

Optocoupler Solution Division Product roadmap 2023

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光寶科技公司簡介

COMPANY PROFILE

Company Profile

LITEON

LITE-ON OPS glance

Key Figures

45



years LED package experience, offering the industry's broadest product portfolios

3%



3% of revenue invested in Research & Development technology.

3



world-class manufacturing sites provide great flexibility and quality. Cap. 700KK (Changzhou , Tianjin , Bangkok)

3800+



R&D centers enhance competitiveness while propelling the industry and technology forward
(Taipei, Singapore, Changzhou)

35



sales offices serve customers across the globe

1,539



global LED related IP.

2022 Omedia IHS report

No.1 in world shipment
No.3 in world share revenue

Table 4.35 - Optocoupler and photo relay

(Market ranking in terms of 2021 shipments)

Company name	2021 share
Lite-ON	1
Everlight	2
Toshiba	3
Renesas	4
Broadcom	5
CT Micro	6
ON Semiconductor	7
Vishay	8
Sharp	9
Cosmo	10
Total market size (million units)	21,227

Source: Omdia

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Table 4.34 - Optocoupler and photo relay

(Market share in terms of 2010–20 revenue)

	Company name	2010 share	2011 share	2012 share	2013 share	2014 share	2015 share	2016 share	2017 share	2018 share	2019 share	2020 share	2021 share
1	Broadcom	24.0%	25.0%	23.5%	23.5%	24.0%	25.0%	24.8%	24.8%	25.1%	26.5%	24.8%	25.0%
2	Toshiba	18.0%	19.0%	17.5%	18.0%	17.0%	16.0%	17.8%	17.4%	19.1%	19.7%	19.4%	17.5%
3	Lite-ON	7.5%	7.5%	9.0%	9.5%	11.5%	13.5%	13.7%	13.8%	13.4%	14.3%	17.6%	16.4%
	Share												58.9%
4	Everlight												
5	Renesas												
6	Vishay												
7	ON Semiconductor												
8	Panasonic												
9	IXYS (Littelfuse)												
10	Sharp												

AGENDA

- Power supply & Consumer solution
- Green Energy solution & Energy storage solution
- Industrial Automation & Capacitive Coupler
- Automotive power solution & DC charging station
- Appendix for material crossing table



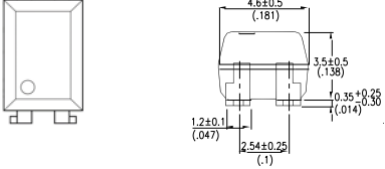
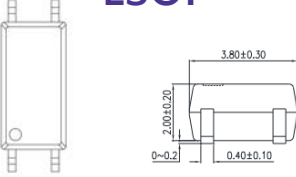
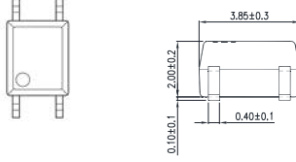
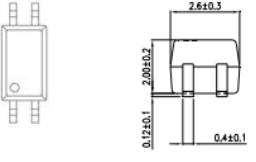
What we do



Consumer & Power supply solution

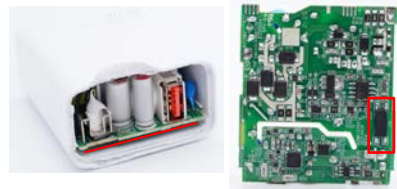


Transistor Type product

	DIP	LSOP	MFP	SSOP
				
Viso	5000Vrms	5000Vrms	3750Vrms	3750Vrms
Dimension	6.5*4.6	7.5*3.8	4.4*3.85	4.4*2.6
Height	3.5	2.0	2.0	2.0
Pin distance	2.54	2.54	2.54	1.27
Multichannel Transistor	1/2/4 channel option 2 channel 827/824 4 channel 847/844	-	-	1/2/4 channel option 2 channel 227/224 4 channel 247/244
General	LTV-814 (AC in) LTV-816/817	LTV-10xx	LTV-354 (AC in) LTV-356T/357T	LTV-214 (AC in) LTV-217
Darlington	LTV-815	-	LTV-352T	LTV-215
20Kbps	LTV-2503-L	LTV-13XX	LTV-230I	-
Automotive (AECQ-102)	-	LTX-I200	LTX-353	LTX-213
Medical (IEC 60601)	LTV-2503 LTV-817/827/847	LTV-10xx		
HP transistor	LTV-8DI	LTV-IDXX-G	LTV-3DI	LTV-2DI-G

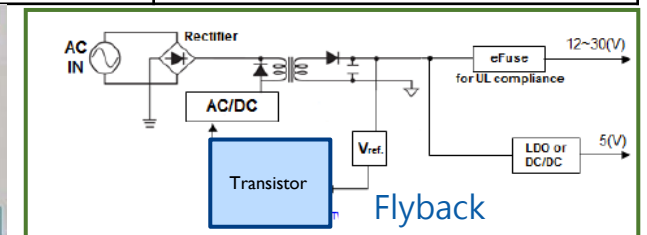
Application:

- Charger
- Power supply
- PLC I/O isolation



LTV-244

LTV-247



High Performance Transistor

High stability in lower current & high temperature

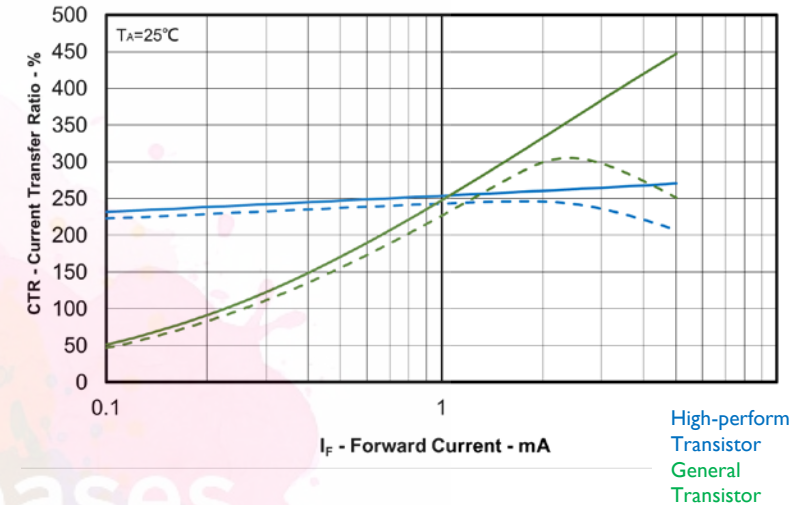
Application:

- USB PD Charger
- 5G FDD RRU

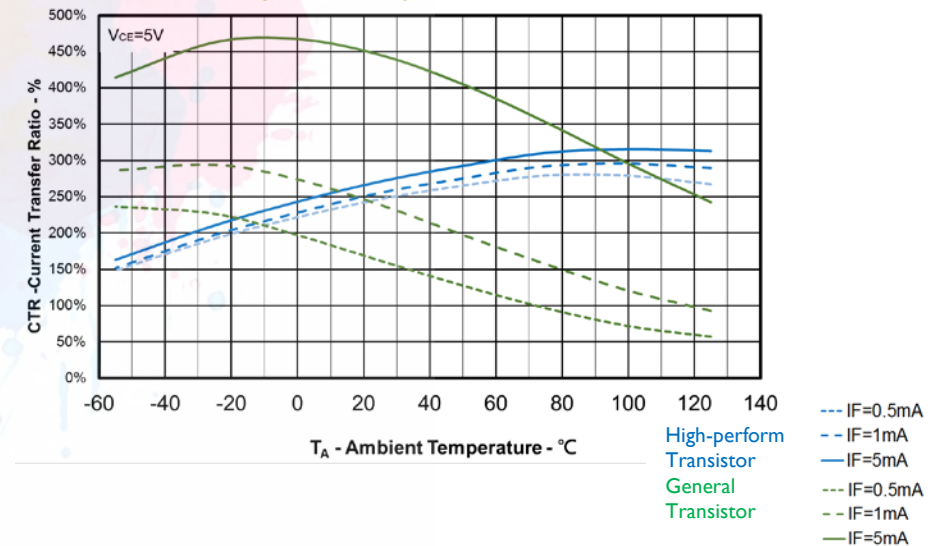


	HP Transistor			
	DIP	SOP	LSOP	SSOP
MPN	LTV-8DI	LTV-3DI	LTV-IDXX	LTV-2DI
Operating Temperature	-55 ~ +125	-55 ~ +125	-55 ~ +125	-55 ~ +125
Viso(Vrms)	5000	3750	5000	3750
Vceo(V)	80	80	80	80
If(mA)	0.5	0.5	0.5	0.5
CTR Bin IF=0.5mA, VCE=5V, Ta=25°C IF=5mA, VCE=5V, Ta=25°C	Min.		Max.	
	50		150	
	100		300	
	100		600	
	200		600	

Stable CTR with lower current

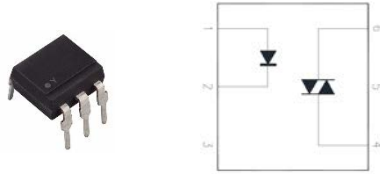


Almost no decay with temperature increase



Triac & SSR product

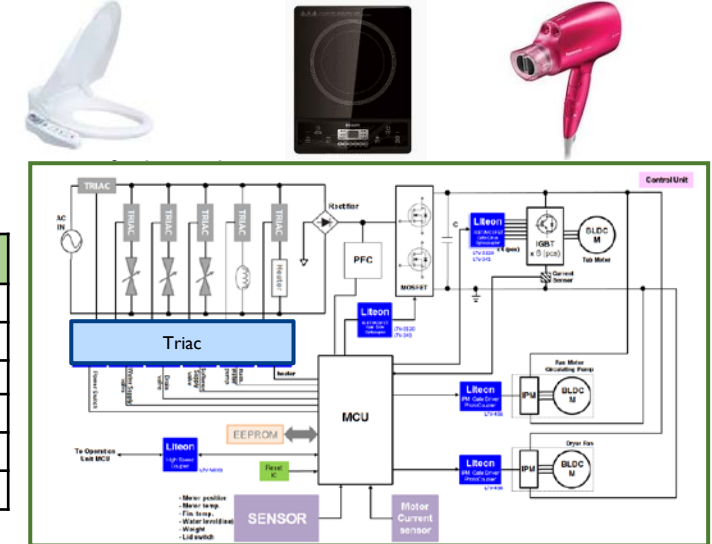
Triac



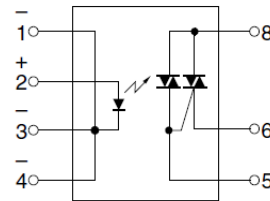
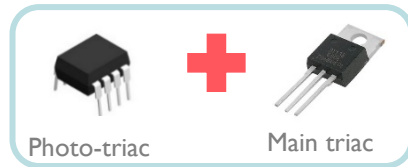
Triac	Type	Vdrm	DIP4	DIP6	SOP4
Triac	Zero-crossing	800	LTV-8083	MOC3083	LTV-3083
	Random	800	-	-	-
	Zero-crossing	600	LTV-8063	MOC3063	LTV-3063
	Random	600	LTV-8052	MOC3053	LTV-3052
	Zero-crossing	400	-	-	-
	Random	400	LTV-8023	MOC3023	LTV-3023

Application:

- Heater
- Hair drier
- Induction stove
- Microinverter



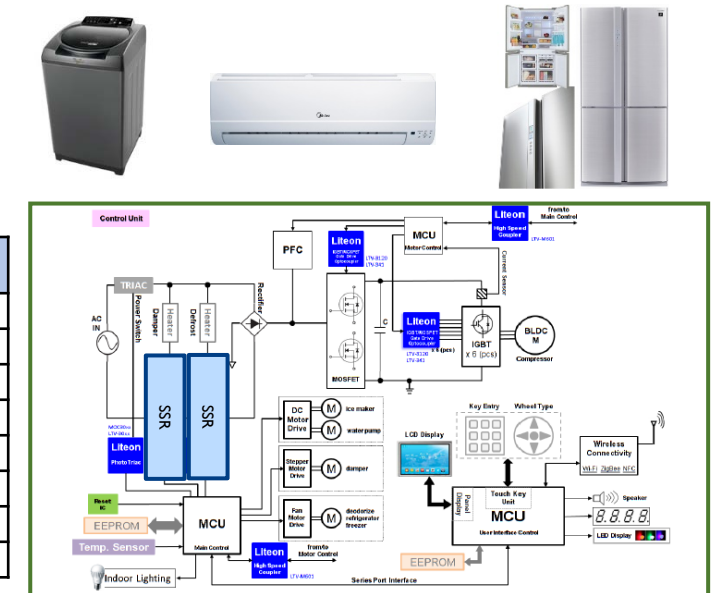
SSR



SSR	Type	On-state RMS(mA)	DIP8
SSR (600Vdrm)	Zero-crossing	1200	LTV-3213
	Random	1200	LTV-3223
	Zero-crossing	900	LTV-2213
	Random	900	LTV-2223
	Zero-crossing	600	LTV-1213
	Random	600	LTV-1223
	Zero-crossing	300	LTV-0213
	Random	300	LTV-0223

Application:

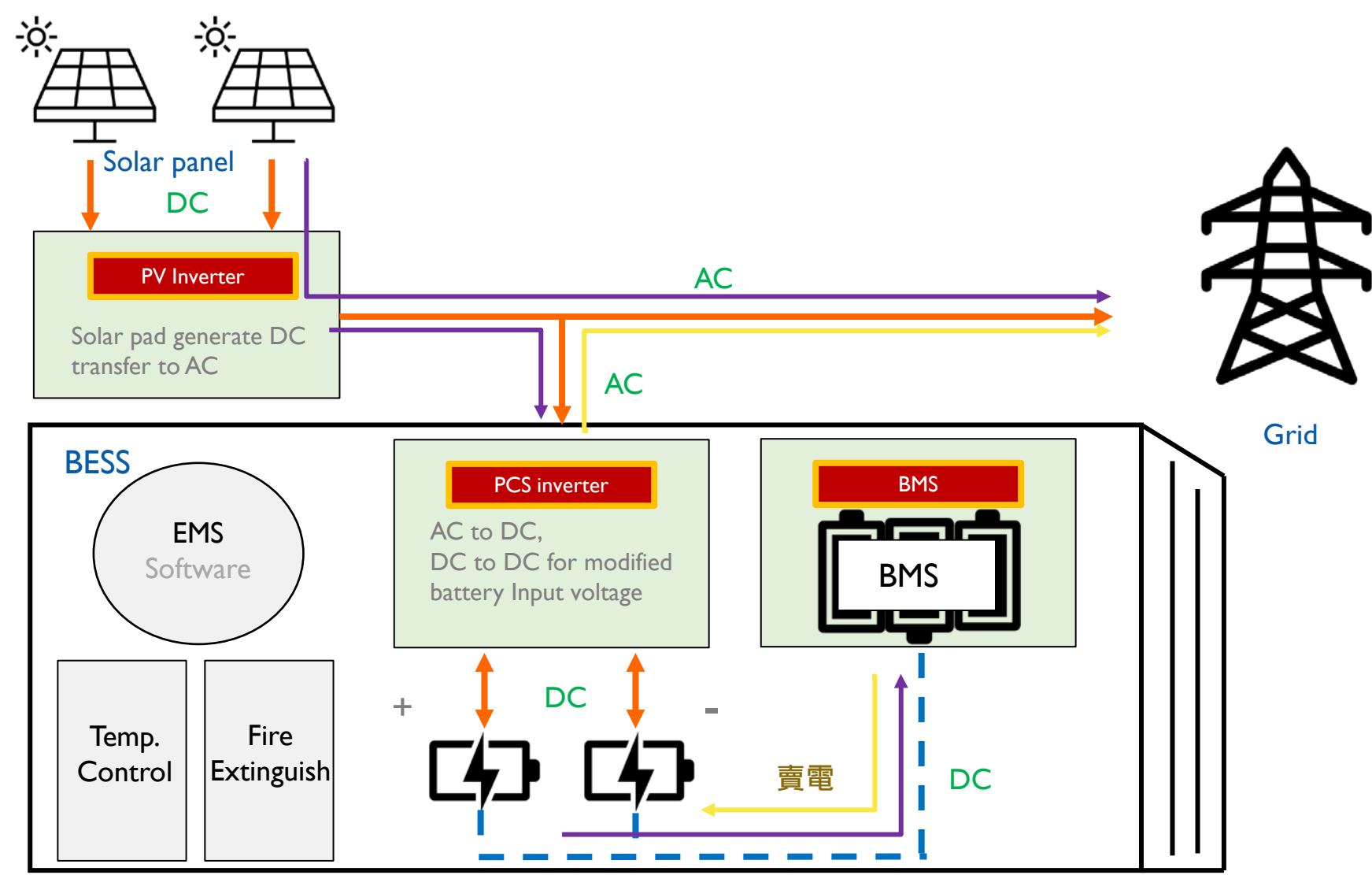
- Home appliance
- Robot vacuum station



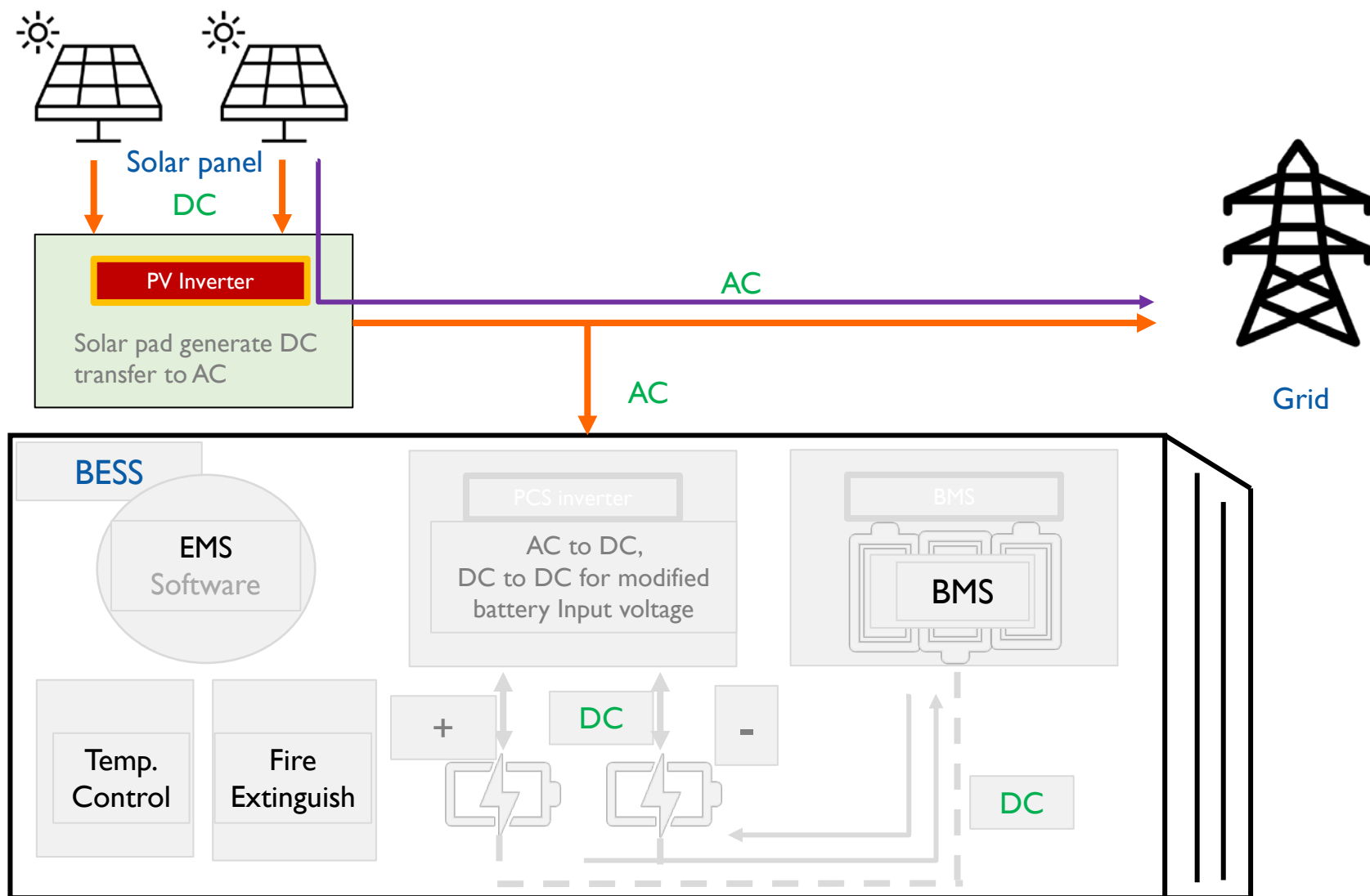
Green energy and Storage solution



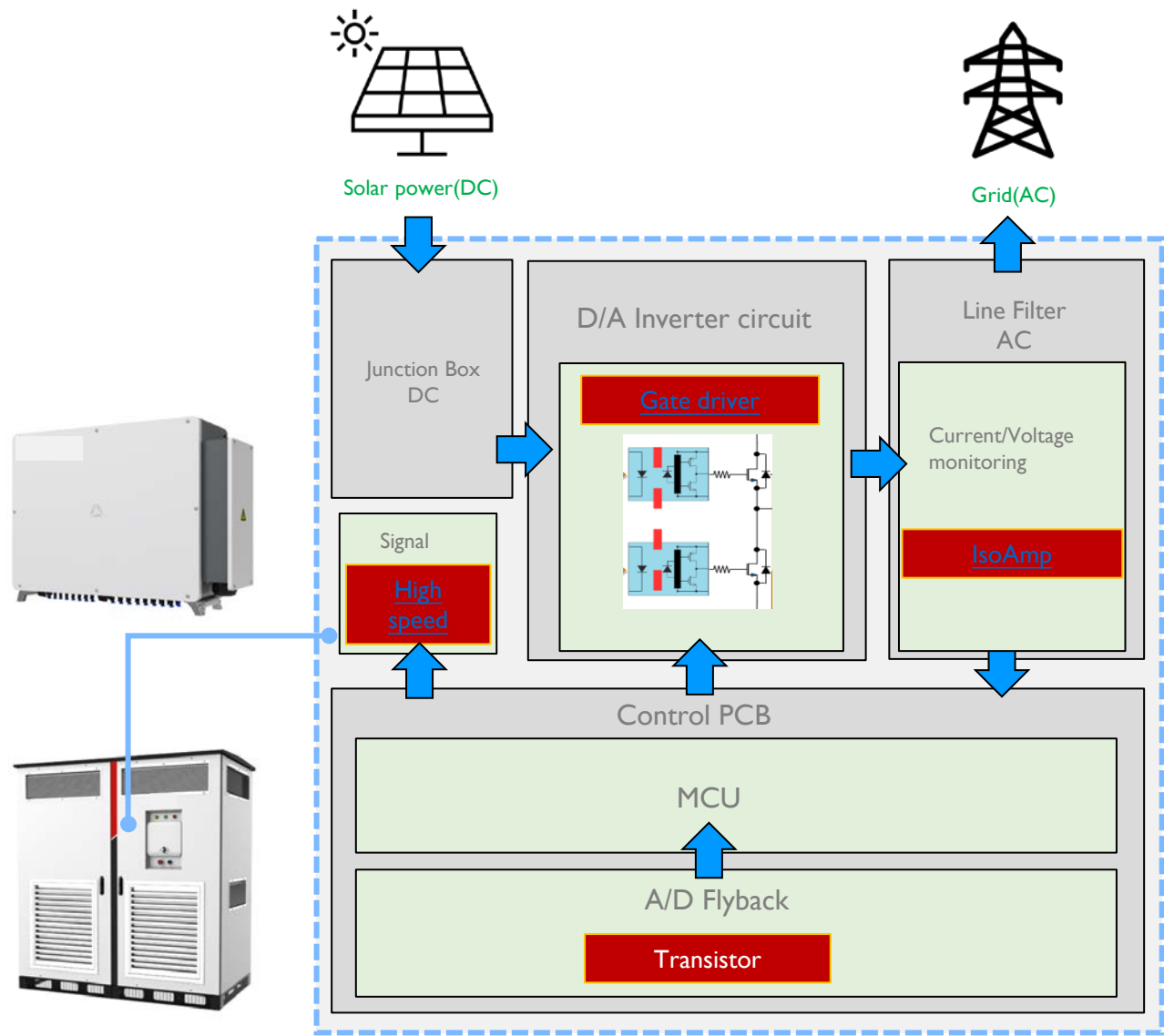
Solar system parts – 光伏逆變器PVI+ 儲能變流器PCS+ 電池管理系統BMS



