Applied Concepts

Company Overview

INNOVATION IN POWER CONVERSION TECHNOLOGY







Company Overview

- Applied Concepts was formed in 1998
- ISO 9001:2011 Certified
- Manufacturer of DC/AC CCFL Inverters for LCD Backlighting, Non-Display Lighting, & Specialty Applications
- ACI also Designs & Manufactures LED Drivers, Rails, High-Bright (HB) Displays, Class A, B, & C NVIS Displays, and LED Accessories
- In addition to growing our LED Product lines we're also diversifying into Non-Display Applications such as solid state lighting, architectural lighting, high-voltage power management, and related markets.





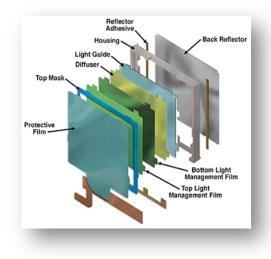


Our Focus

ACI Designs and Manufactures specialty power conversion systems for a wide range of highly-specialized applications spanning the Military, Marine, Aviation, Medical, and Industrial/ Commercial markets.

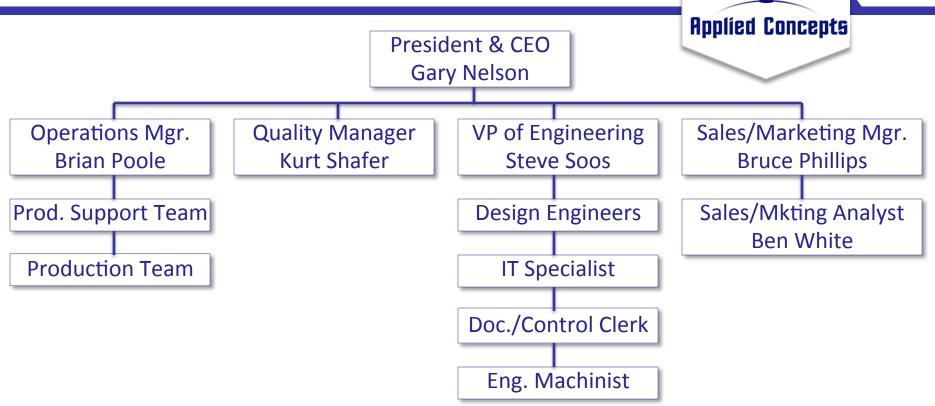
- We design all of our products to maximize MTBF with the majority of our products exceeding 75,000 hour lifetimes.
- Our line of High-Bright & NVIS solutions are recognized as the gold standard throughout the Display Industry. Side-by-side, our displays consistently out-perform the competition.
- ACI is committed to supporting our customers 100% by delivering quick-turn custom designs and unmatched engineering support and customer service





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Our Organization



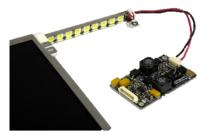
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Our Strengths

All of our LED Drivers have an integrated micro-controller that allows us to provide:

- Ultra-wide range dimming (3,000:1)
- Variety of Dimming Curves:
 - Linear, Logarithmic, Digital-View, etc.
- Adjustable Brightness range
- Capable of accepting a variety of interfaces
- Our Engineering team is always available should you have any design questions or need to trouble-shoot your applications.
 - Known as the "Tweak" squad our engineering team delivers painless quick-turn solutions customized to any specification.
- We stand behind our products and their specs 100%
 - All of our specs are measured in realistic operating environments
 - We strive to maintain the shortest lead times in the industry
 - All of our products are domestic source, 100% Manufactured in the USA







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Product Offerings

- DC to AC CCFL Inverters
- I-Drive Series of LED Drivers (8 Platforms)
- Digital View plug-and-play solutions
- High-Bright LED Modified Displays
- High-Bright + NVIS LED Modified Displays
- Dim-Nit factory panel dimming control board
- I-Nit ambient light-sensing accessory
- Inverters & Drivers for non-display applications mobile devices, high-voltage power supplies, architectural lighting, UV lighting, and much much more









CCFL Inverters

- DC to AC inverters with constant current outputs
- Stable, ultra-wide range dimming for optimal performance
- High-voltage outputs are open/short-circuit protected & phas-locked
- Input voltage regulated platforms available
- Zippy cross-reference units available
- All of our transformers are wound in-house by ACI
- Accepting a variety of inputs:
 - Analog, digital, ALS, & luminance/temperature feedback
- All new inverter designs are RoHS approved
- Home of the AC-1386D, powering the GE Dash 4000 & 5000 monitors
 None of our products have an EOL, we can always supply you with repair/replacement inverters to keep your products running.





LED Driver Capabilities

Our drivers power everything we do here at ACI, from supporting factory panels to lighting our HB and NVIS Modifications, our I-Drive series of LED Drivers rank among the best in the industry for performance and reliability.

