

Synth. 0.5-18 GHz  
Model 7740  
Data Sheet

**GENERAL DESCRIPTION**

Synthesizer **Model 7740** is a compact, broadband frequency source, covering the frequency range of 0.5 to 18 GHz. Frequency accuracy and stability exceeding 1.5 PPM is achieved. The ovenized internal VCOs ensure repeatability under ambient temperature conditions. The compact size enables integration of the module into portable as well as lab equipment.



**KEY FEATURES**

- Fast Tuning
- Low Post Tuning Drift
- Low Spurious
- Heaters for Temperature Stabilization
- Heater Power Control Switch
- Lock Indication
- Reverse and Transient Protection
- Phase Locked Loop for High Stability
- Latched Data
- Built-in Testers

**APPLICATIONS**

- RF sources
- Radar simulators
- EW simulators
- Electronic Warfare Applications
- Built in testers

**GENERAL SPECIFICATIONS**

Frequency Range	0.5-18 GHz
RF Output Power	8 ÷ 13 dBm
RF Power Variations	+/- 1 dBm
Output Impedance	50 Ohm
Load VSWR	1.5:1 Max
Harmonics	-20 dBc
Spurious	-60 dBc
Power Requirements	+15VDC/1.7A, Max, (In-Rush current 4A Typ.), -15 VDC/350 mA, Max
Operating Temperature	0 to 50° C
Non Operating Temp.	-40 to 80° C
	SMA - RF output, Ext. Ref. input, Ext. RF input

**GENERAL SPECIFICATIONS**

Operating Temperature	-20° C to 70° C	
Frequency Deviation	±250 MHz Max Humidity 95% (no Condensation)	
Connectors	D-37 – Data, Control, D-25 – Power	
Dimensions	186 X 115 X 50 (mm)	
Tuning Control	3 Wire Serial Bus	
Internal Band Selection	5 bits	
Frequency Resolution	250 KHz - 1 MHz *	
Accuracy	Int. +/- 1.5 PPM	
Frequency Settling Time	20 mSec	
Phase Noise @ 2-6 GHz**		
	@10 KHz	-70 dBc/Hz
	@100 KHz	-100 dBc/Hz
	@1 KHz	-120 dBc/Hz

**Note:** Specifications are subject to change without notice.



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