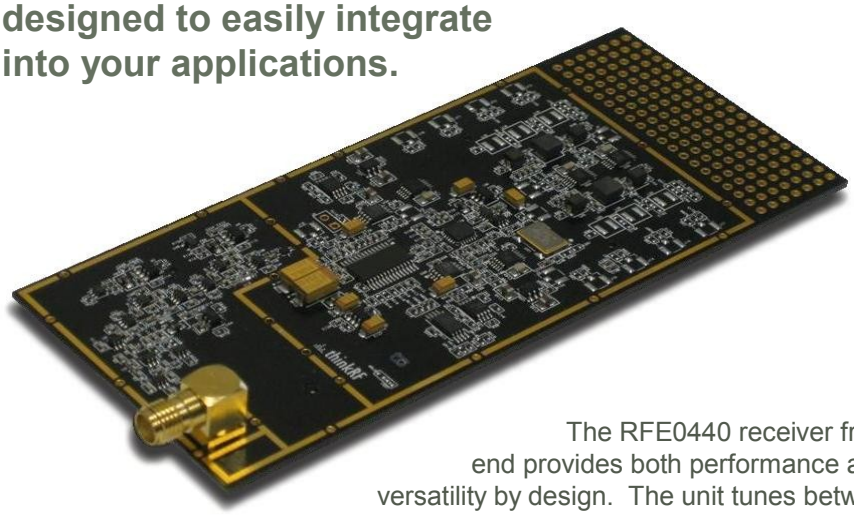
ThinkRF RFE0440 Receiver Front End

A high performance receiver front end designed to easily integrate into your applications.



Key Features

- Wide frequency range
- Wide instantaneous bandwidth
- Large operating amplitude range
- Total power consumption of less than 5 watt
- Cost-effective

Specifications

Frequency Range
- Tunes between 200-4000 MHz
- Specification compliant between 400-4000 MHz

Instantaneous Bandwidth
- Up to 300 MHz

Total Operating Amplitude Range
- 120 dB

Max. Input Power
- +20 dBm

Attenuation
- 60 dB in 20 dB steps

Phase Noise of RF PLL @ 2.45 GHz
- -89 dBc/Hz typ. @ 10 kHz offset
- -114 dBc/Hz typ. @ 100 kHz offset
- -134 dBc/Hz typ. @ 1 MHz offset
- -148 dBc/Hz typ. @ 5 MHz offset

Displayed Average Noise Level
- -110 dBm to -95 dBm typ. (as measured with WSA1000 digitizer)

Input Supply Voltage
- 6V +/- 5%

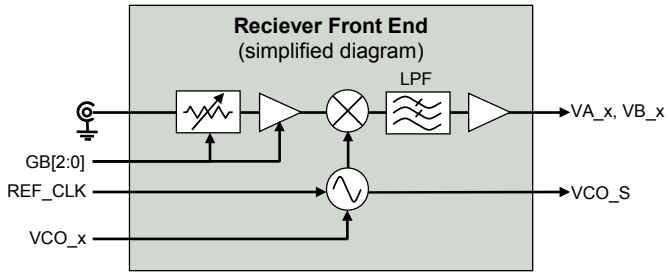
Input Current
- 0.8A max.

Operating temperature
- 0 to 50C

Dimensions (L x W x H)
- 5.10” x 3.20” x ~0.75”
- 12.95 cm x .8.12 cm x ~2cm

The RFE0440 receiver front end provides both performance and versatility by design. The unit tunes between 200 MHz - 4 GHz in 10 kHz steps and provides up to 300 MHz of instantaneous bandwidth.

The RFE0440 can be used to capture signals over a 120 dB amplitude range and can tune from one frequency to another in less than 300 micro-seconds. The large instantaneous bandwidth, operating amplitude range, sensitivity and fast lock times ensure reliable signal detection across a wide frequency range. These features and specifications make the RFE0440 ideally suited to applications such as SIGINT, Spectrum Monitoring and Wideband Signal Analysis.



