Why Qualcomm's supply issues are 'in the rear view' during a global chip shortage

"Qualcomm stock rose more than 12% on Thursday, one day after it reported September quarter earnings that not only beat what Wall Street expected, but also included bullish guidance for the December quarter.

Part of the reason for the strong guidance is that Qualcomm, a leading semiconductor company, is more optimistic about the global chip shortage than many of its rivals. For example, Apple says chip shortages will cost it more than \$6 billion in the December quarter.

That's sooner than predictions about the end of global chip shortage from Intel, which predicts that shortages will persist through 2023, and closer to AMD's forecast, which says that challenges related to chip supply will persist until the second half of 2022.

Amon said Qualcomm's ability to increase chip revenue 56% during a global shortage was the result of the company's moves from earlier this year, and that new capacity from suppliers that was planned months and years ago is starting to come online.

Qualcomm's biggest individual line of business is in systems-on-a-chip, or SoCs, that combine central processing with cellular connectivity, and are the most expensive and most important component in an Android smartphone. Nearly every top-tier Android smartphone uses a Qualcomm Snapdragon chip.

Sales for handset chips grew 56% annually in the September quarter, Amon said.

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"These chips are made using what is called leading node processes, or the most advanced and capital intensive chip manufacturing techniques. Leading node processes create smaller transistors, which can be packed tightly together, creating faster chips that use less power and therefore more desirable smartphones.

It turns out, Qualcomm is able to manufacture its processors using two different foundries, or chip factories. Currently, Samsung and TSMC are operating the most advanced leading node, called 5-nanometer, so Qualcomm is buying from both.

That's in comparison to companies like Apple, which relies on one supplier—TSMC—for its own SoCs.

However, other executives have said in the past month the main issue isn't with leading node chips, but instead on the less-advanced but still essential chips, like display or power chips.

Both Intel and AMD's CEOs have called this a "match set" issue, where PC makers "may have the CPU, but you don't have the LCD, or you don't have the Wi-Fi," as Intel CEO Pat Gelsinger said in an interview last month.

