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INCREASED AUDIENCE REACH WITH R&S®TE1

Independent broadcaster switches from VHF to UHF and expands audience reach with R&S®TE1 transmitter

AT A GLANCE

- ▶ **Customer:** WLMB-TV 40 – an independent broadcaster serving Northwest Ohio and Southeast Michigan
- ▶ **Task:** Expand audience reach and improve broadcast quality after switching from VHF to UHF
- ▶ **Challenge:** Finding a transmitter that could efficiently support a higher frequency and simultaneously provide a cost-effective solution
- ▶ **Solution:** R&S®TE1 liquid-cooled transmitter
- ▶ **Key benefits:** Energy efficiency, reduced cost of ownership, high reliability and ATSC 3.0 readiness to enable new business opportunities and increase audience reach and viewership



Use case details

WLMB-TV 40, a non-profit broadcaster, has been serving its community since 1998 with a roster of devotional and family-friendly programming. When the station won a bid for CH35, it needed to switch from its VHF band to UHF, which required a new transmitter to support the higher frequency and increase its power. WLMB-TV 40 sought out a solution that could provide substantial energy savings and a high return on investment, and ultimately increase its audience reach significantly.

Solution

The broadcaster needed to maximize efficiency and minimize cost where possible. The WLMB-TV 40 team conducted extensive research, spoke with respected broadcast engineers and met with manufacturers at trade shows before selecting the Rohde&Schwarz R&S®TE1 liquid-cooled transmitter.

The R&S®TE1 transmitter was chosen for its energy-efficient liquid-cooled design, which reduces energy costs and minimizes the need for power-intensive air conditioning. The transmitter's reliability and durability were also key factors in the decision, with the broadcaster estimating that the energy savings would pay for itself within three to four years.



R&S®TE1 liquid-cooled transmitter



“We’re pleased that our efforts will empower WLMB-TV 40 to better serve its audience and community. In addition to the energy savings, the R&S®TE1 is built to last beyond a decade of broadcast uptime.”

Erik Balladares, Vice President Broadcast Distribution at Rohde & Schwarz

The R&S®TE1 is also ATSC 3.0-ready, ensuring that WLMB-TV 40 is well positioned for future broadcast technologies. The installation of the new transmitter took approximately two weeks and has enabled WLMB-TV 40 to increase its audience reach by 28% and reduce operational costs.

“Once we were assigned the new UHF channel, we needed to find a way to maximize efficiency and minimize cost. As a non-profit organization, we’re very conscious of how we spend our dollars. We raised all the money for the transmitter through an on-air donation drive. The goal of WLMB is to invest back in our community. They trust us, and we work hard to maintain that trust.

Moving to UHF could prove an expensive upgrade if not handled wisely. We spent a lot of time calculating and researching this decision. We estimate that the energy savings of the R&S®TE1 will pay for itself within three years,” says Dr. Jamey Schmitz, President and Chief Executive Officer of WLMB.

Results

With the R&S®TE1 transmitter, WLMB-TV 40 has expanded its audience reach from 1.8 million households to 2.3 million, with 50% of these households able to receive the signal with a simple indoor or outdoor antenna. The broadcaster’s geographic broadcast reach has also expanded, with 1 240 000 people in neighboring TV markets able to receive the signal more easily.

The reliability of the R&S®TE1 was another strong selling point for WLMB-TV 40. “We’re pleased that our efforts will empower WLMB-TV 40 to better serve its audience and community,” says Erik Balladares, Vice President Broadcast Distribution at Rohde & Schwarz. “In addition to the energy savings, the R&S®TE1 is built to last beyond a decade of broadcast uptime.”

The R&S®TE1 transmitter has enabled WLMB-TV 40 to improve its broadcast quality and reduce operational costs, while also positioning the broadcaster for future growth and development.

