

How to maximize a professional antenna design

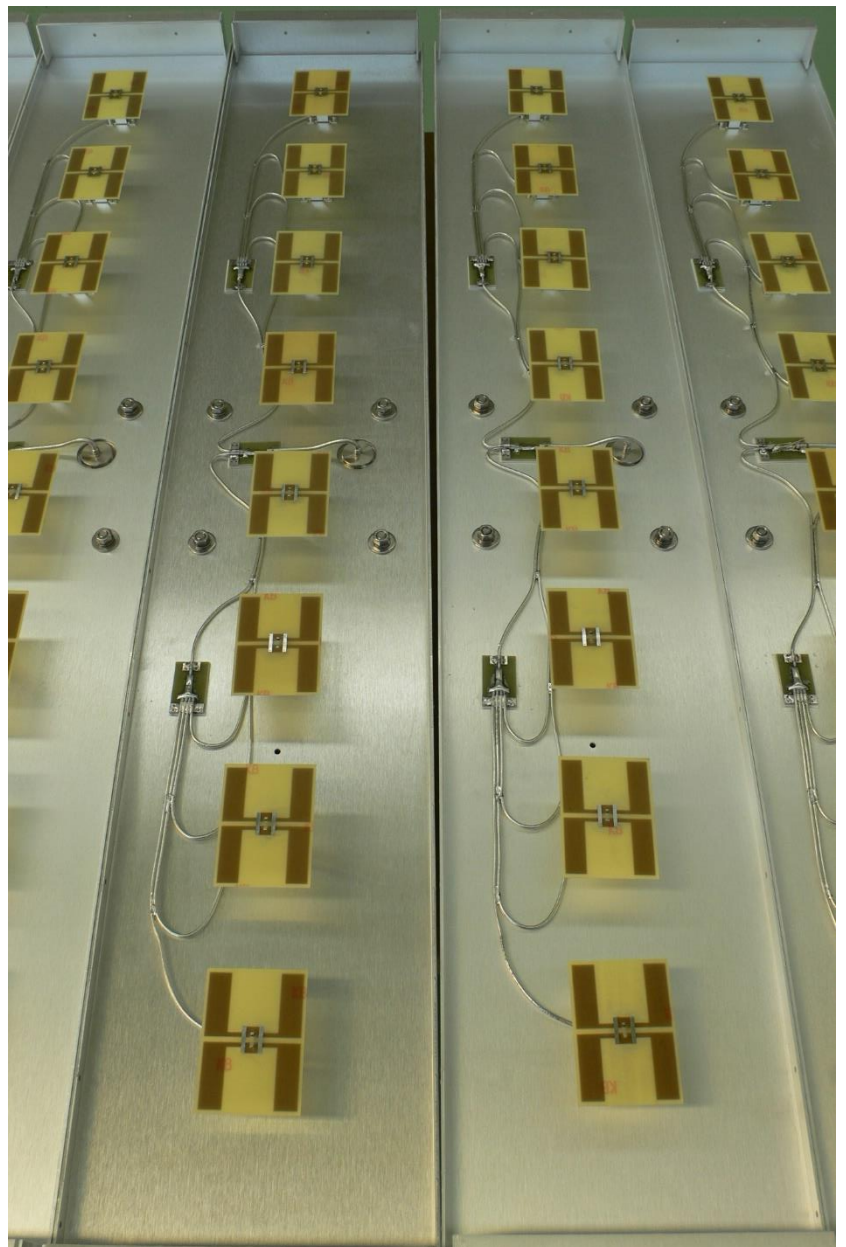
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Designing a custom professional antenna involves more than just creating a technically compliant product.

To develop a professional antenna that is truly "tailored" to the Customer's needs, it is essential to identify the specific characteristics that should be highlighted and conveyed through the antenna. This approach optimizes the device's performance, resulting in a unique and unparalleled product.

Beyond the necessity of establishing a Customer-Supplier relationship based on collaboration that transcends mere buying and selling, there are additional considerations that can enhance the efficiency of developing a new antenna.

In this discussion, we will focus on one of the most important tips, which we believe can significantly maximize the outcomes of the design process.



