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## Gowanda is First in Industry to Offer 0603/0805 QPL RF Chip Inductors with Tin/Lead Solder Terminations

### MLRF0603 & MLRF0805 Sn/Pb Terminated Series Address Market Need for Solder-Friendly Components

Gowanda, NY (USA) - Gowanda Electronics, a US-based designer and manufacturer of precision electronic components for power and radio frequency applications, recently achieved qualification to the military's MIL-PRF-83446 specification for its MLRF0603 and MLRF0805 series of RF surface mount wirewound coil, ceramic core chip inductors with tin/lead terminations. These are the first series in the industry to attain Qualified Product List (QPL) status for this particular Department of Defense specification. Gowanda was the first to introduce gold-terminated 0603 and 0805 chip inductors several years ago.

Tin/lead solder terminations are necessary for processes where reflow soldering is the component assembly method. In such situations, gold terminations require additional processing to pre-tin the terminations prior to assembly in order to prevent gold embrittlement. The tin/lead terminated QPL inductors now available from Gowanda provide an effective time-saving, solder-friendly solution.

The MLRF0603 and MLRF0805 series are designed for RF applications in military, aerospace and defense communities. This includes use in communication, guidance and security applications, as well as in radar, test & evaluation and special mission applications. These series can also be used in other high frequency applications around the world where the rigorous testing associated with these QPL-approved inductors makes them desirable for high reliability (hi rel) designs, or wherever QPL-approval provides additional assurance of performance and reliability.

**MLRF0603** is QPL approved to MIL-PRF-83446/36B (with amendment 1 dated April 4, 2014) and provides inductance from 1.8 to 270 nH, Q Min from 16 to 40, SRF MHz Min from 600 to 6000, DCR Ohms Max from 0.07 to 1.78 and Current Rating DC mA from 195 to 1000.

**MLRF0805** is qualified to MIL-PRF-83446/37A (with amendment 1 dated April 4, 2014) and provides inductance from 2.2 to 2200 nH, Q Min from 15 to 65, SRF MHz Min from 40 to 6000, DCR Ohms Max from 0.08 to 5.0 and Current Rating DC mA from 140 to 1000.

Gold terminations are available as well as tin/lead solder terminations. The Sn/Pb solder-coated termination meets Termination Finish Code B and Code F of the MIL-PRF-83446 mil spec. The Au termination meets Code A. Operating temperature for each series is -55°C to +125°C.

Gowanda Electronics' proprietary epoxy capping technique provides uniform dimensional stability for pick-and-place assembly and assures environmental and mechanical protection of the coil.

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Helpful links:

- Series Information:

**MLRF0603** – <http://www.gowanda.com/catalog/qpl/mlrf0603-detail.html>

**MLRF0805** – <http://www.gowanda.com/catalog/qpl/mlrf0805-detail.html>

- Data Sheets:

**MLRF0603** – [http://www.gowanda.com/images/files/Gowanda\\_MLRF0603\\_Datasheet\\_11112014.pdf](http://www.gowanda.com/images/files/Gowanda_MLRF0603_Datasheet_11112014.pdf)

**MLRF0805** – [http://www.gowanda.com/images/files/Gowanda\\_MLRF0805\\_Datasheet\\_11112014.pdf](http://www.gowanda.com/images/files/Gowanda_MLRF0805_Datasheet_11112014.pdf)

Gowanda Electronics can offer variations to these designs in order to meet the specific requirements of a particular application. The pursuit of QPL approval for such customer-specific designs depends on volume and other factors. Additionally Gowanda can upscreen a standard design from a commercial product line using the company's in-house environmental testing lab to fulfill customer reliability requirements. Gowanda will also consider inquiries from companies looking for partnering opportunities to address specific QPL needs.

For design details, pricing, delivery, application-specific variations, upscreen and/or partnering opportunities please contact Gowanda Electronics at USA +1-716-532-2234 or [sales@gowanda.com](mailto:sales@gowanda.com).

For information about the Defense Logistics Agency (formerly DSCC) and MIL-PRF-83446 go to: [www.landandmaritime.dla.mil/](http://www.landandmaritime.dla.mil/).

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