Photovoltaics Inverter – PVI 光伏逆變器



Photovoltaics Inverter – PVI 光伏逆變器



High speed

Part Number	Package	Tran speed
6N136/LTV-M501/50L	DIP8/SO5/LSOP6	1 Mbps
6N137/LTV-M601/60L	DIP8/SO5/LSOP6	10 Mbps

Gate driver*6-12

Part Number	Package	Type	Peak output A
LTV-3120	DIP8	Rail to Rail	3.0
LTV-155E	SOP5	Rail to Rail	1.0
LTV-6341/5341	LSOP6/LSOP5	Rail to Rail	3.0
LTV-33XJ	LSOP16	Fault detect	5.0

Isolation Amplifier*1-2

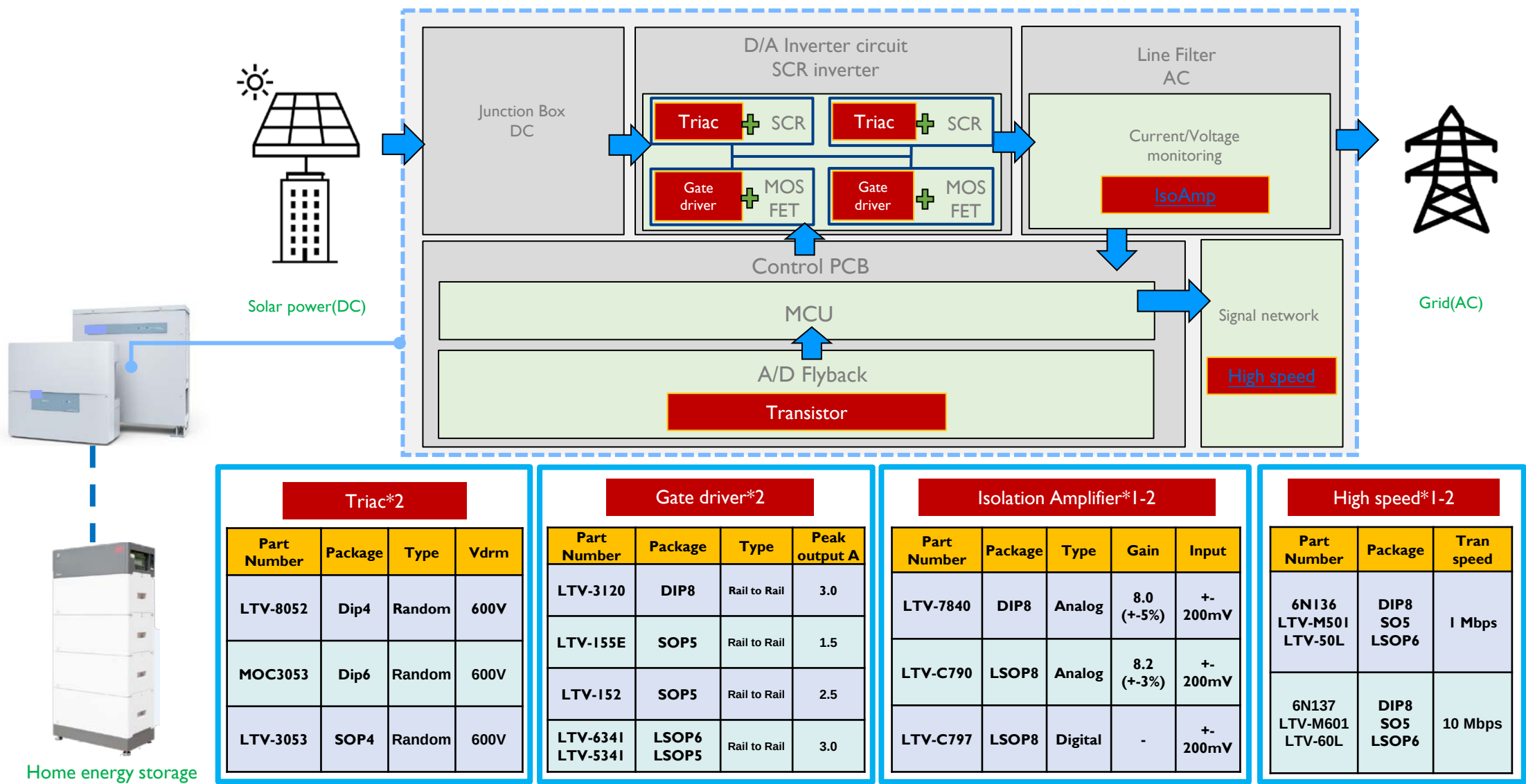
Part Number	Package	Type	Gain	Input
LTV-7840	DIP8	Analog	8.0(+5%)	+200mV
LTV-C790	LSOP8	Analog	8.2(+3%)	+200mV
LTV-C797	LSOP8	Digital	-	+200mV

AC/DC Flyback*1



Type.	Long creepage Transistor
Viso	5000Vrms
P/N	LTV-100x

Residential Micro Inverter – 微型逆變器(300W-1KW)

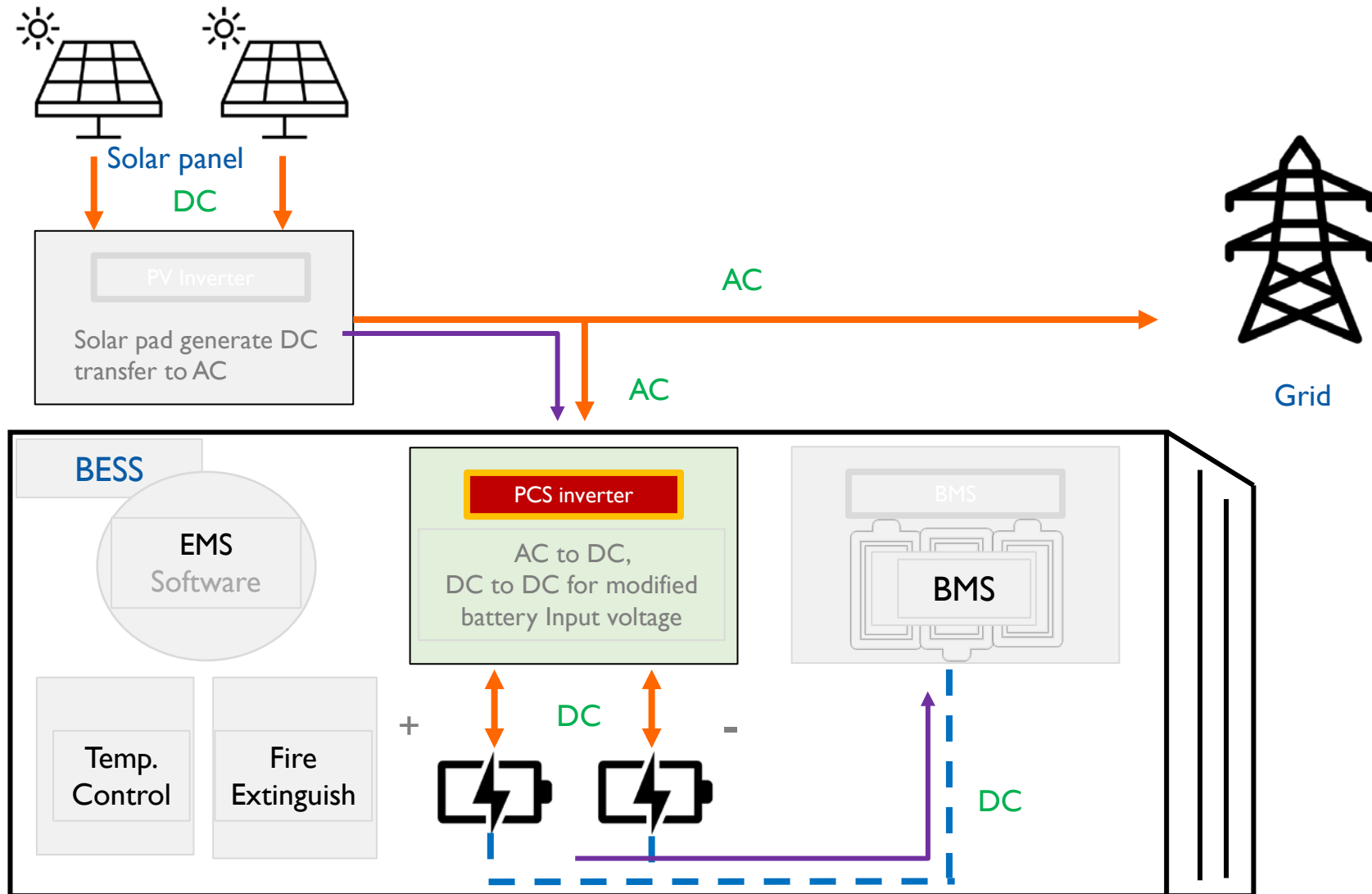


Home energy storage

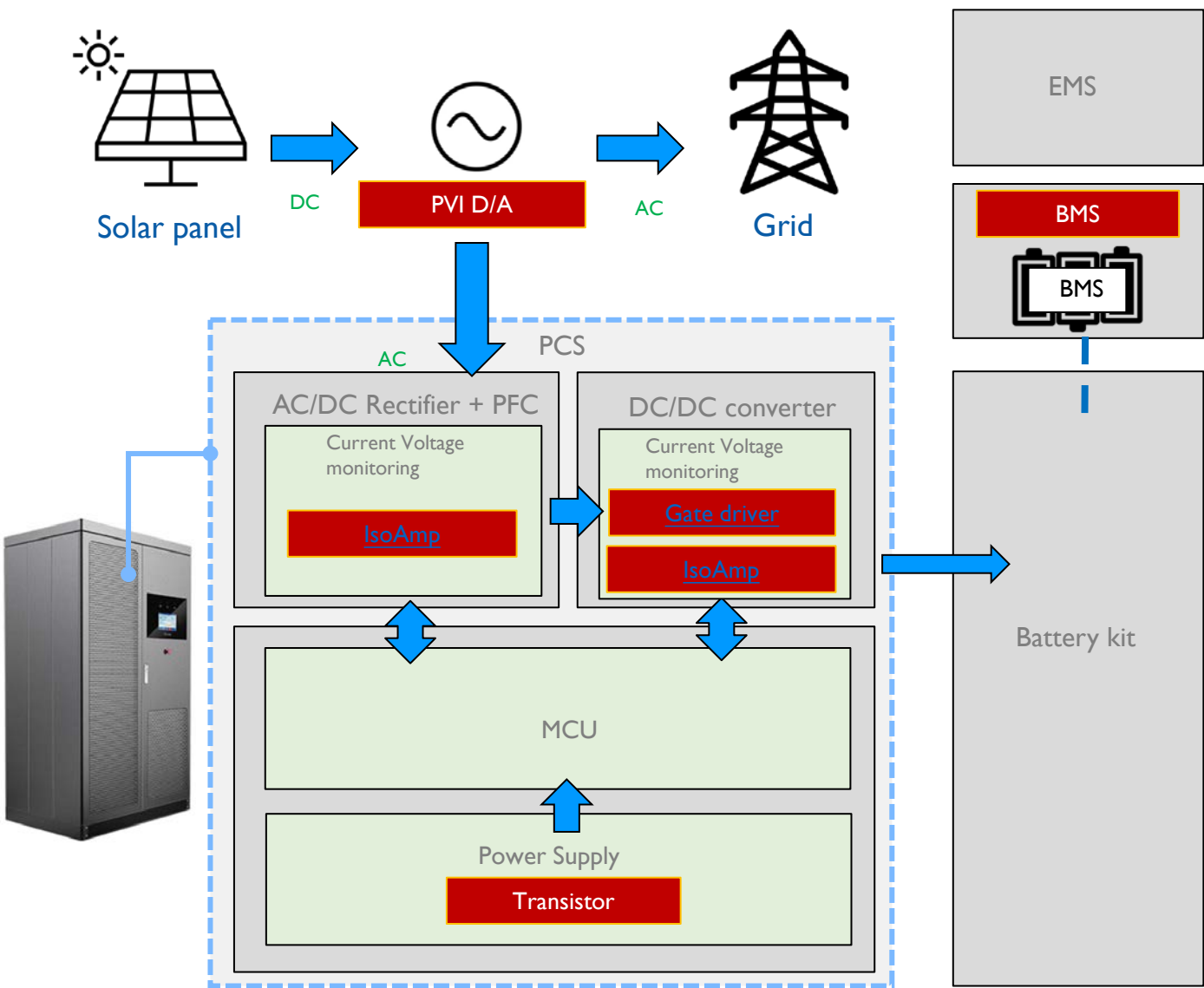
PVI 光伏逆變器 – Liteon supply partner



PCS – Power Conversion System 儲能變流器



PCS – Power Conversion System 儲能變流器



Gate driver*10-16

Part Number	Package	Type	Peak output A
LTV-3120	DIP8	Rail to Rail	3.0
LTV-152	SOP5	Rail to Rail	2.5
LTV-6341	LSOP6	Rail to Rail	4.0
LTV-332J	LSOP16	Fault detect	5.0

