

# 使用 **WEBENCH** 设计软件的 **myTI** 注册流程

# 1. 使用WEBENCH软件前要先注册TI账户，这里值得注意的是最后三项要用英文填写

小杨

您的电子邮件地址

2792808284@qq.com

确认电子邮件地址

2792808284@qq.com

创建一个密码

●●●●●●

确认密码

●●●●●●

请用英文填写此信息

公司

Huake Electronic9

姓氏

zhang

名字

xiaoyang

这三项要填写英文或拼音

请及时通过 myTI 邮件通知我有关 TI 产品与解决方案的信息。随时取消订阅。

注册并继续

通过创建一个帐户，即表明您同意TI的网站使用条款和隐私权政策。

## 2. 注册提交后，邮箱会收到一封注册邮件，进入邮箱查看

我的产品 您的历史记录中没有产品

我的个人入口 您的历史记录中没有文档

我的收藏 您的历史记录中没有搜索

TI 主页 > myTI 帐户

# myTI 帐户

## 谢谢注册

请完成您的帐户设置：

- 验证电子邮件已发送至 2792808284@qq.com
- 如果几分钟后您仍然看不到此邮件，请检查您的垃圾邮件文件夹

### 看不到电子邮件？

**重新发送确认电子邮件至**

也可将确认电子邮件发送至下方列出的其他地址。  
(该地址将成为您的登录电子邮件地址)

电子邮件地址

2021 年 7 月 27 日 星期三

0 个点评 0 猜你喜欢

发送到手机 删除邮件 1/1



### 3. 邮箱中找到注册邮件，点击“现在验证您的电子邮件并登录”

发件人：myTI <myTI@list.ti.com> 因  
时 间：2015年5月21日(星期四) 下午5:06  
收件人：小王学长 <2792808284@qq.com>



张 小 杨,

您已成功注册 myTI 账户。您需要使用本电子邮件地址登录：[2792808284@qq.com](mailto:2792808284@qq.com)

若要完成激活您的账户，请点击下列链接验证您的电子邮件地址。

[>现在验证您的电子邮件并登录。](#)

谢谢！  
德州仪器公司

欢迎来到 myTI，感谢您注册本网站。我们热切期待对您有更深入的了解。我们拥有大量您可资利用的设计资源，并在提供协助方面独具优势。



[请向我们介绍您自己 - 填写个人信息](#)



[采用 TI 参考设计库立即启动您的系统设计](#)



[选择并订阅新闻报](#)



[在移动设备上与我们保持](#)

4. 在左侧登陆栏输入注册邮箱和密码，登录刚才注册的TI账户，至此，TI账户已激活

## myTI 帐户

### myTI 用户?

您的电子邮件地址

2792808284@qq.com

您的 myTI 密码

•••••

记住密码 ⓘ

登录

[忘记密码?](#)

### 新用户? 免费注册:

国家

China (简体中文)

邮政编码

公司

姓氏

名字

您的电子邮件地址

确认电子邮件地址



- 购买 IC、工具和软件
- 申请样片
- 获得在线技术支持
- 模拟WEBENCH 设计
- 设定产品及应用软件更新提醒
- 个性化您的网络体验

## 5. 在WEBENCH设计中心，选择自己要设计的作品类型，进入WEBENCH软件



TI 主页 > WEBENCH® 设计中心

## WEBENCH® 设计中心



WEBENCH Design Environments 是独特而强大的软件工具，能在短短几秒内提供定制电源、照明、滤波、时钟和传感设计。这些易用的工具能帮助您创建、优化并模拟符合您独特规格的设计。同时，这些工具能让您在将设计投入生产之前在设计、系统和供应链层面进行基于价值的权衡。

## 设计和仿真工具

### 电源设计

[电源设计器 \(单电源\)](#)

[车用电源设计器](#)

[电源架构 \(多电源\)](#)

[系统电源架构](#)

## WEBENCH® 设计器 My Designs

| Filters | 传感器     | Interface | Reference |
|---------|---------|-----------|-----------|
| 电源      | FPGA/μP | LED       | Clocks    |

