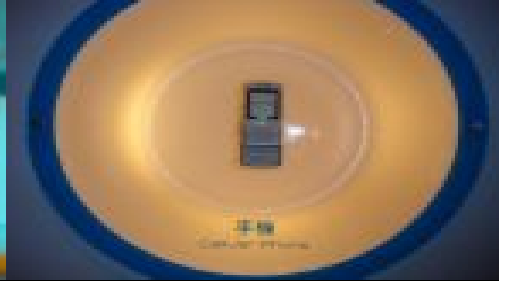


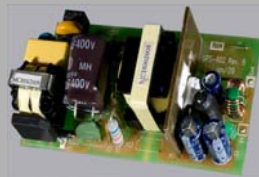
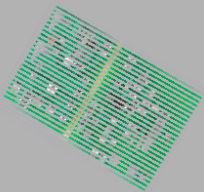
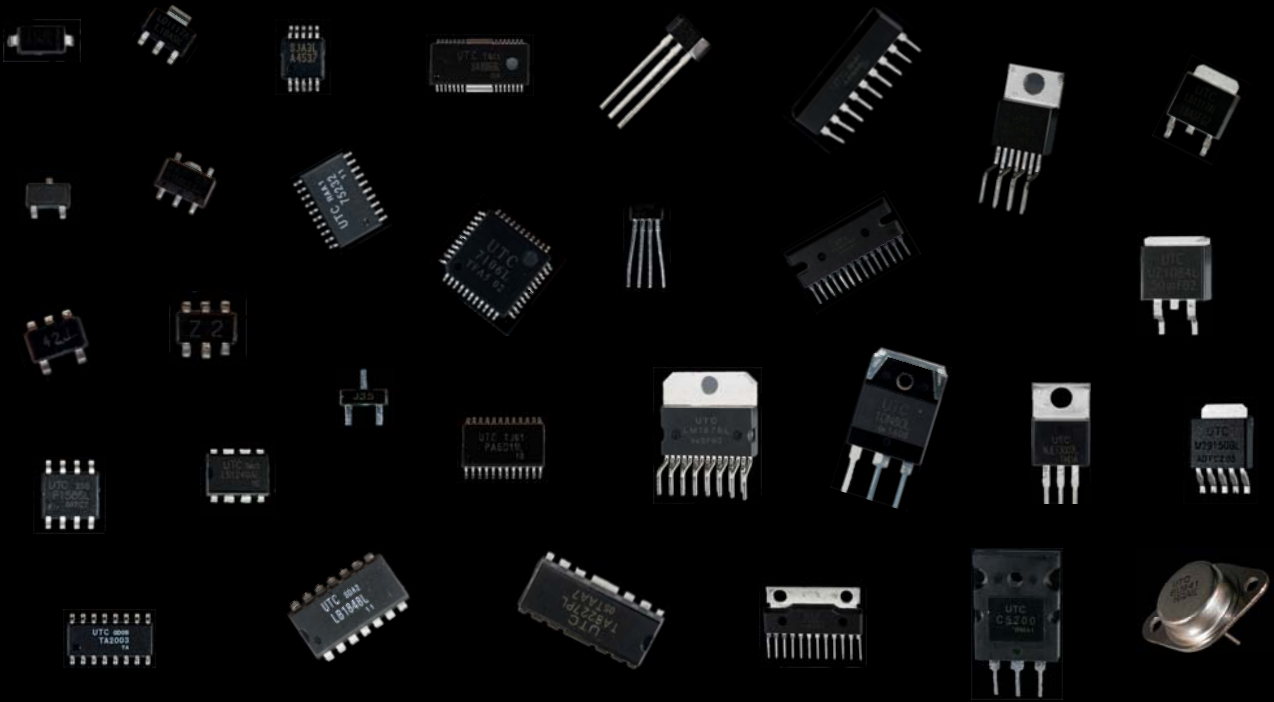


Unisonic Technologies Co., Ltd.

UTC Semiconductor
Professional Design



Power Supply Total Solutions



Rev. 1.0
March-09

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UTC Semiconductor Provides Professional Knowledge, Really Solution, Quickly Design, Ecodesign Requirements of Green Power Supply.

Efficiency Standards

The efficiency in the active power adaptor must to according to standards organizations, like ENERGY STAR, USA CEC, Europe EUP etc. UTC Semiconductor actively participate in global energy organizations to work in energy efficiency . UTC Semiconductor have ability to support customers got solution and promotion adaptor power in marketing, and meet all of the specification requirements.

