



Innovator of Board Mount Power Solutions

Since 1998

Glary Power Technology

Corporate Profile





A Brief of Glary Power Tech.

Who we are & What we do

<i>Established in</i>	: June, 1998
<i>Chairman</i>	: Mr. Ming Ching Chou
<i>Address</i>	: 51, Industrial Park 42th Rd., Tai-Chung, Taiwan, R.O.C.
<i>Certificates</i>	: UL E219417; CSA 4673868; TUV R50017397; CE
<i>Employee</i>	: 35 people
<i>Annual Revenue</i>	: USD 7.4+M
<i>Technology Strength</i>	: ZVS, SR, Buck Reset, Thermal Management, Noise & Ripple Elimination, and other patent pending technologies...
<i>Services</i>	: DC/DC Board Mount Modules & Related Technical Supports
<i>Capacity</i>	: 20K+pcs/Month on site & up to 200Kpcs/Month with contractors





Daily Practices

On Site Operation



R / D



Manufacture



Testing



Cleaning



Burn in



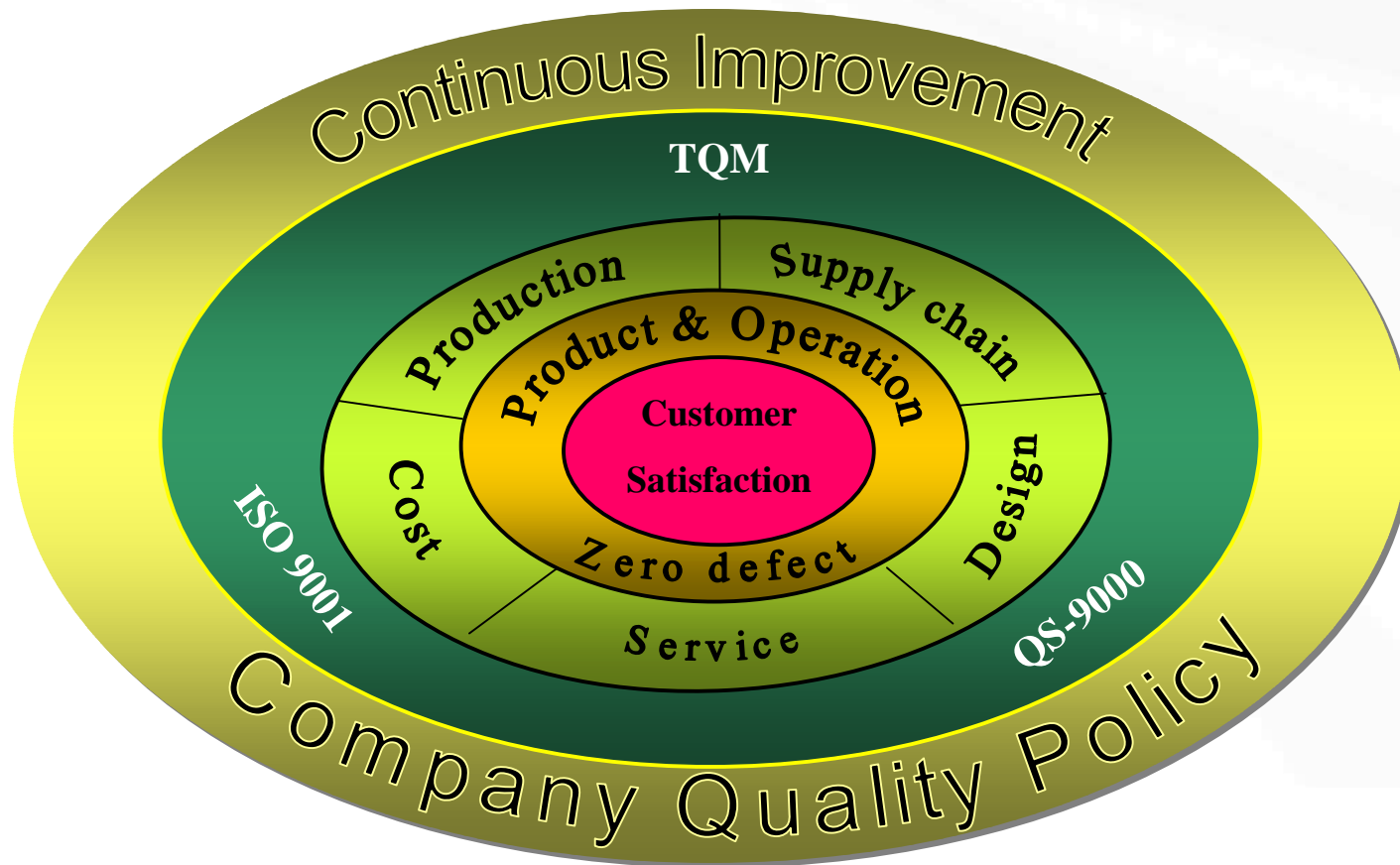
W/H





Quality Assurance

Continuous Improvement to Customer Satisfaction





Technology Strength

Buck Reset Forward Technology
(US Patent Granted – US6239989)

