



Product Line Overview

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Exalt offers an expansive portfolio of carrier-class, point-to-point microwave radios covering a wide range of configurations, frequencies, protocols, capacities, technologies and markets:

Configurations	EX-i Series (All-indoor), EX-r Series (All-outdoor), EX-s Series (Split-mount)
Frequency Categories	Licensed and License-exempt
Frequency Bands (GHz)	2.4 / 4.9 / 5.2, 5.4, 5.8 / 11 / 18 / 23
Protocols	Ethernet (native) and TDM (native)
Capacity	Low (< 100 Mbps), Medium (100 – 200 Mbps), High (200+ Mbps)
Technology	Time Division Duplexing (TDD) and Frequency Division Duplexing (FDD)
Markets	Mobile Operator, Service Provider, Enterprise, Vertical, Government

Exalt microwave radios are characterized by numerous industry firsts, a wide array of carrier-class capabilities and unique features and benefits that are available across the portfolio.

Carrier-class means guaranteed availability. All Exalt radios can support 99.999% guaranteed availability *and* user throughput for properly engineered paths, so you can be sure that the link will deliver the capacity for which it was designed. Exalt was the first and is the only vendor to offer true carrier-class TDD radio systems, all of which feature Exalt's CarrierTDD™ technology.

Carrier-class means native TDM and Ethernet. All Exalt radios are designed to accommodate both TDM and Ethernet in their native modes, ensuring rock-solid performance. Because capacity can be flexibly allocated between TDM and Ethernet, Exalt radios are ready to support any TDM to IP migration timeline.

Carrier-class means software upgradeable capacity and features. Exalt radios are managed systems, designed for minimal upkeep. After they're installed, all capacity and optional features are upgradeable using a software license key. No hardware changes are required.

Carrier-class means low, fixed latency. People expect low latency from FDD radios and Exalt delivers with sub-500µs delay. What people don't expect is TDD radios capable of fixed, 1ms latency, providing guaranteed performance for latency-sensitive traffic in both licensed and license-exempt bands. Exalt delivers there, too.

Carrier-class means deployment flexibility. Exalt radios are available in multiple configurations and capacities to meet site-specific needs, while a single spare can serve both ends of any link. And since all Exalt radios ship with the full complement of specified interfaces, there's never a need for hardware swaps.

Selectable channel bandwidth and modulation. All Exalt radios can be configured for a variety of occupied bandwidth and modulation combinations, allowing users to strike the optimum balance between spectrum use, throughput and range.

Throughput symmetry control. All Exalt TDD radios allow throughput to be allocated evenly or asymmetrically up to 80:20 between the two link directions, maximizing bandwidth utilization for asymmetric traffic requirements such as video surveillance, broadcasting and ISP services.









Industry-leading throughput. Exalt proprietary digital radio technology is designed to pack more bits into less spectrum. Exalt's latest 5 GHz TDD radio, the EX-5r GigE, achieves an unmatched 440 Mbps guaranteed user throughput.

Interference avoidance. Exalt license-exempt TDD radios can be tuned across the entire band in 1 MHz increments, enabling the selection of dozens of center frequencies. Freed from channel plan restrictions, narrow, specific gaps of available spectrum can now be exploited, enabling exceptional interference avoidance.





ExaltSync™ synchronization. All Exalt TDD radios can be collocated through use of ExaltSync synchronization technology. Multiple radios can be deployed in close proximity without self-interference, minimizing antenna separation and ensuring reuse of scarce spectrum.

High security. All Exalt radios feature optional 128-bit and 256-bit AES encryption for the ultimate link security and included SNMP v3 for secure management.







EX-i Series. The EX-i series of all-indoor, point-to-point microwave radios includes both license-exempt and licensed band systems offering flexible, upgradeable native Ethernet and native TDM capacity. Radios in the EX-i series are the first indoor carrier-class TDD systems in the industry, offering guaranteed performance and a rich set of features with the accessibility benefits of an all-indoor configuration.