1. The issue of competition.

One of the most pressing issues for businesses today is the need to stand out in their target market. Gaining a prominent position that allows them to reach an ever-growing number of Customers is undoubtedly a major concern.

Browsing the internet, we find numerous marketing and communication professionals offering their assistance: some provide serious solutions and can demonstrate with facts how they genuinely help entrepreneurs; others are clearly not credible and have nothing to offer beyond empty talk.

It is not our intention to delve further into this topic, as we leave it to each entrepreneur to decide the best actions to communicate effectively with their target market.

Our aim here is to analyze the issue from a purely technical perspective, highlighting the quality that, in our opinion, distinguishes Companies capable of making a difference compared to their competitors: the ability to identify and develop original solutions that provide real value to Customers, along with a certain degree of innovation.

The confirmation that this is the right path to follow mainly comes from a consideration resulting from numerous meetings with other Companies, as well as with Customers and Suppliers over the years: we all possess unique skills and talents.

Those who can identify and emphasize them will win the competition.

As for us, every time we collaborate with a Customer, our goal, in addition to creating an antenna that perfectly meets their specific requirements, is always to develop the most suitable product to highlight and convey those unique and exclusive qualities that characterize their specific application, thereby ensuring significant and decisive advantages over the competition.



2. We are all unique.

The first meeting with a new Customer is always a moment of great interest, during which it is possible to discover unique and exclusive qualities in the counterpart, addressing very specific aspects of a particular market sector.

In some cases, these particular abilities are quite evident, while in others they are hidden within the folds of the service or product offered, only revealed through comparison with other realities.

In either case, what becomes clear is the extraordinary wealth of skills and knowledge that the vast majority of Companies can offer their Customers, especially those that strive to adapt their proposals to the real needs of the market, without getting stuck on pre-packaged solutions.

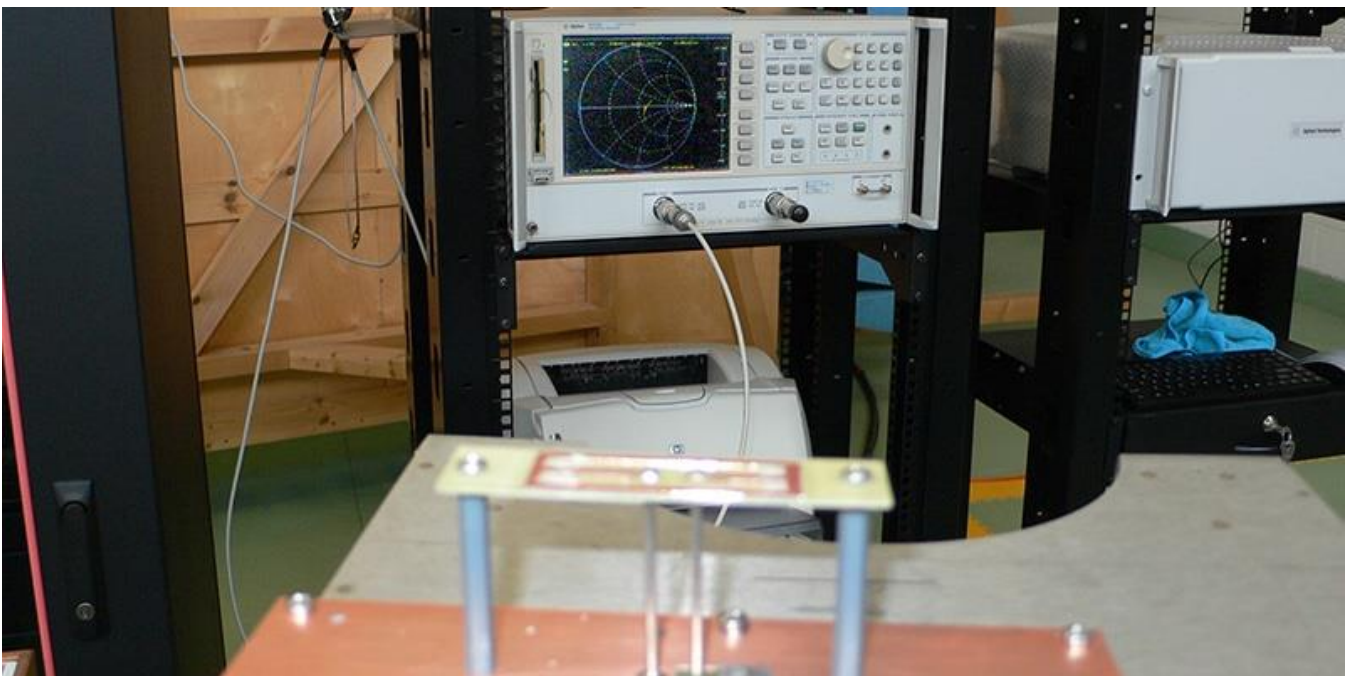
Specifically, in our field, we have often observed that it can be challenging to ensure optimal performance of a device because suitable antennas are not available on the market. In most cases, one is forced to make a technical compromise that significantly limits performance.

