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## HALO UPDATE REGARDING LEAD FREE PRODUCTS

July 13<sup>th</sup>, 2016

To Our Valued Customers,

As we have stated previously, HALO has developed Lead Free versions for many of our ROHS compliant discrete transformers and common mode chokes. When the ROHS requirements were implemented several years ago, the HALO ROHS compliant commercial and industrial discrete products were developed utilizing exemption 7a of the ROHS directive. Exemption 7a allows for high lead content solders to be used in the internal solder joints.

Exemption 7a was scheduled to expire in July of 2016. However, during the ROHS review process several electronic component companies requested extensions of this exemption and to date there has not been a formal decision announced by the European Commission. When a decision is made the Commission will either indicate the new expiry date in case of renewal, or, in case of rejection, grant a transition before the exemption expires, i.e. a period of a minimum of 12 months with a maximum of 18 months following the decision date. For more information, please visit the European Commission website at [http://ec.europa.eu/environment/waste/rohs\\_eee/adaptation\\_en.htm](http://ec.europa.eu/environment/waste/rohs_eee/adaptation_en.htm).

In most cases Lead Free products exist today. The Lead Free discrete transformers and CMR chokes are identified with the suffix LF or NL. For example, HALO part number TG110-S050N2RL, which is ROHS compliant using exemption 7a, is available as TG110-S050N2LF, which is the ROHS compliant and Lead Free device. Both the RL and LF parts meet the same electrical specifications and in most cases the packages are the same size. As a result, for most parts we expect the qualification of the LF versions should be a fairly straight forward process for our customers. Although today the ROHS directive allows for exemption 7a, we do believe that at some point in the future this exemption may be suspended. Migrating to the LF parts now will eliminate any concerns for the future.

Our standard Tab Up, Tab Down and Vertical FastJacks™ were transitioned to Lead Free while maintaining the RL suffix. For more FastJack™ Lead Free conversion information please see <http://www.haloelectronics.com/halo-fastjack-lead-free-conversion-pcn/>.

Should you have any questions, please contact your local HALO sales office, authorized representative or franchised distributor.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey R. Heaton", written over a light blue horizontal line.

Jeffrey R. Heaton  
Vice President

*"Solutions that Keep You Connected"*