

# 18 TO 26 GHz LOW-NOISE RECEIVER FRONT END

## MODELS: AR1826LI8A, AR1826LI8B AND AR1826LI8C

### FEATURES

- RF/LO coverage ..... 18 to 26 GHz
- IF operation ..... 20 to 200 MHz
- Conversion gain ..... 35 dB typical
- Image rejection ..... 23 dB typical
- Noise figure..... 2.9 dB typical

### OPTIONS

- Integrated LO amplifier
- Waveguide input
- Single positive bias supply
- Custom IF frequencies
- Custom bandwidths

### ELECTRICAL SPECIFICATIONS

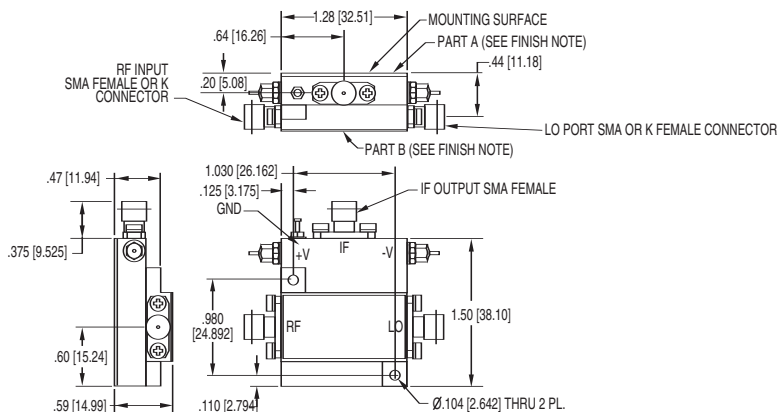
INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
RF/LO frequency range		GHz	18		26
RF/LO VSWR (RF = -10 dBm)		Ratio		2.5:1	
LO power range		dBm	+16		+18
LO VSWR		Ratio		2.5:1	
Bias	@ +9 to +16 V @ -9 to -16 V	mA mA		250 30	
TRANSFER CHARACTERISTICS	CONDITION	UNITS	MIN.	TYP.	MAX.
Conversion gain	RF > LO	dB	31	38	
Single-sideband noise figure at 25°C		dB		2.9	3.3
Image rejection	RF < LO	dB	18	23	
LO-to-RF isolation		dB	40		
LO-to-IF isolation		dB		20	
Output power at 1 dB compression		dB	+5	+10	
OUTPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
IF frequency range	AR1826LI8A AR1826LI8B AR1826LI8C	MHz MHz MHz	20 40 100		40 80 200
IF VSWR (IF = -10 dBm)		Ratio		1.5:1	

NOTE: Test data supplied at 25°C; conversion loss, LO-to-RF isolation and image rejection.

### MAXIMUM RATINGS

Specification temperature ..... +25°C  
 Operating temperature ..... -55 to +85°C  
 Storage temperature ..... -65 to +95°C

### OUTLINE DRAWING



#### NOTES:

- Part A - Material: Aluminum  
Finish: Chemical film CL3
- Part B - Material: Kovar  
Finish: Gold plate

All dimensions shown in brackets [ ] are in millimeters.