<美國專利局發行 專利證書>:

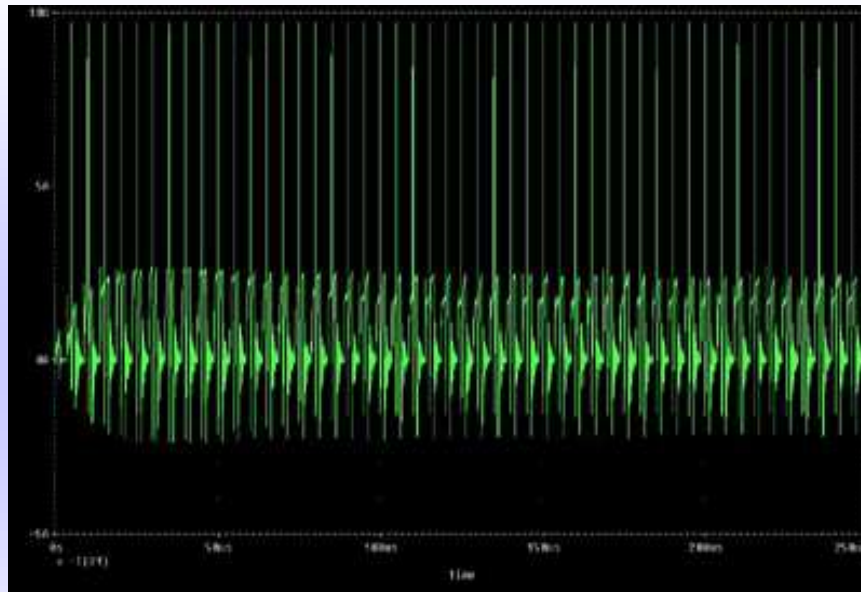
Glary's simple reset approach greatly improves SR operation, and with small rating components, this patented technology therefore has resulted in outstanding performance and more effective total cost of ownership.



