



**RADIO
FREQUENCY
SYSTEMS**

Microwave Antennas

SUPERIOR PERFORMANCE

that won't fade





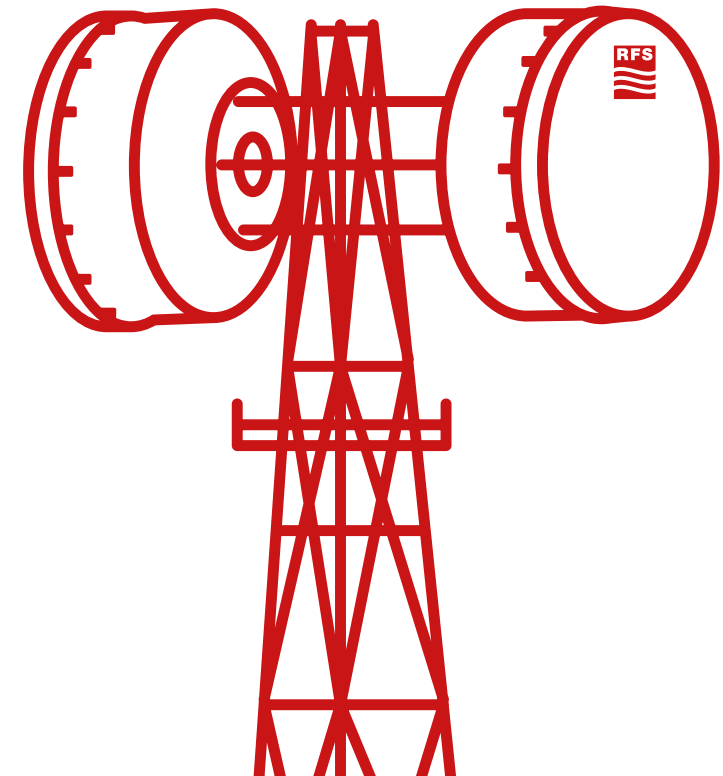
No compromises, no surprises

No one wants to risk poor microwave antenna performance or failures in the field. But, it's extremely challenging to find microwave antennas that **excel in all areas of design, performance and reliability**. In many cases, antenna design and performance are sacrificed for the sake of rock bottom prices. In the worst-case scenarios, performance and reliability decline in the field, leading to early and unanticipated antenna repairs and replacements that increase costs over the long term.

To reduce risks and total cost of ownership (TCO) for their customers, microwave antenna designers can't afford to compromise on any aspect of their solutions. They must deliver end-to-end microwave antenna solutions that dependably **perform at their peak capabilities for many years in the field, even in challenging conditions**. And they must deliver those solutions in a cost-effective way.

RFS is the **only microwave antenna vendor that can meet all of these criteria**. We guarantee our microwave antennas will deliver sustained, world-class performance for any application, for decades in the field, to reduce risks and TCO.

To reduce risks and cost,
designers must deliver
end-to-end microwave antenna
solutions that perform at their
**PEAK CAPABILITIES FOR
MANY YEARS IN THE FIELD**





High antenna performance

To guarantee consistently **high antenna performance throughout the antenna lifetime**, every component must be optimized for performance.

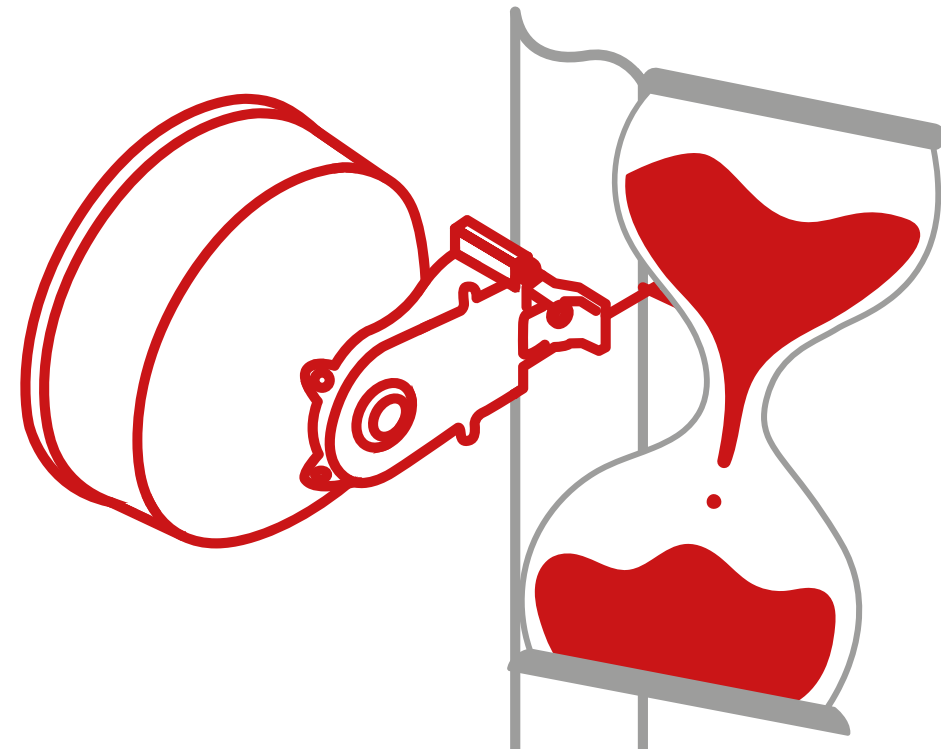
We precision-engineer every antenna component, including radomes, reflectors and shield absorbers, to maintain the specified antenna performance for life. Our microwave antennas:

- Deliver **world-class gain** to increase signal strength and quality.
- **Minimize sidelobes** —particularly upper sidelobes — to reduce signal-to-noise ratios and interference with other radio links.
- **Provide superior return loss and radiation patterns** that exceed specifications to increase throughput.

