Mid-Atlantic RF Systems Inc. P.O. Box 745 Forest Hill, MD 21050 Phone: (410) 893-2430 Fax: (410) 638-5193 Email: Info@Midatlanticrf.com Web: www.midatlanticrf.com

TUN2-LM01 Dual L-Band Tuner

5.366

Features:

- LNA w/ Gain Control
- High input power protection with an out-of-lock indication for BIT
- Single Conversion
- Small to High Production Quantities
- Field Tested Since 1999

Overview

The TUN2-LM01 is a dual L-band single-conversion tuner designed for use in Microwave Radios. The operating frequency range spans from $1.71 \sim 1.84$ GHz with the low band at 1.71 GHz ~ 1.75 GHz and the high band at: 1.80 GHz ~ 1.84 GHz.

Outline Drawing

2.913

.748

All dimensions in inches

RF Input Frequency: 1.71 to 1.85 GHz Power Protection Reference: 0 dBm Power Attenuation: 45 dB min LNA Noise Figure: 1.5 dB max In/Out Impedance	Floatrical Specifications:	
Power Protection Reference: 0 dBm Power Attenuation: 45 dB min LNA Noise Figure: 1.5 dB max In/Out Impedance 50 Ω TUN Module Gain over Temp: 59 dB +2/- 1 dB Spurious Attenuation: 70 dB Min Band Switch Control: TTL BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz		
Power Attenuation: 45 dB min LNA Noise Figure: 1.5 dB max In/Out Impedance 50 Ω TUN Module Gain over Temp: 59 dB +2/- 1 dB Spurious Attenuation: 70 dB Min Band Switch Control: TTL BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz		
LNA Noise Figure: 1.5 dB max In/Out Impedance 50 Ω TUN Module Gain over Temp: 59 dB +2/- 1 dB Spurious Attenuation: 70 dB Min Band Switch Control: TTL BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	Power Protection Reference:	
In/Out Impedance 50 Ω TUN Module Gain over Temp: 59 dB +2/- 1 dB Spurious Attenuation: 70 dB Min Band Switch Control: TTL BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	Power Attenuation:	45 dB min
TUN Module Gain over Temp: 59 dB +2/- 1 dB Spurious Attenuation: 70 dB Min Band Switch Control: TTL BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	LNA Noise Figure:	1.5 dB max
Spurious Attenuation: 70 dB Min Band Switch Control: TTL BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	In/Out Impedance	50 Ω
Band Switch Control: TTL BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	TUN Module Gain over Temp:	59 dB +2/- 1 dB
BPF Bandwidth Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	Spurious Attenuation:	70 dB Min
Pass Band BW (1dB): 41 MHz Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	Band Switch Control:	TTL
Pass Band Ripple: +/-0.50 dB Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	BPF Bandwidth	
Image Rejection: 80 dB min IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	Pass Band BW (1dB):	41 MHz
IF Rejection: 100 dB min Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	Pass Band Ripple:	+/-0.50 dB
Synthesizer SSB Phase Noise Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	Image Rejection:	80 dB min
Offset (kHz) 1: -70 dBc / Hz 10: -75 dBc / Hz 100: -105 dBc / Hz	IF Rejection:	100 dB min
10: -75 dBc / Hz 100: -105 dBc / Hz	Synthesizer SSB Phase Noise	
100: -105 dBc / Hz	Offset (kHz) 1:	-70 dBc / Hz
	10:	-75 dBc / Hz
1000 125 dBa / Hz	100:	-105 dBc / Hz
1000133 dDC / 112	1000:	-135 dBc / Hz
Synthesizer EM Noise. No more than 30 Hz	Synthosizon EM Noison	No more than 30 Hz
Synthesizer FM Noise: peak deviation	·	peak deviation
(Residual FM) peak deviation measured in a 50	(Residual FM)	
Synthesizer Channel Spacing: 256 kHz step	Synthesizer Channel Spacing:	256 kHz step

Mechanical Specifications:

Dimensions: 5.866" x 2.913" x 0.748" **Connectors:** BMA(f), MCX(f) x2

Environmental Specifications:

OperatingTemperature: -40°C to +55°C **Storage Temperature:** -55°C to +85°C