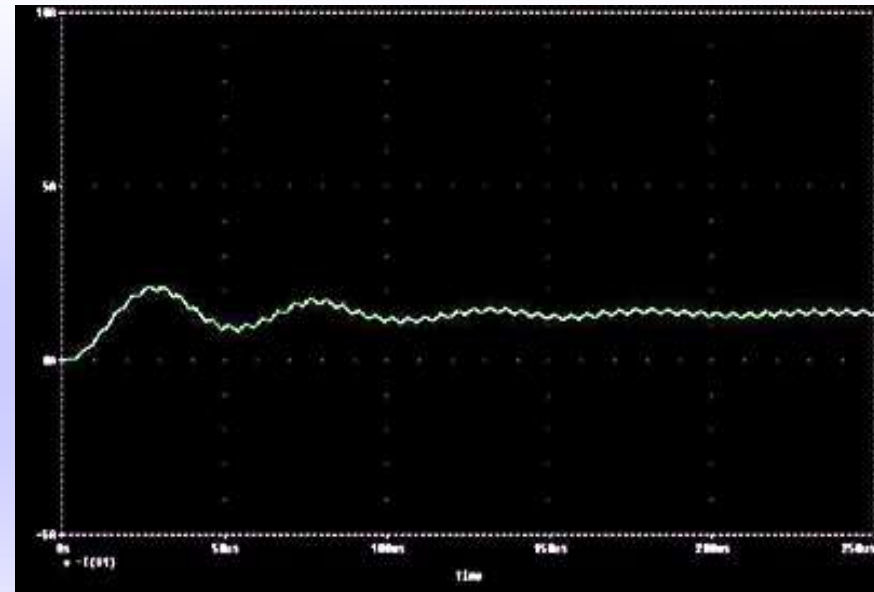


Technology Strength

Ripple Elimination



Simulated Input Current Waveform of
Conventional Topology



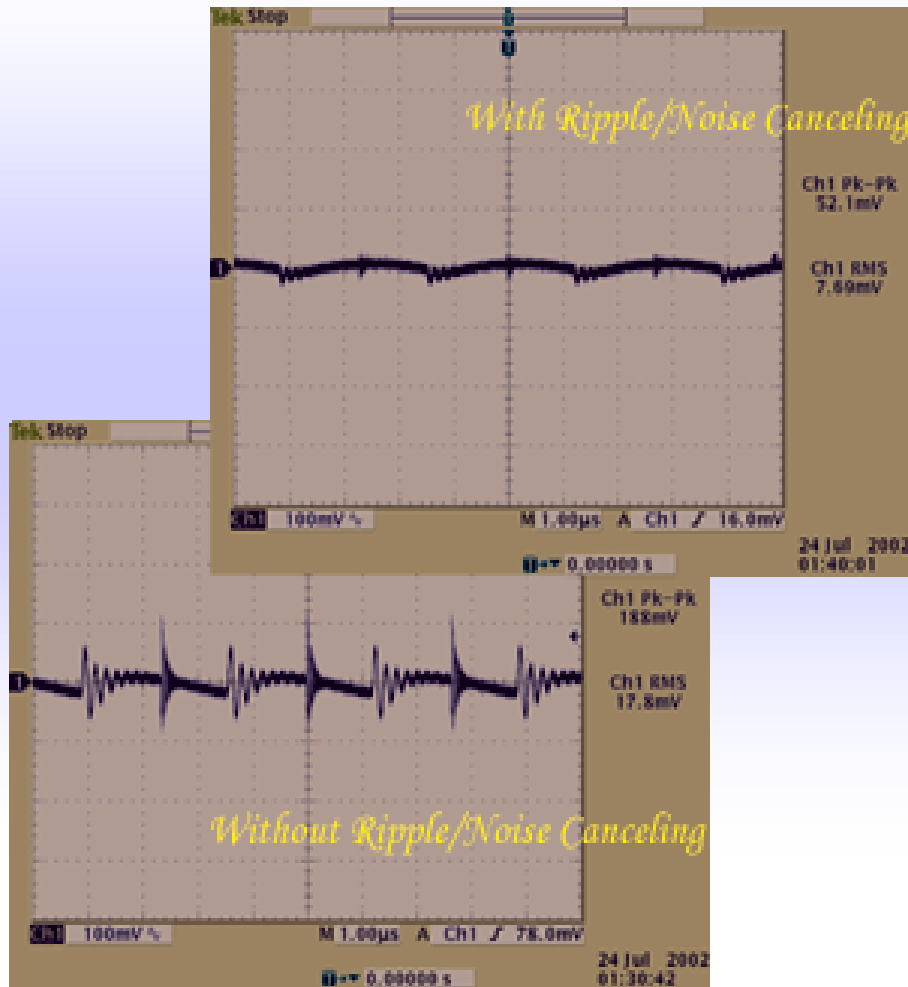
Simulated Input Current Waveform of
Ripple Free Topology

Ripple free performance by our unique circuit topology with no additional filtering components on primary side. This is easy to implement and offers further value add of more effective total cost ownership.



Technology Strength

Noise Elimination



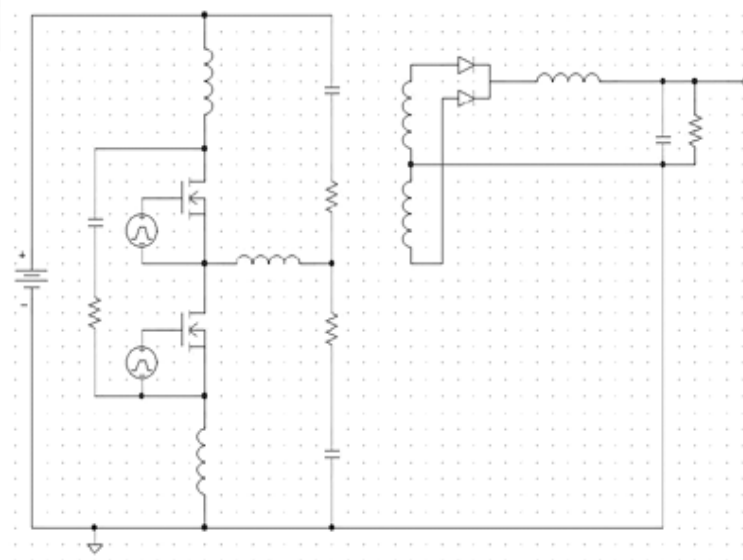
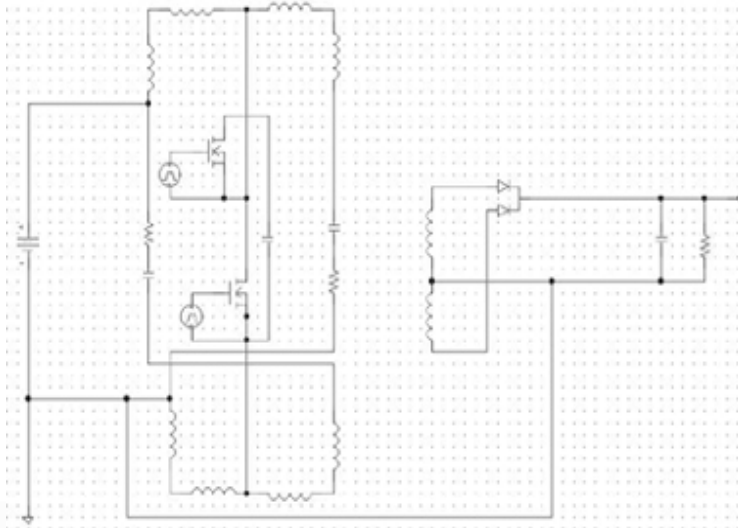
Noise free performance by our unique circuit topology with no additional filtering components on secondary side.

