

## Synthesizer, 12.9-14.0GHz, 12dBm, +10Volts

code-L1


**500kHz Step Size, SMA Female Connectors, 10 MHz External Reference**  
**Variable Frequency: Select any 100MHz Bandwidth between 12.9-14.0GHz**  
**RSYNTH-L513-12.9-14.0(100M)-500kHz-12d10v-ER10M-L1**

Raditek's L513 Series Synthesizer is a newly developed 13 GHz Band Direct PDRO Synthesizer and has developed this advanced and powerful Ku-Band Synthesizer by combining its years experience and technologies of extremely low noise DRO and phase locked loops. Without any degradation of the DRO characteristics, the product can be functioned to generate arbitrary frequency in the Ku-Band with a highest frequency resolution at 100 KHz. The typical measured performance data are shown below. This powerful, unique 13 GHz band direct PDRO Frequency Synthesizer can be effectively applied to: many Land Based Digital Microwave communication System; Satellite Microwave Communication Systems and Digital TV Broadcast Systems.



**Features:**

- Ultra Low Phase Noise.....-95 dBc/Hz at 1KHz offset
- Wide Bandwidth.....100 MHz Max including Mechanical Tuning
- Compact Size .....60L x60W x30H
- Attractive Price and Short Lead Time

 **Order Examples: RSYNTH-L513-13.1-13.2-500kHz-12d10v-ER10M-L1**

Electrical Performance		Units
Frequency Range :	12.959 ~ 14.0	GHz
	(Specify frequency of this range)	
Bandwidth	100	MHz
Step Size	500	kHz
RF Output Power :	+12 -2dB/+1 dB	dBm
SSB Phase Noise		
• 100Hz offset	≤-85	dBc/Hz
• 1 KHz offset :	≤-95	dBc/Hz
• 10 KHz offset :	≤-100	dBc/Hz
• 100 KHz offset :	≤-115	dBc/Hz
• 1 MHz offset :	≤-140	dBc/Hz
Harmonics	≤-35	dBc
Spurious	-70 (0 ~ 300MHz, 5GHz ~ 20GHz) -60 (300MHz ~ 5GHz)	dBc
Alarm Out		
• Lock :	Hi	
• Un-Lock :	Lo	
External Reference	10MHz, 0dBm-1dB / +3dB at 50 ohm	

**RSYNTH-L513-12.9-14.0(100M)-500kHz-12d10v-ER10M-L1**      **Specifications may be subject to change**

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**RSYNTH-L513-12.9-14.0(100M)-500kHz-12d10v-ER10M-L1**

Electrical Performance		Units
	C/N = -160 dBc/Hz at 1KHz offset	
Frequency Stability :	Same as External Reference	
DC Bias :	250	mA @+10V ± 5%
Operating Temp. Range	-20 ~+60	°C
Package Size	60L x60W x30H	mm

### 12.8845GHz PLDRO(003+sample)

