

TS00-02A

125MHz to 3GHz Up/Down Converter

General Description

The TS00-01A designed for radar systems applications. It has a high gain and flatness in bandwidth.



Applications

- Marine radar
- Navigation radar
- Weather radar
- Missile tracking radar
- Space exploration radar
- Surveillance ground radar
- Threat detection radar
- Air traffic control radar

Up Converter Electrical Specification

Parameter	Specification	Comment
Input Frequency	125MHz	BW= 30MHz
Output Frequency	2900 - 3100MHz	
Input Power	-10dBm	
Output Power	10dBm	Typ.
Gain	20dB	
Gain Flatness	± 1 dB	
Gain Control	30dB	0.5dB Step
Gain Stability	± 1 dB	
Harmonic	60dBc	
Spurious	65dBc	
VSWR	1.5:1	In/Output
Supply Voltage	+6V	
Supply Current	1.2A @ +6V	Max.

125MHz to 3GHz Up/Down Converter

Down Converter Electrical Specification

Parameter	Specification	Comment
Input Frequency	2900 - 3100MHz	BW= 30MHz
Output Frequency	125MHz	
Output Power	0dBm	Max.
Output Power Dividing	-20dBm \pm 1dB	
Gain	30dB	Typ.
Gain Flatness	\pm 1dB	
Gain Control	30dB	0.5dB Step
Gain Stability	\pm 1dB	
STC	40dB	Min.
NF	6dB	Max.
Harmonic	60dBc	
Spurious	65dBc	
VSWR	1.5:1	In/Output
Supply Voltage	+6V, -6V	
Supply Current	1.2A @ +6V	Max.

Frequency Synthesizer Electrical Specification

Parameter	Specification	Comment
Reference Frequency	10MHz	OCXO
Output Frequency	10MHz, 2-port	Reference
	1960 – 2260MHz	1 st LO (Variable)
	815MHz	2 nd LO (Fixed)
Output Power	3dBm ± 1dBm	Reference
	4dBm ± 1dBm	1 st LO
	2dBm ± 1dBm	2 nd LO
Phase Noise (1 st LO, PLL)	65dBc	100Hz
	90dBc	1KHz
	90dBc	10KHz
	95dBc	100KHz
Phase Noise (2 nd LO, PLL)	65dBc	100Hz
	90dBc	1KHz
	90dBc	10KHz
	95dBc	100KHz
Spurious	-60dBc	
Phase Noise (Reference OCXO)	140dBc	100Hz
	150dBc	1KHz
	155dBc	10KHz
Lock Time	70us	Max.
Harmonic	-60dBc	
Supply Voltage	+6V	
Supply Current	2A @+6V	Steady state
	2.4A @+6V	Warm up

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Mechanical Specification