This is easy to implement and offers further value add of effective total cost ownership.



Technology Strength

ZVS & Ripple/Noise Elimination Topologies



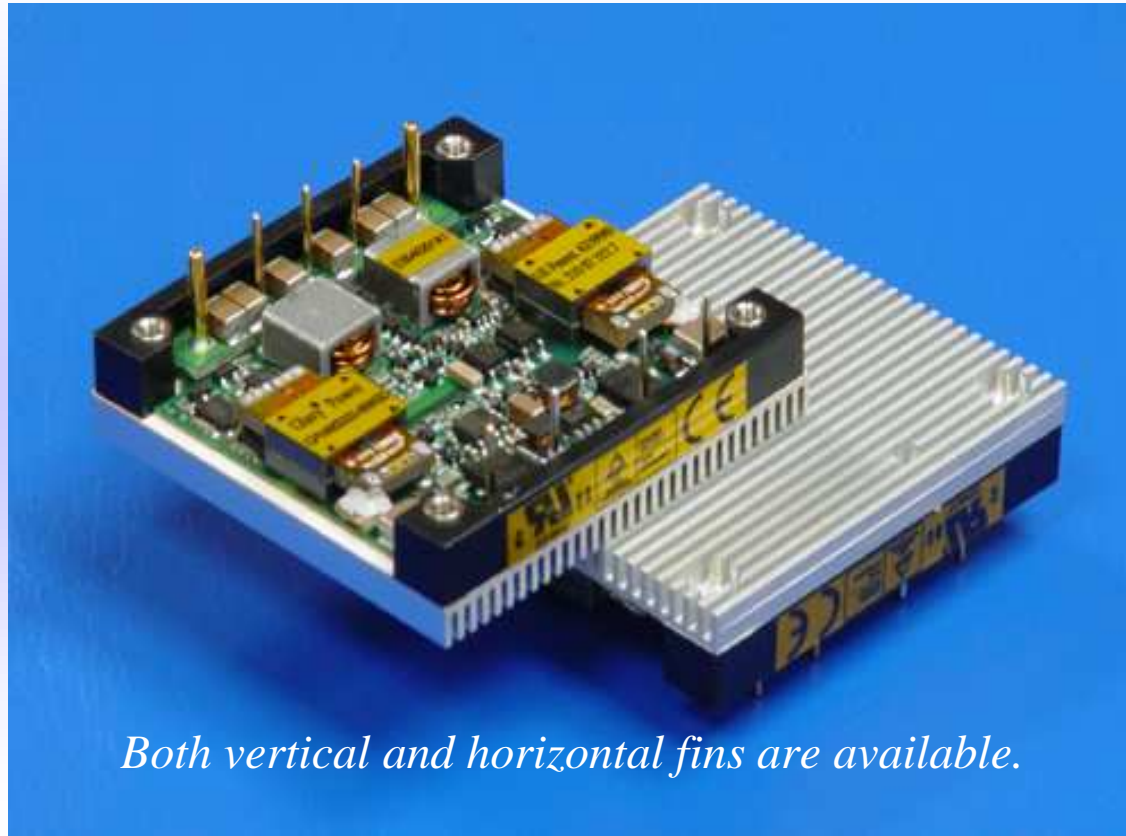
*Two families of unique conversion topologies that are able to operate under **Zero Voltage Switching** condition with **Ripple & Noise Elimination** characteristics are invented by Glary and are patent pending. These are using Glary original patented topology as their base.*

These topologies can be used in new generation products to provide superior performances with no additional filtering components to meet increased requirements in the future.



Technology Strength

Sink-Plate Structure (Optional)



Both vertical and horizontal fins are available.

***Provide modules highly flexible thermal managing feature with no increase of the height.
Our single-sided component assembly further allows such innovative approach.***



Areas of Expertise

Technology Oriented, Application Focused

Glary's developed Power Architectures & Solutions have been widely used in the following Applications:

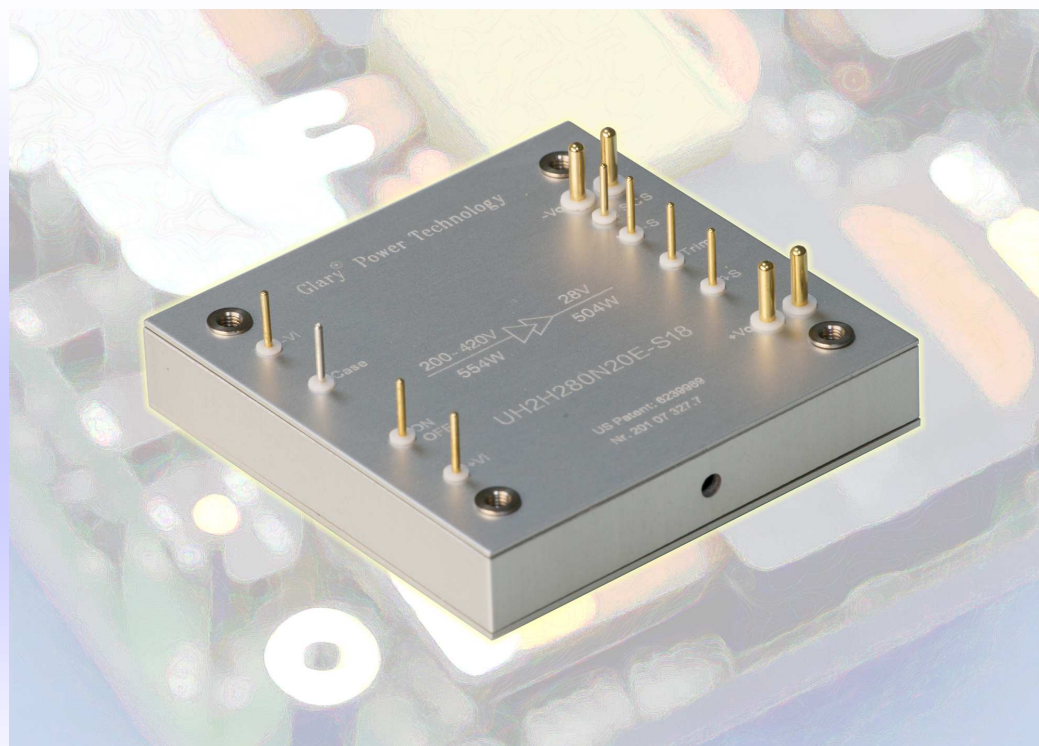
- > Integrated Power Systems Application**
- > Simple Power System Application**
- > Intermediate Bus Architecture Application**
- > Distributed Power Architecture Application**





Focused Product 1/6

200V~420Vin 500W Half Brick



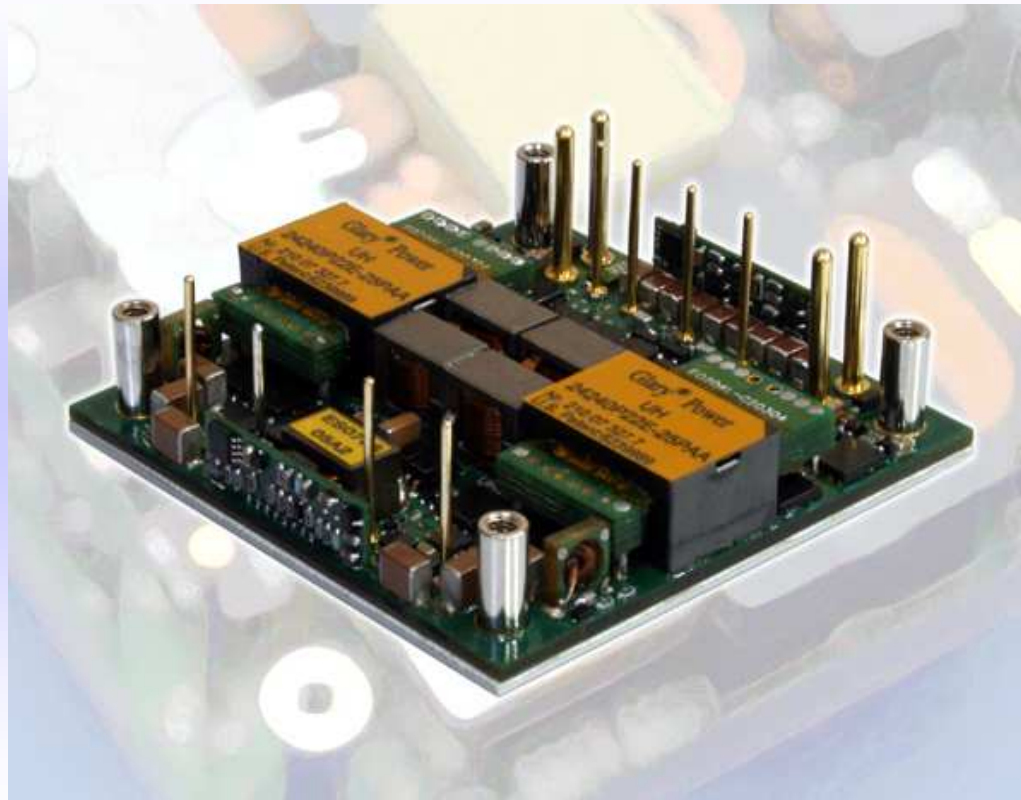
The **UH2H (Ultra High-Vin)** series provides up to **500W/42A** outputs with **embedded secondary current share feature** in an industry standard **half brick** package. The efficient SR stage is combined with patented “Buck Reset” topology, and further reduce power loss to achieve 144W/in³ power density. Modules are designed for Telecom, Servers, Networking equipments and other applications that use a **300V (200~420V)** input bus.