输入您的供电要求：

直流  交流

输入电压 最小  V 最大  V

输出电压  V 输出电流  A

环境温度  °C

多负载  单输出

[? WEBENCH 使用说明](#)

## 6. 初次使用WEBENCH, 需要登陆TI账户, 如图, 点击右上角sign in.

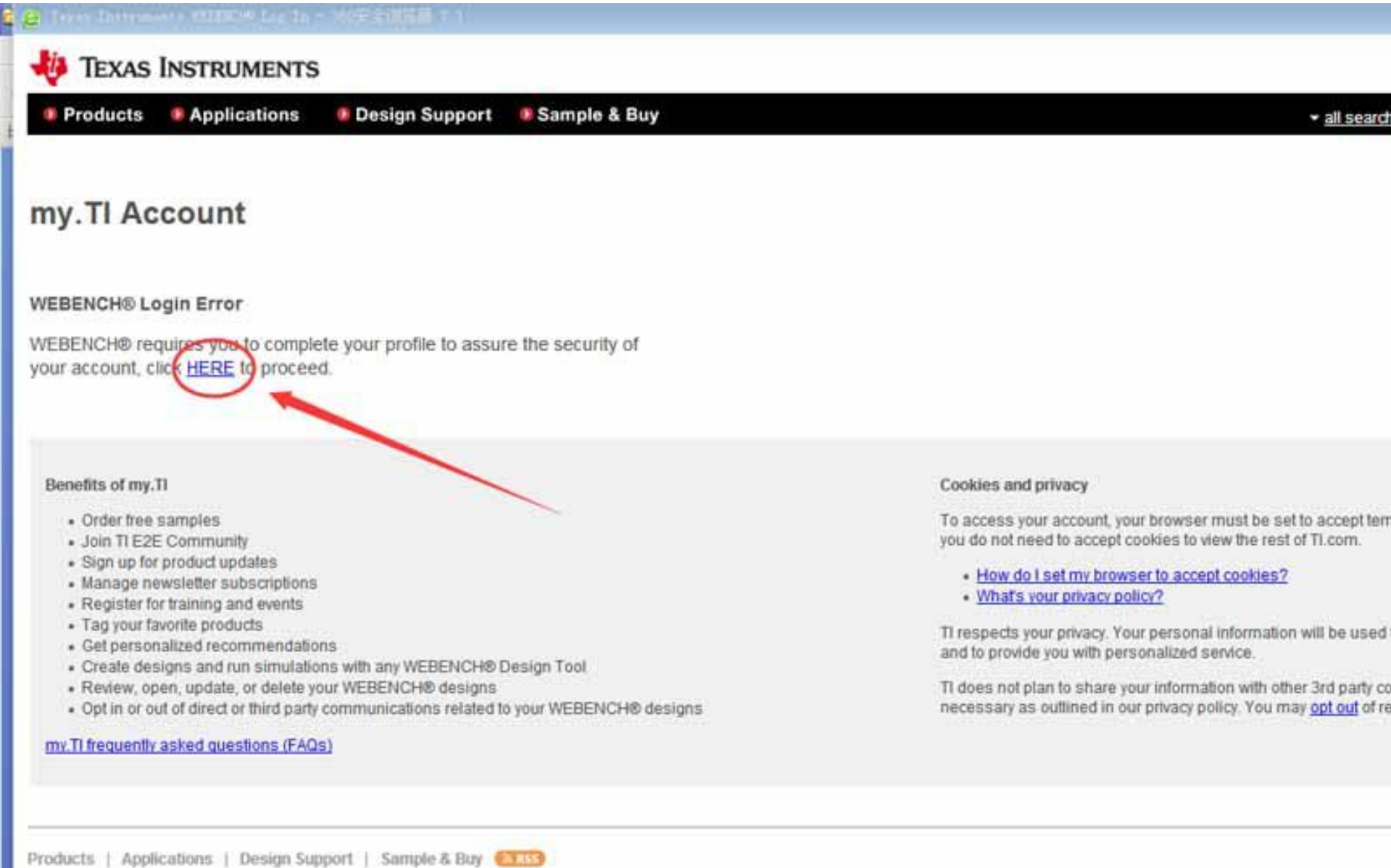
The screenshot shows the TI WEBENCH Visualizer interface. In the top right corner, there is a notification that says "You are not logged in!" with a "Sign In" button circled in red. A red arrow points from the text "需要登陆TI账户, 如图, 点击右上角sign in." to this button.

