

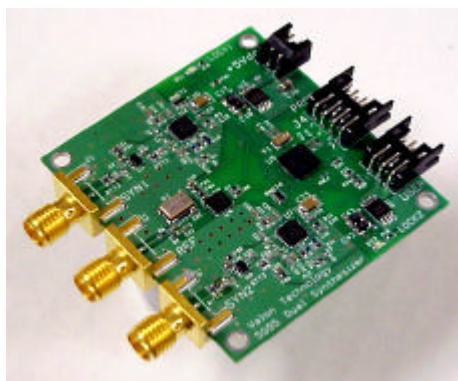
Valon Technology 5005 Dual Synthesizer Module

The 5005 dual synthesizer module provides a pair of frequency sources suitable for high quality clock, carrier or local oscillator frequency generation applications.

A serial interface and simple user interface software allow the user to program the desired operating frequency of each synthesizer and save to the on-board flash memory. The synthesizer will then power up using the FLASH memory to reload the last saved frequencies.

Either output has user selectable divide-by-2 option for halving the output frequency range.

Interface adapter modules are available for either 9-Pin RS-232 or USB



Parameter	Min	Typical	Max	Units	Notes
RF output frequency range SYN 1	1250 625	-	1725 863	MHz MHz	output divide by 1 mode output divide by 2 mode
RF output frequency range SYN 2	1000 500	-	1350 675	MHz MHz	output divide by 1 mode output divide by 2 mode
SYN1 Power Output	4 7	6 10	8	dBm dBm	output divide by 1 mode output divide by 2 mode
SYN2 Power Output	5 7	7 10	8	dBm dBm	output divide by 1 mode output divide by 2 mode
RF frequency increment					
Phase Noise	divide by 1	1000	-	kHz	output divide by 1 mode output divide by 2 mode Note: Other frequency increments available with special order
	divide by 2	500	-	kHz	
Offset	0.1kHz	-66		dBc/Hz	
	1kHz	-76		dBc/Hz	
	10kHz	-90	<-85	dBc/Hz	
	100kHz	-110	<-105	dBc/Hz	
	1000kHz	-130	<-125	dBc/Hz	
	10,000kHz	-140	<-130	dBc/Hz	
PFD Reference spurs	<-90	<-75		dBc	
Ext or TCXO spurs	-105	<-90		dBc	
Internal Reference					13MHz internal reference
Calibration			<+/-2.5	ppm	
Temp. stability (0-70deg. C.)			<+/-2.5	ppm	
External Reference Input					The internal reference can be disabled by removing FB3 and an external reference frequency can be
Input frequency range	4	-	20	MHz	
Input amplitude	-10	-	10	dBm	
External Reference Output					Square wave, Open circuit 50 ohms
Output amplitude		200		Vpk-pk	
Output amplitude		-16		dBm	
Power Requirements					
Volts dc	4.0		10.0	Vdc	
current		160		mA	
Connectors					
RF and REF	SMA Female				Power cable supplied TTL/RS-232 Serial or USB addapters available
dc power input	2-pin Hirose DF3A-2P-2DS				
TTL serial	6-pin Hirsse DF11-8DP-2DS(24)				
Dimensions					
Length		1.775		Inches	
Width		1.90		Inches	
Height		0.25		Inches	

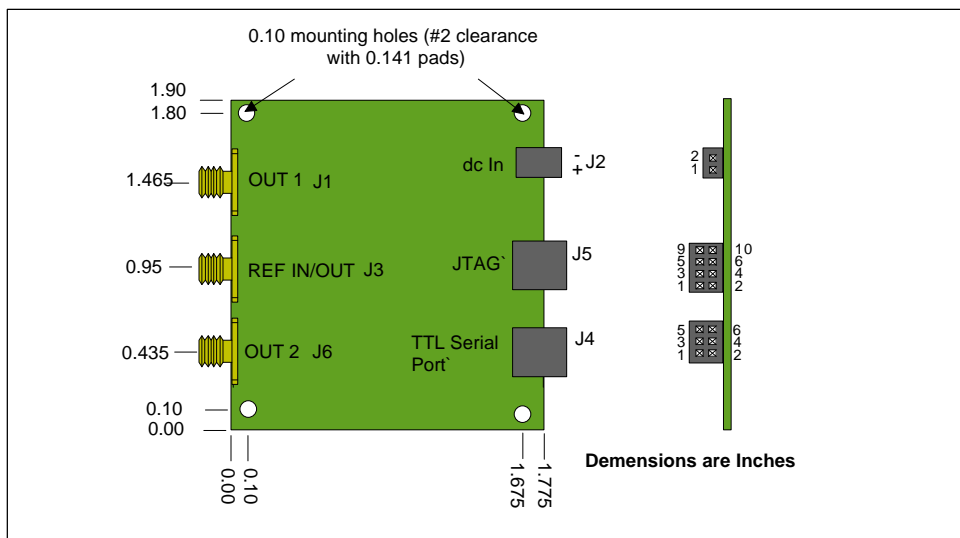
Connectors

J2-1	dc power input positive	3.0 to 9.0V dc input
J2-2	dc power input ground	

J5-1	TDO	JTAG Programming port (no user functions)
J5-2	Lock detector output	
J5-3	TDI	
J5-4	Reset, active low	
J5-5	TMS	
J5-6	TEST MODE SELECT	
J5-7	TCK	
J5-8	Ground	

J5-1	TXD	3.3V TTL "RS-232" serial port
J5-2	Ground	
J5-3	RXD	
J5-4	Ground	
J5-5	+3.3V output	
J5-6	Ground	

Connectors and Mounting locations



Block Diagram