Focused Product 2/6

Current Share Capability in 800W+ Half Brick



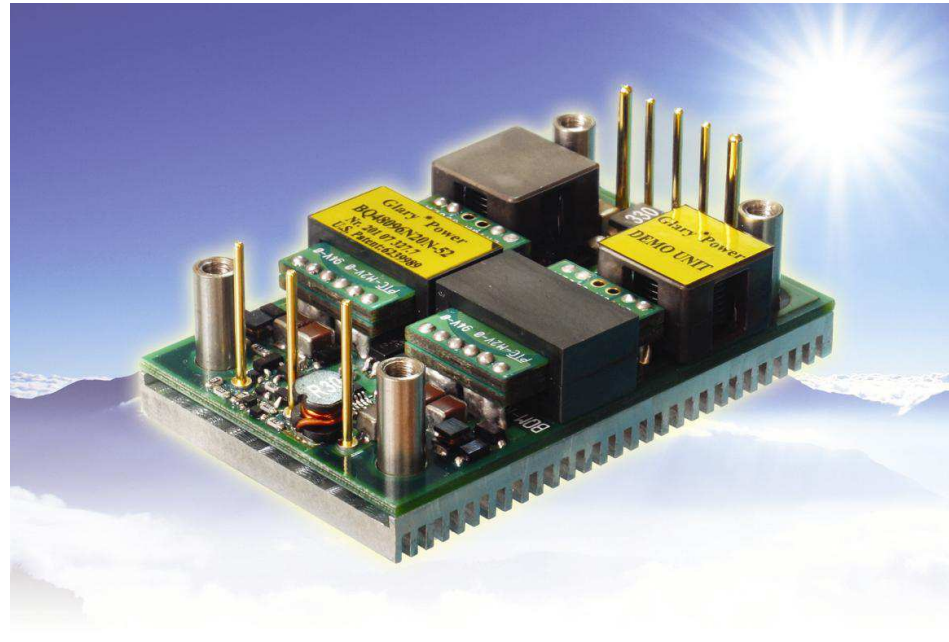
Advanced 800W UH ½brick module features current share capability, which is designed to construct the scalable power systems that feature fault-tolerance and high reliability.





Focused Product 3/6

1/4 Brick up to 60Amp



Advanced BQ series brick module features revolutionary capability of delivering ultra high current at both regulated and non-regulated outputs. BQX096 supplies 8~12V/60A and 370W/in³ of power density and 96% efficiency for 40~60V input voltage range. BQW065 delivers regulated 6.5V/60A output at 1% of voltage accuracy crossing 36~75V input range.





