



To whom it may concern,

16 January 2013

### **Maxwell Technologies New Transportation Regulations**

This is to advise you that electric double layer capacitors (EDLCs) manufactured by Maxwell Technologies Inc. should be regarded as not subject to dangerous goods (hazardous materials) transportation regulations and of our intention of transporting them accordingly. These transportation regulations, include:

- the 2013- 2014 ICAO Technical Instructions on the Safe Transport of Dangerous Goods by Air (54th edition of the International Air Transport Association Dangerous Goods Regulations);
- the International Maritime Dangerous Goods Code incorporating amendment 36-12;
- the European road and rail regulations (the ADR and RID); and
- the US Hazardous Materials Regulations in Title 49 of the Code of Federal Regulations (Parts 171 to 180).

These regulations now include a new United Nations number and proper shipping name for EDLCs – UN 3499 CAPACITOR, electric double layer (with an energy storage capacity greater than 0.3 Wh). Special provision 361 (A186 in ICAO/IATA and in addition 173.176 in the US DOT regulations) which is applicable to EDLCs includes provisions identifying the conditions under which capacitors of more than 0.3 Wh may be transported as not subject to the regulations. These conditions, as applicable to Maxwell capacitors (i.e., capacitors containing a flammable liquid), include:

- Individual capacitors must have an energy storage capacity of less than 10 Watt-hours (Wh);
- The Wh rating must be marked on each capacitor;
- Each capacitor must be able to withstand a pressure differential (as in a vacuum test) of 95 kPa;
- Each capacitor must have a vent or weak point to safely relieve pressure that may build up in use and each capacitor must be packed or installed in equipment in a manner that retains any liquid that is released;
- Each capacitor must be able to withstand a drop from a height of 1.2 meters;



- Capacitors, including capacitors in modules but not in equipment, must be transported uncharged and protected against short circuit or protected by a strap connecting the capacitor terminals (or module terminals); and
- Equipment containing these capacitors must be packed in a strong outer packaging with installed capacitors protected against accidental activation.
- When installed in equipment, manufacturers are responsible for meeting the additional above requirements applicable to capacitors in equipment.

All capacitors presently made by Maxwell are less than 10 Wh capacity and meet all the above requirements when they are transported as individual capacitors or when transported in modules produced by Maxwell. By meeting these requirements, Maxwell capacitors and Maxwell modules may be transported without being treated as dangerous goods (hazardous materials) under transportation regulations.

If you have any questions, please contact the undersigned.

Sincerely,

Sebastien Altina

**Director Worldwide Logistics**  
Maxwell Technologies, Inc.