

## CASE STUDY: COMPONENT TESTING SOLUTION



### **Case Study: Praxsym finds a convenient and cost-effective solution to increased filter tuning workload with Copper Mountain Technologies' Cobalt C1220**

After picking up a new project, Praxsym was spending around 48 hours a week tuning filters. They needed a new network analyzer to keep up with the increased workload. Through Copper Mountain Technologies (CMT), Praxsym found a product that saved them valuable time at an affordable cost. Great customer service that went beyond the buying process and the high performance of the Cobalt C1220 has left Praxsym eager to work with CMT for future solutions.

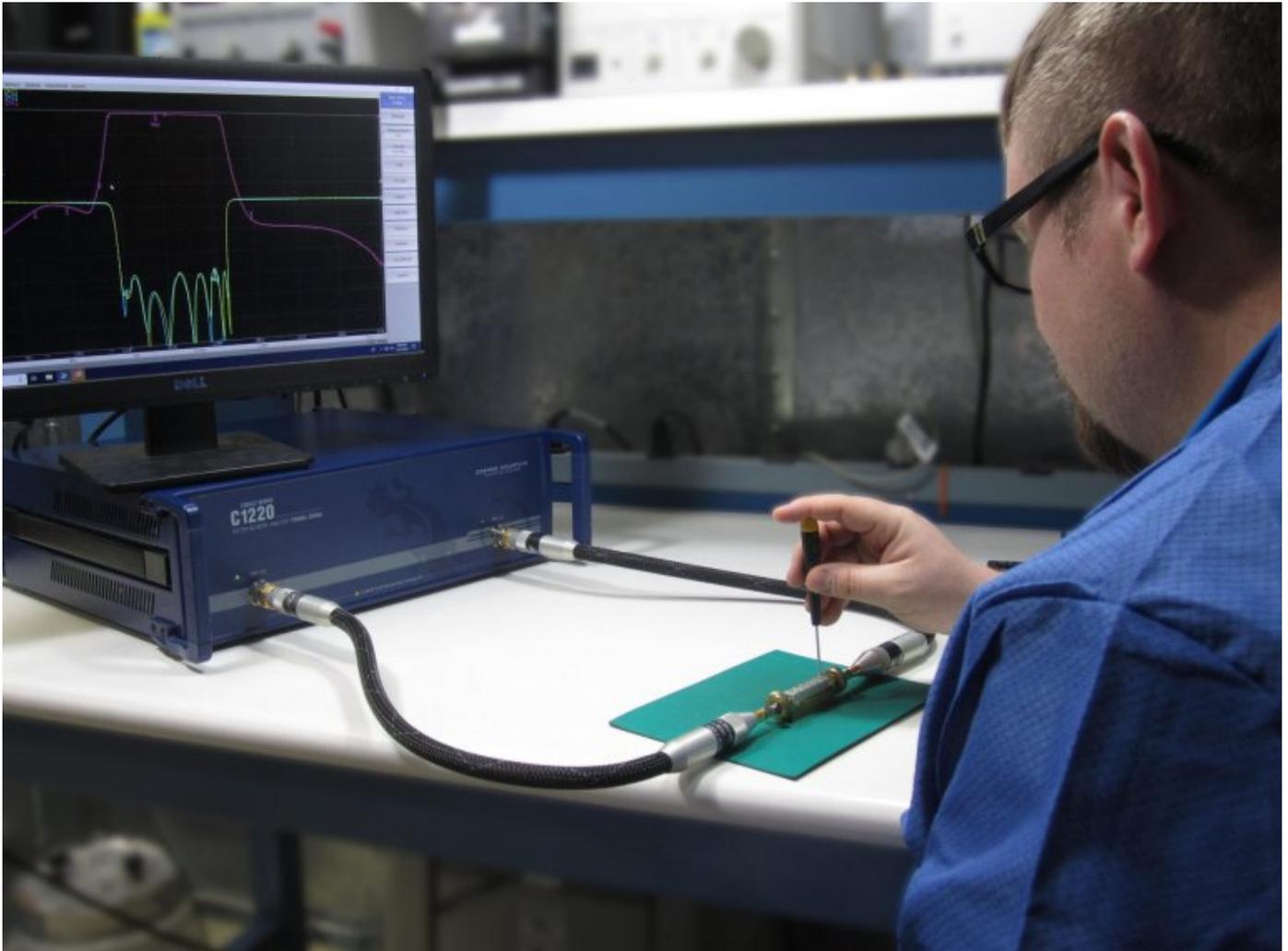
*"I've had nothing but good experiences with Copper Mountain Technologies. I've done a lot of customer support with competitors, but I haven't had **as much enjoyment as I have (working) with CMT.**"*

*Tucker Bayler, Praxsym*

Praxsym performs application specific design, development, and manufacturing in the precision electronics industry. They offer a diverse line of test equipment and OEM modules including synthesizers, power detectors, and RF levelers. They provide the flexibility to design and build equipment to accommodate specific requirements.

As a small company, price point was an important factor in Praxsym's purchasing decision. An equally important concern was the ability to expedite the filter tuning process and save the company valuable time. They were in search of a product that was easy to use and could be quickly learned by their employees. The ability to set pass/fail parameters was helpful for the

quality control process and enables Praxsym to quickly teach new employees how to tune filters.



The affordability of CMT's VNAs is what initially garnered their interest. They were excited to find an affordable vector network analyzer that offered 12  $\mu$ s measurement speed and 133dB dynamic range. Upon receiving the Cobalt C1220 for a 2-week trial Praxsym was very satisfied. They felt there was no need to review competitive products. The analyzer set up was simple and the VNA software proved to be easy to learn. Because the CMT VNA software runs on an external PC, the engineers testing the filters didn't have to save data from the instrument and then transfer it to a computer. They also purchased an automatic calibration module (ACM) to use with the C1220 which allowed them to calibrate their instrument quicker, without having to change the ports for calibrating.



C1220 2-Port 20 GHz Analyzer  
100 kHz – 20 GHz



ACM2520 Automatic Calibration  
Module  
20 kHz – 20 GHz

Multiple features were credited by Praxsym for speeding up their filter tuning process. The dual screen options allowed them to view the 180-degree phase shift on S11 and S22 simultaneously, without changing setups like the use of other analyzers requires. The ease of navigation within the software also proved beneficial, mainly as it applies to switching setups, normalizing the machine, printing screen images, and creating new setups. In all, Praxsym saved about 15 minutes per filter, compared to their previous tuning process.

Praxsym praised the customer support provided by CMT, “I’ve had nothing but good experiences with Copper Mountain Technologies. I’ve done a lot of customer support with competitors, but I haven’t had as much enjoyment as I have (working) with CMT,” said Tucker Bayler.

Through CMT’s Cobalt C1220, Praxsym found better performance for a fraction of the cost and enjoyed a positive customer experience throughout. In doing so, they have increased efficiency tremendously, saving themselves approximately **10 hours a week** (20% improvement) in the process of tuning their filters when they are at their busiest.