

## Synthesizer, 5.4-6.1 GHz, 19dBm, +12,-5Volts

code-L1

500kHz Step Size, SMA Female Connectors, 100 MHz Internal Reference

**Variable Frequency: Select C-Band 5.4-5.6GHz or D-Band 5.8-6.1GHz, 500kHz Step Size**

**RSYNTH-L506-5.4-6.1-500kHz-Sf-19d(+12,-5v)-IR100M-L1**

Raditek's L506 Series covers 2-Frequency Ranges in C and D Band and has been developed for portable OFDM Microwave Link (FPU) of Digital TV Broadcasting Systems. The Phase Noise characteristic of the synthesizer meets or exceeds the requirement of both Japanese ISDB and European DVB-T standard. Applying our unique Dual VCO, 2-Frequency Ranges 5.4~5.6GHz & 5.8~6.1GHz can be covered by one DVCO with very Low Phase Noise. Also, extremely High Frequency Accuracy,  $\leq \pm 0.2 \times 10E-7$  at  $-20 \sim +70^{\circ}\text{C}$  and very Low Phase Noise, -100dBc/Hz can be achieved by Build-IN SC-cut, 100MHz OCXO as internal reference.



**Order Examples: RSYNTH-L506-5.4-5.6-500kHz-Sf-19d(+12,-5v)-IR100M-L1**

Electrical Performance		Units
Frequency Range :		
• Band - C	5400 ~ 5600	MHz
• Band - D	5800 ~ 6100	MHz
Step Size, Min	500	kHz
RF Output Power :	+19dBm $\pm$ 2dB	dBm
SSB Phase Noise		
• 100Hz offset	$\leq$ -80	dBc/Hz
• 1 KHz offset :	$\leq$ -85	dBc/Hz
• 10 Hz offset :	$\leq$ -90	dBc/Hz
• 100 KHz offset :	$\leq$ -105	dBc/Hz
• 1 MHz offset :	$\leq$ -130	dBc/Hz
Spurious: Harmonics -	$\leq$ -35	dBc
Non-Harmonics :	$\leq$ -65	dBc
Control	Parallel 7 bits, TTL	
Alarm Out		
• Lock :	TTL-Hi	
• Un-Lock :	TTL-Lo	
Lock up Time	$\leq$ 20	msec
Frequency Stability :	$\leq \pm 2 \times 10^{-7}$	ppm at -10 to +50°C
DC Bias :	600	mA at +12V
	20	mA at -5V
Environmental Conditions		
• Guarantee Performance	-10 ~ +50	°C

RSYNTH-L506-5.4-5.6-500kHz-Sf-19d(+12,-5v)-IR100M-L1      **Specifications may be subject to change**

03/11/10

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Electrical Performance	Units	
• Guarantee Operating	-20 ~+70	°C
Package Connectors		
• Size	70x105x21	mm
• Weight	350	g Max.
• Connectors RF Control	SMA (F)	
• DC- Bias	5268-14A (Mol ex)	

**4930.5MHz 2UNITS METHOD**