Power Supply Expertise

UTC Semiconductor provides all kinds of power supply, enabling quick development products of cost-effective and meet evolving global efficiency standards. Our expertise in quick design and high efficiency power helps solve your Challenges in all focus area for efficiency enhancement:

- **No load mode power consumption.**
- **High active power efficiency.**
- **Power factor correction.**

UTC Semiconductor provides all kinds of integrated circuit, to help customers design for Adaptor power supply. Like:

- **Power factor controllers.**
- **Pulse Wide-Modulation controllers.**
- **Power MOS-FET.**
- **Diode and Transistor.**
- **Power Management Controllers.**
- **Supervisory controllers.**

Support and Solution

Products Design Centers

UTC Semiconductor can support design circuit, PCB artwork, BOM, test data, and EMI report, even our SMPS design group co-design with manufacturers and design experience.

IC Design Centers

UTC Semiconductor can support and develop advanced power management integrated circuits, to lower design, approved , process time and modify SMPS to simplify, standard.

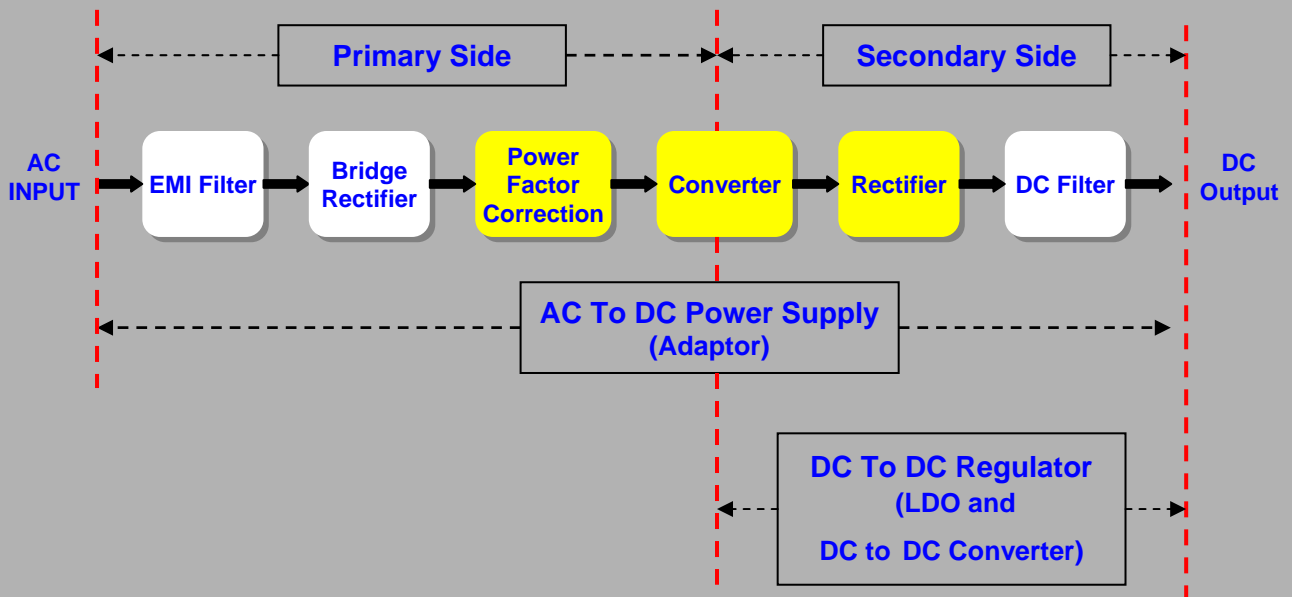
Field Application Centers

UTC Semiconductor field application engineer provides fully support any issues in SMPS. Including specification, feature, application, failure analysis, solutions, training, and pay attention to design.



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Total of Power Supply Functions