The interface is divided into several sections:

- WEBENCH™ 优化工具 (Optimization Tool):** Features a 3D knob for adjusting trade-offs between DCM cost, minimum footprint, and efficiency. It shows current values: 296 for footprint, \$10.62 for BOM cost, and 90% for efficiency.
- 更改输入 (Change Inputs):** Allows setting input and output voltages and currents. Current settings: Input 14V, Output 3.3V, Input Current 2A, Output Current 2A.
- 功能特色筛选 (Feature Selection):** Includes checkboxes for various features like "开/关控制" (On/Off Control), "可调的峰值电流" (Adjustable Peak Current), etc.
- 筛选结果 (Filter Results):** Displays a summary of the current selection: Efficiency 90%, DCM Area 296mm², BOM Cost \$10.62, Efficiency 90%, Output Voltage 1.18V, Output Current 335.68mA, Switching Frequency 150kHz, etc.
- 高阶图表 (Advanced Charts):** A scatter plot showing Efficiency vs. Footprint vs. BOM Cost. The plot highlights the "最小面积和最高效率" (Minimum Area and Maximum Efficiency) region.
- 解决方案 (Solutions):** A table listing various power module solutions with their respective DCM area, BOM cost, efficiency, and other parameters.

| 零件 (Part)   | 拓扑 (Topology)           | WEBENCH 工具 (Tool) | 原理图 (Schematic) | DCM 面积 (DCM Area) | 设计考虑 (Design Considerations)    | DCM 面积 (mm²) | DCM 成本 (BOM Cost) | 效率 (%) (Efficiency) | DCM 计算 (DCM Calc) | 效率 (效率) (Efficiency) | Vout (V) | Iout (A) | 效率 (效率) (Efficiency) | 相位裕度 (deg) (Phase Margin) |
|-------------|-------------------------|-------------------|-----------------|-------------------|---------------------------------|--------------|-------------------|---------------------|-------------------|----------------------|----------|----------|----------------------|---------------------------|
| LMX14203    | 开环设计 (Open Loop Design) |                   |                 | 296mm²            | 3A SIMPLE SWITCHER Power Module | 296          | \$10.62           | 90%                 | 12                | 444                  | 17.32    | NA       | NA                   |                           |
| LMX14203EIT | 开环设计 (Open Loop Design) |                   |                 | 296mm²            | 3A SIMPLE SWITCHER Power Module | 296          | \$19.14           | 90%                 | 12                | 444                  | 17.32    | NA       | NA                   |                           |
| LMX14202    | 开环设计 (Open Loop Design) |                   |                 | 296mm²            | 2A SIMPLE SWITCHER Power Module | 296          | \$8.60            | 88%                 | 12                | 430                  | 11.91    | NA       | NA                   |                           |
| LMX14202EIT | 开环设计 (Open Loop Design) |                   |                 | 296mm²            | 2A SIMPLE SWITCHER Power Module | 296          | \$16.14           | 88%                 | 12                | 430                  | 11.91    | NA       | NA                   |                           |
| LMX23603    | 开环设计 (Open Loop Design) |                   |                 | 146mm²            | 36V, 3A SIMPLE SWITCHER         | 346          | \$8.67            | 82%                 | 5                 | 800                  | 1.18     | 53       | 50                   |                           |

7. 这时候会跳转如下一个页面，提示需要完善用户信息，点击[HERE](#)跳转至完善页面



The screenshot shows the Texas Instruments website's 'my.TI Account' page. At the top, there is a navigation bar with 'Products', 'Applications', 'Design Support', and 'Sample & Buy'. Below this, the page title is 'my.TI Account'. A section titled 'WEBENCH® Login Error' contains the message: 'WEBENCH® requires you to complete your profile to assure the security of your account, click [HERE](#) to proceed.' The word 'HERE' is circled in red, and a red arrow points from it towards the 'Benefits of my.TI' section. The 'Benefits of my.TI' section lists several advantages, including ordering free samples, joining the TI E2E Community, and managing newsletter subscriptions. To the right, there is a 'Cookies and privacy' section with links for 'How do I set my browser to accept cookies?' and 'What's your privacy policy?'. At the bottom, there is a footer with 'Products | Applications | Design Support | Sample & Buy' and an RSS icon.

