



裕邦科技股份有限公司
YOBON TECHNOLOGIES, INC.

Company Profile

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<http://www.yobon.com.tw>





A Glance at YoBon

- ***Founded : October 2002***
- ***Business Scope : Power Management IC solution***
- ***Headquarter : Taipei, Taiwan***
- ***Capital : USD \$ 5.0 Million***
- ***CEO : Chiihsin Kao***
- ***Employees : ~30***

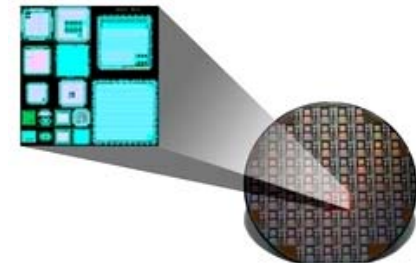
***Become the most preferred provider of
Power Management IC Solutions
to the Strategic Customers in
Portable Consumer Electronics Market***





Core Competence

- ❑ ***Understand the portable consumer market & products for prompt product development***
- ❑ ***Fast & efficient production flow with identified production partners***
- ❑ ***Power management IC design expertise and product development experience***
 - ***HV Power Management IC Development***
 - ***CMOS/DMOS & Bipolar process technology***
 - ***Analog IC engineering expertise***



Products

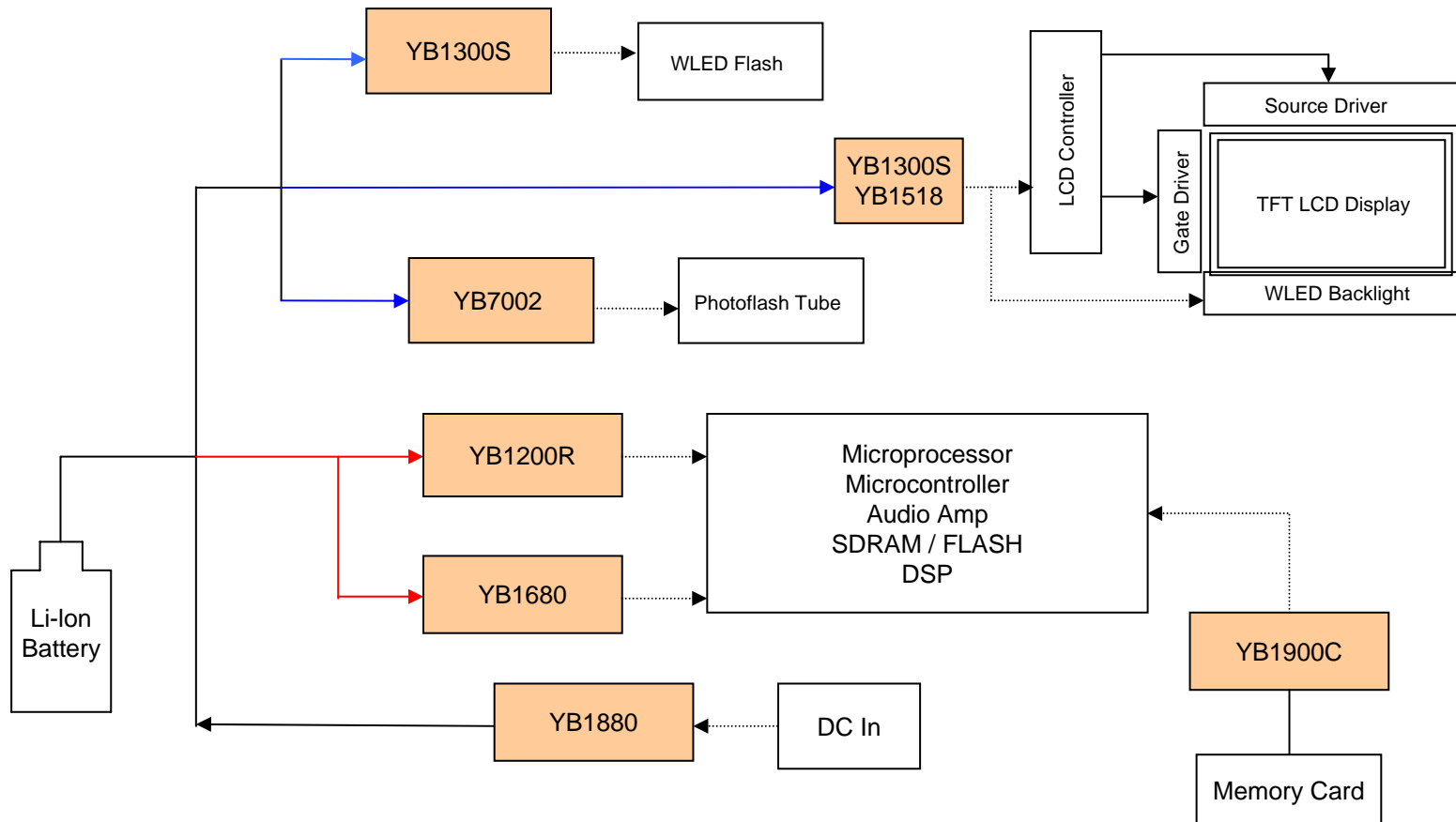
- ❑ ***Ultra-Low-Noise Low-Dropout Regulator – YB12xx series***
- ❑ ***Charge Pump LED Driver – YB13xx series***
- ❑ ***Step-Up LED Driver – YB15xx series***
- ❑ ***Step-Down DC/DC Converter – YB16xx series***
- ❑ ***Battery Charger – YB18xx series***
- ❑ ***Power Switch And Reset – YB19xx series***
- ❑ ***Photoflash Capacitor Charger – YB70xx series***