Focused Product 4/6

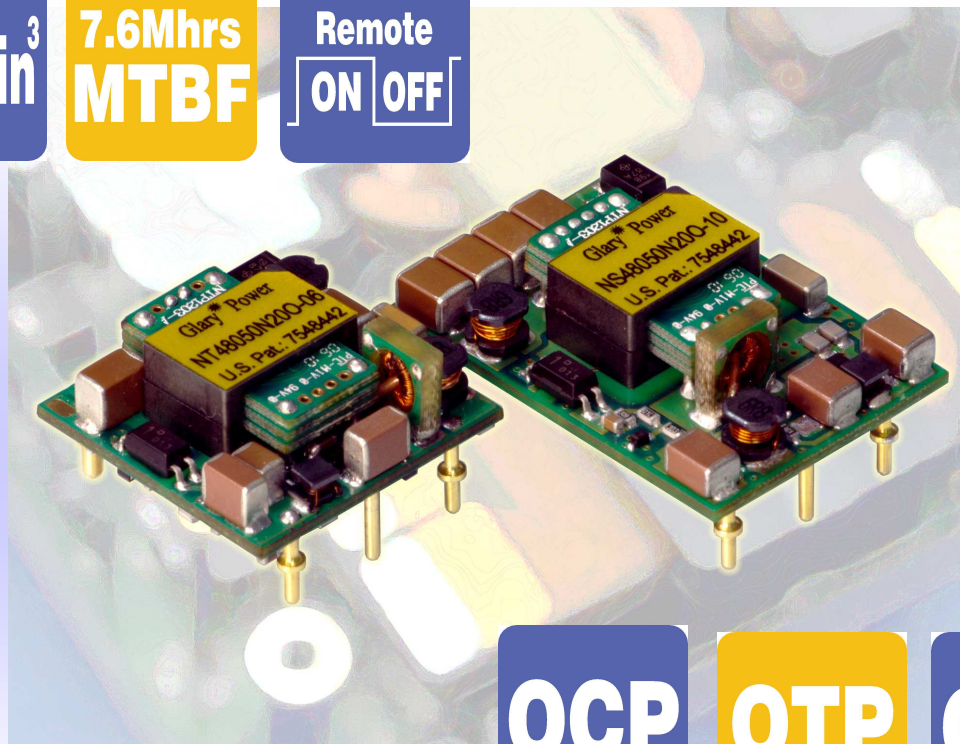
1/16 & 1/32 Brick up to 80W

100W/in³

7.6Mhrs
MTBF

Remote

ON OFF



OCP

OTP

OVP

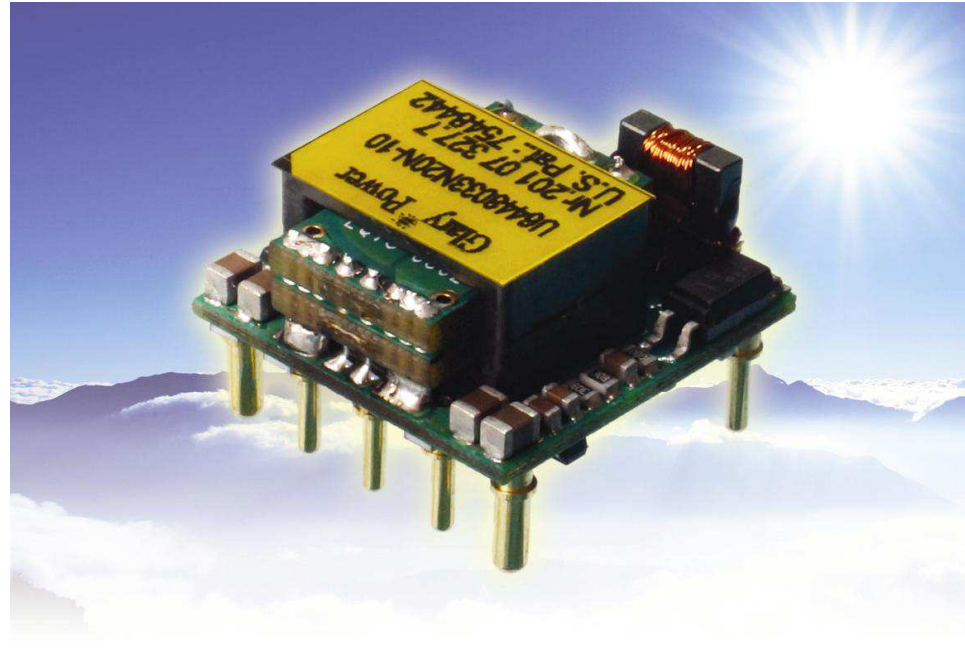
The *Neat Series* provides up to **80W/20A output** in standard **1/16 (NS models) and/or 1/32 (NT models) brick** packages, which is designed with the efficiently patented “Coupled-Inductor SR” topology. The low profile module design with open frame package reduces the shadow effect and simplify the system power design.

Glary



Focused Product 5/6

1/64 Brick up to 40W



The **U64 Series** provides up to **40W/8A output** in standard **1/64 brick** package, which is designed with the efficiently patented “Coupled-Inductor SR” topology. The low profile module design with open frame package reduces the shadow effect and simplify the system power design.





Focused Product 6/6

4:1 Vin B-case converter up to 40W

Efficiency
>90%

50W/in³

Full Metal
Package

EN55022
Class B

7.6Mhrs
MTBF



Remote
ON OFF

INPUT
2:1/4:1

OCP

OTP

OVP

The high efficiency *Aurora* series provides up to **40W/10A output** with industry standard **2"x 1"x 0.4" metal package**, which is designed with the patented "Coupled-Inductor SR" topology. The low profile module design with silicone potted metal package offers **optional 2:1 or 4:1 wide Vin range** and eliminates the hot spots to further secure much better thermal performance.





Integrated Power System Application

RFI Free Step Load 1/2 Brick



NH Series

336W/21A Half Brick

- RFI Free Metal Package
 - 169W/in³ Power Density
 - Efficiency up to 90%
 - Low Profile 0.37"
 - Ultra wide range 4:1 Vin range
- ***Unique RFI-Free metal packaging & outstanding Step-Load performance***
 - ***Suitable for RFI sensitive integrated high power system applications in Wireless Communication Equipment, Mobile-Phone Station and RF Amplifier.***





