

iWR-6910

Miniature Wideband Microwave Tuner

FEATURES

- **Tuning range 0.5 to 18 GHz. (Optional integrated 26.5 GHz frequency extender)**
- **1GHz IF with 500 MHz BW and 160 MHz or 140 MHz IF with 100 MHz BW or 70 MHz with 50 MHz BW**
- **> 65 dB SFDR**
- **Tuning Speed: ITAR CONTROLLED**
- **Supports independent and phase coherent operation**
- **25 Watts Total Power**

DESCRIPTION

The iWR-6910 is iRF's Scalable, Modular, Architecture for Receive/Transmit applications. The iWR-6910 takes advantage of recent advances in microelectronics technology which enables superior SWAP reductions and overall RF performance. The benefits of SMART to our customers include ease of reconfiguration for platform migration including VME, VPX and CD-ROM.

The iWR-6910 offers superior performance and options when compared to our competition.

iWR-6910

SPECIFICATIONS AT 25° C

Frequency Range

0.5 to 18 GHz; 26.5 GHz Extender Optional

Max signal amplitude

+20 dBm without damage

Noise Figure

15 dB, max. 12 dB Typ.

Input IP3

≥ +5 dBm

Second order input intercept point

≥+50 dBm

IF Outputs

160 MHz standard ; 140 MHz or 70 MHz optional

1 GHz standard

IF Bandwidths

500 MHz, min at 1 GHz IF for tuned frequency above 1.25 GHz

Bandwidth decreases to 100 MHz at 0.45 GHz tuned frequency

Pre-selector Bypass mode

100 MHz, nom., 90 MHz, min. for IF at 160 MHz or 140 MHz

50 MHz, nom., 45 MHz min for IF at 70 MHz

Image and IF Rejection

≥70dB

Frequency stability

≤ ±1 ppm

Tuning Speed

ITAR CONTROLLED

Integrated Phase Noise

≤ 0.5° rms (100 Hz to 100 MHz)

Single Tone Spurious Free Dynamic Range

≥ 60 dB, 65 dB typ.

RF to IF Gain

+20 dB ± 1dB

RF Attenuation

0 to 20 dB, 5dB steps

IF Attenuation

0 to 30 dB; 1 dB steps (Independent control for each IF output)

LO leakage

< -90 dBm

Internally generated spurious

<-90 dBm

Phase Coherent

Through use of daisy chained LOs

Linear Dynamic Range

> 90 dB in a 1MHz bandwidth

Passband Flatness

± 1dB typ. over 100 MHz BW

± 1.5dB typ. over 500 MHz BW

Control

10/100/1000 Ethernet RJ-45

Power

25 Watts nominal

Connector

2pin LEMO

Voltage

+12 VDC

Operating Temperature Range

-10°C to +50°C

Weight

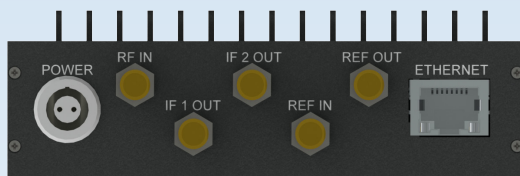
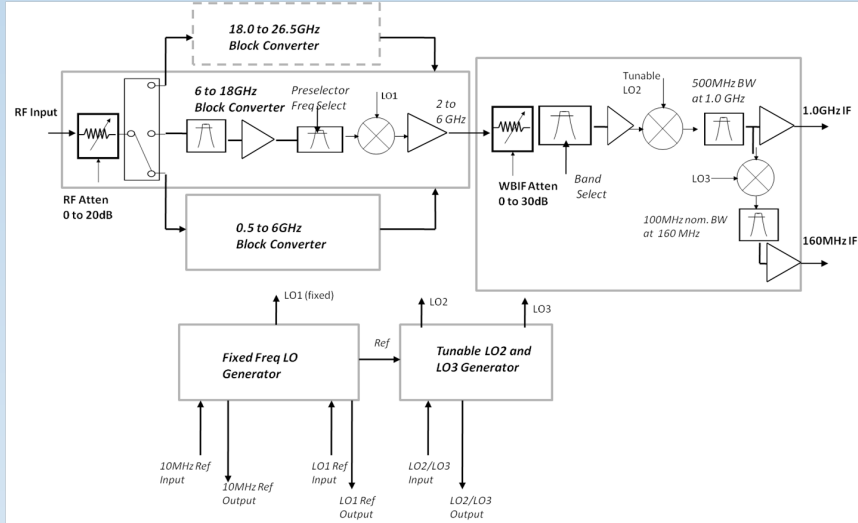
3 lbs.

Dimensions

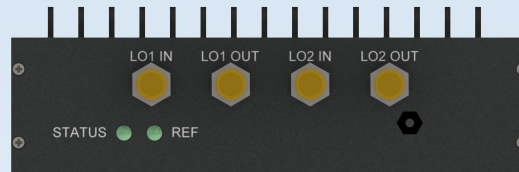
7.9" x 4.25" x 1.37" (Excluding connectors)

iWR-6910

BLOCK DIAGRAM



FRONT PANEL



REAR PANEL

OUTLINE