Products Application - DSC

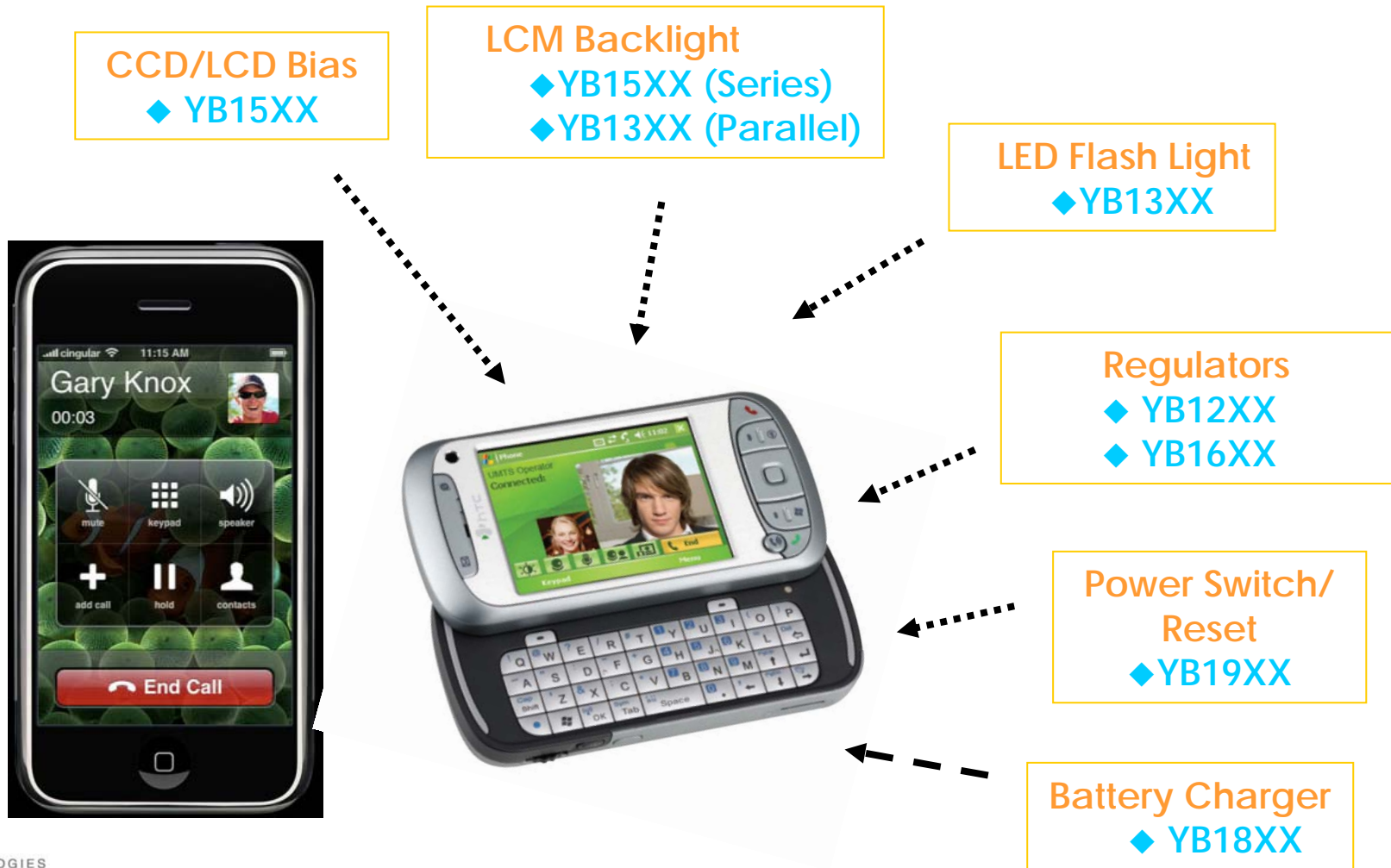




Products Application - DSC

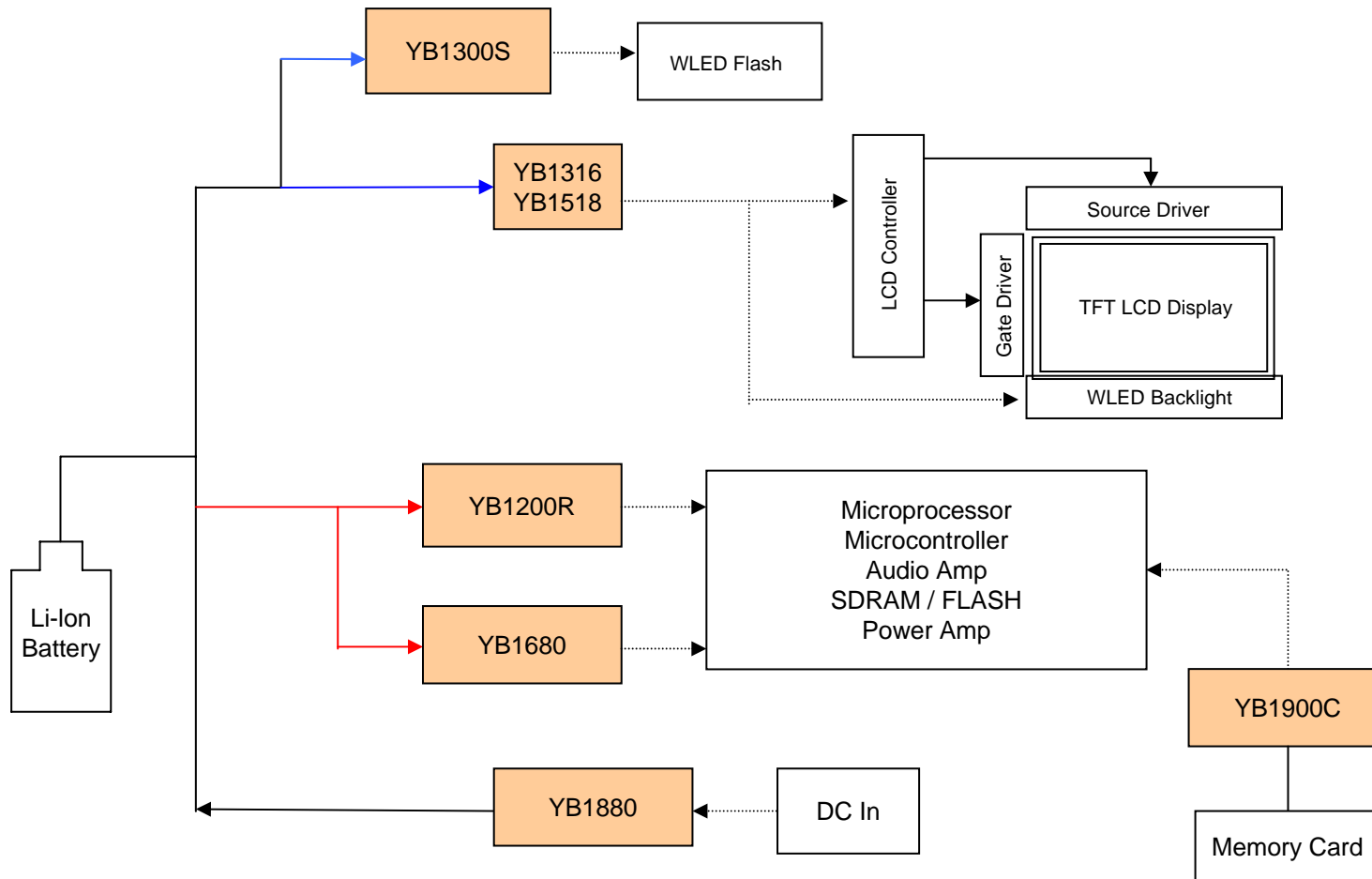


Products Application - Smart Phone



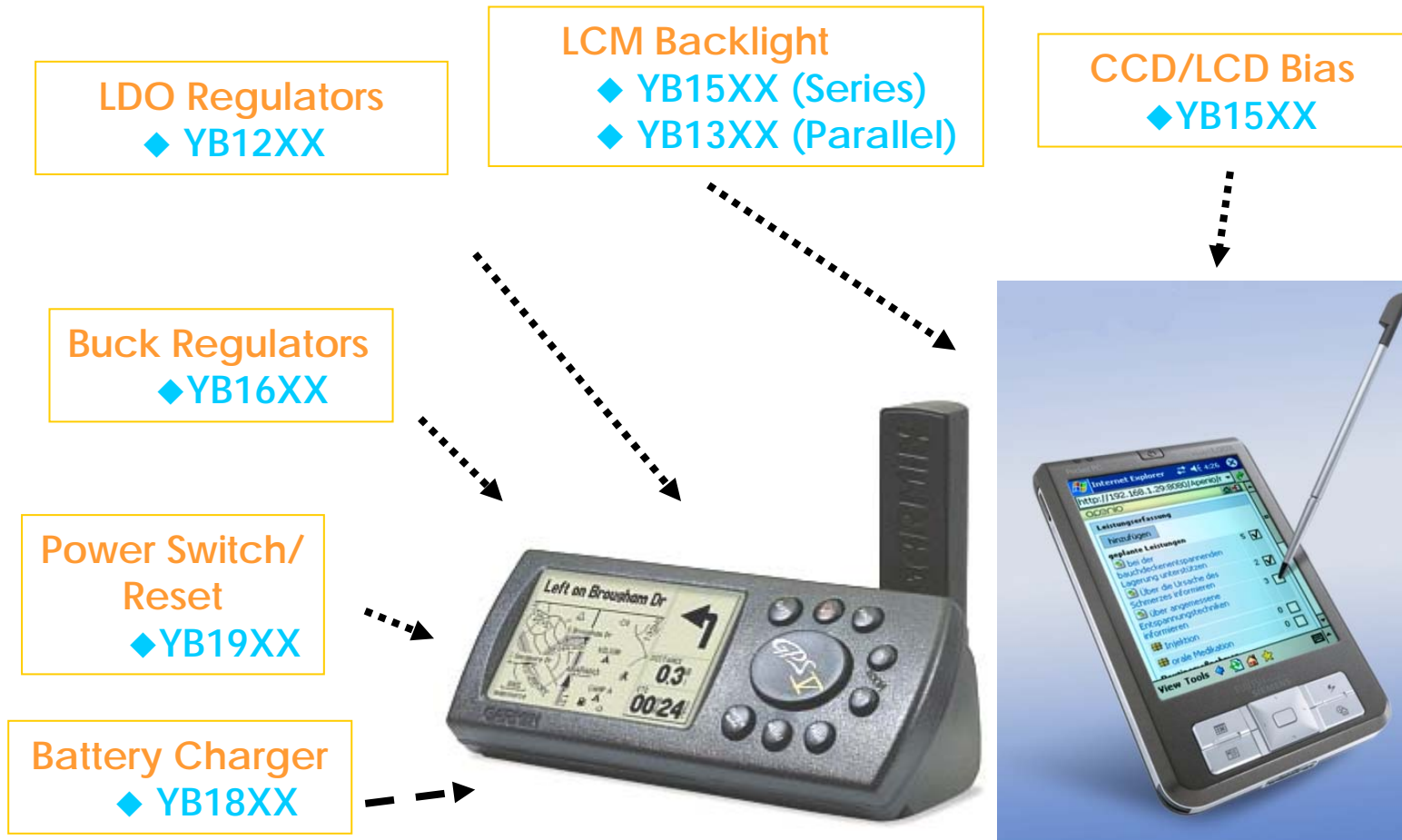


Products Application - Smart Phone



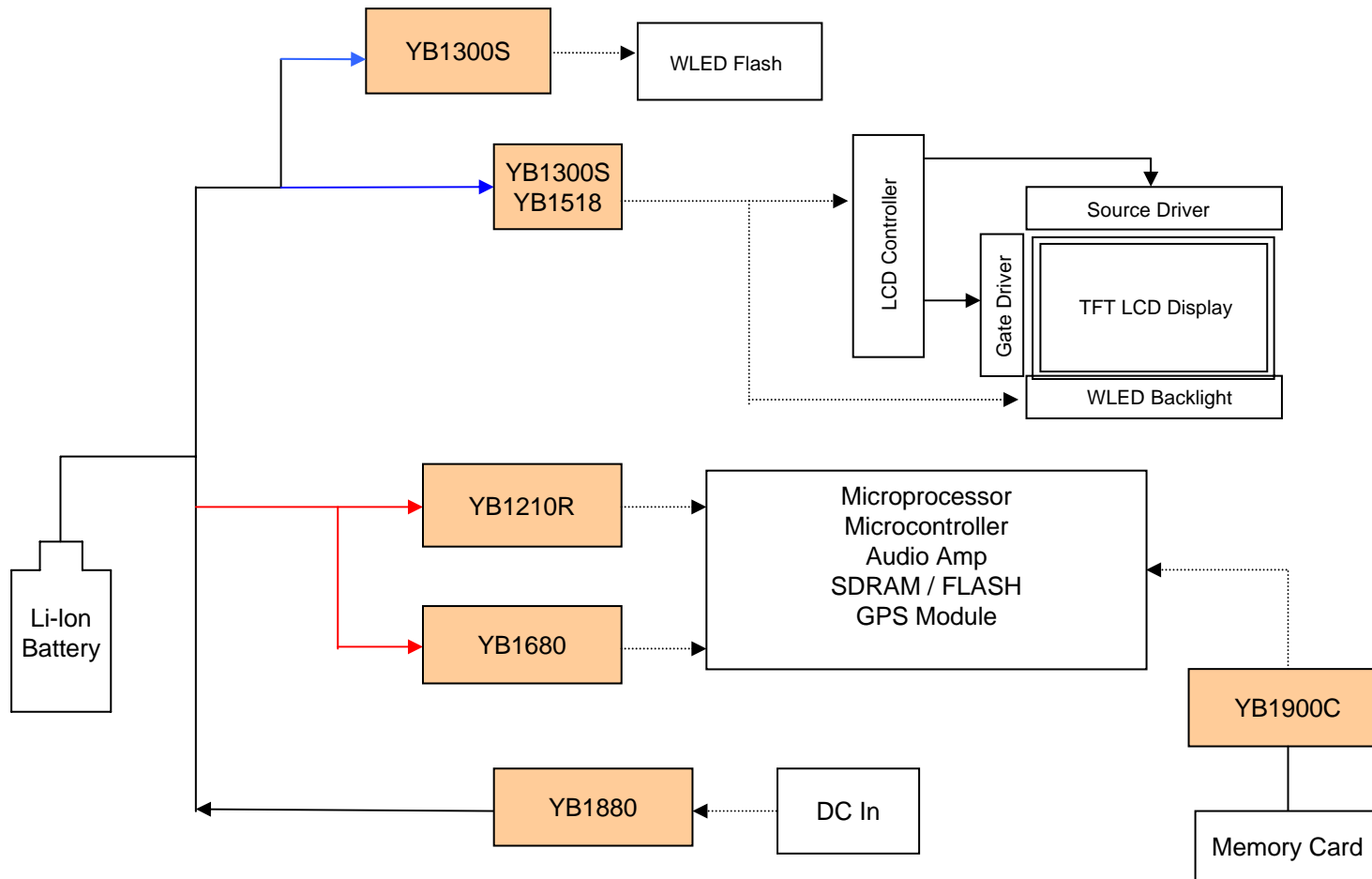


Products Application - PDA / GPS





Products Application - PDA / GPS



Products Application - DPF / Car TV

LCM Backlight
◆ YB15XX

CCD/LCD Bias
