



FEATURES

- Tuning range 0.5 to 26.5 GHz (Extendable to 44 GHz)
- 1GHz IF with 500 MHz BW and 160 MHz or 140 MHz IF with 80 MHz BW
- >60 dB Dynamic Range with Low Phase Noise
- <30 Watts Total Power
- Tuning Speed: Contact for factory information

The iWR-6910 is a high reliability, high performance RF tuner with minimal power consumption. The low profile microwave tuner is built using iRF's RF SMART Deck (Scalable, Modular Architecture for Receive/Transmit applications). The iWR-6910 leverages advanced microelectronics technology to enable superior SWAP reduction while also providing excellent RF performance. Despite its small size and low power consumption, the iWR-6910 provides excellent phase noise performance and signal fidelity. As part of iRF's innovative SMART product line, the iWR-6910 is easy to reconfigure for platform migration including VME, VPX and CD-ROM.

iWR-6910 APPLICATIONS

- Signals Intelligence
- Direction Finding
- Electronic Warfare
- Cross Pole/n-Channel
- Cyber Defense

SPECIFICATIONS (AT 25° C)

Frequency Range: 0.5 to 26.5 GHz

Max Signal Amplitude: +20 dBm without damage

Noise Figure: <18GHz: 15dB max., 13dB typ.
Above 18GHz, 3dB degradation

Input IP3: +3dBm typ., +2dBm min.

Second Order Input Intercept Point: $\geq +50$ dBm

IF Outputs: 1GHz, 160MHz, 140MHz (optional)

IF Bandwidths:
1GHz WBIF Output: 500MHz for tuned frequencies above 1.25GHz. Bandwidth decreases to 100MHz for tuned frequencies below 1.25GHz
160MHz, 140MHz NBIF Output: 80MHz min.

Image and IF Rejection: <18GHz: ≥ 70 dB, 18-26.5GHz: 70dB typical, 60dB min.

Frequency Stability: 2ppm standard, ± 5 ppb higher stability option.

Tuning Speed: Contact factory for more details

Tuning Resolution: 1 kHz

Integrated Phase Noise: 0.5°rms maximum (100Hz to 100MHz)

Single Tone Spurious Free Dynamic Range:
>55dB, > 60dB typ. for ≤ -20 dBm input
50dB typical: 7.4-7.5GHz

RF to IF Gain: +20 dB \pm 1dB

RF Attenuation: 0 to 20 dB, 10dB steps (optional)

IF Attenuation: 0 to 30 dB, 1dB steps
(independent control for each IF output)

LO Leakage: ≤ -90 dBm
Exceptions: 5.2GHz: -85dBm, 3.9GHz: -75dBm,
1.25GHz: -70dBm, <1.05GHz: -50dBm

Internally Generated Spurious: < -90 dBm EIL -85 dBm max for frequencies above 1.25 GHz -80dBm max for frequencies less 1.25 GHz

Phase Coherent: Through use of daisy chained LOs

Linear Dynamic Range: ≥ 90 dB in a 1MHz BW
<18GHz. ≥ 87 dB in a 1MHz BW 18-26.5GHz

IF Passband Flatness:
 ± 1 dB typical over centered 80MHz BW. ± 1.5 dB max
 ± 1.5 dB typical over 500MHz BW. ± 3 dB max

OPERATING INFORMATION

Operating Temperature Range: 0°C to +50°C

Control Interface: 10/100/1000 Ethernet RJ-45

Power Consumption: <30 watts

Voltage: +12 VDC

Weight: <3 lbs

Dimensions: 7.9" x 4.25" x 1.74" (excluding connectors)