Isolation Amplifier*2-4

Part Number	Package	Type	Gain	Input
LTV-7840	DIP8	Analog	8.0(+5%)	+200mV
LTV-C790	LSOP8	Analog	8.2(+3%)	+200mV
LTV-C797	LSOP8	Digital	-	+200mV

AC/DC Converter*I



Type.	Long creepage Transistor
Viso	5000Vrms
P/N	LTV-100x

High speed product

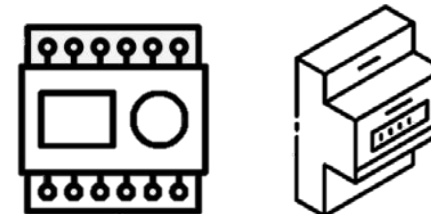
LED	Output
ON	L
OFF	H

	High speed	Rate	Channel	DIP6	DIP8	400mil DIP8	SO5	SO8	LSO5	LSO6
VDD 3.3/5	Open collector	100K	1CH		6N138-L		LTV-M701	LTV-0701		
VDD 3.3/5			2CH					LTV-073L		
VDD Max.30		1MBd	1CH		6N136		LTV-M501	LTV-0501-5		LTV-50L
VDD Max.30			2CH		LTV-2530			LTV-053L		
VDD Max.16		1MHz=2MBd	1CH	HIILx			LTV-M400			
VDD 3.3/5		10MBd	1CH		6N137	W137S	LTV-M601	LTV-0601-5	LTV-560	LTV-60L
VDD 3.3/5			2CH		LTV-2630			LTV-063L		
VDD 3.3/5	Totem Pole	10MBd	1CH				LTV-M61L	LTV-061L	LTV-561	LTV-61L
VDD 3.3/5			2CH					LTV-064L		



Application:

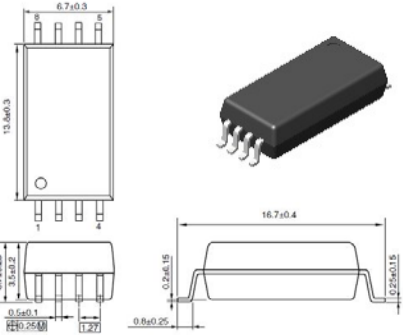
- IA machine (PLC , Inverter)
- E-meter
- Communication interface
- Networking



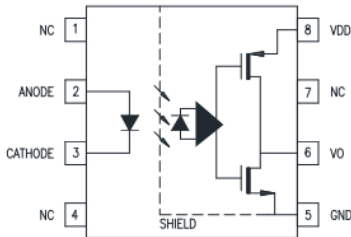
New product solution – High speed

LED	Output
ON	L
OFF	H

15mm High operating voltage LSOP8



15 x 6.7 x 3.7



For PV DC 1000 ->1500V

LSOP8	MPN	Supply Voltage	IF(Min.)	Viso(Vrms)	Viorm	MP status	Pin to Pin
10MBd High speed	LTV-H61L	2.7V-5.5V	1.6mA	7500	1600	MP	Broadcom ACNT-H61L

Creepage distance requirement

Working voltage V _{RMS}	Insulating material group (IIIa / IIIb) mm
400	4.0
630	6.3
1000	10.0
1250	12.5
1500	15.0

Under pollution degree 2

IGBT gate driver/ IPM product

LED	Output
ON	H
OFF	L

IGBT	Current	Vcc	DIP8	400mil DIP8	SO5	SO8	LSO5	LSO6	LSO8
IGBT gate driver	1.0A	15-30	LTV-3150			LTV-0314-5		340W	
		10-30	LTV-3150-L		LTV-155E			LTV-314W LTV-314N(Non)	
	1.5A	15-30					LTV-5340	LTV-6340	
		10-30					LTV-5314	LTV-6314	
	2.5A	15-30	LTV-T350(Non)	WT350(Non)					
		10-30	LTV-3180S		LTV-152				
	3.0A	15-30	LTV-3120S	LTV-W3120			LTV-5341	LTV-6341	
	4.0A	15-30						LTV-341W-H	
	5.0A	15-30		LTV-W3190					K342/H342

IPM	Vcc	DIP8	400mil DIP8	SO5	SO8	LSO5	LSO6
Open collector	4.5-30V	LTV-4506	W4506	LTV-M456	LTV-0456	LTV-5456	LTV-456W/P
Totem Pole	480=On H	LTV-4800		LTV-M480	LTV-0480	LTV-5480	LTV-480W/P-H
	481= On L	LTV-4801		LTV-M481	LTV-0481		LTV-481W-H



Application:

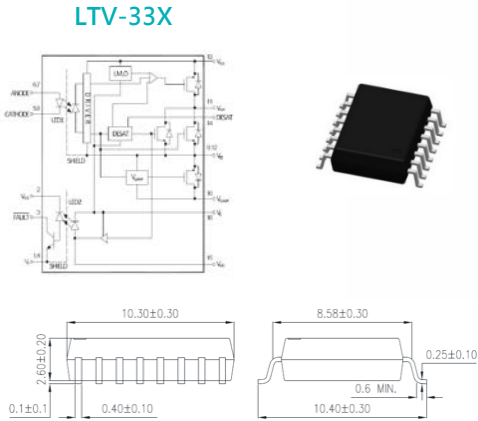
- Inverter driver
- DC EV charger
- Control board
- UPS
- Servo



New product solution – IGBT gate driver

LED	Output
ON	H
OFF	L

Smart fault detection IGBT LSOP16

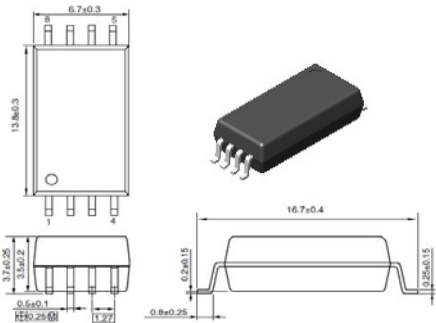


9.2 x 10.3 x 2.6

LSOP16	MPN	Peak Output Current Max. (A)	CMR at Vcm=1500V(min.) (V/μs)	Supply Voltage(V)	MP status	Pin to Pin
Fault reset By Reset pin	LTV-316J	5.0	15000	15-30	MP	Avago HCPL-316J-500E
Auto fault reset	LTV-330J	2.5	50000	15-30	MP	Avago ACPL-330 1.5A ACPL-333 2.5A
	LTV-333J	5.0	50000	15-30	MP	5.0A output current
Fault reset by next LED turn on	LTV-331J	2.5	50000	15-30	MP	Avago ACPL-331 1.5A ACPL-332 2.5A
	LTV-332J	5.0	50000	15-30	MP	5.0A output current