If you've experienced this problem, you know exactly how frustrating it is not to provide your Customers with all the potential you have due to an antenna that doesn't meet your needs as it should.

In our opinion, the ability to design a custom professional antenna means exactly this: ensuring the Customer can get the maximum performance from their product or service.

But how is all of this put into practice?

Here is a piece of advice to help you maximize the design of a custom antenna.



3. Maximizing the design of a professional custom antenna.

When developing an industrial product, a very common mistake is to leave the definition of the antenna until the later stages of the project, when the device or system that uses it has already been fully defined in every other electrical and mechanical aspect. At this point, any necessary modifications may disrupt the work of many people.

Unfortunately, it is not uncommon for Companies to contact us because they need to make costly corrections or modifications to achieve the required performance. This situation often arises because they addressed the antenna's definition too late in the project.

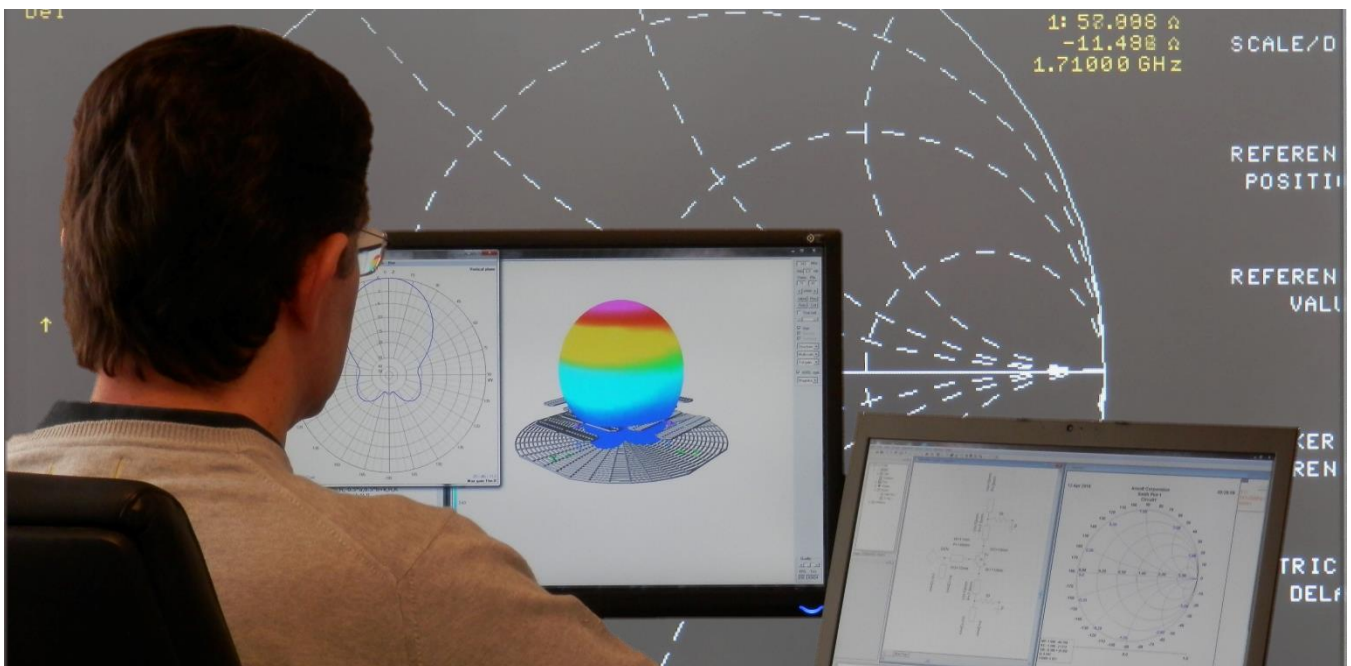
The most common cases involve redesigning the space within the device, which can lead to redesigning printed circuit boards or selecting new components. In more complicated situations, it may even involve modifying moulds and other equipment, significantly impacting the project's budget.