TEXAS INSTRUMENTS

Products Applications Design Support Sample & Buy

all search

## my.TI Account

### WEBENCH® Login Error

WEBENCH® requires you to complete your profile to assure the security of your account, click [HERE](#) to proceed.

#### Benefits of my.TI

- Order free samples
- Join TI E2E Community
- Sign up for product updates
- Manage newsletter subscriptions
- Register for training and events
- Tag your favorite products
- Get personalized recommendations
- Create designs and run simulations with any WEBENCH® Design Tool
- Review, open, update, or delete your WEBENCH® designs
- Opt in or out of direct or third party communications related to your WEBENCH® designs

[my.TI frequently asked questions \(FAQs\)](#)


#### Cookies and privacy

To access your account, your browser must be set to accept terms and conditions. If you do not need to accept cookies to view the rest of TI.com.

- [How do I set my browser to accept cookies?](#)
- [What's your privacy policy?](#)

TI respects your privacy. Your personal information will be used to provide you with personalized service.

TI does not plan to share your information with other 3rd party companies, unless necessary as outlined in our privacy policy. You may [opt out](#) of receiving marketing emails.

Products | Applications | Design Support | Sample & Buy 



8. 完善信息后，点击Save and continue，如图：

## 电话号码

办公室电话

+86



0439

5377214

Extension

办公室传真

*(可选)*

Country



Area

Phone number

Extension

移动电话

*(optional)*

Country



Area

Phone number

## 收件地址

地址栏 1

吉林省白山市华科电子科技有限公司

地址栏 2

*可选*

城市

白山市

州或省

吉林省

邮政编码

134600

国家或地区

China (简体中文)



**Save and continue**



9. 上一步点击提交按钮后，系统会自动跳转到WEBENCH设计页面，这时候提示已登录TI账户，如图：

The screenshot displays the TI WEBENCH Visualizer interface. At the top, there are navigation buttons for '新设计' (New Design), '解决方案' (Solutions), 'Visualizer', and '辅助' (Help). The user's email address '192008204@qq.com' is visible in the top right corner, circled in red with an arrow pointing to it.

The main interface is divided into several sections:

- WEBENCH® 优化工具 (WEBENCH® Optimization Tool):** Features a slider for balancing footprint, cost, and efficiency. Current values are 296 for footprint, \$10.62 for cost, and 90% for efficiency.
- 更改输入 (Change Inputs):** Includes settings for input type (DC/AC), minimum/maximum voltage (14V/22V), output voltage (3.3V), output current (2A), and ripple (30mV).
- 功能特色筛选 (Feature Selection):** Allows filtering by features like '开/高纹波', '可调节的峰值电流', '电源正常', '可调节频率', '软启动', '可多负载', '外部同步', 'Automotive', and 'Light Load'.
- 筛选结果 (Filter Results):** Displays summary statistics for the current filter settings, including efficiency (91%), output voltage (1.18V), output current (335.80mA), footprint (176mm²/830mm²), cost (\$1/\$20), and switching frequency (150kHz/1075kHz).

At the bottom, there are two main panels:

- 高阶图表 (Advanced Charts):** A scatter plot showing Efficiency vs. Footprint vs. DCM Cost. A green circle highlights the optimal design point, labeled '最小化和最高效率' (Minimum footprint and maximum efficiency).
- 解决方案 (Solutions):** A table listing 11 design solutions. The table includes columns for Part Number, Status, WEBENCH Tool, Footprint, DCM Power, Design Considerations, DCM Volume, DCM Cost, Efficiency, DCM Count, Ripple, Output Voltage, Output Current, and Temperature Rise.