◆ YB15XX



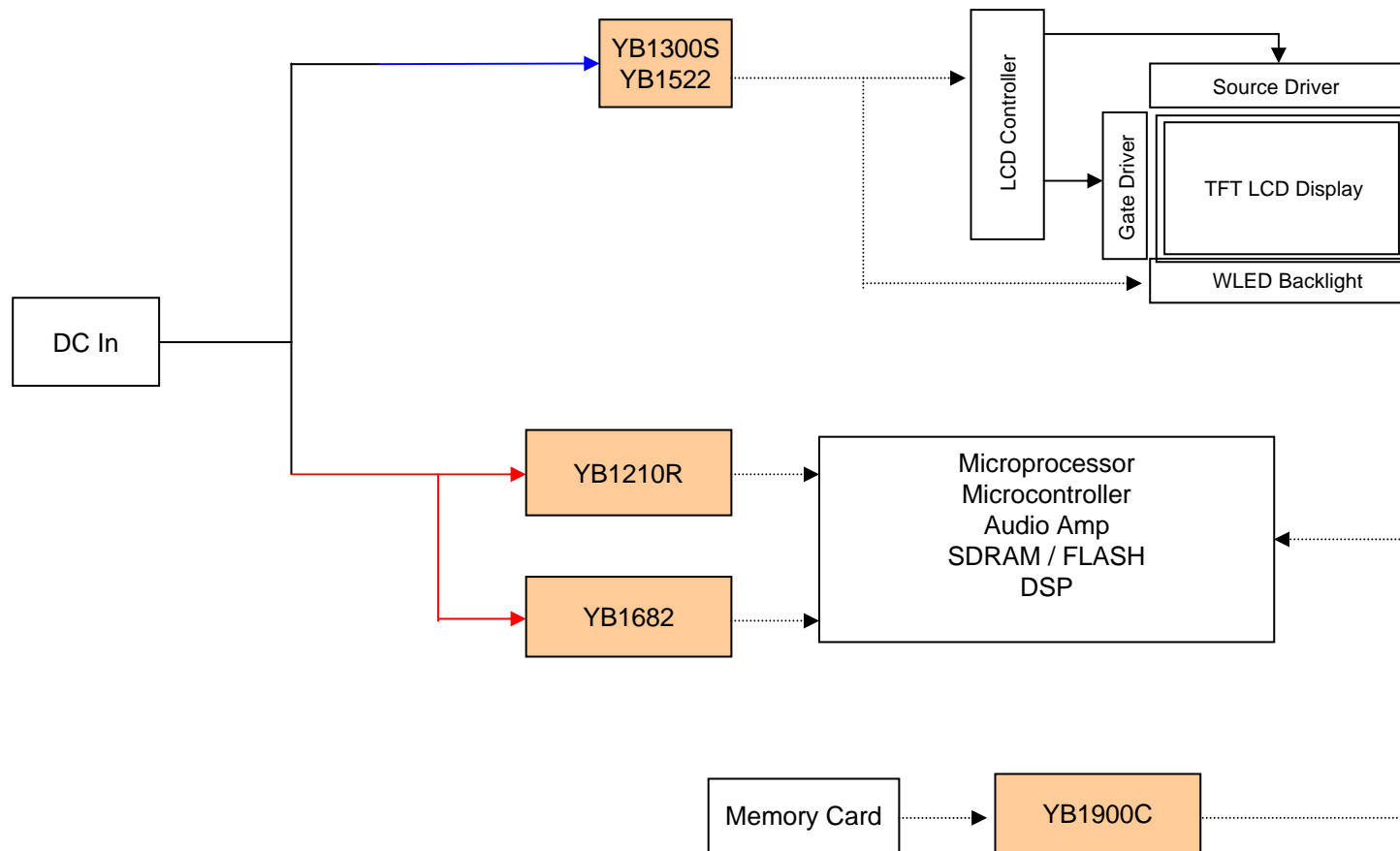
LDO Regulators
◆ YB12XX

Power Switch/
Reset
◆ YB19XX

Buck Regulators
◆ YB16XX



Products Application - DPF / Car TV

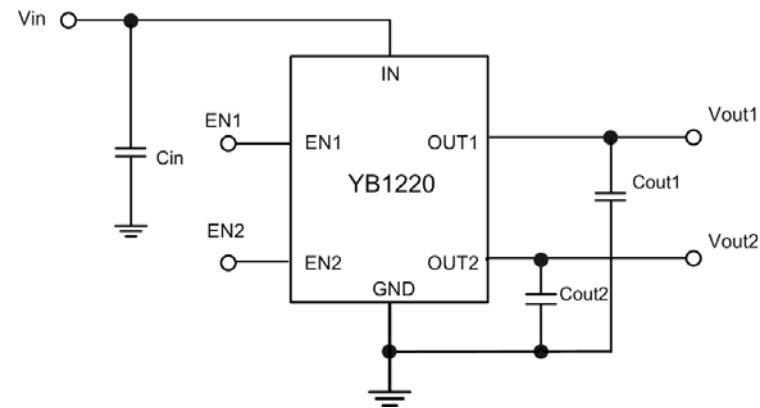
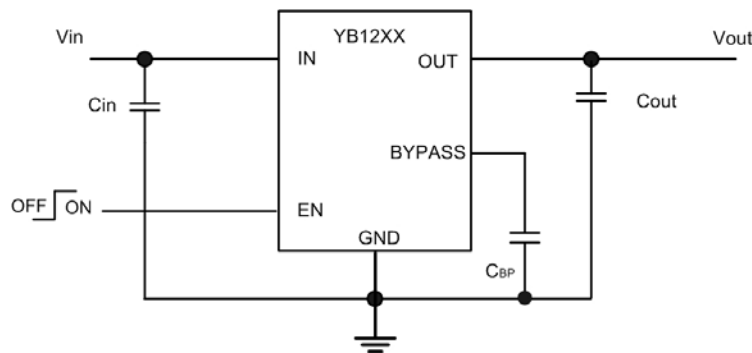




YB12xx Series LDO Family

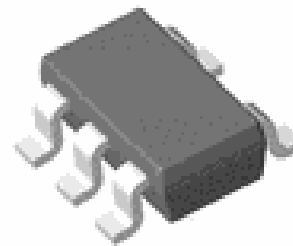
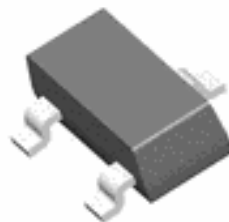
- YB1200R / YB1210R – Auto discharge function 150mA / 300mA LDO
