

# OpenRFM 6U, VXS single-channel microwave, ultra wideband EW tuner (Rx)

RFM-1R1S18K-L1-VXS



- Tunable range 0.5 to 18.0 GHz with built in synthesizer
- Versatile and highly SWaP efficient
- Open systems architecture, versatile, modular and scalable
- Ideally suited to wideband, low-latency, coherent EW applications

RFM-1R1S18Ks are Mercury's latest series of highly scalable, single-channel tuners with ultra-wideband front-ends. Equally suited to new electronic warfare (EW) applications and modernizations, these low-latency configurations are open systems architecture (OSA) solutions comprised of three OpenRFM™ RF/Microwave building blocks, packaged as single-width, 6U VXS modules.

OpenRFM standardizes the electromechanical, software, control plane and thermal interfaces used by integrated microwave assemblies (IMAs) to streamline the design and integration of RF and digital capabilities within sensor processing subsystems. Standard interfaces leverage IP re-use across applications to drive overall investment value, efficient SWaP-C utilization and expedited time-to solution/market.

OpenRFM standardizes and makes scalable through modularization, the design, test, and control plane practices for interfacing RF and digital subsystems within embedded architectures, most notably for EW/SIGINT applications using OpenVPX or VXS/VME processing architectures. OpenRFM technology development enables adopters a smooth validation and verification upgrade path. OpenRFM's modular methodology drives high channel density and facilitates efficient technology development as witnessed by OpenRFM's technology roadmap (below).

The RFM-1R1S18K series of tuners packages three rugged OpenRFM modules into a single-width, 6U VXS package comprised of a wideband front-end tuner (0.5 to 18.0 GHz), a synthesizer to ensure coherent outputs from the third OpenRFM module; a quad-converter that delivers four IF outputs. These tuners demonstrate OpenRFM's versatility and effectiveness to quickly configure affordable solutions for complex EW challenges.

OpenRFM roadmap						
	2014	2015				2016
	Q4	Q1	Q2	Q3	Q4	Q1
<b>Solution</b>	• 6U VXS EW tuner	• 6U VXS Radio tuner		• 6U VPX Radio tuner • 6U VPX EW tuner	• 3U VPX radio tuner	• 6U EW tuner - II
<b>OpenRFM Module</b>	• 6U VXS carrier • Synthesizer module • Tuner module • Quad-converter module	• Radio tuner module		• 6U VPX carrier	• 3U VPX carrier	• EW synthesizer module - II

Mercury Systems is the better alternative for affordable, secure processing subsystems designed and made in the USA. These capabilities make us the first commercially based defense electronics company built to meet rapidly evolving next-generation defense challenges.

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