Content

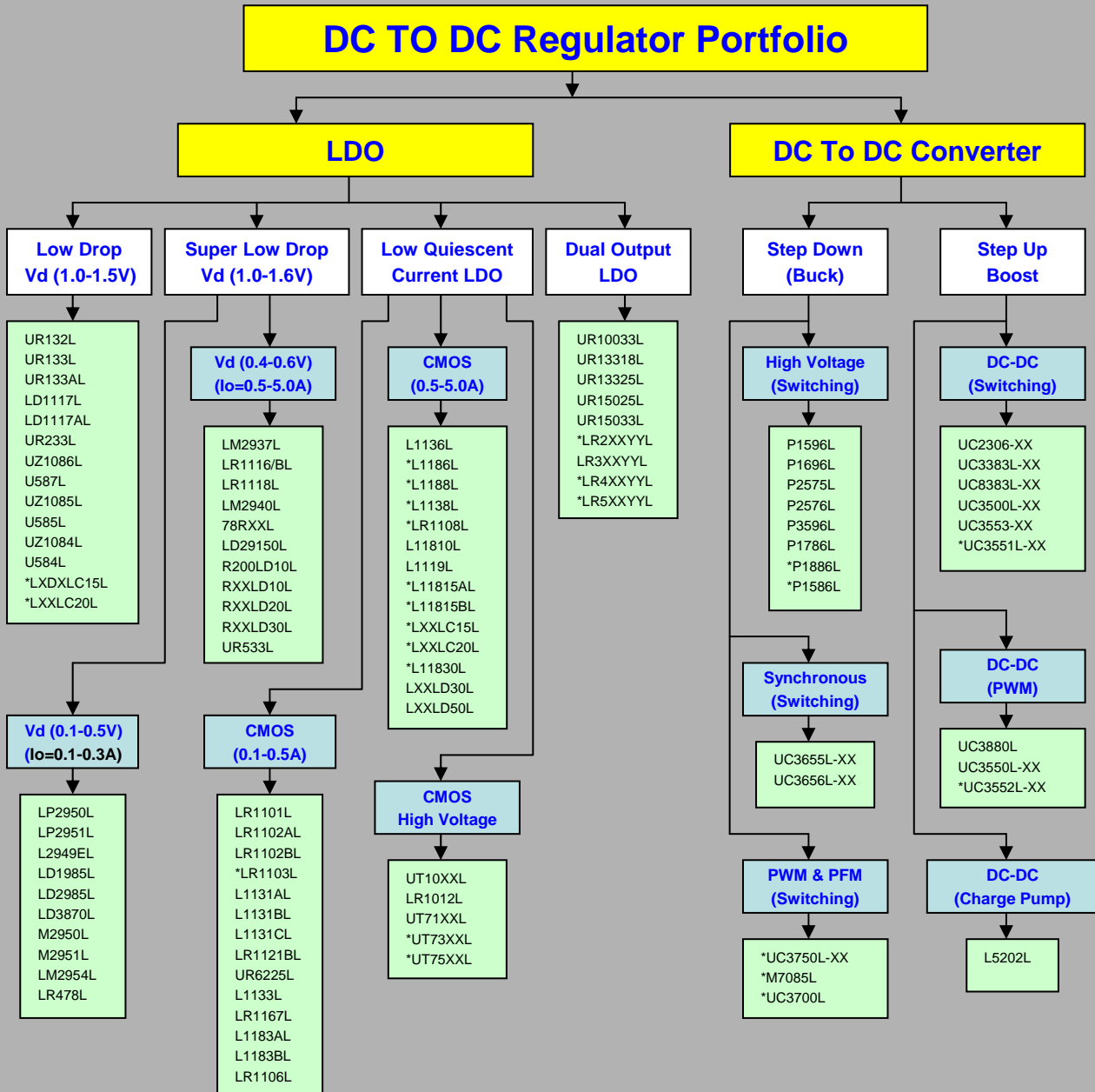
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DC TO DC Regulator