Simple Power System Application

Dual Outputs 1/2 Brick



CTH Series

25A/25A Dual Converters Half Brick

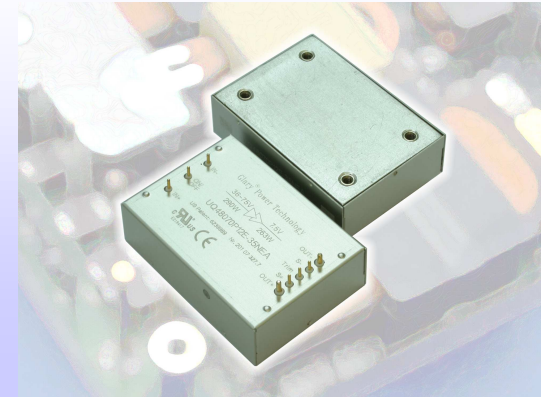
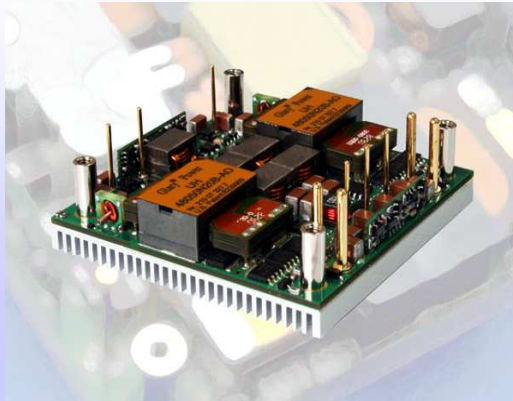
- High Useable Current: 5.0V25A/3.3V25A at 70°C200LFM
 - 63W/in³ Power Density
 - 90% Conversion Efficiency
 - Low Profile 0.36" (9.1mm)
-
- **Synchronous two converters in one single module** package
 - *Suitable to replace two power modules with better performance and lower cost*
 - **Outstanding useable current** performance in the industry
 - *Widely used in Telecom, Internet and Wireless applications.*





Intermediate Bus Converter Application

Ultra High Power 1/2Brick & ¼ Brick



UH Series

600W/120A Half Brick

- 215W/in³ Power Density
- 93% Conversion Efficiency
- Parallel feature embedded

CPH Series

350W/100A Half Brick

- 176W/in³ Power Density
- 92% Conversion Efficiency
- Low Profile 0.36" (9.1mm)

UQ Series

300W/60A Quarter Brick

- 235W/in³ Power Density
- 92% Conversion Efficiency
- Low Profile 0.36" (9.1mm)

- The **highest power density** and **output current** in the industry.
- Target application: IBA Bus Converter.
- Converting inputs 18V~36V and 36V~75V, powering loads and multiple low cost POL regulators, and maintaining Line/Load regulation within $\pm 0.2\%$.



Distributed Power Architecture Application

RFI Free Low Profile 1/2Brick & 1/4 Brick



CBH Series

250W/60A Half Brick

- 125W/in³ Power Density
- 91% Conversion Efficiency
- Low Profile 0.36" (9.1mm)
- RFI Free metal Packaging

CBQ Series

125W/25A Quarter Brick

- 112W/in³ Power Density
- 90% Conversion Efficiency
- Low Profile 0.37" (9.4mm)
- RFI Free metal Packaging

COQ Series

175W/50A Quarter Brick

- High Useable Current:
1.8V-39A at 70°C200LFM
- 91% Conversion Efficiency
- Low Profile 0.34" (8.6mm)

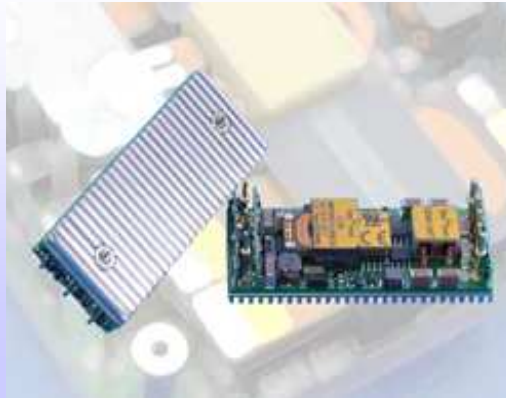
- **Unique RFI-Free metal packaging**
- **Outstanding useable current performance**
- **Suitable for RFI sensitive applications or high density DPA Telecom, Internet and Wireless applications.**





Distributed Power Architecture Application

High Reliability High Current 1/8 Brick



COE Series

132W/50A Eighth Brick

- High Useable Current:
1.8V-33A at 70°C200LFM
 - 91% Conversion Efficiency
 - Low Profile 0.34" (8.6mm)
- Very low part counts - **NE series** features **1.6 x MTBF greater than competitor models**, and is suitable for high reliability applications.
 - High Power - **COE series** features **high output useable current**, and is suitable for Telecom, Internet and Wireless applications.





Dedicated Unique Value

Technology

- *Fewer components on system board*
- *Faster transient response*
- *Lower ripple & Lower RFI Noise*
- *Much higher MTBF (No Tantalum Capacitors)*
- *Much Higher Output Currents (>40%)*
- *Higher Density & Reduced Dimensions*
- *Even better Thermal Performances*

Total L/T Management

- *Prior material preparation based on
Procurement-Authorization and/or Blanket Order*
- *Open discussion for Purchase Agreement and
Forecast Management*

Total Cost Management

- *Single-Price for Blanket Order model business*
- *Special offer for EAU > 10K PCs project*





References

Major Customers & People we've helped



Glary also dedicates itself to helping other PSU vendors through technical training, co-design, or even technology licensing... e.t.c., such as:

Product License for wide-range converter to:



Low Power low cost design/training for:



Designed high efficiency multiple output converter for:





Thank You!

<http://www.glary.com>