| 零件          | 状态   | WEBENCH 工具 | 版图面积 | DCM 功率             | 设计考虑                            | DCM 体积 (mm <sup>3</sup> ) | DCM 成本 (1kx) | 效率 (%) | DCM 数量 | 纹波 (mV) | Vout p-p (mV) | Iover Freq (kHz) | 相位裕量 (deg) |
|-------------|------|------------|------|--------------------|---------------------------------|---------------------------|--------------|--------|--------|---------|---------------|------------------|------------|
| LM214203    | 开始设计 |            |      | 296mm <sup>2</sup> | 3A SIMPLE SWITCHER Power Module | 296                       | \$10.62      | 90%    | 12     | 444     | 17.32         | NA               | NA         |
| LM214203KIT | 开始设计 |            |      | 296mm <sup>2</sup> | 3A SIMPLE SWITCHER Power Module | 296                       | \$19.74      | 90%    | 12     | 444     | 17.32         | NA               | NA         |
| LM214202    | 开始设计 |            |      | 296mm <sup>2</sup> | 2A SIMPLE SWITCHER Power Module | 296                       | \$8.40       | 88%    | 12     | 450     | 11.91         | NA               | NA         |
| LM214202KIT | 开始设计 |            |      | 296mm <sup>2</sup> | 2A SIMPLE SWITCHER Power Module | 296                       | \$16.14      | 88%    | 12     | 450     | 11.91         | NA               | NA         |
| LM223603    | 开始设计 |            |      | 346mm <sup>2</sup> | 36V, 3A SIMPLE SWITCHER         | 346                       | \$8.67       | 82%    | 5      | 800     | 1.18          | 53               | 50         |

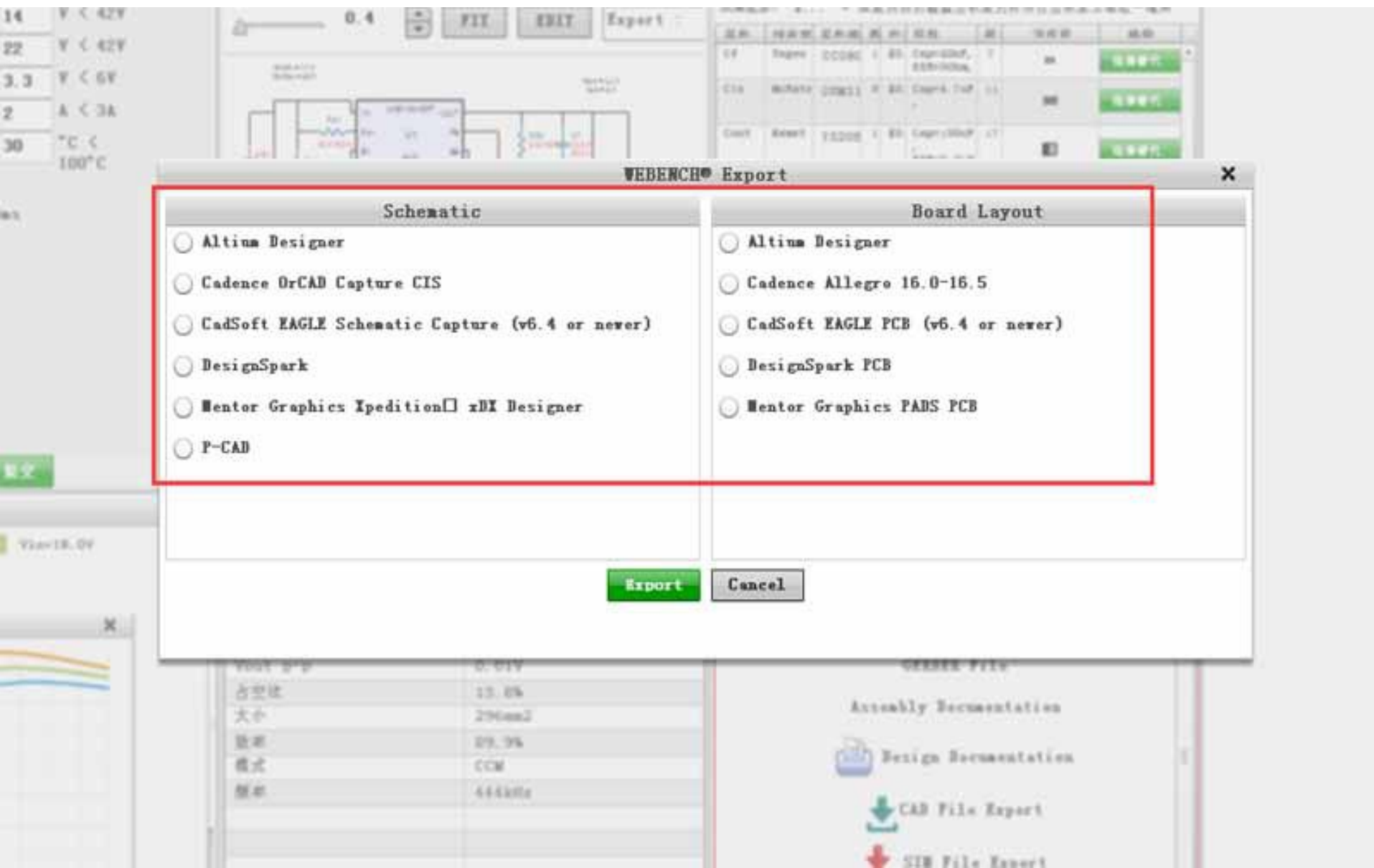
10. 设计完作品后，可以通过Export导出为CAD/PCB文件，也可通过Design Documentation生成pdf文件，如图：

