C~+70°C)			
Steady Frequency temperature stability		±1×10 <sup>-7</sup> (Same as external reference)			
Frequency accuracy		±1×10 <sup>-7</sup> (Same as external reference)			
Spurious (dBc)		-75/-70(Typical/Max)			
Harmonics (dBc)		≤-8 (100~200 MHz) ≤-40 (200~12500 MHz) ≤-25 (12500~20000MHz)			
Phase Noise		@0.1GHz	Typical/Max	@0.5GHz	Typical/Max
	dBc/Hz@100Hz		-123/-119		-109/-105
	dBc/Hz@1kHz		-143/-139		-140/-136
	dBc/Hz@10kHz		-145/-141		-144/-139
	dBc/Hz@100kHz		-145/-141		-145/-140
dBc/Hz@1MHz	-145/-141	-145/-140			
Phase Noise		@1GHz		@5GHz	
	dBc/Hz@100Hz		-103/-99		-89/-85
	dBc/Hz@1kHz		-130/-127		-116/-113
	dBc/Hz@10kHz		-135/-131		-127/-122
	dBc/Hz@100kHz		-135/-131		-127/-122
dBc/Hz@1MHz	-138/-133	-130/-125			
Phase Noise		@10GHz		@20GHz	
	dBc/Hz@100Hz		-83/-77		-77/-71
	dBc/Hz@1kHz		-110/-107		-104/-101
	dBc/Hz@10kHz		-121/-116		-115/-110
	dBc/Hz@100kHz		-121/-116		-115/-110
dBc/Hz@1MHz	-124/-121	-118/-115			
Power supply (V/A)		+12/1.6 ( Warm up) +12/ 1.4 ( Steady)			

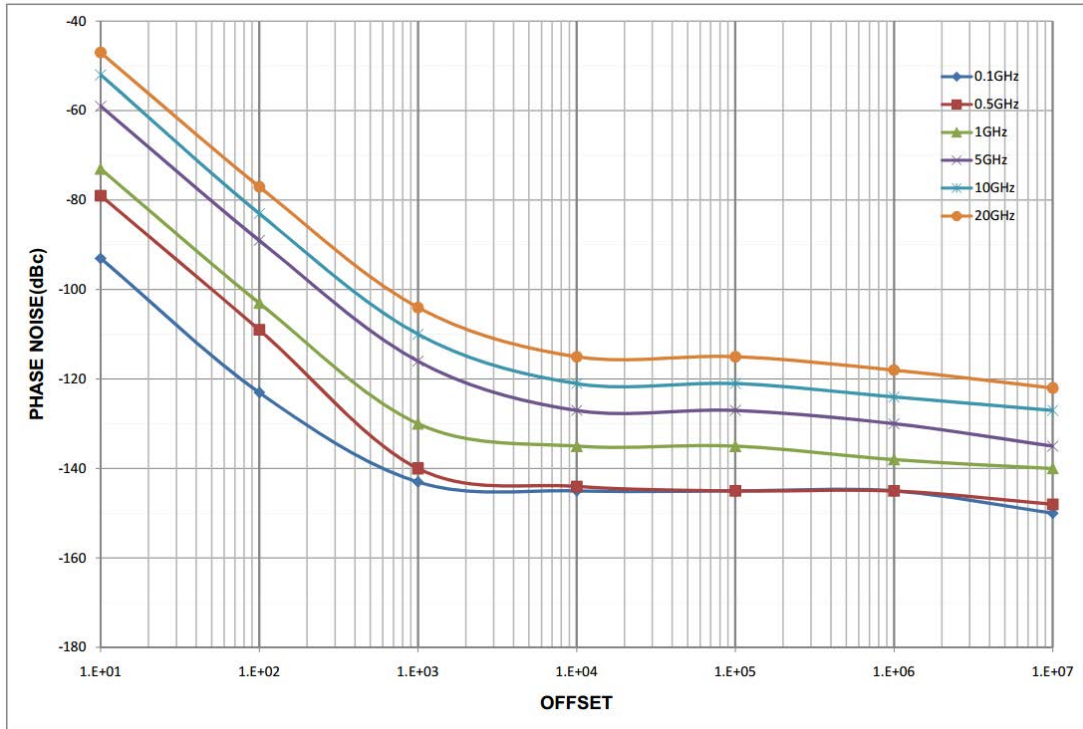
Connector	RF connector: SMA-KFD Pulse modulation connector: SMB Control and power connector: J1、J2 (PXI) Not using PXI , connector: J30J-9ZKP
Dimensions	≤140×100×18mm (3U PXI one slot)
Control	SPI/UART/ (Compatible PXI)
Operating temperature (°C)	-40~+70
Storage temperature (°C)	-55~+85
<b>Pulse Modulation</b>	
Modulation depth	≥60dBc (Test Conditions: Output=+10dBm)
Modulation pulse width	100ns~10ms
Pulse cycle	500ns~10ms
Pulse fluctuation	0.2dB
Pulse up / down edge	30nS/50nS
Pulse overshoot	--
<b>List Scan</b>	
Store the number of points	Supports up to 1024 points (External trigger)
	
