

## Board-Mounted Power Modules: Cleaning

### I. Cleaning Agents

Cleaning Method	Classification	Cleaning Agents
Ultrasonic Wave	Water Type	Deionised water
	Solvent Type	IPA

### II. Cleaning process

#### II.I. PWB cooling prior to cleaning

Power modules and their associated application PWB assemblies should not be wash-cleaned after soldering until the power modules have had an opportunity **to cool within the cleaning solution temperature**. This will prevent vacuum absorption of the cleaning liquid into the module between the pins and the potting during cooling.

***Note: In general, the liquid temperature shall be less than 60°C.***

#### II.II. Cleaning process

In aqueous cleaning, it is preferred to have an in-line cleaner system consisting of several cleaning stages (pre-wash , wash, rinse, final rinse, and drying). Deionised (DI) Water is recommended for aqueous cleaning; the minimum resistivity level is 1MΩ-cm. Tap-water quality varies per region in terms of hardness, chloride, and solid contents; therefore, the use of tap water is not recommended for aqueous cleaning.

***The total time of ultrasonic wave shall be less than 3 minutes.***

### III. Drying

After cleaning, assure that the converters will be dry enough so that the moisture and other potential foreign contaminants will not be present anymore.

### IV. Product Post-wash external appearance

The marking or date-code may fade or disappear after cleaning. It is no problem on the performance of the converter.