

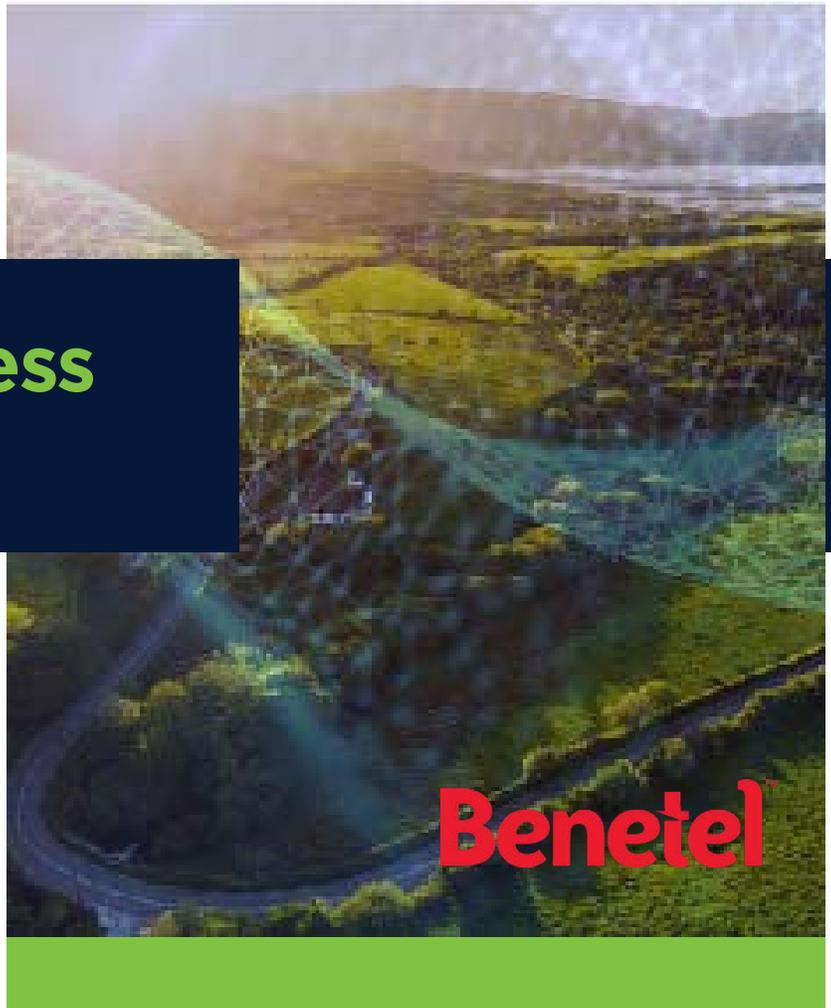
Customer Success Story: Benetel

“Taoglas delivered outstanding design, manufacturing and testing support - the responsiveness on technical and non-tech matters was second to none.”

Tomasz Michna
Senior RF System Design Engineer at Benetel

About Benetel

Benetel meets today’s challenges of rapid digital transformation by providing leading edge radio solutions for 5G disaggregated RAN and 4G LTE Small Cells. With a 20-year history and a legacy that includes more than 6 million Benetel designed radios deployed globally, the company is committed to supporting the evolving worldwide radio access networks. By producing radio units and related services that fully embrace the principle of openness, Benetel continues to spread reliable cellular connectivity in all locations and conditions. This Irish company is headquartered in Dublin, Ireland in what was originally part of the original Guinness Brewery buildings.



The Challenge

Being at the forefront of the radio industry, one of Benetel’s key deliverables always is unrivaled radio performance. Benetel was designing a new indoor 5G Open RAN RU (O-RU) that needed to be high performing but also small, aesthetic and cost effective. The O-RU was called RAN550 and it was designed as 4T4R split 7.2x O-RU with 100 MHz of 5G capability. The antenna for the RAN550 needed to be suitable for indoor MIMO operations, be low profile and ideally ground plane independent, with particular attention to the radiated emissions. The RAN550, Benetel’s flagship RU for indoor use, required bespoke antenna assembly, short design and development timeline, full RF testing, and ease of integration and manufacturing. Also needed was a robust, continuous, quality supply chain with critically low lead times to ensure time to market.

The Solution

Taoglas' PA.176.A antenna was chosen as it provides high-efficiency across multiple cellular bands. The shape and lightweight compact size of just 20*10*3mm allowed the PA.176.A to be easily integrated onto Benetel's PCB where space was needed to avoid interference with other electrical components. Taoglas provided a fully tested, customized assembly consisting of the PA.176.A, cable assembly and PCB.



Featured Taoglas Product

PA.176.A

5G/4G High-Band Cellular SMD Antenna

Dimensions: 20 x 10 x 3mm
Surface Mount Distribution (SMD)



[🔗 PA.176.A Datasheet](#)

The Outcome

Taoglas' design support made the choice and configuration of the antenna assembly remarkably easy. With the PA.176.A performing exceptionally well, and with testing and simulations, the end-to-end design and manufacturing of the custom PA.176.A evaluation board and its cable assembly was done in house in just six months. Benetel's industry experience coupled with Taoglas' expertise in the rapid design, manufacturing and testing of antenna solutions resulted in a timely roll out of the RAN550.