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For more information, contact:  
Tom Morris, Applications Engineering  
Manager IRC, Inc.  
361-985-3140  
[tom.morris@irctt.com](mailto:tom.morris@irctt.com)

Beth Polizzotto, BtB Marketing  
919-872-8172  
[bpolizzotto@btbmarketing.com](mailto:bpolizzotto@btbmarketing.com)

*LEDs and power components keep cool on new substrate material...*

## **IRC'S ANOTHERM™ TECHNOLOGY PROVIDES SUPERIOR THERMAL CONDUCTIVITY TO POLYMER-BASED INSULATED METAL SUBSTRATES**

CORPUS CHRISTI, TX (November 28, 2005) — Responding to increasing customer demands for substrates with improved power and thermal dissipation, TT electronics IRC Advanced Film Division has developed a new substrate technology that offers significant benefits over conventional polymer-based insulated metal substrates (IMS). Designated Another™, IRC's new material consists of a thermally-conductive aluminum alloy substrate insulated by a thin, chemically grown, anodized dielectric layer, with solderable screen printed conductors applied to the anodized layer.

“The Another™ process utilizes low cost manufacturing methods which result in a product that is compatible with traditional surface mount technology assembly methods,” said Tom Morris, applications engineering manager for IRC's Advanced Film Division. “Because of the high thermal conductivity that the base aluminum substrate offers, in many cases the Another™ board eliminates the need for additional heatsinks.”

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## **IRC'S ANOTHERM™ PROVIDES SUPERIOR THERMAL CONDUCTIVITY TO IMS, PG 2.**

Traditional insulated metal substrate technology (IMS) often relies on a polymer or epoxy material that is mechanically applied to a bare aluminum substrate, which requires extensive surface preparation, as well as a minimum thickness of approximately 75 microns. In addition, traditional IMS technology is subject to delamination at high temperatures.

By contrast, IRC's Anotherm process chemically converts the surface of the base aluminum itself to a rugged anodized insulating layer with a uniform thickness of only 35 microns, giving the Anotherm substrate its superior thermal properties, as well as eliminating the potential for delamination or peeling.

IRC's Anotherm™ substrates utilize an additive process that has fewer process steps than the subtractive process typically used for IMS board manufacturing, Morris continued. As a result, the Anotherm™ substrates allow much more flexibility and thermal efficiency, as well as cost savings in many applications. Typical applications for the Anotherm™ substrate include high brightness LED assemblies, LED packages, and power resistors for automotive applications.

Maximum operating voltage for the Anotherm™ substrates is 250VAC, with thermal impedance at 0.2°C per watt. Maximum continuous operating temperature is 400°C without a solder maskant and 175°C with a solder maskant.

For datasheets or more information on IRC's Anotherm™ technology, please access the Web site at [www.irctt.com/anotherm](http://www.irctt.com/anotherm). For additional information, please contact the TT electronics IRC Advanced Film Division Sales & Marketing Department at 361-992-7900; via mail at 4222 S. Staples St., Corpus Christi, TX 78411; or e-mail at [afdsales@irctt.com](mailto:afdsales@irctt.com).

**IRC'S ANOTHERM™ PROVIDES SUPERIOR THERMAL CONDUCTIVITY TO IMS, PG 3.**

IRC Inc. is a leading international manufacturer of advanced film, metal glaze and wirewound resistive products with facilities in Corpus Christi, Texas, Boone, N.C., Smithfield, N.C., and Barbados. IRC is part of TT electronics plc, a global electronics company manufacturing a broad range of advanced electronic components, assemblies and sensor modules for the automotive, telecommunications, computer and aerospace markets.

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*To request the electronic image, call 919-872-8172, or e-mail: [bpolizzotto@btbmarketing.com](mailto:bpolizzotto@btbmarketing.com)*

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