Our customers never have to purchase a higher-cost or larger antenna to compensate for expected performance degradation. In many cases:

- Our Class 3 antennas can be used instead of Class 4 antennas.
- Our 3-foot antennas can be used instead of 4-foot antennas.

high antenna performance **THROUGHOUT THE ANTENNA LIFETIME**





Innovations for 5G

To support the next generations of applications, microwave antenna designers must find **innovative new ways to increase throughput** while minimizing tower loads and leasing costs.

RFS was first to market with dual band microwave antennas that ingeniously combine high availability transmissions at 15, 18 or 23 GHz with high-capacity, low-latency transmissions in the 80 GHz E band. Our customers can backhaul higher volumes of 5G traffic over longer distances than they can with single-band microwave antennas and with lower latency than fiber connections.

first dual band microwave
antennas to combine
high availability transmissions
at 15, 18 or 23 GHz
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Antennas for every application

It can be tempting for microwave antenna vendors to offer fewer choices, but it often forces customers to compromise on antenna size or performance.

We understand the one-size-fits-all approach is not the best approach for our customers. As a result, **we offer a full range of antennas** for:

- Frequency bands from 3 GHz to 80 GHz. We also have D-band antennas for frequencies higher than 130 GHz in trials.
- Sizes ranging from 13 cm (0.4 feet) to 4.6 meters (15 feet).

Our microwave antenna models are optimized for our customers' applications and technical requirements:

- **CompactLine** for integrated and short haul applications.
- **SerenityLine** for super-high-performance that meets ETSI Class 4 standards.
- **TrunkLine** for long-distance and high-capacity applications.
- **PrimeLine** for the highest cross-polarization discrimination (XPD) in the industry.
- **Harsh Areas Line** for the most challenging industrial and environmental conditions.
- **INVISILine** for small cell and traditional applications.

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Sizes ranging from
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A stylized, grayscale illustration of a city skyline with various building heights, situated behind a line of evergreen trees. The scene is set against a light, hazy background, suggesting a landscape view.

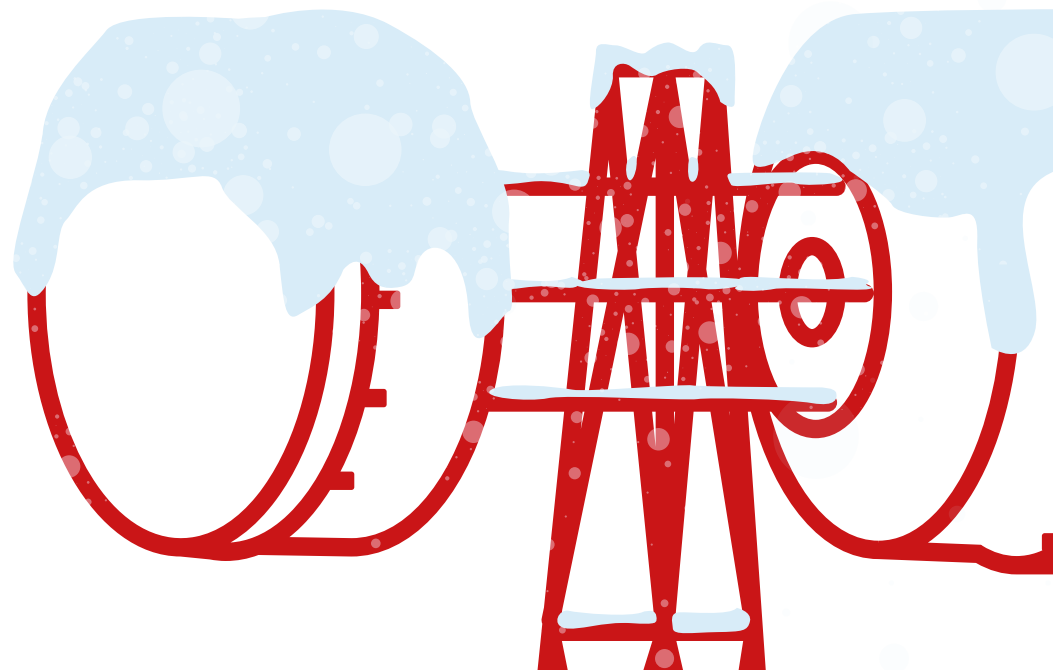


Antennas for life

Mechanical integrity in microwave antennas is essential for long-term reliability and sustained data rates. We go above and beyond the efforts of other microwave antenna vendors to ensure **our antennas perform in the field for decades:**

- The **mechanical designs** for all antenna components are based on advanced calculation methods, such as the finite element method, to ensure mechanical stability, higher wind resistance and lower maintenance requirements.
- All of our microwave antennas **undergo extremely stringent environmental, electrical and mechanical qualifications**, including wind tunnel tests, not just simulations.
- Our **high-wind, high-ice antennas are tested** to ANSI/TIA-222-H Risk Category II standards and feature an extreme radome option for the ultimate in resilience.

Mechanical integrity
is essential for
**LONG-TERM RELIABILITY
AND SUSTAINED DATA RATES**





RADIO FREQUENCY SYSTEMS



Subscribe to
our newsletter

CONTACT US TODAY

to learn how we can help you get microwave antennas that
reduce risks and TCO with no compromises and no surprises.

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