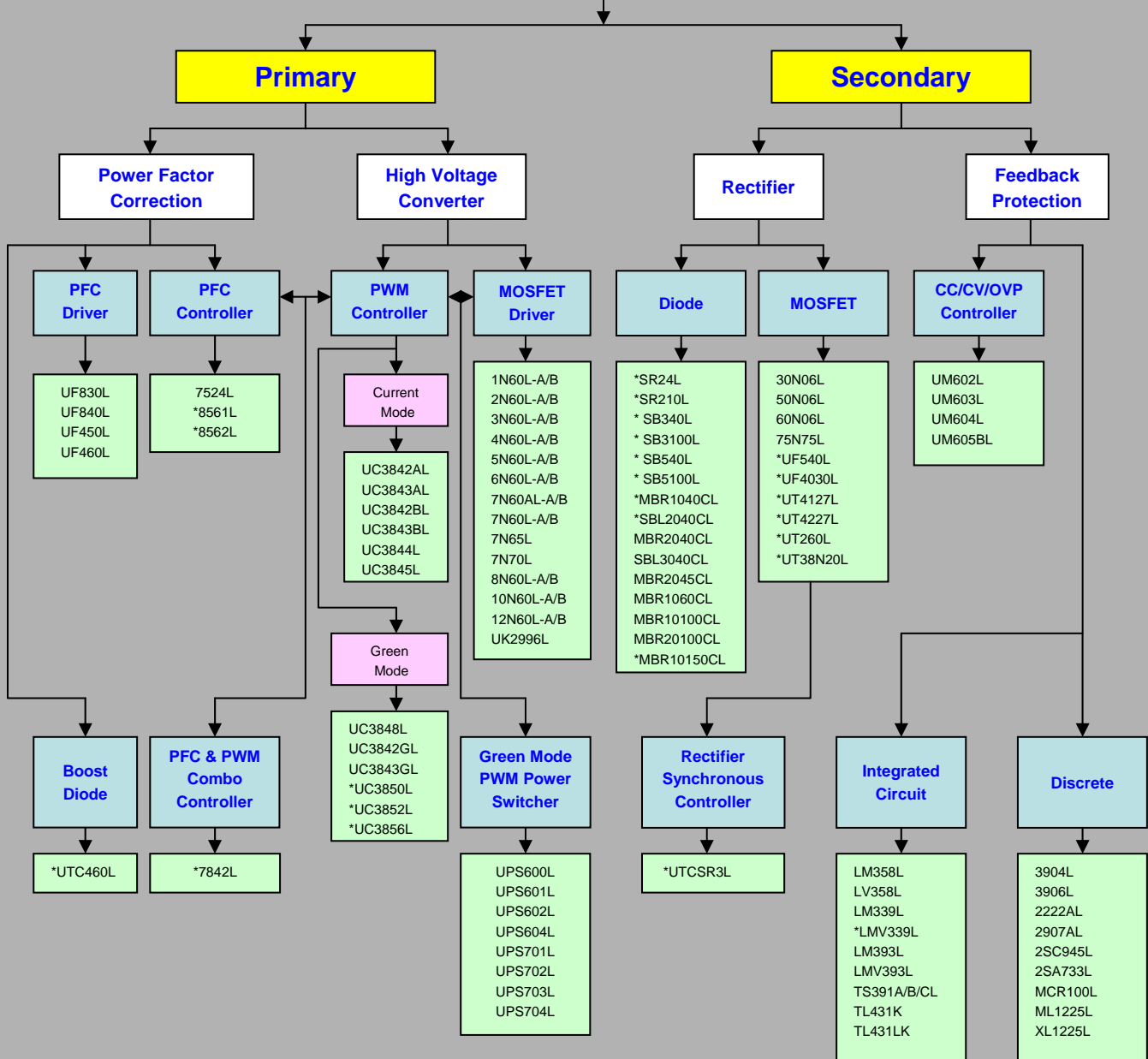




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AC TO DC Power Supply

AC TO DC Power Adaptor Portfolio



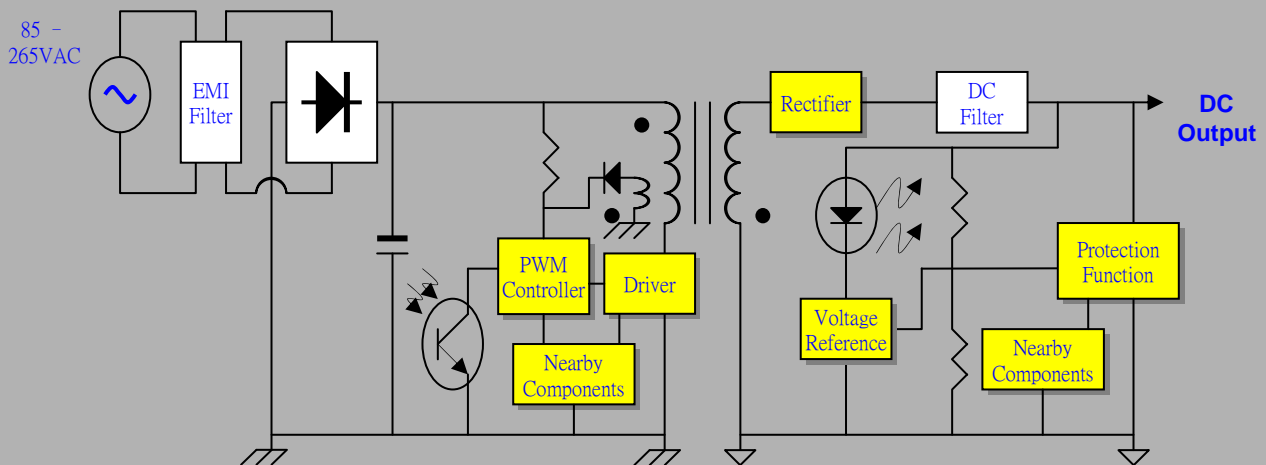


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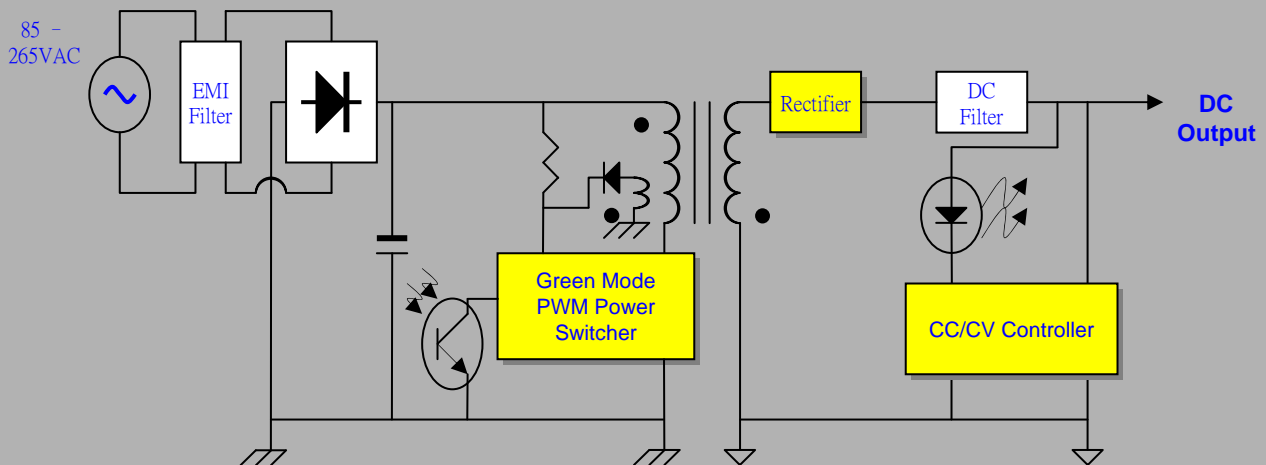
Traditional Power Adaptor Design and UTC Smart Design Reference

Comparable Block Diagram

Traditional Power Adaptor Design



UTC Smart Power Adaptor Design





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Traditional Power Adaptor Design and UTC Smart Design Reference

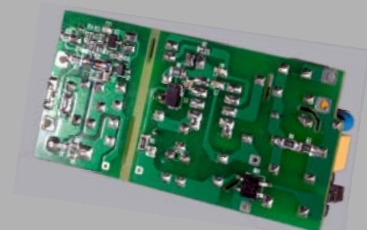
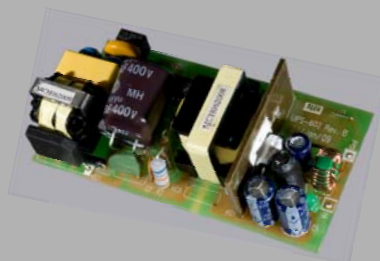
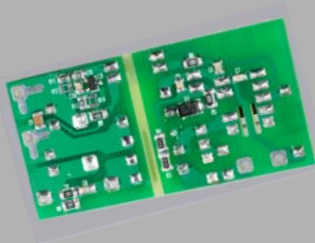
Comparable Form

Total Comparable Form

Substance	Description	Result
Materials	The components used in UTC Smart power adaptor are 20% less than traditional power adaptor.	20%
Design Time	The design time of UTC Smart power adaptor is 30% shorter than Traditional power adaptor.	30%
Produce Time	The production time of UTC Smart power adaptor is 20% faster than Traditional power supply.	20%
Dimension	The dimension of UTC Smart power adaptor is 15% smaller than traditional power adaptor.	15%
Reliability	The reliability of UTC Smart power adaptor is 20% higher than Traditional power adaptor.	20%
Cost	The cost of UTC Smart power adaptor is 20% lower than Traditional power adaptor.	20%

