5G NR Device Manufacturer
Doubles Test Capacity with Zero Additional CapEx

The creation of 5G cellular mobile communications is a massive and complex endeavor involving companies around the world ranging from chipmakers and device developers, to network equipment manufacturers, and network operators. During regional field trials, chipmakers and device manufacturers strive to win contracts and deliver their products in volume and on time. Orders come in quickly if early tests prove successful and an operator decides to expand its field trials.

The possibility of a sharp increase in production volume injects uncertainty into the manufacturing process. Production planning must account for a wide range of potential order quantities. The manufacturer must be able to quickly and easily adjust test capacity to meet volume goals and target dates.

A leading company in the wireless ecosystem faced this problem as it moved forward with a new 5G NR product. Its test stations ran all day, every day, but it could not keep up with rapidly rising demand. Keysight introduced the company’s manufacturing team to a leasing program that enables greater flexibility without tapping into capital expenditure (CapEx) budgets.
The Challenge: Double Test Capacity without Tapping CapEx

The company had pushed its resources to the limit, racing to be first to market with new products that supported 5G NR. To maximize product testing, it had been running eight Keysight E7515A UXM wireless test sets 24 hours a day, seven days a week (Figure 1). Volume grew rapidly, but to meet contracted production goals, the company would need to double its test capacity as soon as possible.

Figure 1. The highly integrated UXM wireless test set is designed for functional testing and design validation

The primary challenge was financial. With the end of the fiscal year rapidly approaching, the department had no budget remaining for capital equipment purchases. This meant it would not be possible to fund a net 30 purchase of eight new UXM test sets before the end of the fiscal year.

The Solution: Fund an Operating Lease with OpEx

Desperate for expanded test capacity, the company reached out to its local Keysight team. Talking through the issues led to an important discovery — even though CapEx reserves were depleted, the operational expenses (OpEx) budget was underspent. Although the available OpEx balance could not be used to purchase new test sets, it would fund an operating lease through Keysight Financial Services.

The Results: 42% Savings and 6 Months Faster Time to Market

In this case, the operating lease enables long-term use of the needed test assets at a much lower cost than making an outright purchase. With an 18 month operating lease, the customer gained access to $8 million in instruments for an OpEx expenditure of $4.7 million.
The result—a 42% savings and immediate access to the test equipment. The operating lease also accelerated the company’s internal purchasing process by avoiding a CapEx approval process. Overall, the customer achieved six-months faster time to market.

Adding to the successful outcome, this approach provides flexibility to renew the lease inexpensively if evolving 5G standards require new, different, or upgraded equipment. Through the renewal process, customers can return unneeded or outdated equipment, access new solutions, or continue with low lease payments.

**Going Forward**

Equipment leasing is a powerful service offering that helps customers meet their big-picture. Leasing enables customers to conserve capital while addressing crucial needs such as responsive and flexible test capacity. Keysight Financial Services helped this customer accelerate innovation and achieve high-volume first to market success with its 5G NR product.

**Related Information**

- Flyer: Keysight Lease, publication 5992-2474EN
- Application Note: Performing LTE & LTE-Advanced RF Measurements with the E7515A UXM Wireless Test Set, publication 5992-0486EN
- Application Note: Solutions for Testing Data Throughput in LTE-A User Equipment, publication 5992-0549EN
- Brochure: Keysight E7515A UXM Wireless Test Set, publication 5992-0149EN
- Data Sheet: Keysight E7515A UXM Wireless Test Set, publication 5991-4634EN

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