Our crucial and fundamental advice is this: if you plan to develop an industrial product that involves using an antenna, we recommend consulting with an expert in this field from the early stages. This approach allows you to establish guidelines and achieve the best possible performance within the given constraints.

By doing so, you can also provide adequate information to technicians and departments responsible for other aspects of the project, avoiding potential problems that may arise in later stages.

Indeed, addressing this issue early on allows you to:

- **Carefully define the necessary and desired specifications for your product or application;**
- **Assign the right importance to each specification;**
- **Optimize not only the antenna's performance but also the overall project cost.**



In particular, the analysis by an expert technician can help avoid including overly stringent, redundant or unnecessary specifications for the application the new antenna is intended for. This can unnecessarily increase the project's complexity, leading to potential, avoidable issues.

Establishing this type of collaboration from the early stages of the project is crucial to identify the best path for creating the ideal antenna for your application.

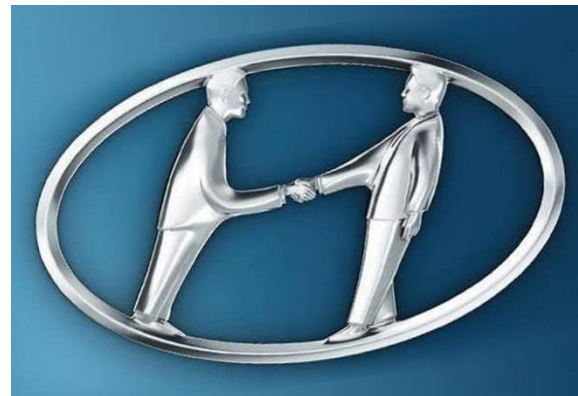
4. A new Customer-Supplier relationship.

Times are changing, and besides technological advancements, other aspects of the work environment must also be updated, such as the relationship between Customer and Supplier.

The old concept, based on simple buying or selling transactions, must be replaced with genuine collaboration, built on much more stable foundations.

The supplier must free themselves from the dangerous belief that the Customer should adapt to the pre-packaged products offered to them, which remain the same regardless of different needs. Instead, the supplier should develop the ability to identify specific requirements and craft the ideal custom solution each time.

On the other hand, the Client must realize that it is impossible to be an expert in everything and that only by contacting a Company specialized in that particular field can they receive the appropriate support.



It is significant to note that the logo of a well-known Korean automobile manufacturer actually represents a handshake between the Supplier and the Customer.

The Customer should therefore feel free to contact the Supplier whenever they deem it necessary to obtain the information they need at that moment, especially during the preliminary stages of the project and not just close to placing an order.

It is a team effort with a single goal: to create a unique, exclusive and optimized product for the specific application under consideration.

It is the creation of a virtuous cycle that benefits everyone.

The old Latin saying *Mors tua, vita mea* (Your death, my life) no longer holds; it reeks of outdated thinking.

It is time to think in a new way.

Collaborate rather than compete, keeping in mind that the collaboration between Customer and Supplier should be a horizontal relationship, on equal footing.

We firmly believe that this is the only path to take today.

For this reason, we are always available to help you understand how to broadcast your excellence.

*All the information and experiences presented in this article are the result of the design, development, and production of custom professional antennas carried out by **ElettroMagnetic Services Srl** using the **AntennaCustomizer** method.*

For questions, clarifications, or further information on this or other topics related to professional antennas, please contact bollini@elettromagneticservices.com.

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We broadcast your excellence!