<b>Notes:</b>	

### DB9/J30J-9 Common Interface Definition (SPI and serial control)

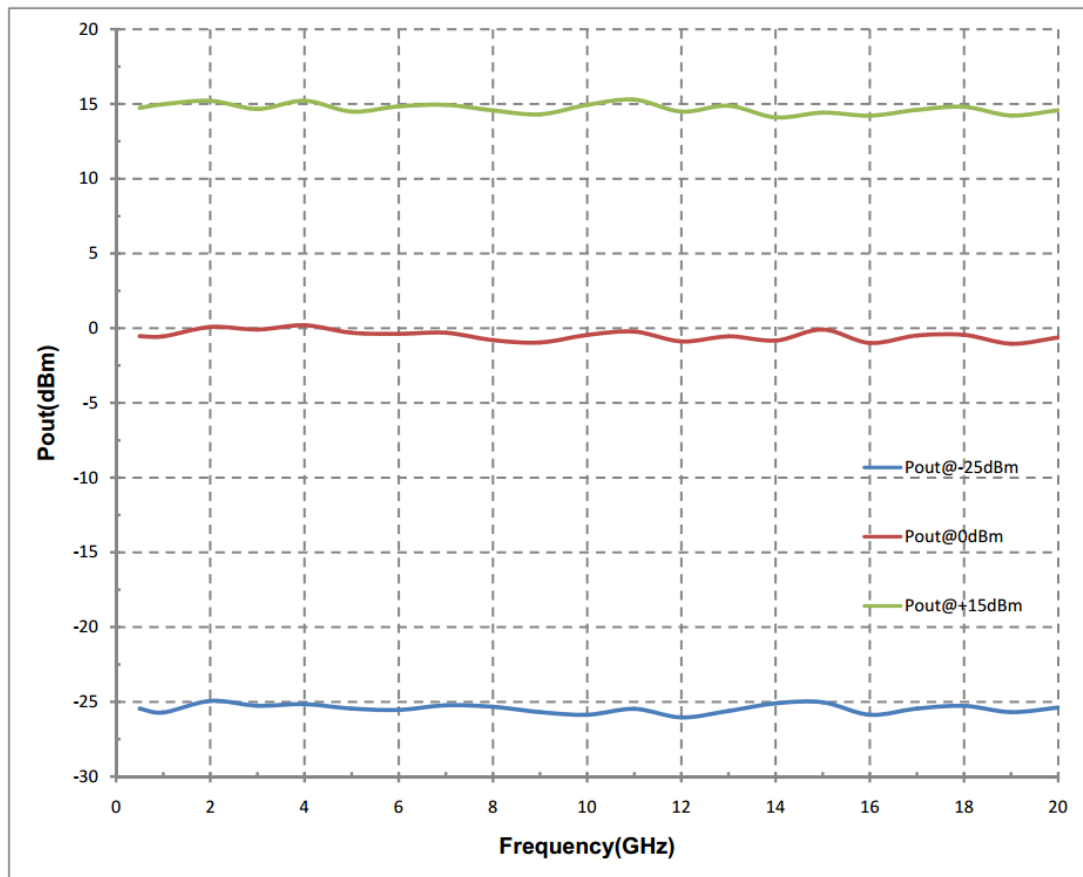
Pin number	Pin definition	Function	Pin number	Pin definition	Function
1	U/S	Communication mode selection	6	SCLK	SPI Clock
2	TXD	Serial transmission	7	MOSI	SPI DATA
3	RXD	Serial receive	8	GND	GND
4	NSS	SPI LE	9	+12V	Power
5	MISO	SPI DATA			

Notes: When the U / S is set to high, the system is serial communication, U / S is set to low, the system for the SPI communication; this pin is floating when the high.

## PHASE NOISE



## Pout VS FREQ



## Automatic control and testing

SM-General Signal Source Test System (Version:1630-00-00-0008-20-FB)


System | Configure | Device | Help

System Status

- Single Index Test
- Sequence Test
- Data Analysis
- Debug Module

### WELCOME TO USE SAS SINGAL GENERATOR TEST SYSTEM

**The test system connection diagram**



Legend:  
— Network Line  
— Signal Line  
— RF Line

Enabled	Connected	Device	TCPIP0::
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PXA	TCPIP0::
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Frequency Source	COM::CO

Alarm module connection.

SM-General Signal Source Test System (Version:1630-00-00-0008-20-FB)

System | Configure | Device | Help

System Status

- Single Index Test
- Sequence Test
- Data Analysis
- Debug Module

### SINGLE INDEX TEST

PDRO and frequency synthesizer test.

Device Connect

Configuration Parameter

Testing

Test Data

Module Type: Frequency Synthesizer

Test Item

Can Select		Selected
Harmonic Test	>>	
Stray Test	<<	
	>	
	<	

Instrument Connect

Auto Search Search

Manual Add Instrument VISA Address :  Add

Device Model	VISA Addr	Device Seq	Connected

Back Next

Alarm module connection.

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