



Amphe-RXS is RADSOK® Mixed with Signal in One System

A Battery Solution for Transportation

BACKGROUND

As the battery market continues its rapid growth with hybridization and electrification, the need for system reliability and lower costs are focal points more than ever before. There are also certain transportation markets, primarily motorcycles and scooters that have battery swapping or daily removal for charging that could benefit from a compact and flexible system with quick latching or blind-mate systems that can handle high mating cycles.

PROBLEM

Generally, the high current connector and the low voltage signal connector used to monitor the battery health and state of charging are separated in two different connectors. This allows multiple ingress points with the sealing, more complex battery cases, and longer time required for connections/ disconnections. Trying to put them into one connection system has not generally been successful due to insertion forces and the mechanical assists required to mate one large system.

AIPG SOLUTION

AIPG introduces the Amphe-RXS connector series which incorporates our patented RADSOK® technology featuring higher amperage, lower T-rise, less resistance, lower mating force and higher mating cycles. Because RADSOK® allows ~50% more amperage through the same size pin, using them in the Amphe-RXS makes it extremely compact. Finally, we will work out the details of the connector requirements like shielding, locking features, blind mating, HVIL, temperature, and vibration levels. We can also design a housing and latching system to accommodate high mating cycles, as in a replaceable/swappable battery application. Using Amphe-RXS will provide cost, time, and space savings while giving all the features and reliability required for each battery system.