Each driver has an onboard Micro-Controller providing:

• Ultra-wide range dimming (3,000:1)

Variety of Dimming Curves:

Linear, Logarithmic, Digital-View, etc.

Adjustable Brightness range

Capable of accepting a variety of interfaces

Satisfies the RE-101 compliance for reduced EMI

• Our team of experienced Engineers deliver:

• Quick-turn customizations & support

Tuning of specific input voltage ranges

• Ruggedized for harsh environments with extended MTBF

Drop-In form factors available upon request







I-Drive LED Drivers

Applied Concepts



I-Lite (ACI-A...)

- Supplies up to 10.8 Watts
- Single or Multi-Channel
- Smallest profile driver



I-Drive 2 (ACI-B...)

- Supplies up to 17 Watts
- Parallel Channels
- Op-Amp controlled circuit



I-Drive 3 & 4 (ACI-C... & ACI-D...)

- Both supply up to 15 Watts
- Single Channel Design
- Same circuitry, different form factors for drop-in replacement

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I-Drive LED Drivers

I-Drive 5 (ACI-E...)

- Supplies up to 30 Watts
- Series & Parallel Channel versions
- Dual-Mode functionality available







I-Drive 6 (ACI-F...)

- Supplies up to 65 Watts
- 12V and 24V input versions
- Dual Mode functionality available



I-Drive 7 (ACI-G...)

- Supplies up to 60-80 Watts
- 12V and 24V input versions
- Improved circuit design:
 - better heat dissipation, lower profile



I-Drive 8 (ACI-H...)

- Supplies up to 75-120 Watts
- 12V and 24V input versions
- Improved circuit design:
 - better heat dissipation, lower profile

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High-Bright (HB) Displays

ACI is recognized industry-wide as a leading manufacturer of Sunlight-Readable HB Displays & Kits promising superior performance & reliability:

- Ruggedized for Harsh Environments (Military, etc.)
- Max luminance, uniformity, & half-life (75,000 hrs)
- Onboard Micro-Controller allows:
 - Ultra-wide range dimming (3,000:1)
 - Variety of Dimming Curves:
 - Linear, Logarithmic, Digital-View, etc.
 - Adjustable Brightness range
 - Capable of accepting a variety of interfaces
- Ambient Light Sensor (ALS) add-on available
- Available as Modified Displays or LED Rail Kits
 - Modified Displays built from Customer-Consigned or ACI-Supplied Programs





HB+NVIS Displays

All of our HB/NVIS Displays are Full-Up Custom, Dual-Mode Designs offering the very best Day & Night Performance:

- Dual-Mode capability with Single LED Driver & Rail
- Fully-Integrated NVIS Design, No Filters Required
- Guaranteed MIL STD 3009 Class A, B, & C Compliance
 - Additionally, Low EMI Circuit/Driver topology
- Plus all of the features available in our HB Displays
 - Ruggedized Design for Harsh Environments
 - Onboard **Micro-Controller** (Custom Dimming, etc.)
 - Accepting various Interfaces, including ALS
- Only Modified Displays available (no Kits), built from
- Customer-Consigned or ACI-Supplied Programs





Dim-Nit & I-Nit

The Dim-Nit is a dimming control board that allows factory panels with on-board micros to achieve ACI's Ultra-wide range dimming.

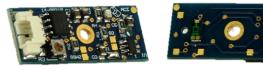
- Onboard dip-switch offers linear or logarithmic curves, analog
- or PWM control, and enable control.
- Small form factor (2.25" x 0.7" x 0.215" L x W x H)
- Ultra Wide-range dimming (3,000:1)
- +5V reference available to user application
- Reduced cost version available with specific control features

The I-Nit is an ALS adaptor board that automatically adjusts brightness based on observable environmental conditions.

- Easily added to factory panels & ACI modified displays
- Customizable dimming curve & output signals
- Temperature & light sensitive versions available







Target Markets

- Applied Concept's Engineering team develops power conversion solutions for highly specialized applications in Military, Avionics, Marine, Medical, Industrial, Non-Display, and other Commercial markets.
- In the Display industry, we work directly with every segment of the supply chain – OEM's, Distributors, Value-Added Resellers, and direct to End-Customers
- Our Sales & Engineering teams are customer-centric meaning that we will accommodate any request from oneoff requests and customized versions to support massproduction orders.









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Contact Us

ACI's I-Drive Series of *LED Drivers* are ruggedized, constant current drivers with ultra-wide range dimming and an on board micro-controller that can be tuned for any backlight application.



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In addition to LED Drivers, ACI is your trusted source for *CCFL Inverters* to prolong the life of your existing displays and other CCFL applications.



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