Standard Comparable Form

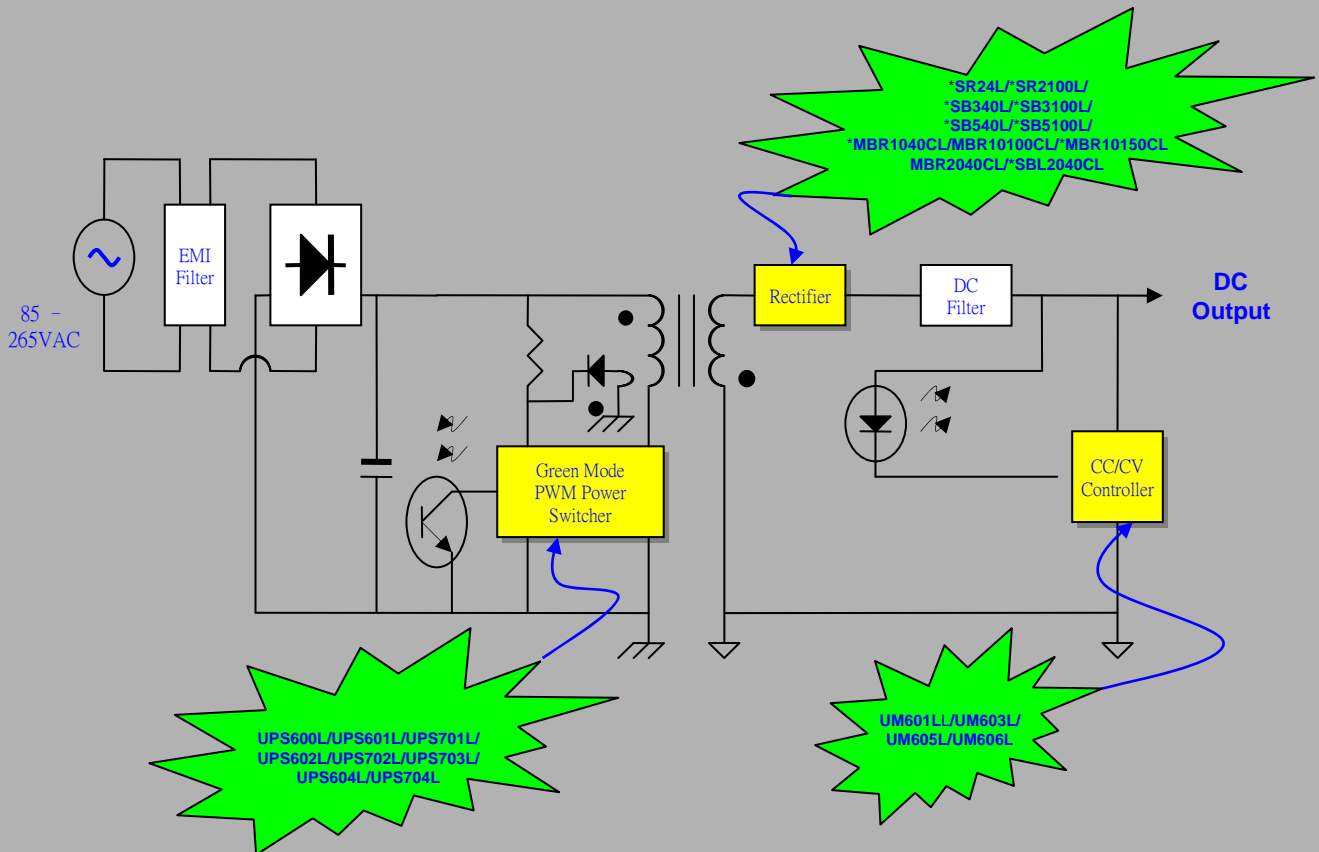
Power Consumption	Traditional	UTC Smart	Standard
No Load	Reject >0.5W	<0.2W	ENERGY STAR, EUP(EPS), CEC, Etc.
25%,50%,75%,100% Load	< Standard	> Standard	ENERGY STAR, EUP(EPS), CEC, Etc.





