

GENERAL DESCRIPTION

The **Fast Tuning Frequency Synthesizer Model 7831A** module is a compact, broadband frequency source, covering the frequency range of 6-20GHz. The unit features frequency settling times below 500 nSec and frequency accuracy exceeding 1.0 PPM. The compact size enables integration of the module into portable equipment as well as lab equipment.



KEY FEATURES

- Fast Tuning for Frequency Hopping
- Ultra Low Post Tuning Drift
- Digital Linear Tuning
- Low Spurious
- Low Phase Noise
- Phase Locked Loop for High Stability
- Linear FM Modulation
- Compact Size
- High Resolution Option

APPLICATIONS

- RF sources
- Radar
- EW simulators
- Comm. Systems
- Built in testers

GENERAL SPECIFICATIONS

Frequency Range	6.0 - 20 GHz	
Sub-Bands	10 sub-bands	
Frequency Accuracy & Stability	±1 ppm	
Frequency Resolution (LSB)	100 KHz/bit	
Freq. Settling Time	350 nSec Typ.	
Phase Noise @ 20 GHz	<u>Offset</u>	<u>dBc/Hz</u>
	1 KHz	-80
	10 KHz	-86
	100 KHz	-100
Power Output (Over. Temp. & frequency)	+8 ÷ +13 dBm	
Output VSWR	2.0:1.0	
Harmonics	<-55 dBc	
Sub Harmonics	<-60 dBc	
Spurious	<-60 dBc	
Frequency Tuning Control	16 Bit Parallel Binary	
Function Control	Sub-bands, FM (6 Bits)	

GENERAL SPECIFICATIONS

Frequency Modulation	0.1-10 MHz	
Frequency Deviation	Sub Bands	Mod. Deviation
	1 - 5	±150 MHz
	5 - 10	±250 MHz
	(Excluding sub-bands limits)	
Power Requirements	+15V – 2.5 Amp. - 15V – 0.15 Amp.	
Operating Temperature	-20° C to 55° C	
Non Operating Temp	-40° C to 80° C	
Humidity	95% No Condensation	
Dimensions	190 X 120 X 56 (mm)	
Weight	1.4 Kg	

Note: Specifications are subject to change without notice.



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