

# Major broadcasters futureproof with RFS technology

RFS' Variable Polarization Technology in use globally and by major US broadcasters as part of the spectrum repack, futureproofing ahead of ATSC 3.0 standards

Meriden, CT – March 27th, 2018 – Radio Frequency Systems (RFS), a global designer and manufacturer of total-package solutions for broadcast infrastructure, has today revealed how it's helping major US broadcasters futureproof as part of the spectrum repack, and ahead of ATSC3.0 standards, with its patented\* Variable Polarization Technology (VPT).

## Global deployments and US-specific demand:

RFS has now installed several VPT-powered elliptical antennas across the US, including at 1 World Trade Center (1WTC) in Manhattan. VPT systems are also increasingly being used across three geographies (North America, LATAM, and APAC) with demand being driven by broadcasters looking to prepare for the next-generation of TV and new transmission applications around the world.

Broadcasters in the US are increasingly choosing VPT-powered antenna systems when replacing existing hardware as part of the spectrum repack because these systems offer an important level of flexibility for the future. With VPT, the ratio of vertical to horizontal polarization can be changed after the antenna has been installed. It's no longer hardwired into the design and doesn't need to be the same for all broadcasters transmitting with the antenna, meaning they don't need to lock themselves into the restrictions of a fixed polarization system if transmission requirements change.

RFS' VPT-powered systems have a number of benefits:

- **Essential for shared antenna situations:** Allows each broadcaster to set their own polarization ratio. This brings superior signal penetration and coverage, while also enabling broadcasters to reduce infrastructure ownership costs.
- **Simplifies the evolution to ATSC3.0 standards:** Polarization changes can be made with minor adjustments at the transmitter level in the station. This will make it quick and easy for broadcasters to shift from horizontal to the elliptical polarization needed for mobile devices under ATSC3.0 when they are ready and without extra cost or upgrades.
- **Advanced transmission:** VPT-powered antennas can transmit advanced ATSC3.0 modes such as MIMO and MISO, increasing the volume of data that can be sent to a receiving device.

Nick Wymant, Broadcast CTO at RFS, said: "The US market is experiencing huge changes and there's no doubt that the future is going to depend on new hardware being installed. Understandably, broadcasters are eager to futureproof their investments. Variable Polarization Technology has been designed to take the headache out of this for broadcasters, not only by making an immediate tangible impact as the FCC spectrum repack continues, but also for the future as ATSC3.0 adoption becomes commonplace."

\* Variable Polarization Technology US patent #8494465



## **About RFS**

Radio Frequency Systems (RFS) is a global designer and manufacturer of cable, antenna and tower systems, plus active and passive RF conditioning modules, providing total-package solutions for wireless infrastructure.

RFS serves OEMs, distributors, system integrators, operators and installers in the broadcast, wireless communications, landmobile and microwave market sectors. As an ISO compliant organization with manufacturing and customer service facilities that span the globe, RFS offers cutting-edge engineering capabilities, superior field support and innovative product design. RFS is a leader in wireless infrastructure.

### Trademarks

RFS® is a registered trademark of Radio Frequency Systems. All other trademarks are the property of their respective owners.

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