

HXI Model 8300 73 GHz Multi-Static FMCW Radar Front End ("RFE")

The HXI 8300 Radar Front End consists of separate Tx and Rx Modules, that when integrated with the Local Oscillator Module ("LOM"), form the superheterodyne portion of a fully coherent, linearized, ultra-wideband, FMCW, Monostatic, Bistatic, or Multistatic, radar. The LOM directly supports a maximum of eight Tx or Rx Modules - in any combination - that connect via coaxial cables. The RFE modules use "breadboard" construction and are intended to support lab-quality data collection efforts in indoor or sheltered outdoor environments. Miniaturized, weather-proof versions are optionally available.

- * Fully Coherent
- * Closed-Loop Linearized
- * 70-77 GHz FM Sweep Bandwidth
- * 8 Tx and Rx Modules Simultaneously Supported, in any combination, up to 10 ft. apart - Standard
- * 64 Tx and Rx Modules Simultaneously Supported, in any combination, up to 20 ft. apart - Optional
- * Supports simultaneous multi-illumination, multi-look angles.



[REC Product Video](#)
[three minutes](#)

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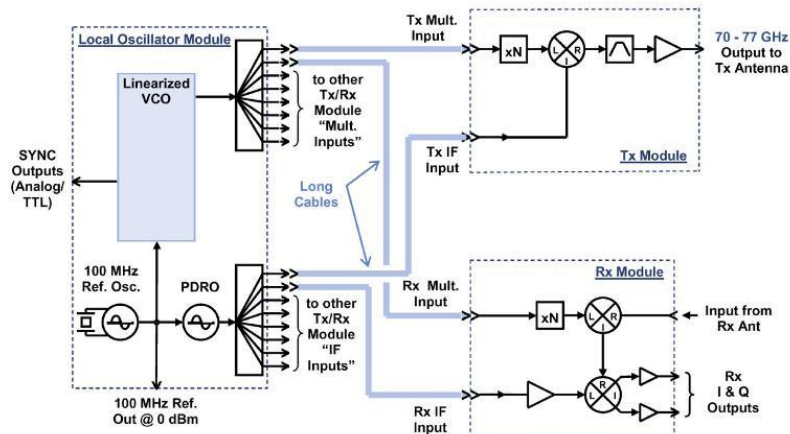
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RFE Parameters

Parameters	Value
RF output frequency sweep	70 - 77 GHz
RF output (antenna injection) power	+7 dBm (5 mW) typ.*
Out-of-band spurious	-55 dBc max.
FM sweep linearity	>99.99%
FM sweep waveform	symmetrical triangle
FM sweep time	164 μ S up/down ramps
Rx Noise Figure	9 dB typ.
Rx (-1 dB) input comp. pt.	0 dBm typ.
Rx RF/Video gain	17.5 dB nom.
Rx Video output frequency range	1 - 10 MHz, -0.8 dB BW
Rx Video output vs. target range	285 KHz/m
Rx I/Q phase balance	within ± 3 deg. typ.
Rx I/Q amplitude balance	± 0.2 dB typ.
LOM Reference output	100 MHz @ 0 dBm
Antenna interfaces	WR-12, UG387/U

*up to 20 dBm min. (100 mW) available



For more information about Renaissance/HXI products contact us at 978-772-7774 or visit www.rec-usa.com / www.hxi.com.

Renaissance Electronics Product Video

We are pleased to present our updated three minute REC product video showcasing state of the art products and also interviews with key individuals. This video can be viewed at <http://vimeo.com/user8831543/renaissance-electronics-corporation/video/35465274>

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