SAMPLINGMASTER
ELECTRONIC TECHNOLOGY

General
Broadband
Frequency Synthesizer

Description：				
1. Internal 100MHz TCXO；				
2. Detection options: internal and external reference for adaptive switching；				
3. Choose a different VCO to handle different frequency and bandwidth outputs。				
Frequency range（GHz）		1~20 （1~2/2~4/4~8/5~10/6~12/10~20）		
Step（MHz）		5		
Frequency switching（uS）		≤350（Option：20uS）		
Output Level（dBm）		≥+13		
Output Level flatness（dB）		±2		
Reference Frequency（MHz）		100		
Reference Level（dBm）		0~10		
Steady Frequency temperature stability		±5×10⁻⁷ (Same as external reference)		
Frequency accuracy		±5×10⁻⁷ (Same as external reference)		
Spurious（dBc）		≤-70		
Harmonics（dBc）		≤-10(20% output bandwidth：≤-30)		
Phase Noise (-150dBc/Hz@1kHz)	dBc/Hz@100Hz	@10GHz	≤-76	@20GHz	≤-70
	dBc/Hz@1kHz		≤-92		≤-86
	dBc/Hz@10kHz		≤-95		≤-90
	dBc/Hz@100kHz		≤-95		≤-90
	dBc/Hz@1MHz		≤-100		≤-94
Power supply （V/mA）		+12/500		
Connector		RF connector：SMA-KFD Control and power connector：J30J-9ZKP		
Dimensions		65×40×16mm		
Control		SPI/UART		
Operating temperature（℃）		-40~+70		
Storage temperature（℃）		-55~+85		
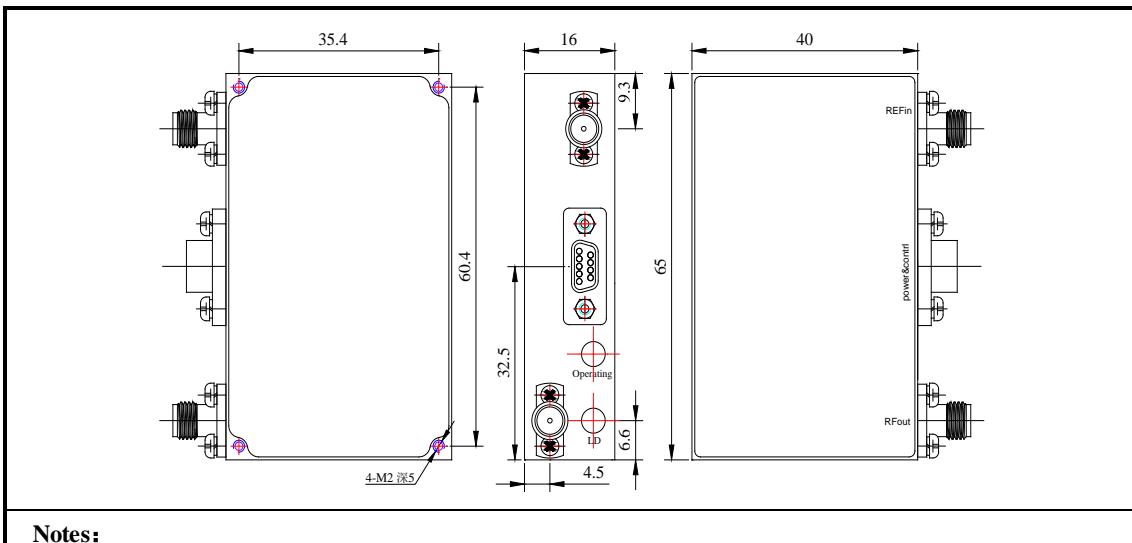
Notes：

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。					