UTC Smart Design Adaptor Design Reference

Smart Power Adaptor From 5W to 20W

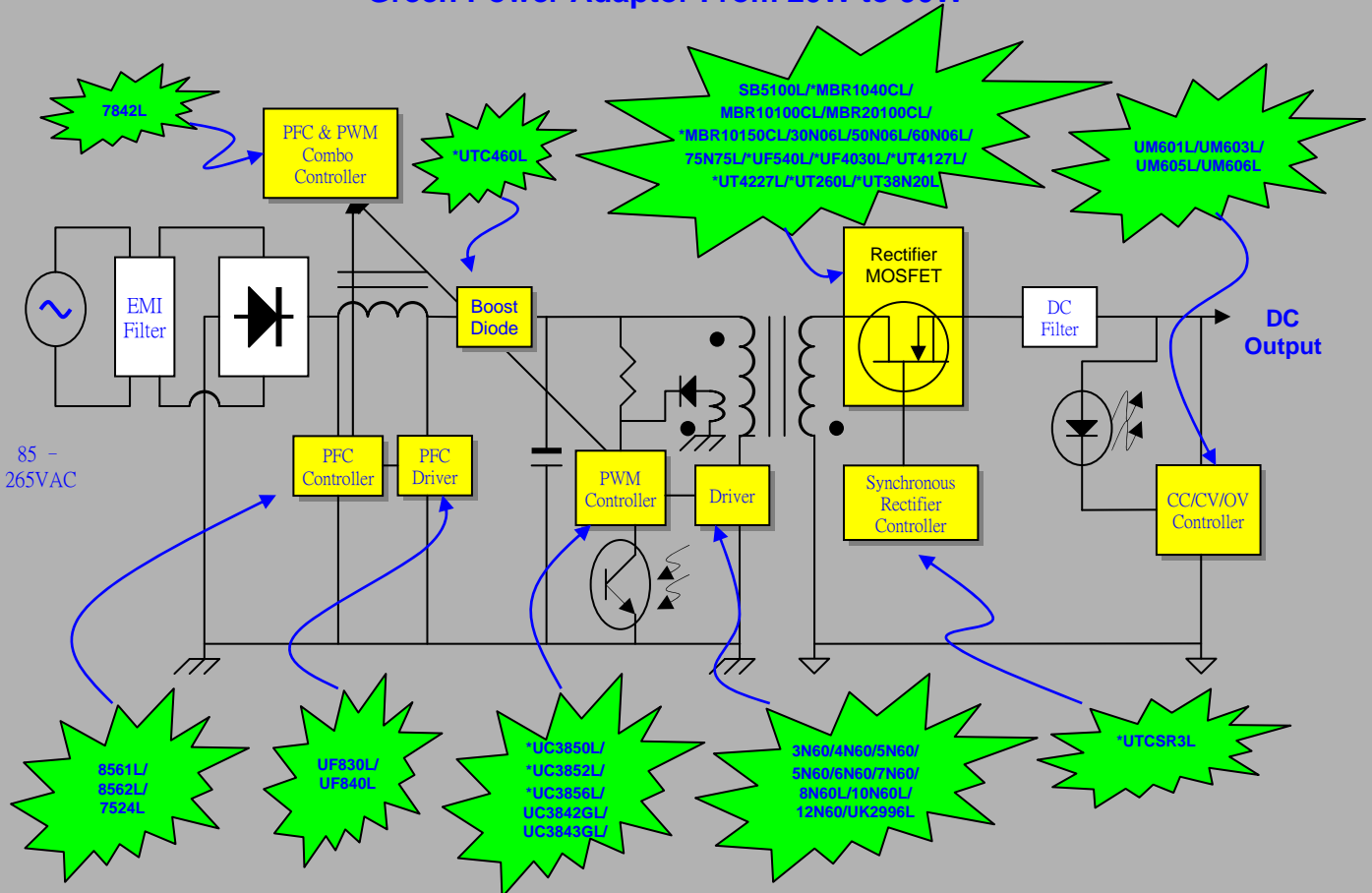


Output Wattage	Green Mode PWM Power Switcher	CC/CV Controller	Rectifier		No Load Power Consumption	Eff.	Standards Level 5.
			Output V/W	UTC Parts NO.			
1W ≤ W ≤ 5W	UPS600L UPS701L	UM601/UM603/ UM605/UM606L	5V/5W	*SR24L	<0.2W	≥83%	Meet ENERGY STAR, EUP(EPS), CEC, Etc.
			12V/5W	*SB210L			
5W ≤ W ≤ 7W	UPS601L UPS702L	UM601/UM603/ UM605/UM606L	5V/7W	*SB540L	<0.2W	≥83%	Meet ENERGY STAR, EUP(EPS), CEC, Etc.
			12V/7W	*SR210L			
7W ≤ W ≤ 12W	UPS602L UPS703L	UM601/UM603/ UM605/UM606L	5V/10W	*SB540L	<0.2W	≥83%	Meet ENERGY STAR, EUP(EPS), CEC, Etc.
			12V/10W	*SB3100L			
15W ≤ W ≤ 20W	UPS604L UPS704L	UM601/UM603/ UM605/UM606L	5V/15W	*MBR1040CL	<0.2W	≥83%	Meet ENERGY STAR, EUP(EPS), CEC, Etc.
			12V/15W	*SB5100L			



UTC Smart Design Adaptor Design Reference

Green Power Adaptor From 20W to 90W



Wattage	PFC Controller	PFC Driver	PFC & PWM Combo Controller	Boost Diode	Green Mode PWM Controller	Driver
$20W \leq W \leq 36W$	Not Used	Not Used	Not Used	Not Used	*UC3850L *UC3852L *UC3856L	3N60/4N60/5N60
$36W \leq W \leq 65W$	Not Used	Not Used	Not Used	Not Used	*UC3856L	5N60/6N60/7N60
$65W \leq W \leq 90W$	8561L/8562L 7524L	UF830L UF840L	7842L	*UTC460L	UC3842GL UC3843GL	8N60/10N60/12N60 UK2996L