- YB1251/YB1251 – High PSRR 150mA / 300mA LDO
- YB1230 / YB1231 – 600mA LDO
- YB1220 – Dual channel

200mA(Each Channel) LDO



YB12xx Series LDO Family

- **Fixed output voltage from 1.2V to 4.5V by 100mV steps**
- **Dual channel LDO – pre-defined output voltages @200mA each channel**
- **Short circuit protection available: 200mA**
- **Lowest dropout voltage 15mV @10mA light load**
- **Customized pin out assignment option available**
- **Package available: SC70/SC82, SOT23/25/26, SOT89**

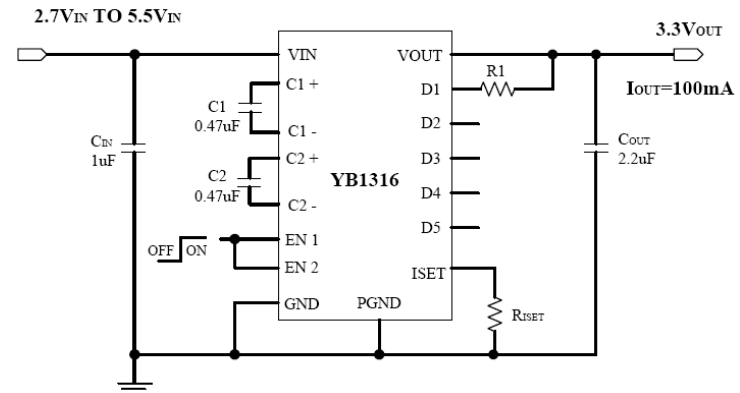
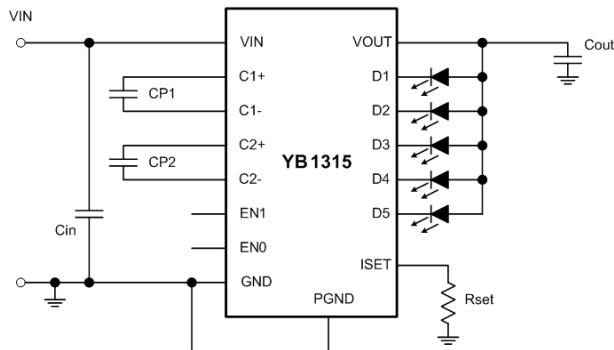
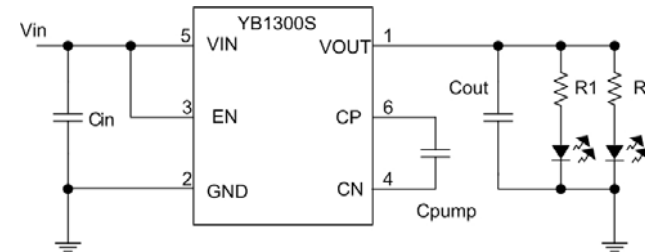
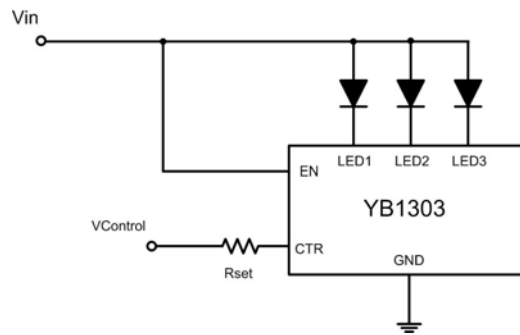




YB13XX Series Charge Pump DC/DC Converter

[DSC](#) [S.P.](#)
[P.G.](#) [D.C.](#)

- **YB1300S – 5V/4.5V Charge Pump Converter (200mA)**
- **YB1303 – Low Drop WLEDs Driver**
- **YB1315/YB1316 – Charge Pump WLEDs Driver – Buck Boost Fixed V_{OUT}**