15mm High operating voltage LSOP8

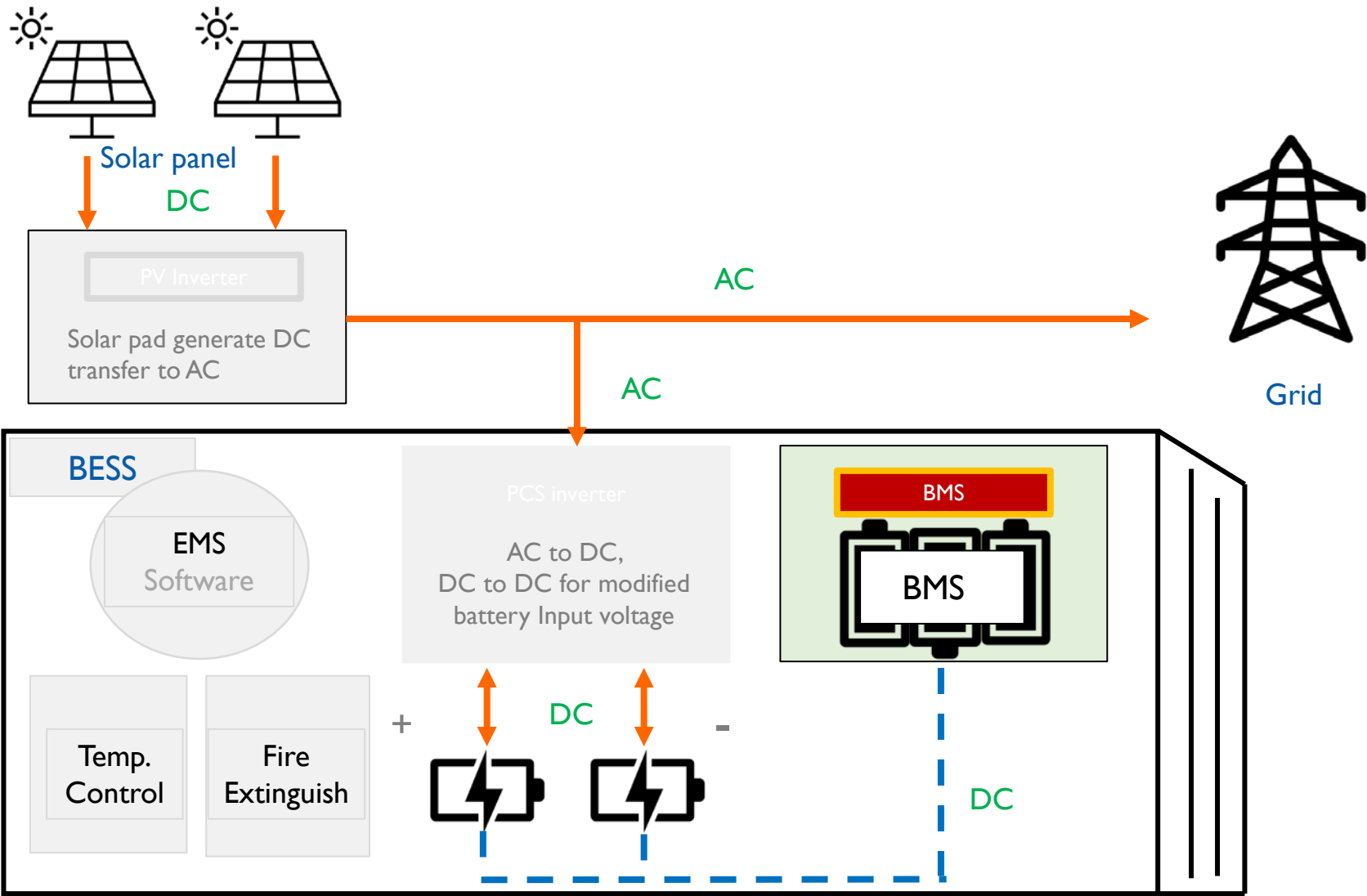
For PV DC 1000->1500V



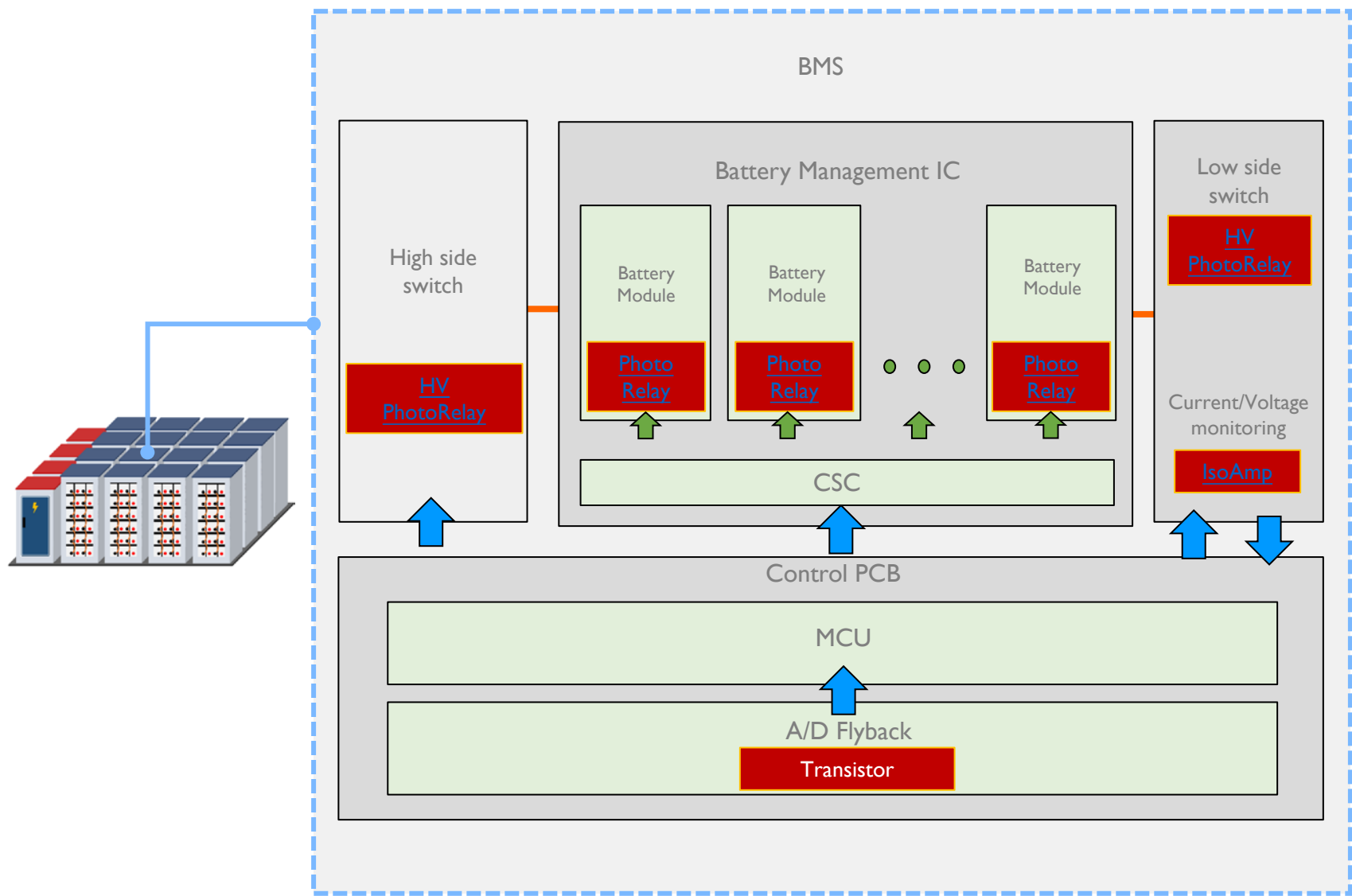
15 x 6.7 x 3.7

LSOP8	MPN	Operating Vrms	Viso(Vrms)	Viorm	MP status	Pin to Pin
3A IGBT	LTV-H313	1500	7500	1600	MP	Broadcom ACNT-H313

Bettary manage system – BMS 電源管理系統



Bettary manage system – BMS 電源管理系統

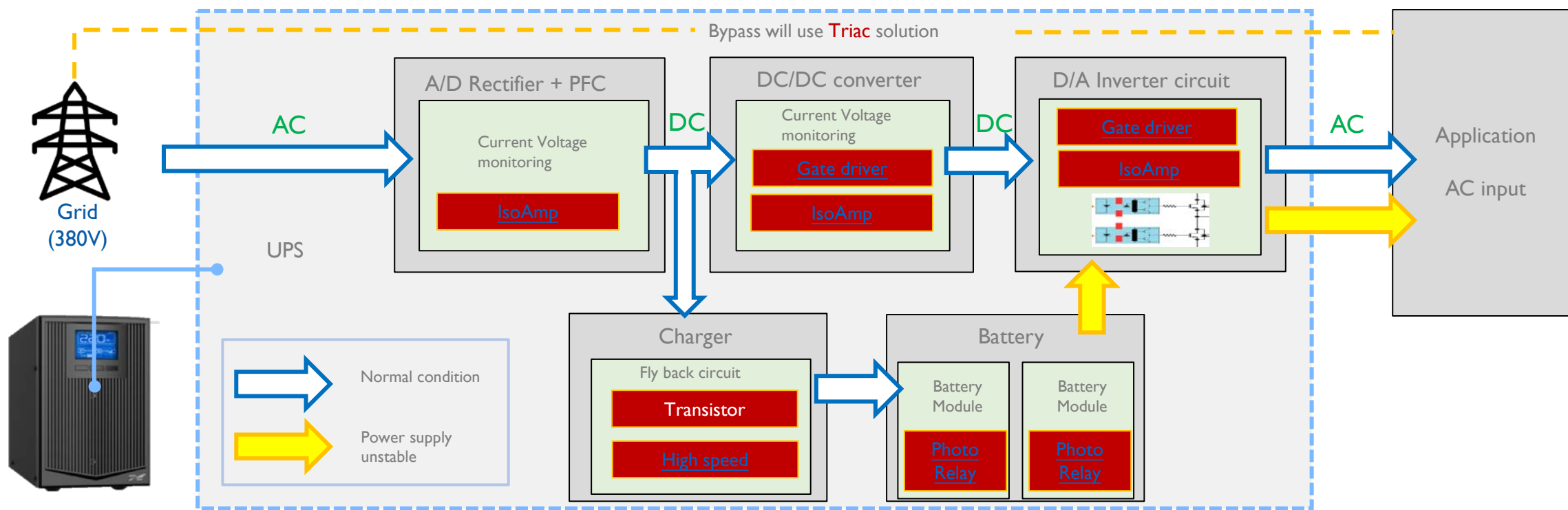


PhotoRelay*n by module			
Output		1 Channel P/N	2 Channel P/N
Load Voltage	Load Current		
60V	500mA	LTV-8212	LTV-8222
250V	180mA	LTV-8217	LTV-8227
400V	120mA	LTV-8214	LTV-8224
600V	50mA	LTV-8216	LTV-8226
1800V	20mA	LTV-7258-A	

Isolation Amplifier*2				
Part Number	Package	Type	Gain	Input
LTV-7840	DIP8	Analog	8.0(+5%)	+200mV
LTV-C790	LSOP8	Analog	8.2(+3%)	+200mV
LTV-C797	LSOP8	Digital	-	+200mV

AC/DC Flyback		Type.	Long creepage Transistor
		Viso	5000Vrms
		P/N	LTV-100x

Uninterruptible Power Supply – UPS 不斷電系統



AC/DC Flyback		
Type.	Long creepage Transistor	
Viso	5000Vrms	
P/N	LTV-100x	
Part Number	Package	Tran speed
6N135	DIP8	1 Mbps
LTV-M601	SOP5	10 Mbps

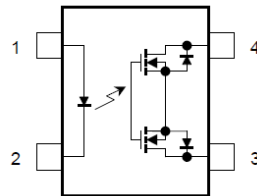
Isolation Amplifier*2				
Part Number	Package	Type	Gain	Input
LTV-7840	DIP8	Analog	8.0(+5%)	+200mV
LTV-C790	LSOP8	Analog	8.2(+3%)	+200mV
LTV-C797	LSOP8	Digital	-	+200mV

Gate driver*6-12			
Part Number	Package	Type	Peak output A
LTV-3120	DIP8	Rail to Rail	3.0
LTV-155E	SOP5	Rail to Rail	1.0
LTV-6341/5341	LSOP6/LSOP5	Rail to Rail	3.0
LTV-33XJ	LSOP16	Fault detect	5.0

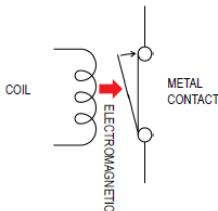
Photo Relay product

Photorelay	Off-state V	On-state RMS(mA)	DIP4	DIP8 Dual Channel	DIP6	SOP4
Photo Relay	60	2000	LTV-8211			
	60	1600				LTV-171G
	60	550	LTV-8212	LTV-8222	LTV-7212	LTV-172A
	100	150				LTV-178
	250	180	LTV-8217	LTV-8227	LTV-7217	LTV-177*
	350	110				LTV-172G
	400	250			LTV-7254	
	400	120	LTV-8214	LTV-8224	LTV-7214	LTV-176G
	600	50	LTV-8216	LTV-8226	LTV-7216	
	1800	20			LTX-7258-A*	

*LTX-7258-A for AEC-Q

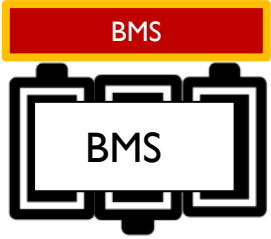


Mechanical Relays



Application:

- BMS system
- Control board
- PCB AOI test equipment
- IVD test equipment

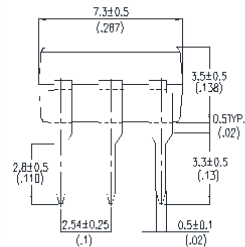
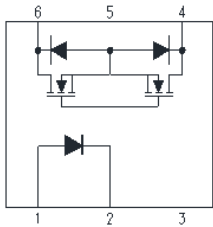


New product solution- High Bios Photo Relay

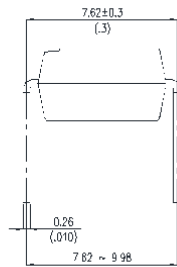
Sample available

High voltage load Photo relay DIP5 – *SiC* solution

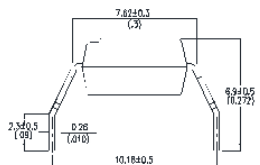
Pin No. and Internal connection diagram



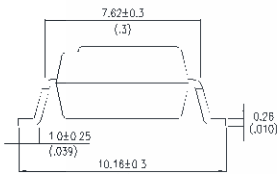
7.3 x 7.62 x 3.5



DIP Type



M pin Type

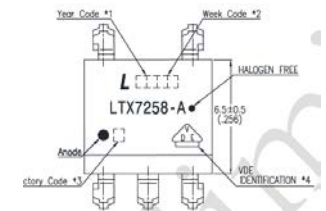


SMD Type

AEC-Q Qualification

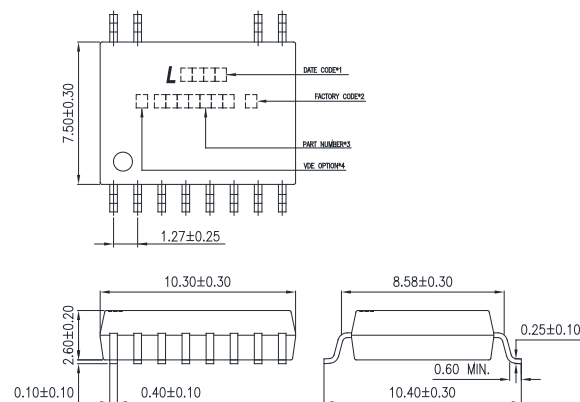
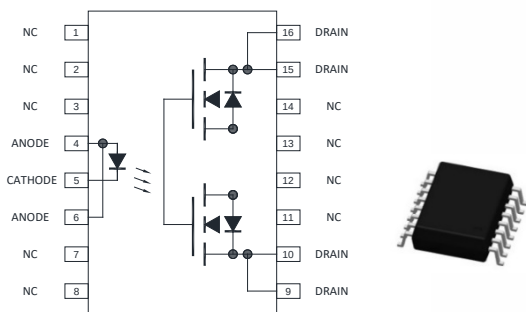
Design for HV BMS