Ordering Information

Order Number	Instantaneous BW	Frequency Range
• RFE0440	100 MHz	400-4000 MHz

Contact Us

For more information on ThinkRF's products, applications or services, please contact us our sales team by phone +1.613.369.5104 ext 1 or by email sales@thinkrf.com or visit our website at www.thinkRF.com

ThinkRF is located at 300 March Road, Ottawa, ON K2K 2E2 Canada

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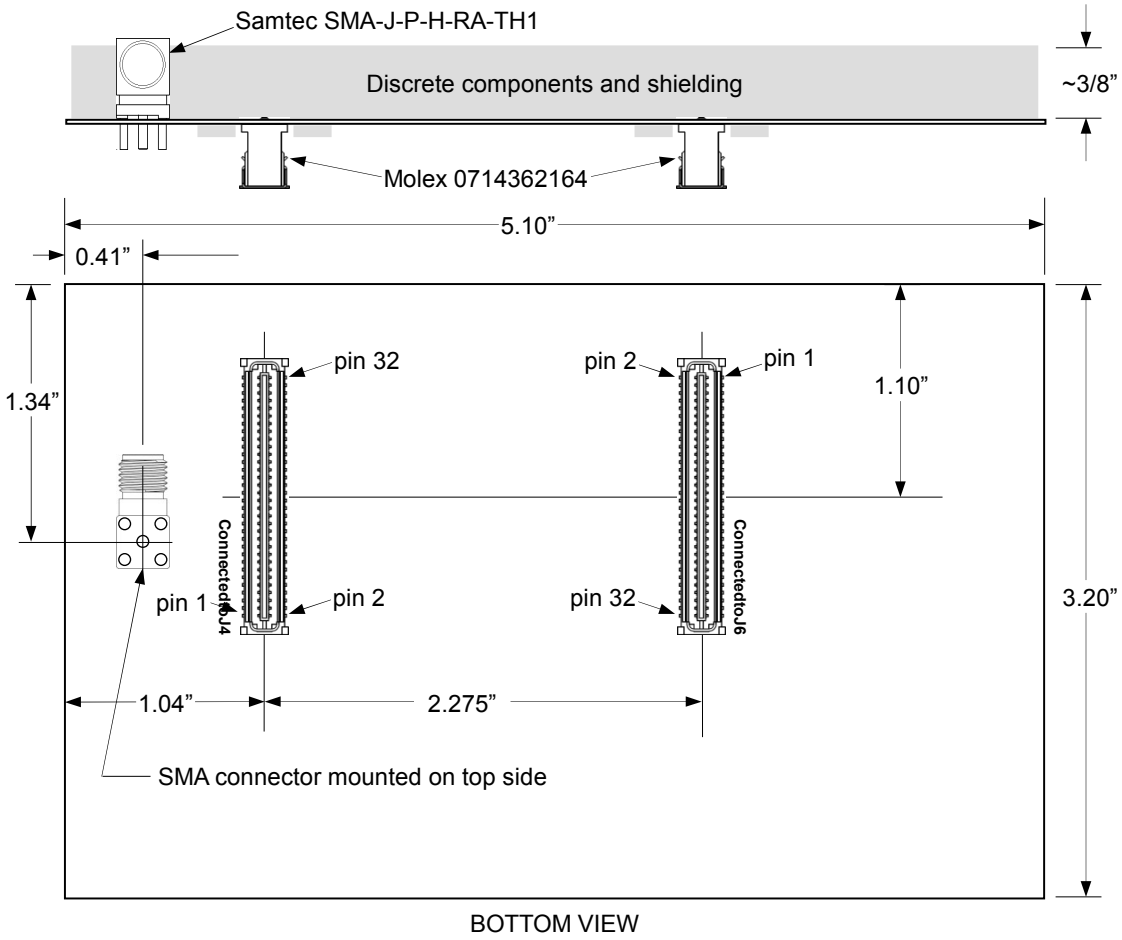
Physical Dimensions



BOTTOM VIEW

Signal Description

Analog Interface (J4)

Pin	Name	I/O	Description
32,34	VB_P, VB_N	O	Quadrature output, negative and positive differential pair
38,40	VA_P, VA_N	O	In-Phase output, negative and positive differential pair
1-8	V+		6V power supply rail
9-13,16, 19-23,25-27,29-31, 33,35-37, 39,41-56	GND		Ground

Digital Interface (J6)

Pin	Name	I/O	Description
23,25			Not used
24	VCO_LE	I	VCO data latch in
26	LED	I	Power LED
28	VCO_S	O	VCO lock detect status
29	VCO_D	I	VCO data in
31	VCO_CLK	I	VCO data clock in
36,34,32	GB[2:0]	I	RF chain gain / attenuation selection
1,2,4,11, 13,27,30, 33,46,51, 53,55,57, 59,61-64	GND		Ground