The screenshot displays the WEBENCH software interface with several key sections:

- Top Toolbar:** Includes icons for navigation, simulation, and export. The 'Export' icon (a blue folder) is circled in red, with a red arrow pointing to it from the text '点击Export可以生成CAD压缩文件'.
- Left Panel (Change Input):** Lists input parameters such as Vin (6V), Vout (0.8V), and Iout (0A).
- Center Panel (Schematic):** Shows a circuit diagram of a power converter.
- Right Panel (Material List):** A table listing components like capacitors and resistors with their values and tolerances.
- Bottom Left (Graph):** A plot of Efficiency (%) vs. Load Regulation, showing efficiency rising from ~70% to ~90%.
- Bottom Center (Operating Values):** A table with the following data:

| Name      | Value      |
|-----------|------------|
| IC Tj     | 44.3degC   |
| ICthetaJA | 19.3degC/W |
| IOUT_OP   | 2A         |
| VIN_OP    | 22V        |
| Vout_op   | 0.01V      |
| 占空比       | 13.8%      |
| 纹率        | 89.9%      |
| 模式        | CCM        |
| 频率        | 444kHz     |
- Bottom Right (Design Summary):** A red header '您的整个设计' (Your entire design) followed by a list of options: 'Design Documentation' (circled in blue with a blue arrow pointing to it from the text '点击Design Documentation可以生成pdf文件'), 'CAD File Export', 'SIM File Export', and 'Share this Design'.

10-1. 上一步点击Export按钮后，跳转至此页面，可以生成多种CAD文件和PCB文件



10-2. 上一步点击Design Documentation按钮后，跳转至此页面，如图所示保存为pdf文件



## WEBENCH® Design Report

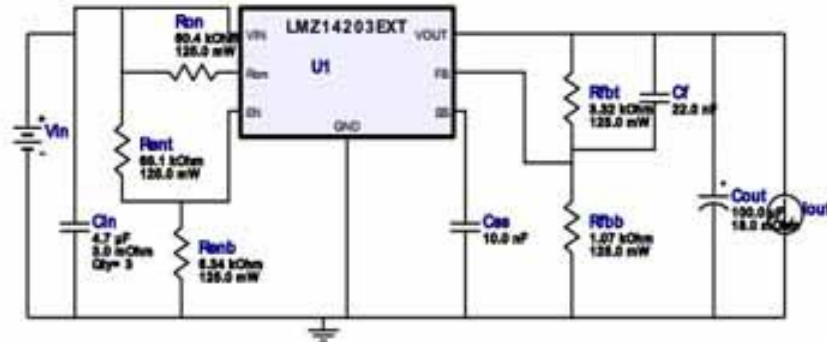
Design : 4377555/1 LMZ14203EXTT2/NOPB  
LMZ14203EXTT2/NOPB 14.0V-22.0V to 3.30V @ 2.0A