DIP6	MPN	VL(AC&DC)	On-state RMS(mA)	Viso	Operating Temperature	MP status	Pin to Pin
High voltage type.	LTX-7258-A	1800V*	20mA	5000	-40 ~ +125 °C	Developing 2023-Q1	Better than AQV258 1500V



New product solution- High Bios PhotoRelay

High voltage load Photorelay LSOP16



7.5 x 10.30 x 2.6

AEC-Q Qualification

Design for HV BMS

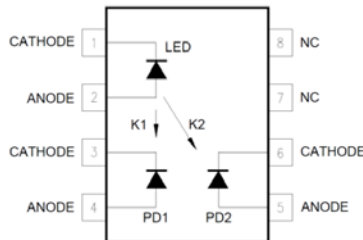
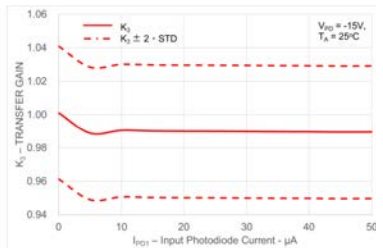
LSOP16	MPN	VL(AC&DC)	On-state RMS(mA)	Viso	Operating Temperature	MP status	Pin to Pin
High voltage type.	LTX-258J	1500V	20mA	5000	-40 ~ +125 °C	Developing 2023-Q2	TLX9160T

New product solution- Isolation Amp. & Linearity

Isolation Amplifier:

DIP8	MPN	Gain (V/V)	Vin+-	Vos	Viso(Vrms)	MP status	Pin to Pin
Analog	LTV-7840	8.03+/-5%	+/-200mV	+/-2.0mV	5000V	MP	HCPL-7840
	LTV-7840-A0	8.03+/-3%	+/-200mV	+/-2.0mV	5000V	Samples In 22Q4	
	LTV-7840-A	8.03+/-1%	+/-200mV	+/-2.0mV	5000V	Samples In 22Q4	
Digital	LTV-7860	+/-1%	+/-200mV	+/-2.0mV	5000V	Samples In 23Q2	HCPL-7860
LSOP8	MPN	Gain (V/V)	Vin+-	Vos	Viso(Vrms)	MP status	Pin to Pin
Analog	LTV-C790	8.2+/-3%	+/-200mV	+/-2.0mV	5000V	Samples In 23Q2	ACPL-C790
	LTV-C79A	8.2+/-1%	+/-200mV	+/-2.0mV	5000V	Samples In 23Q2	
	LTV-C79B	8.2+/-0.5%	+/-200mV	+/-2.0mV	5000V	Samples In 23Q2	
	LTV-C870	1.0+/-3%	0 - 2V	-	5000V	Samples In 23Q2	ACPL-C870
Digital	LTV-C797	+/-1%	+/-200mV	+/-2.0mV	5000V	Samples In 23Q2	ACPL-C797

Linearity coupler:



MPN	Package	K3 (IPD2/IPD1) transfer gain	Viso(Vrms)	MP status	Pin to Pin
LTV-W300	400mil DIP8	+/-40%	5000V	Samples in 23Q1	IL300
LTV-W200	400mil DIP8	+/-15%	5000V	Samples in 23Q1	HCNR200
LTV-W201	400mil DIP8	+/-5%	5000V	Samples in 23Q1	HCNR201

