


Fact Sheet – US Monolithics

A wholly owned subsidiary of 

Background

US Monolithics provides integrated millimeter-wave transceivers, components and microchips to both military and commercial wireless markets. US Monolithics areas of expertise include high frequency communications technology, monolithic semiconductor design, high-power transceiver design, phased-array antenna design, high levels of functional integration, high frequency packaging, and design for high-volume, low-cost manufacturing.

US Monolithics is located south of Phoenix in Chandler, Arizona and employs 42.

Products

US Monolithics products to-date include a comprehensive K/Ka-band MMIC chip set, associated K/Ka-band transceiver, and 10-watt Ka-band power amplifier suitable for terrestrial K/Ka-band satellite communications and LMDS markets.

US Monolithics also excels in the area of high frequency packaging. The company has in-house capability to perform 2D and 3D mechanical designs and layouts, 2D and 3D electromagnetic designs and analysis, thermal simulations from MMIC channel to ambient, and a variety of structural simulations. Packaging experience includes microwave and millimeter-wave components and modules.

Strategic Value to ViaSat

While ViaSat expertise has been focused on the indoor terminal and modem side, US Monolithics enables ViaSat to expand its role to the complete user terminal, including the outdoor electronics. ViaSat expects that this will lead it into a much stronger competitive position and move it “up the food chain”, to provide more complete, integrated network terminals for wireless communications applications.

Through innovation from US Monolithics, the lowest cost and most advanced Ku-band and Ka-band 1- to 3-watt block upconvertors (BUCs) are priced at less than half of what they were just a year or two ago. These highly integrated BUCs take less power to run and are designed specifically for high-volume production. In conjunction with radio manufacturer NJRC, US Monolithics is responsible for a new level of ODU performance and low cost.

ViaSat is also using expertise of US Monolithics across a wide range of digital communications programs, including both commercial and defense applications. While current US Monolithics products fit some of those programs, the design and integration expertise is the most important capability that US Monolithics brings to ViaSat.

The technology and products of the US Monolithics group are available to any manufacturer or system integrator and are not limited only to ViaSat programs and products.

US Monolithics Key Customer - WildBlue

WildBlue, a new broadband-by-satellite service that will compete on price with terrestrial alternatives for the first time, is using US Monolithics to produce the outdoor electronics for its consumer broadband terminal. The single module is a Ka-band transceiver that can operate with up to 3 watts of transmit power. The two companies planned to make the technology available to a wide audience of potential users in both the satellite and terrestrial broadband markets.