EX-2.4i Lite		Entry-level, 2.4 GHz TDD microwave radio for enterprises and service providers. Base configuration of 27 Mbps aggregate user throughput (Ethernet) is software upgradeable to 55 or 100 Mbps Ethernet and 2xT1/E1 or 4xT1/E1.
EX-2.4i		2.4 GHz TDD microwave radio for enterprises and mobile operators. Base configuration of 100 Mbps aggregate user throughput (Ethernet) is software upgradeable to 200 Mbps Ethernet and 2xT1/E1 or 4xT1/E1. Longest range, highest capacity radio available at 2.4 GHz.
EX-2.4i-16		2.4 GHz TDD microwave backhaul radio for mobile operators. Base configuration of 100 Mbps aggregate user throughput (Ethernet) plus 4xT1/E1 is software upgradeable to 200 Mbps Ethernet and 16xT1/E1.
EX-4.9i		Licensed 4.9 GHz TDD microwave radio for government and public safety organizations. Base configuration of 27 Mbps aggregate user throughput (Ethernet) plus 2xT1/E1 is software upgradeable to 55 Mbps Ethernet and 2xT1/E1 or 4xT1/E1.
EX-5i Lite		Entry-level, tri-band 5 GHz TDD microwave radio for enterprises and service providers. Base configuration of 27 Mbps aggregate user throughput (Ethernet) is software upgradeable to 55 or 100 Mbps Ethernet and 2xT1/E1 or 4xT1/E1.
EX-5i		Tri-band 5 GHz TDD microwave radio for enterprises and mobile operators. Base configuration of 100 Mbps aggregate user throughput (Ethernet) is software upgradeable to 200 Mbps Ethernet and 2xT1/E1 or 4xT1/E1.
EX-5i-16		Tri-band 5 GHz TDD microwave backhaul radio for mobile operators. Base configuration of 100 Mbps aggregate user throughput (Ethernet) plus 4xT1/E1 is software upgradeable to 200 Mbps Ethernet and 16xT1/E1.
EX-5i-DS3		Tri-band 5 GHz TDD microwave backhaul radio for mobile operators. Base configuration of 100 Mbps aggregate user throughput (Ethernet) plus 4xT1/E1 is software upgradeable to 200 Mbps Ethernet, 16xT1/E1 and 1xDS3.

EX-r Series. The EX-r series of all-outdoor, point-to-point microwave radios includes both license-exempt and licensed band systems offering flexible native Ethernet and native TDM capacity. Radios in the EX-r series are the first outdoor carrier-class TDD systems in the industry, offering guaranteed performance and a rich set of features with the performance benefits of an all-outdoor configuration.

EX-4.9r v2 EX-4.9r-c v2		Licensed 4.9 GHz TDD microwave radio for government and public safety organizations. Base configuration of 27 Mbps aggregate user throughput (Ethernet) is software upgradeable to 55 Mbps Ethernet and 2xT1/E1 or 4xT1/E1.
EX-5r Lite EX-5r-c Lite		Entry-level, tri-band 5 GHz TDD microwave radio for enterprises and service providers. Base configuration of 27 Mbps aggregate user throughput (Ethernet) is software upgradeable to 55 or 100 Mbps and 2xT1/E1 or 4xT1/E1. Integrated panel antenna.
EX-5r v3 EX-5r-c v2		Tri-band 5 GHz TDD microwave radio for enterprises, service providers and government and public safety organizations. Base configuration of 100 Mbps aggregate user throughput (Ethernet) is software upgradeable to 200 Mbps Ethernet and 2xT1/E1 or 4xT1/E1.
EX-5r GigE EX-5r-c GigE		Ultra-high performance, tri-band 5 GHz TDD microwave backhaul radio for service providers and mobile operators. Base configuration of 220 Mbps aggregate user throughput (Ethernet) is software upgradeable to and industry-best 440 Mbps and 4xT1/E1. Includes two 10/100/1000BaseT ports.

EX-s Series. The EX-s series of split-mount, point-to-point microwave radios are a set of licensed band systems offering flexible native Ethernet and native TDM capacity and designed to support migration from TDM to IP. The split-mount design combines indoor accessibility with the RF and cost efficiency of Exalt's outdoor models while delivering state of the art Ethernet and TDM performance.

EX-11s		11 GHz microwave radio for enterprises and government and public safety organizations. Base configuration of 45 Mbps full-duplex user throughput (Ethernet) is software upgradeable to 100 Mbps Ethernet and 4xT1/E1.
EX-11s-16		11 GHz microwave backhaul radio for mobile operators. Base configuration of 45 Mbps full-duplex user throughput (Ethernet) is software upgradeable to 100 Mbps Ethernet and 16xT1/E1.
EX-18s		18 GHz microwave radio for enterprises and government and public safety organizations. Base configuration of 15 Mbps full-duplex user throughput (Ethernet) is software upgradeable to 100 Mbps Ethernet and 4xT1/E1.
EX-18s-16		18 GHz microwave backhaul radio for mobile operators. Base configuration of 15 Mbps full-duplex user throughput (Ethernet) is software upgradeable to 100 Mbps Ethernet and 16xT1/E1.
EX-23s		23 GHz microwave radio for enterprises and government and public safety organizations. Base configuration of 15 Mbps full-duplex user throughput (Ethernet) is software upgradeable to 100 Mbps Ethernet and 4xT1/E1.
EX-23s-16		23 GHz microwave backhaul radio for mobile operators. Base configuration of 15 Mbps full-duplex user throughput (Ethernet) is software upgradeable to 100 Mbps Ethernet and 16xT1/E1.