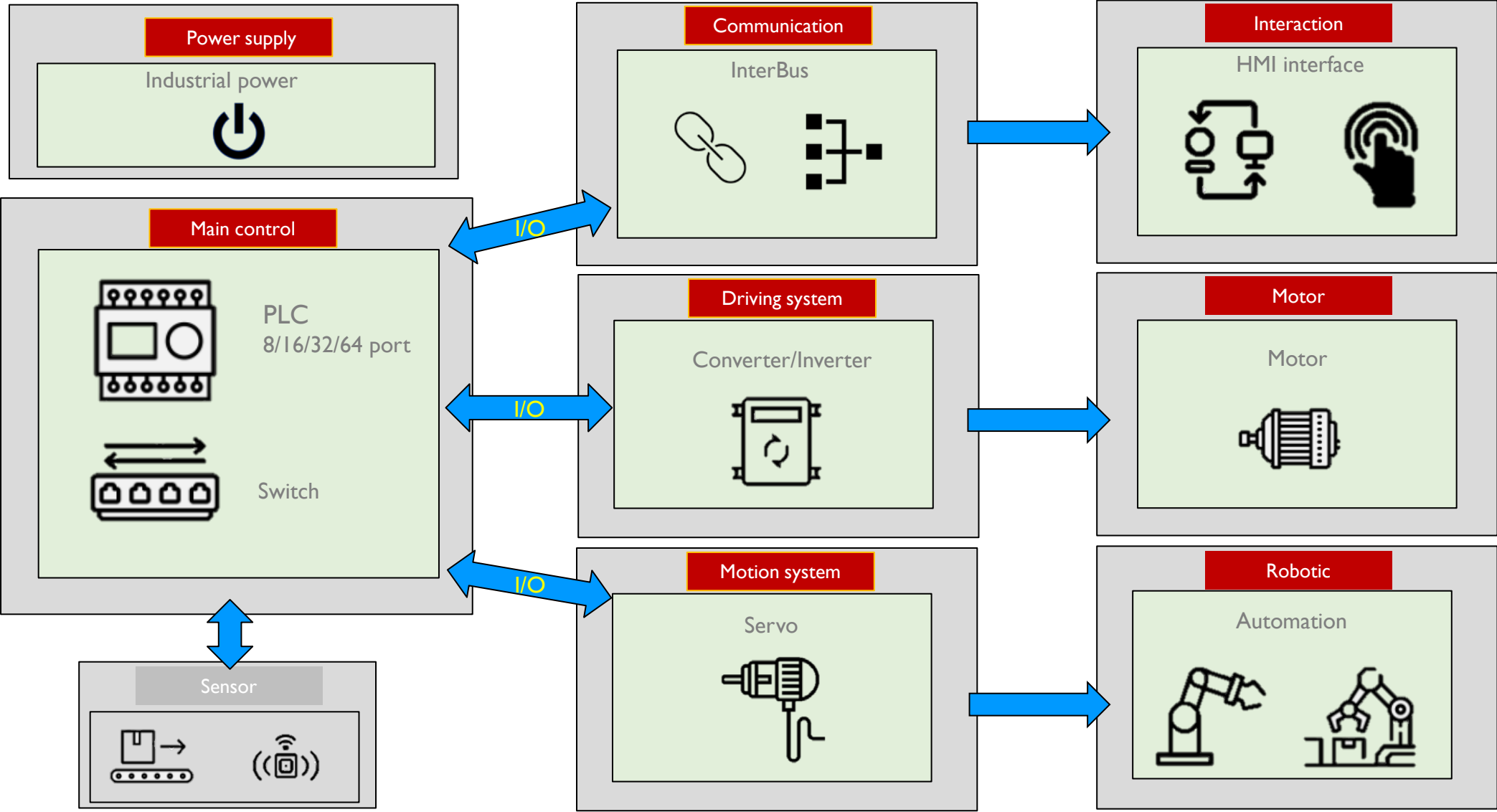
UPS 不斷電系統 – Liteon supply partner



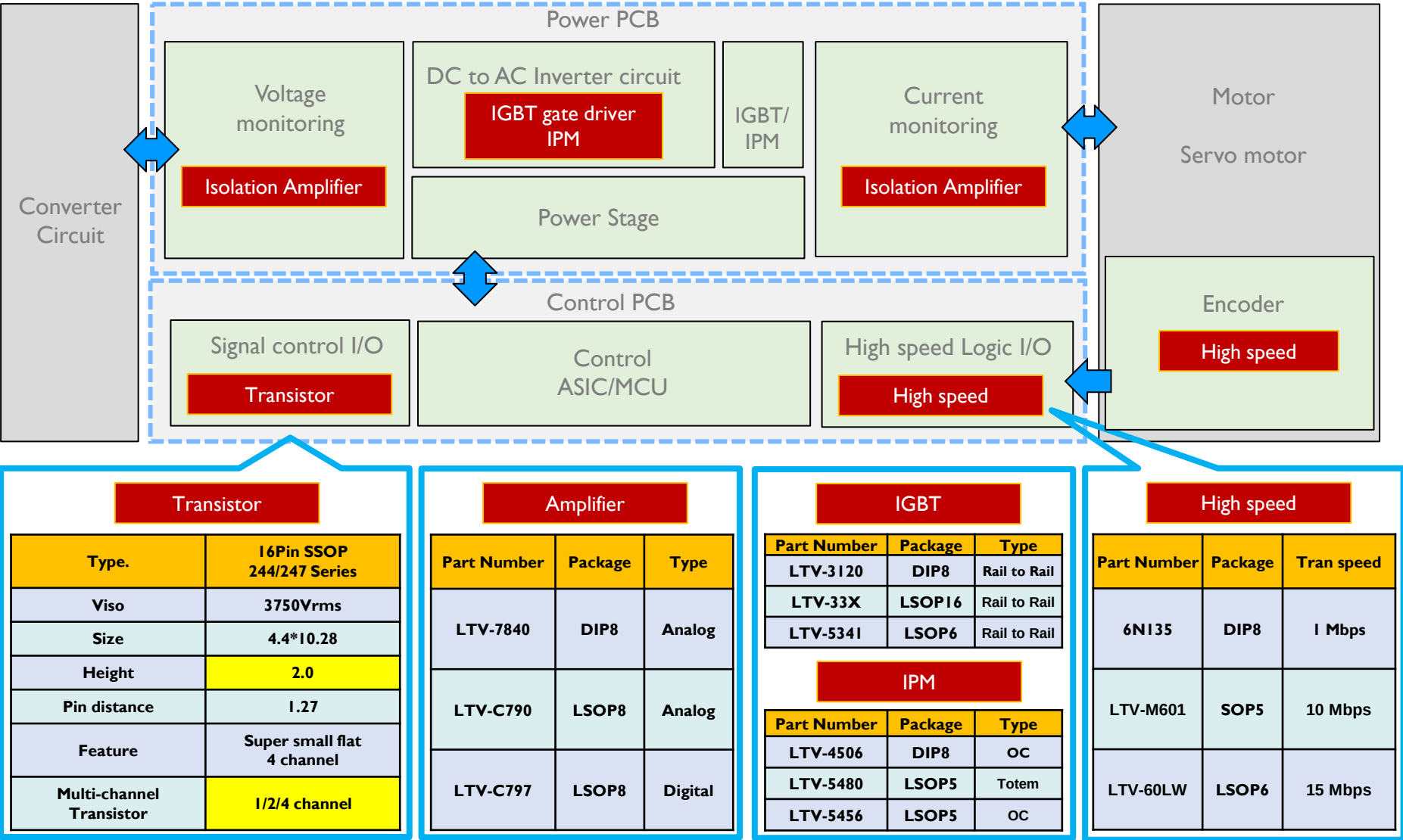
Industrial Automation part



Industrial automation Parts



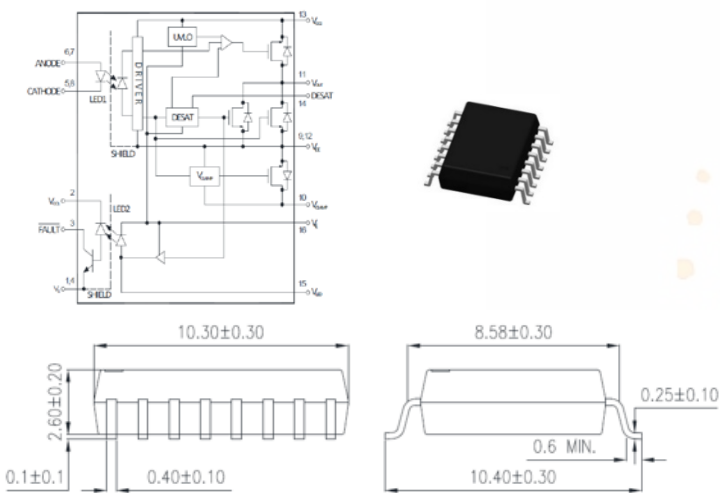
Converter / Servo



New product solution – IGBT gate driver

Smart fault detection IGBT LSOP16

LED	Output
ON	H
OFF	L

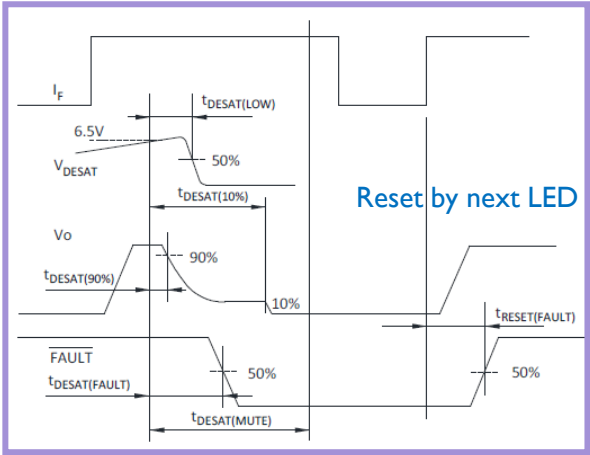
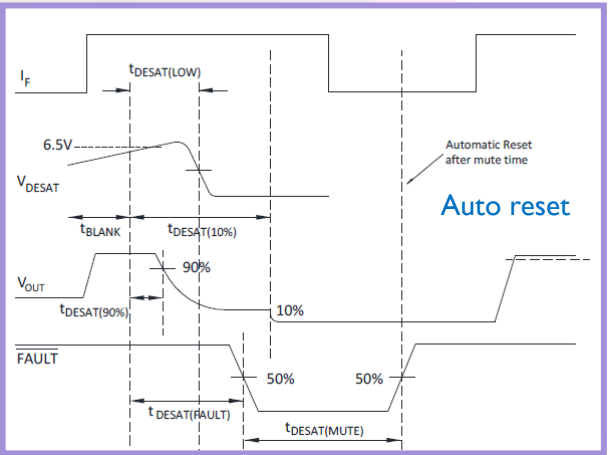


9.2 x 10.3 x 2.6

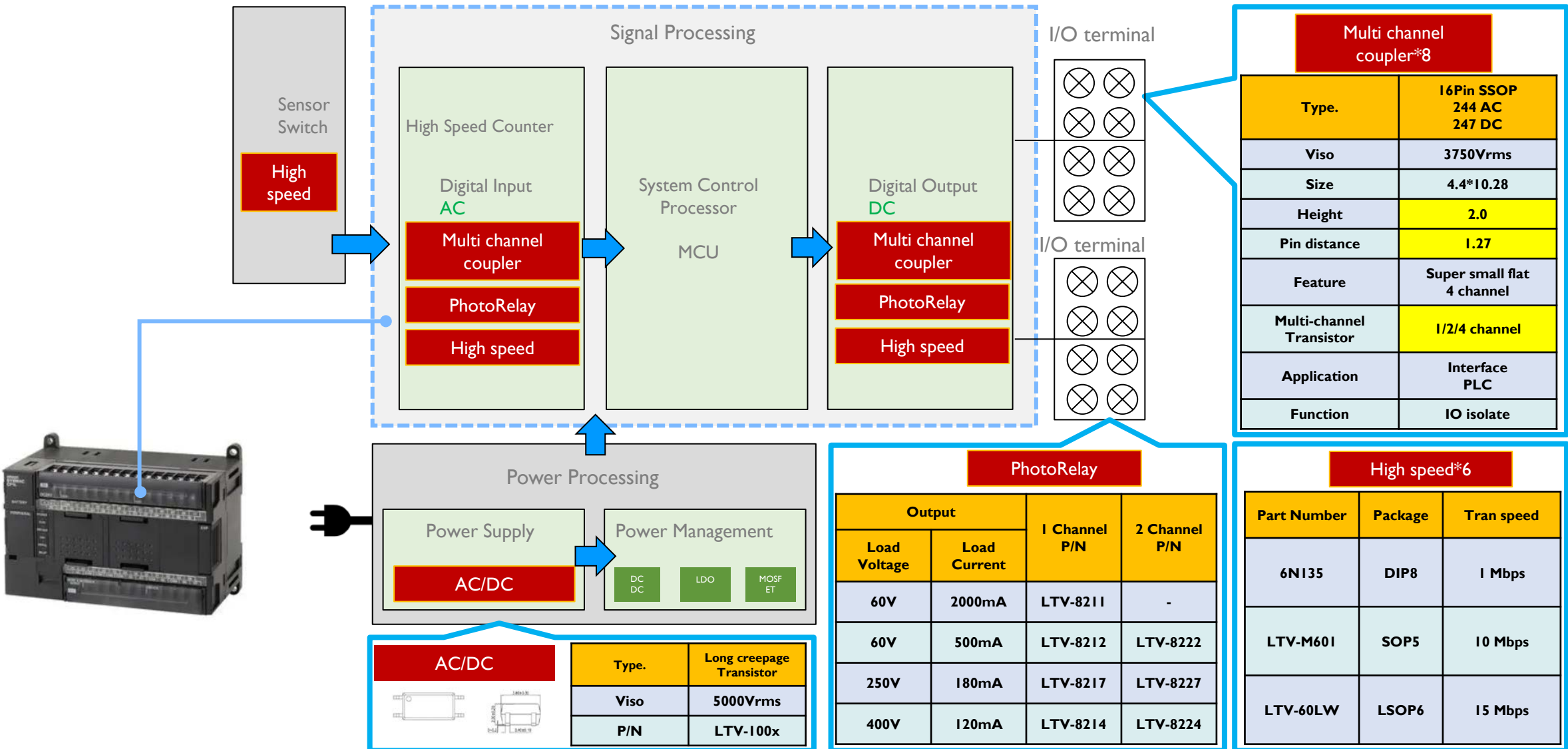
Smart protection function

- Desaturation
- Soft-Switching
- Fault detective
- Millar clamp - 2V fast release

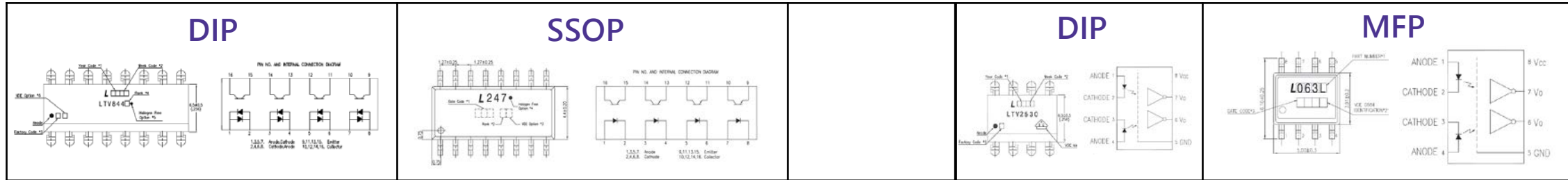
LSOP16	MPN	Peak Output Current Max. (A)	CMR at V _{cm} =1500V(min.) (V/μs)	Supply Voltage(V)	MP status	Pin to Pin
Fault reset By Reset pin	LTV-316J	5.0	15000	15-30	MP	Avago HCPL-316J-500E
Auto fault reset	LTV-330J	2.5	50000	15-30	MP	Avago ACPL-330 1.5A ACPL-333 2.5A
	LTV-333J	5.0	50000	15-30	MP	5.0A output current
Fault reset by next LED turn on	LTV-331J	2.5	50000	15-30	MP	Avago ACPL-331 1.5A ACPL-332 2.5A
	LTV-332J	5.0	50000	15-30	MP	5.0A output current



PLC / MOTION CONTROLLER / REMOTE IO

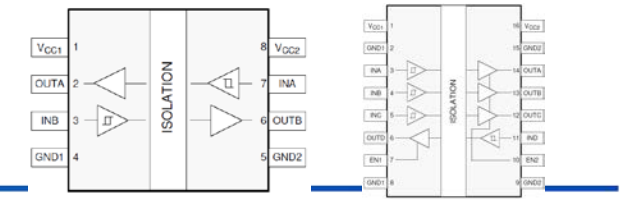


Multiple channel photocoupler – 10K~10MBd



	Transistor / 10KBps									High speed / 1MBd-10MBd				
	DIP8/DIP16				SSOP8/SSOP16					DIP8		SO8		
Multiple channel	2 Channel		4 Channel		2 Channel		4 Channel		Multiple channel	2 Channel		2 Channel		
Type.	AC	DC	AC	DC	AC	DC	AC	DC	Type.	Open collector	Open collector	Open collector	Open collector	Totem pole
Part number	LTV-824	LTV-827	LTV-844	LTV-847	LTV-224	LTV-227	LTV-244	LTV-247	Part number	LTV-2530	LTV-2630	LTV-053L	LTV063L	LTV-064L
Trans Speed	10KBps	10KBps	10KBps	10KBps	10KBps	10KBps	10KBps	10KBps	Trans Speed	1MBd	10MBd	1MBd	10MBd	10MBd
Viso	5000V	5000V	5000V	5000V	3750V	3750V	3750V	3750V	Viso	5000V	5000V	3750V	3750V	3750V
Vceo	35V	35V	35V	35V	80V	80V	80V	80V	Vdd	30V	3.3V/5V	30V	3.3V/5V	3.3V/5V
Pin distance	2.54mm				1.27mm				Pin distance	2.54mm		1.27mm		
Package size	9.68*6.5*3.5mm		19.84*6.5*3.5mm		5.2*4.4*2.0mm		10.28*4.4*2.0mm		Package size	9.68*6.5*3.5mm		5.0*3.91*3.18mm		

Multiple channel Digital coupler – 100MBd



	Digital coupler								
	SSOIC – 8		SSOIC – 16 LSOIC – 16		SSOIC – 16 LSOIC – 16			Under developing	
Multiple channel	2 Channel		3 Channel		4 Channel			6 Channel*	
Type.	2 in 0 out	1 in 1 out	3 in 0 out	2 in 1 out	4 in 0 out	1 in 3 out	2 in 2 out	-	-
Part number	LTVC-7720	LTVC-7721	LTVC-7730	LTVC-7731	LTVC-7740	LTVC-7741	LTVC-7742	-	-
Trans Speed	100MBd	100MBd	100MBd	100MBd	100MBd	100MBd	100MBd	-	-
Operation temp.	-40°~125°	-40°~125°	-40°~125°	-40°~125°	-40°~125°	-40°~125°	-40°~125°	-	-
MP schedule	2023 Q2 sample	2023 Q2 sample	2023 Q2 sample	2023 Q2 sample	2023 Q2 sample	2023 Q2 sample	2023 Q2 sample	-	-
Pin to Pin	ISO7720 NSI8220	ISO7721 NSI8221	ISO7730 NSI8230	ISO7731 NSI8231	ISO7740 NSI8240	ISO7741 NSI8241	ISO7742 NSI8242	-	-