Wattage	Synchronous Rectifier Controller	Rectifier/MOS-FET		CC/CV/OV Controller	No Load Power Consumption	Eff.	Standards Level 5.
		Rectifier	MOS-FET				
$20W \leq W \leq 36W$	*UTC3R3 (Not Used)	*SB5100L *MBR1040CL	30N06L/50N06L/60N06L 75N75L/*UF540L	UM602L UM603L UM604L UM605BL	<0.2W	$\geq 87\%$	Meet ENERGY STAR, EUP(EPS), CEC, Etc
$36W \leq W \leq 65W$	*UTC3R3 (Not Used)	MBR10100CL MBR20100CL *MBR10150CL	*UF4030L/*UT4127L *UT4227L/*UT260L *UT38N20L		<0.3W	$\geq 87\%$	
$65W \leq W \leq 90W$	*UTC3R3				<0.4W	$\geq 87\%$	



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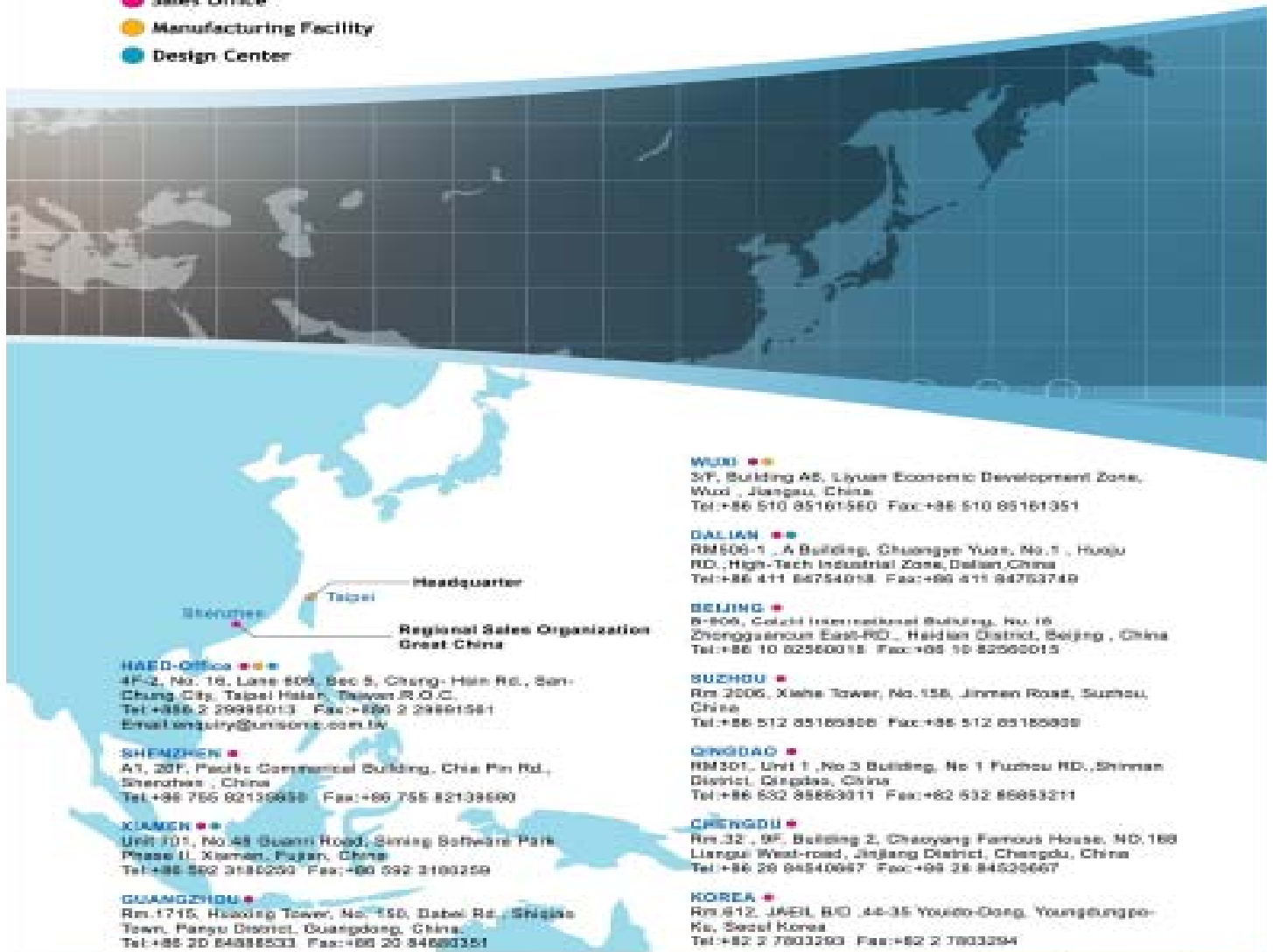
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Sales and Design Assistance from UTC

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UNISONIC TECHNOLOGIES CO., LTD

- Sales Office
- Manufacturing Facility
- Design Center



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