



215 Vineyard Court  
Morgan Hill, CA 95037  
Phone: 408-778-4200  
Fax: 408-778-4300

## 2016 Year in Review

Dear Marki Customers, Employees, Partners and Friends,

When I began working at Marki Microwave in the Fall of 2007, my father gave me some simple advice. He said, "Use the cash flow generated by our mixer products and go design something interesting. If you focus on performance, you'll always be competitive". At the time, the economy was headed for a deep recession and it was not clear what those designs would become, or whether those designs would ever be interesting to our customers. In the ensuing years, my engineering team and I spent many long hours and many sleepless nights dreaming up the "next great Marki widget". Our obsession was to come up with innovative new products that would satisfy unmet market needs and complement our industry-leading mixer technologies.

Nine years later, I am proud to say that those early years of product innovation spawned many incredible new product categories at Marki including: power dividers, baluns, couplers, MMIC amplifiers, Microlithic® mixers, and much more. From the company's inception until the mid-2000's, Marki Microwave's core competency was centered on our considerable experience in hand-solder assembled hybrid microwave components and more than 90% of our business came from our industry-leading mixers. By expanding into other complementary areas, our technological platform now covers a vast spectrum of capabilities including IC-level microelectronic packaging from DC to millimeter wave, fabless IC design, complimentary software design tools for our customers, and in-house reliability screening. As a wise man once said, "it is better to obsolete yourself, than wait for your competitor to do it". We have done an incredible job being our own most vicious competitor! Here are just a few examples of some of the innovations we have pioneered in recent years:

- Reduced the size of hybrid mixers by 14x
- Improved isolation performance of mixers and doublers by 100x
- Reduced the build time of our most time consuming product by 5x
- Released form-fit-function replacement MMICs at lower cost than competitor

In other words, we have re-invented and re-imagined our product offerings to enable our customers to design faster, simplify production, eliminate complexity, and shatter performance barriers. Moreover, we do this all from our Morgan Hill, California facility located at the southern tip of Silicon Valley. Many people will claim that American manufacturing is dead, but I dispute this. At Marki, all of our products are designed, packaged, tested and shipped from one factory, and it is worth noting that the majority

of our suppliers are based in the US. There are significant technical advantages to manufacturing hardware in the Silicon Valley such as a vibrant and experienced supplier base, highly talented personnel, and an ethos that technological innovation is the life blood of an economy.

Recently, Marki Microwave celebrated its 25th Anniversary. During our celebration my parents announced that I was to be promoted to Chief Executive Officer of Marki Microwave. I am honored and humbled that they have recognized my contributions to the company over the past nine years and I am excited to take the company into its next quarter-century and beyond. Of course, I also recognize the great responsibility that I have, both to honor my parent's legacy and to maintain and to improve upon the level of performance, quality and support our customers have come to expect from our brand. If we are to gain some insight into where Marki Microwave is headed in the future, let us first look back to the past and highlight some important milestones from 2016:

- Continued to release more MMIC mixers, amplifiers, multipliers, and limiters for customers frustrated by supply disruptions caused by ongoing semiconductor industry M&A activity
- Growth in all product categories, highlighted by Microlithic® and MMIC products
- Released 4 new product categories: Diode Limiters, Nonlinear Transmission Lines, Gain Slope Equalizers & IQ MMIC Mixers
- Released an updated version of our free mixer nonlinear simulation PDK for Microwave Office®
- Expanded manufacturing capacity with additional 10,000 sqft building
- Increased total employee headcount by 30%
- Strengthened supply chain diversity by partnering with new vendors in all product categories
- Promoted Dr. Christopher F. Marki to Chief Executive Officer, Ferenc Marki continues to serve as company President
- Filled key positions in Sales, Engineering and Operations to support growth

I would like to thank all Marki employees and partners who contributed to this incredible year. If the new product innovations are the fuel for our company, the masterful execution necessary to produce, sell, support and market these products is the engine. Innovation cannot take root without skillful business execution, and vice versa.

Going forward, Marki will continue to expand our product portfolio with the release of new IC and hybrid products. Our R&D pipeline is full of innovations never before seen by the industry, and we are excited to take these products to market. Our product roadmap will continue to expand upon our dominant position in the mixer area, and in the near future it will be possible to build out the entire signal chain using Marki products from DC to 110GHz. In fact, already it is possible to build an entire block downconverter with mostly Marki components. We believe that our unique position as

the world's #1 mixer company, combined with our diverse customer base provides us with incredible insights into the challenges in the coming years, and our design team is already hard at work solving them.

As many customers are coming to find, Marki is no longer "just a mixer company". In fact, we are an RF, microwave and millimeter wave technology company. Our goal is to provide the best high frequency components in the world to help our customers solve their hardest challenges. Future applications in electronic warfare, millimeter wave communication, high speed data, broadband test and measurement and commercial radar will all require significant advances in RF technology. Our ambition is to provide innovative hardware and design tools to help our customers solve these challenges.

Happy Holidays,

Christopher F. Marki  
CEO, Marki Microwave Inc.