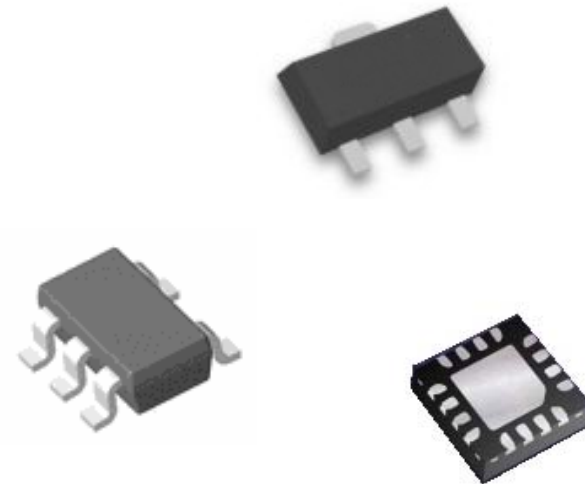




YB13XX Series Charge Pump DC/DC Converter

[DSC](#) [S.P.](#)
[P.G.](#) [D.C.](#)

- **Regulated current output for precision LED current matching and brightness control**
- **Solution for both the back-light & flash-light applications**
- **Maximum conversion efficiency can be achieved through twice-mode charge pump**
- **Minimum number of external components**



YB15XX Series Step-Up LED Driver

- **YB1518 – PWM White LEDs driver with OVP function (100mV)**
Serial 9 White LED or 6 Serial 2 Parallel
- **YB1519 – PWM White LEDs driver with OVP function (1.23V)**
Serial 10 White LED or 9 Serial 2 Parallel
- **YB1520 – PWM White LEDs driver with OVP function (200mV)**
3 Serial 2 Parallel to 3 Serial 6 Parallel
- **YB1521 – High-Power White LEDs driver (200mV)**
3 Serial 13 Parallel
- **YB1522 – PWM White LEDs driver with OVP function (100mV)**
3 Serial 7 Parallel to 3 Serial 10 Parallel
- **YB1517 – DC to DC Step-up Converter**



3.5''

6S

4.3''

6S2P

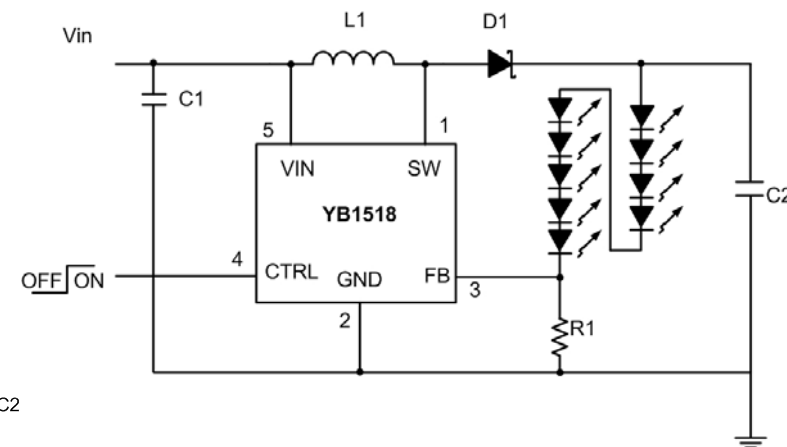
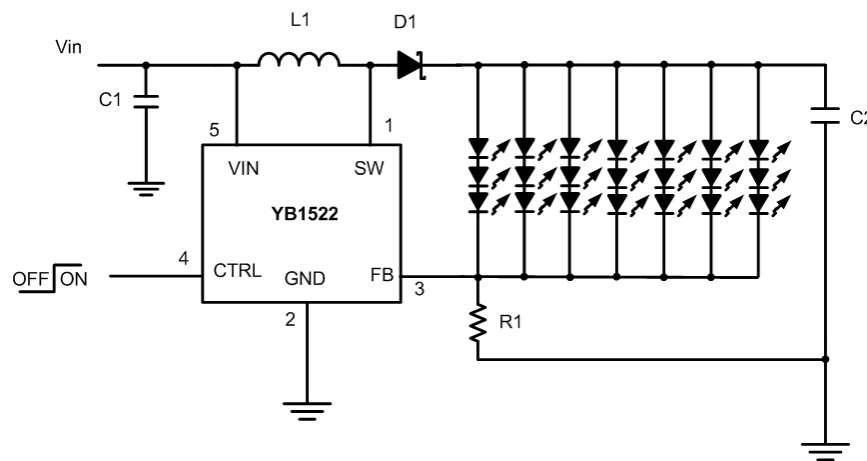
7''

3S6P to
3S10P



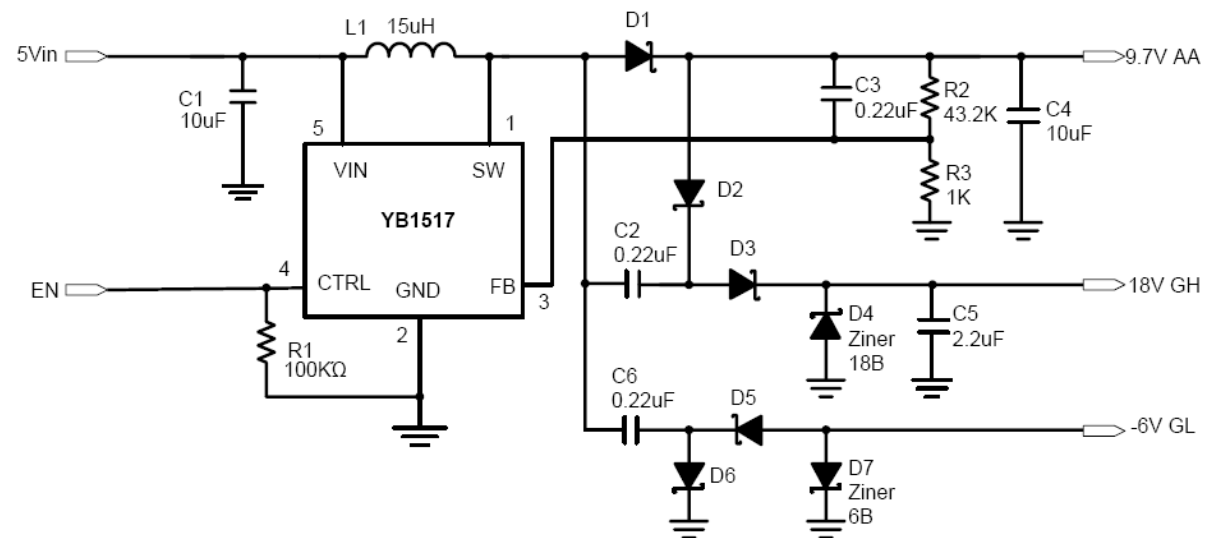
YB15XX Series Step-Up LED Driver

- Built-in internal switch
- Built in soft start to reduce in-rush current
- Include Open-circuit protection
- Low shutdown current
- Small package (SOT23-5)



