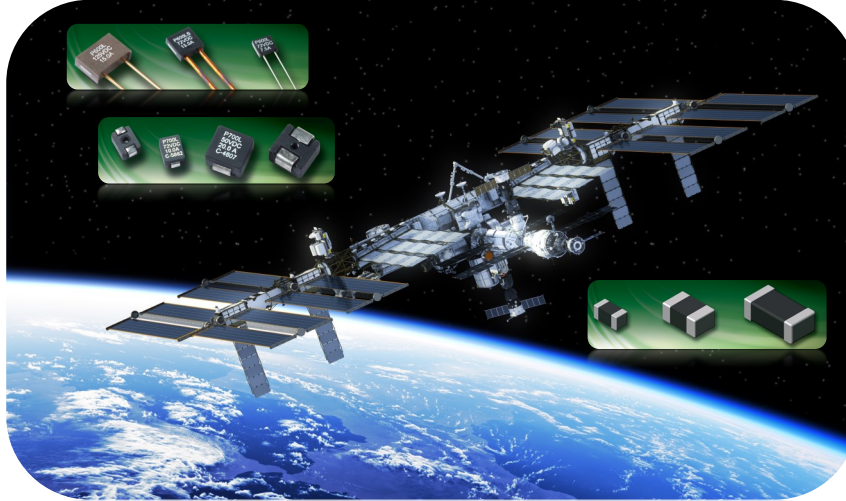


High Reliability (Hi-Rel) Components

Solid Construction with Superior Performance and Reliability for Circuit Protection



In combination of Wallace Technical Ceramics, the Mepcopal high-reliability thick-film fuse (Philips/Copal) and sole source plus first ever Defense Supply Center Columbus (DSCC) approved manufacturing process, AEM's A&D division provides advanced, high-reliability fuses, ferrite chip beads, and tin whisker mitigation products for satellite, defense, and aerospace applications. Its products, which are often custom and application-specific in nature, are used in harsh environments where performance is mission critical.

Hi-Rel Component Features:

- Hi-Rel Fuses: AEM is the sole QPL listed manufacturer of solid body, current limiting fuses produced using a thick film technique for the aerospace industry.
- Hi-Rel Ferrite Beads (HRB): HRB / DSCC 03024 Hi-Rel Ferrite Chip Beads Initial AEM HRB 487070 drawing was developed to meet a market need for a hi-rel ferrite chip. DSCC 03024 drawing is the progressive step to meet increasing hi-rel Mil Spec program requirements. A variety of EIA/EIAJ chip sizes from 0603 to 1206 are offered and feature nickel barrier terminations with a solder plate finish to help ensure a reliable solder joint.
- Tin Whisker Mitigation (TWM): Tin Whisker Mitigation (TWM) by adding lead (Pb) to chip size components with pure tin (Sn) terminals. Our Sn-Pb conversion process involves both Sn-Pb plating and subsequent fusion processing to ensure that the resultant component terminations are a homogenous mixture of Sn-Pb.

Hi-Rel Component Applications:

- Used in aviation, commercial defense satellites and spacecrafts including manned space vehicles
- Protection of power supplies, batteries and solar arrays
- Isolation of redundant and branch circuits
- Short circuit protection from fired squib and jettison circuitry
- Mission critical, where replacement is not an option and pure tin terminations
- Ruggedized Ground Based Electronics Systems
- Circuit Protection for Harsh Environments – High Vibration/Shock Exposure