

From Sea Level to Mt. Everest

Creating SATCOM Solutions to Suit a Mountain of Change



Photo courtesy of ITN/SIS LIVE

Climate change is one of the hottest topics in the news today. To cover the story, reporters traverse the globe to illustrate the effects of climate change - from the depths of the oceans to the highest mountain peaks. Broadcasting live news reports from remote regions is a challenge, even under the best of conditions. Having access to portable, rugged satellite communications systems that can be conveniently shipped, set-up and used for live transmissions from anywhere in the world is a critical element in getting the story told.

For satellite amplifier designers like Wavestream, providing products to meet the portability, performance and reliability requirements for remote system operations is not insurmountable. Wavestream successfully met the challenge in 2009, when our 80W Ku-band amplifier went live at the highest peak in the world.

"LIVE From Mt. Everest"

ITN, one of the world's leading news and multimedia content companies based in London, dispatched a crew to scale parts of Mt. Everest in December 2009 to inform viewers about the climate change debate in a unique and innovative way during ITN's week-long "Expedition Everest" series. With only a small news and Sherpa team to carry supplies up the mountain, ITN needed the smallest, lightest, most reliable satellite uplink equipment available to support the expedition and live broadcast schedule.

ITN chose SIS LIVE, a UK-based world leader in television broadcasting, to supply a VSAT satellite uplink system. SIS LIVE understood the overall system requirements: it had to be small enough to check as airline luggage, man-packable to reach remote locations, and be instantly and fully functional in an extremely hostile environment.

SIS LIVE's uPod Micro portable satellite system uplink was selected. The uPod Micro can be packaged and checked as normal airline luggage and used for remote operations anywhere in the world. By simply pressing a button, the uPod antenna automatically deploys and seeks and locks on to a satellite. The SIS LIVE uPod Micro offered ITN a rugged, "ruck-sack ready" solution, suitable in power, performance, size, weight and transportability to meet the rigors of a Mt. Everest expedition.

But the story doesn't end there.



Wavestream 80W Ku-band Amplifier

Climate Change - Amplified

Selecting the right amplifier to integrate into the uPod Micro called for conformance to very stringent evaluation criteria. To suit the uPod's compact footprint, SIS LIVE needed: high power; proven reliability; performance over extreme temperature variations; and a lightweight, small product package. SIS LIVE selected Wavestream's 80W Matchbox Ku-band solid state block upconverter (BUC), a field-proven product that easily met the requirements for power, reliability and energy efficiency. The BUC also guaranteed performance across all temperature and frequency ranges. In addition, the amplifier's light weight and small product footprint were ideally suited to the uPod's "man-pack" configuration limitations.

The uPod Micro with integrated Wavestream 80W Ku-band BUC was flown to Afghanistan as standard airline baggage and delivered to the ITN crew before the ascension to Mt. Everest. The entire system was light enough to allow the crew to man-pack the satellite uplink to camp and successfully broadcast live each day for ITN's 10 o'clock "Expedition Everest" series.



Photo courtesy of SIS LIVE



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Flexibility to Meet the Challenge of Change

Wavestream's unique patented Spatial Power Advantage™ technology combines power with flexibility to create higher power solid state amplifiers in smaller, lighter product packages to suit a wide variety of satellite communication applications. Wavestream sets the "go green" standard for efficiency without sacrificing performance, generating less heat and consuming less energy to reduce operating and lifecycle maintenance costs. Wavestream offers a full line of Ku, Ka, C and X-band products meeting the highest standards of reliability. We perform full factory acceptance testing on every unit, ensuring each product has guaranteed performance over the full temperature range and over extended frequency bands.

Power. Performance. Reliability. Savings. From Sea Level to Mt. Everest, count on Wavestream to deliver.

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