



CASE STUDY

Hong Kong Broadband Network Looks Outside the Box

OVERVIEW

Hong Kong Broadband Network Limited ("HKBN") is a leading broadband service provider with the most residential high-speed broadband subscriptions of symmetric 100Mbps and above in Hong Kong, offering a diversified portfolio of innovative products in fiber broadband and Wi-Fi access, communication and entertainment to over 1.4 million subscribers. As the owner and operator of one of the biggest fiber optic networks in Hong Kong, HKBN provides premier telecommunications services to both business and residential markets. For backup power in its customer premise facilities, HKBN relies on Uninterruptible Power Supplies (UPS's) to assure the high reliability its customers have come

to expect for a network operating at 1-gigabit speeds.

CHALLENGE

In 2009, from network implementation analysis, HKBN noticed an increasing demand of rugged UPS with the capability to survive under high temperature that is not feasible with the traditional UPS and battery systems. With ambient operating temperatures often exceeding 50°C (122°F) during summer season, the foreseeable extreme heat-related failures may result in high annual expenses for HKBN service and repairs, in addition to possible interrupted service to subscribers. "The demand for reliable high-speed broadband service in Hong Kong has skyrocketed in recent years," said William Kwan, Project Manager of HKBN. "Our

customers have come to expect a reliable service and it was critical for us to resolve the issue of heat-related backup power in the timeliest manner possible in order to ensure rapid network expansion

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and world class service operation.”

The study gave HKBN an insight to further consider other UPS solutions,

but traditional UPS products were not capable of functioning in such extreme operating conditions. Frustrated by the inability of the traditional UPS to handle wide temperature range, HKBN considered the non-traditional path of using a rugged outdoor UPS for the indoor customer premise facilities.

SOLUTION

Through the search, HKBN was introduced to Alpha's line of rugged outdoor AC UPS products, specifically the FXM2000. To

further examine this unique powering solution, HKBN appointed Alpha to install a trial FXM2000 UPS in mid-2009. The unit was tested inside the HKBN facility to verify operation throughout the seasonal fluctuations. Alpha's FXM operated flawlessly under the extreme heat conditions and provided the constant, reliable service demanded by HKBN.

After a successful initial trial period, HKBN placed an order for an additional 100 FXM systems in 2010. The system installations comprised the FXM2000 UPS with four AlphaCell 220GXL batteries to provide backup power for each UPS. To meet HKBN specifications, Alpha adjusted the center voltage of the FXM to 210 Volts. “Intense heat and densely populated areas present unique challenges to a reliable power source, so we have to customize each installation to ensure

optimum performance,” said Charles Tsang, Asia Pacific Sales Director of Alpha. “Our rugged, outdoor AC UPS systems with battery backup ensures the quality, high-speed broadband service that is expected by HKBN customers.

“Alpha Technologies provided the ideal total power solution because of the products' rugged design and ability to handle extreme operating temperatures,” added Kwan. “Alpha's strong reputation in the Cable and Telecom industries provided the confidence and reliability that HKBN and our customers demand. The enhanced reliability of Alpha's product resulted in a higher level of service and significantly lowered operating expenses.”

Since 2010, Alpha has supplied and installed an additional 1500 systems to Hong Kong Broadband Network.

ALPHA TECHNOLOGIES SOLUTIONS

FXM2000 UPS The Alpha FXM2000 uninterruptible power supply (UPS) modules provide clean, reliable power control and management as part of a complete UPS solution. Each model is available in either North American (120V/60Hz) or International (230V/50Hz) variants. Automatic Voltage Regulation (AVR) provides power stability in unpredictable environments and constant voltage during variable power conditions, even during periods of surge or sag in the line voltage. A wide operating temperature range of -40 to 74°C (-40 to 165°F) is suitable for the most extreme operating environments. Temperature compensated battery charging protects batteries from over charging at extreme temperatures, extending battery life. Event and alarm logging with time and date stamping simplifies and accelerates troubleshooting. Control and power connection panels can be rotated for either horizontal or vertical viewing.

220GXL BATTERIES Alpha's standby battery offering incorporates Gel for thermal dissipation to ensure optimal life performance for your particular Broadband, Traffic or Wi-Fi application. Incorporating high-performance Silver Alloy for maximum life expectancy enables the Alpha 220GXL Batteries to provide the longest runtimes. They operate over a wide temperature range to provide the best longevity in today's demanding outdoor and indoor applications. The batteries offer 100% runtime capacity out-of-box, eliminating the need for cycling. And they are backed by Alpha's industry-leading, non-prorated hassle-free warranties.



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