YB15XX Series Step-Up Converter

- Built-in internal switch
- Built in soft start to reduce in-rush current
- Include Open-circuit protection
- Low shutdown current
- Small package (SOT23-5)





YB16XX Series Step Down DC/DC Converter

[DSC](#) [S.P.](#)
[P.G.](#) [D.C.](#)

- **YB1680 – 1.5MHz 600mA Synchronous
Buck Step-Down Converter**
- **YB1682 – 380KHz 3.6V ~ 20V 2A PWM
Buck Step-Down Converter**
- **YB1683 – 380KHz 3.6V ~ 28V 3A PWM
Buck Step-Down Converter**
- **YB1685 – 380KHz 3.6V ~ 32V 2A PWM
Buck Step-Down Converter**

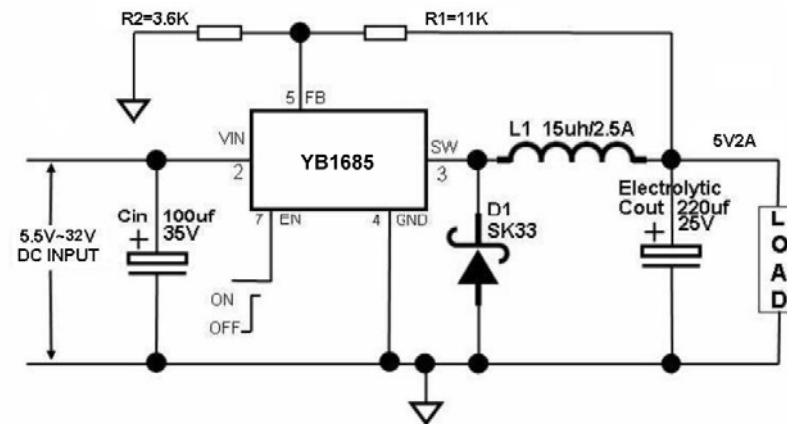
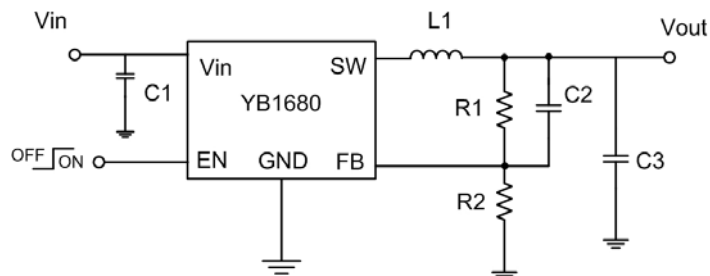




YB16XX Series Step Down DC/DC Converter

[DSC](#) [S.P.](#)
[P.G.](#) [D.C.](#)

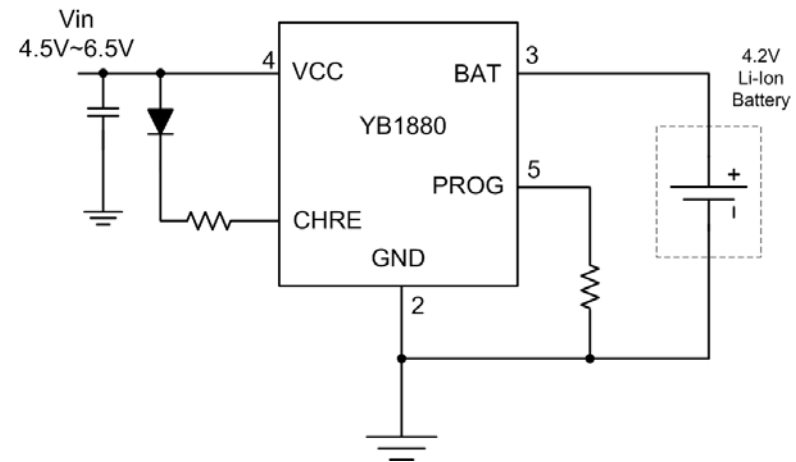
- Thermal-shutdown and current-limit protection
- Built-in switching transistor on chip
- ON / OFF shutdown control input
- Low power standby mode





YB18xx Series Battery Charger

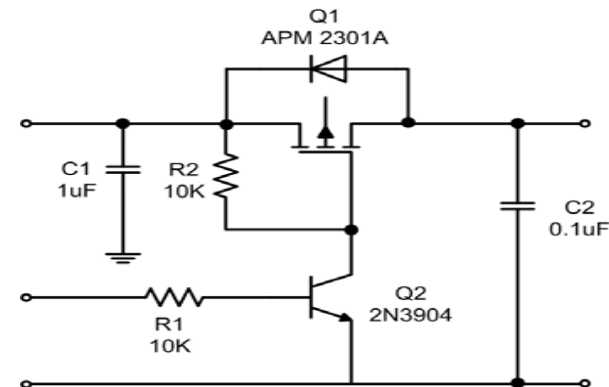
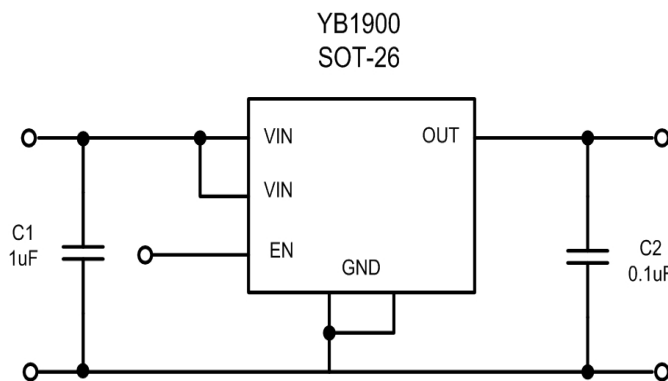
- **YB18xx – Standalone Linear Lithium Battery Charger**
 - Programmable Charge Current Up to 800mA
 - Constant-Current/ Constant-Voltage Operation
 - Thermal Protection to Maximize Charge
 - Soft-Start Limits Inrush Current