VinMin = 14.0V  
VinMax = 22.0V

VinMin = 14.0V  
VinMax = 22.0V  
Vout = 3.3V  
Iout = 2.0A

Device = LMZ14203EXTT2/NOPB  
Topology = Buck  
Created = 5/21/15 2:16:12 AM  
BOM Cost = \$19.14  
Footprint = 296.0 mm<sup>2</sup>  
BOM Count = 12  
Total Pd = 0.74W

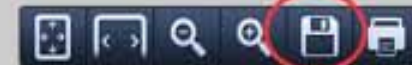
Vout = 3.3V  
Iout = 2.0A



### Electrical BOM

| #  | Name | Manufacturer  | Part Number                       | Properties   | Qty | Price  | Footprint                  |
|----|------|---------------|-----------------------------------|--|-----|--------|----------------------------|
| 1. | Cf   | Yageo America | CC0805KRX7R9BB223<br>Series= X7R  | Cap= 22.0 nF<br>VDC= 50.0 V<br>IRMS= 0.0 A                   | 1   | \$0.01 | 0805 7 mm <sup>2</sup>     |
| 2. | Cin  | MuRata        | GRM31CR71H475KA12L<br>Series= X7R | Cap= 4.7 uF<br>ESR= 3.0 mOhm<br>VDC= 50.0 V<br>IRMS= 4.98 A  | 3   | \$0.07 | 1206 11 mm <sup>2</sup>    |
| 3. | Cout | Kemet         | T520B107M006ATE018<br>Series= 249 | Cap= 100.0 uF<br>ESR= 18.0 mOhm<br>VDC= 6.3 V<br>IRMS= 2.7 A | 1   | \$0.56 | 3528-21 17 mm <sup>2</sup> |
| 4. | Css  | MuRata        | GRM216R71H103KA01D<br>Series= X7R | Cap= 10.0 nF<br>VDC= 50.0 V                                  | 1   | \$0.01 | 0805 7 mm <sup>2</sup>     |

点击此处保存为pdf文件



# 11. 点击分享设计，可以将本设计通过Email形式分享给自己的好友

The screenshot displays the WEBENCH software interface with several key sections:

- Top Menu:** Includes icons for Back, New Design, Solution, Visualizer, BOM, Tables, Schematic, Work Values, Tools, Thermal Tools, Procurement, Edit, Report, Sim Report, Print, **Share Design** (circled in red), and Help.
- Summary (总结):** A central section showing a schematic diagram of a power converter circuit.
- Material List (材料清单):** A table listing components such as capacitors, resistors, and diodes with their values and quantities.
- Operating Values (Operating Values):** A table providing key performance metrics:

| Item      | Value      |
|-----------|------------|
| IC Tj     | 44.3degC   |
| ICThetaJA | 19.3degC/W |
| IOU7_OP   | 2A         |
| VIN_OP    | 22V        |
| Vout p-p  | 0.01V      |
| 占空比       | 15.8%      |
| 大小        | 29mm2      |
| 效率        | 89.9%      |
| 模式        | CCM        |
| 频率        | 44kHz      |
- Efficiency Graph (图表):** A line graph showing efficiency (%) on the y-axis (ranging from 70.00 to 90.00) against a parameter on the x-axis (ranging from 0.20 to 1.10). Three curves are plotted for different output voltages: 14.0V (orange), 18.0V (green), and 22.0V (blue).
- Design Summary (您的整个设计):** A sidebar on the right containing links for:
  - Product Folder
  - View By Orders
  - ORDER Evaluation Boards, Samples, ICs
  - WEBENCH Downloads
  - GERBER File
  - Assembly Documentation
  - Design Documentation
  - CAD File Export
  - SIM File Export
  - 分享这个设计** (Share this Design, circled in red)
  - Copy this Design

Red arrows point from the text "点击这两处任意一个都可以将设计分享给朋友" to the "Share Design" button in the top menu and the "分享这个设计" button in the sidebar.