YB19xx Series Power Switch

- **YB1900C – P Channel Low RDS on Power Switch**
1.5A, Can be turned on at 1.5V logic
- **YB1901 – N Channel Low RDS on Power Switch**
1.5A, Pull Low to Enable The Chip, Active Low
- **YB1921 – Microprocessor Reset Monitor**
Precision VCC Monitor for 2.8V, 3.0V, 3.3V,5.0V Supplies



YO BON Selection Guide

Step-Up WLEDs Driver

Part No	Description	Vin	Switch Limit	OVP	LED No. (Max.)	Driving Type	Brightness	Frequency	Feedback Voltage	Pkg	Tape reel	Status
YB1517	PWM White LEDs driver with OVP function	2.7V~7V	400mA	30V	6S	series	Analog & PWM	900KHz	220mV	SOT23-5	3K	MP
YB1518	PWM White LEDs driver with OVP function	2.7V~7V	230mA	34V	9S, 11S 6S X 2P	series	Analog & PWM	930KHz	100mV	SOT23-5	3K	MP
YB1519	PWM White LEDs driver with OVP function	2.0V~16V	adj	40V	10S and 9S x 2 P	series & parallel	Analog & PFM	—	1.23V	MSOP-10	2.5K	MP
YB1520	PWM White LEDs driver with OVP function	2.7V~7V	450mA	30V	3S x 2P to 3S x 6P	series & parallel	Analog & PWM	700KHz	200mV	SOT23-5	3K	MP
YB1521	High-Power White LEDs driver	2.5V~6V	1.6A	22V	3S x 13P	series & parallel	Analog & PWM	1.3MHz	200mV	SOT23-5	3K	ES
YB1522	PWM White LEDs driver with OVP function	3.0V~16V	650mA	30V	3S x 7P to 3S x 10P	series & parallel	Analog & PWM	930KHz	100mV	SOT23-5	3K	MP

Charge Pump WLEDs Driver

Part No	Description	Vin	Vout	Iout	LED No. (Max.)	Driving Type	Brightness	Frequency	EN	Pkg	Tape reel	Status
YB1300S	Charge Pump for WLED	2.7V~5V	5V/4.5V	250mA	5~8	parallel	x	1MHz	YES	SOT23-6	3K	MP
YB1303	Low Drop LEDs Driver			200mA	3	parallel	Analog/ PWM	x	YES	SOT23-6 / SC70 6L	3K	MP
YB1305	Low Drop LEDs Driver	2.0V~6.5V		350mA		Series			YES	SOT89-3L	1k	ES
YB1315 /YB1316	1X / 1.5X Charge Pump for White LED	2.7V~5.5V		100mA	5	parallel	PWM/Digital	0.8MHz	YES	TQFN16,3X3	2.5K	MP

YO BON Selection Guide

Ultra Low Dropout linear Regulator

Part No	Description	Vin	Accuracy	Iout	Iq (TYP.)	EN	PSRR	Dropout Voltage	Vout	Pkg	Tape reel	Status
YB1200R	150mA Ultra-Low-Noise , LDO Regulator	2~6V	2%	150mA	60uA	YES	60dB @ 1 KHz	180mV a 150mA	3.3V,2.8V, 2.5V,1.8V, 1.2V	SC70/SC82	3K	MP
YB1210R	300mA Ultra-Low-Noise , LDO Regulator	2~6V	2%	300mA	60uA	YES	50dB @ 1 KHz	300mV@300mA	3.3V,2.8V, 2.5V,1.8V, 1.2V	SOT23/25/89	3K / 3K / 1K	MP
YB1230	600mA Low-Noise LDO Regulator	2~6V	2%	600mA	90uA	YES	56dB @ 1 KHz	500mV@600mA	3.0V,2.8V, 2.5V, 1.8V	SOT23/25/89	3K / 3K / 1K	MP
YB1231	600mA Low-Noise LDO Regulator	2~6V	2%	600mA	100uA	YES	51dB @ 1 KHz	440mV@600mA	3.3V,3.4V,3.6V,3.7V	SOT23/25/89	3K / 3K / 1K	MP
YB1220	200mA Dual Channel output LDO Regulator	2~6V	2%	200mA/each	80uA	YES	62dB @ 1 KHz	300mV@200mA	1.8V+2.8V, 1.8V+2.5V, 2.5V+3.3V	SOT26T/26M	3K	MP

Step-Down DC/DC Converter

Part No	Description	Vin	Iout	UVLO	SCP	OCP	EN pin	Frequency	Feedback Voltage	Pkg	Tape reel	Status
YB1680	Synchronous Step-Down Converter	2.5V~5.5V	0.6A	X		YES	YES	1.5MHz	0.6V	SOT23-5	3K	MP
YB1682	Non synchronous Step-Down 2A Converter	4.5~20V	2A	X	YES	YES	YES	380KHz	1.23V	SOP-8	2.5K	MP
YB1683	Non synchronous Step-Down 3A Converter	4.5~20V	3A	X	X	YES	YES	380KHz	1.23V	SOP-8	2.5K	MP
YB1685	Non synchronous Step-Down 3A Converter	4.5~32V	2A	X	X	YES	YES	380KHz	1.23V	SOP-8	2.5K	MP

YO BON Selection Guide

Battery Charger

Part No	Description	Vin	Constant Current	Dropping Current	Charge Regulation Voltage	Accuracy	Pull-Down Current	NA	NA	Pkg	Tape reel	Status
YB1880	Standalone Linear Lithium Battery Charger	4.25~6V	500mA	< 2uA	4.2V	1%	20uA			SOT23-6	3K	ES

Smart switch

Part No	Description	Vin	Output Current	RDson	EN	Turn on	Turn off			Pkg	Tape reel	Status
YB1900C	P Channel Low RDS on Power Switch	1.8V~6.5V	1.2A	100mΩ	YES	100uS	4uS			SOT23-6	3K	2/2008
YB1901	N Channel Power Switch	2.0V~6.5V	1.5A	100mΩ	YES	1.5mS	—			SOT23-5	3K	MP
YB1921	Reset IC	2.0v~5.5V	20mA	—	—	20uS	—			SOT23	3K	MP





Thanks!