New product solution - Capacitive Coupler Series

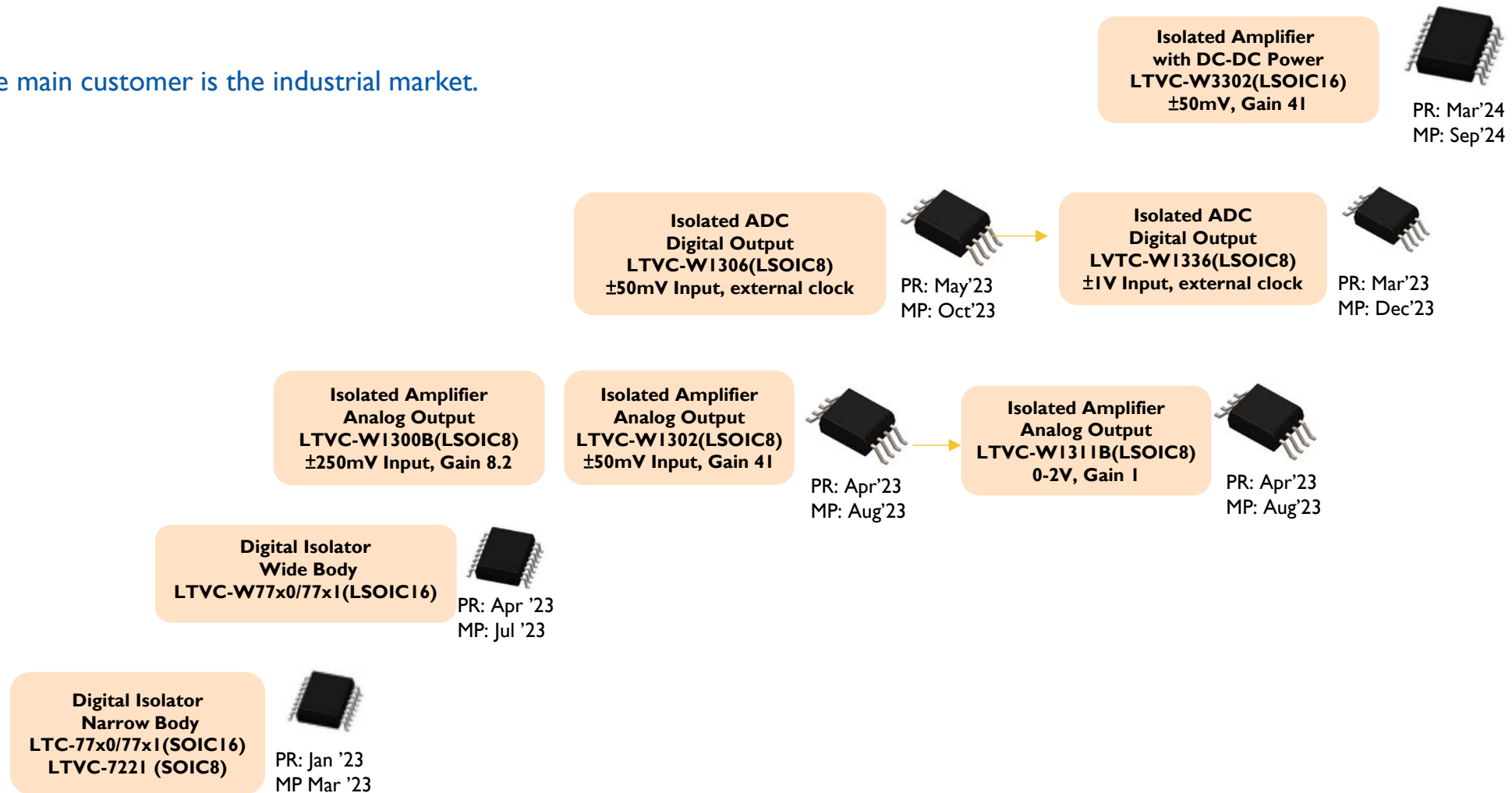
Digital coupler:

	Optocoupler		Digital -40~125 degree*	
High speed	Channel	Speed	Channel	Speed
	1 / 2	1M-50M*	2 / 3 / 4 / *6 LTVC-77x1	100M / 150M
Isolation Amplifier	Current sensing	Voltage sensing	Current sensing	Voltage sensing
	LTV-C790 ±200mV, Gain 8	LTV-C870 0-2V, Gain 1	LTVC-W1302 ±50mV, Gain 41	LTVC-W1311B 0-2V, Gain 1
Multifunction Isolation	-	-	Isolated ADC Digital Output	Isolated Amplifier with DC-DC Power
	-	-	LTVC-W1336	LTVC-W3302 (AMC3302)

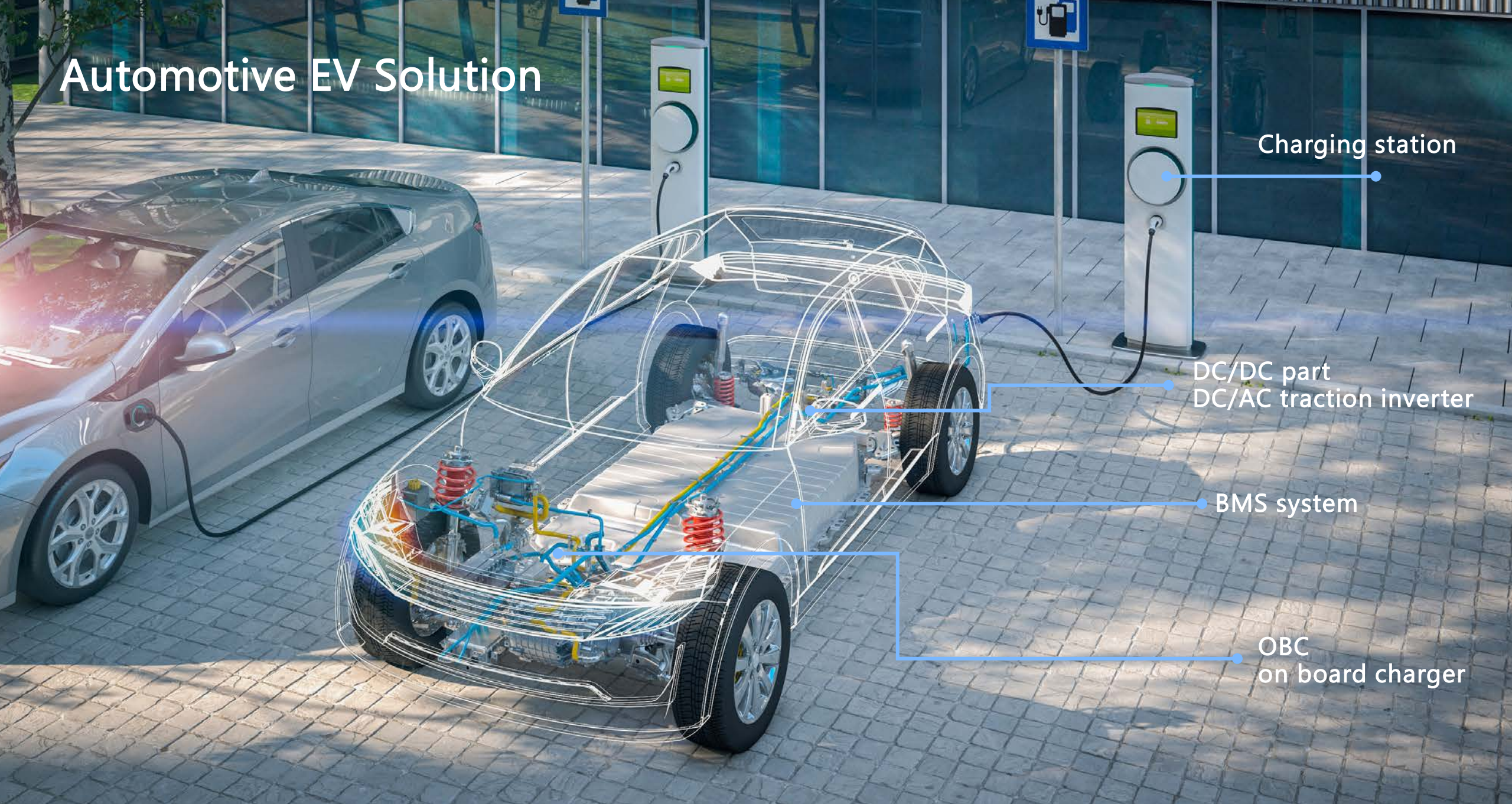


New product solution - Capacitive Coupler Series

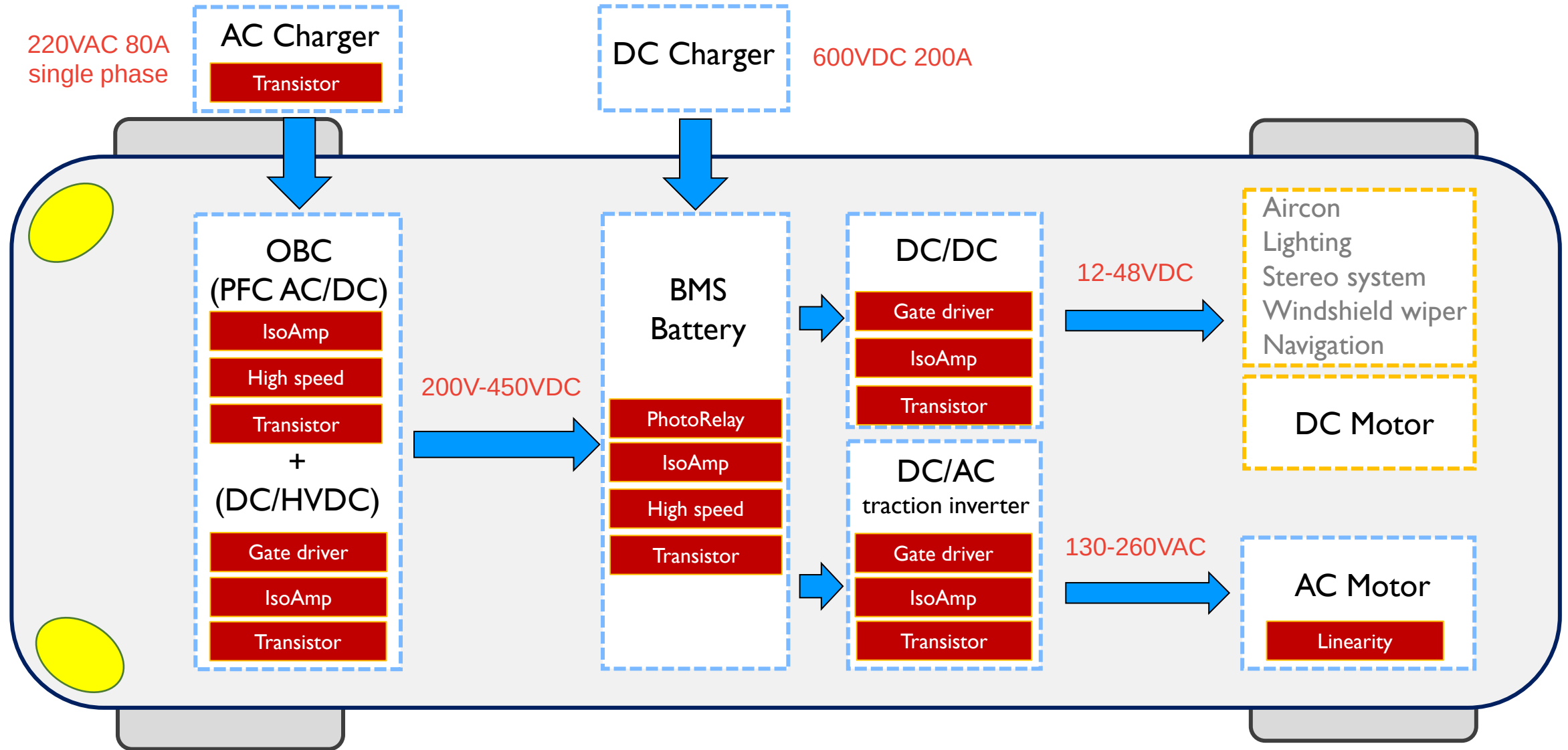
The main customer is the industrial market.



Automotive EV Solution



Automotive Power solution



Liteon Photocoupler solutions (On-Board)

- AECQ-102 Transistor

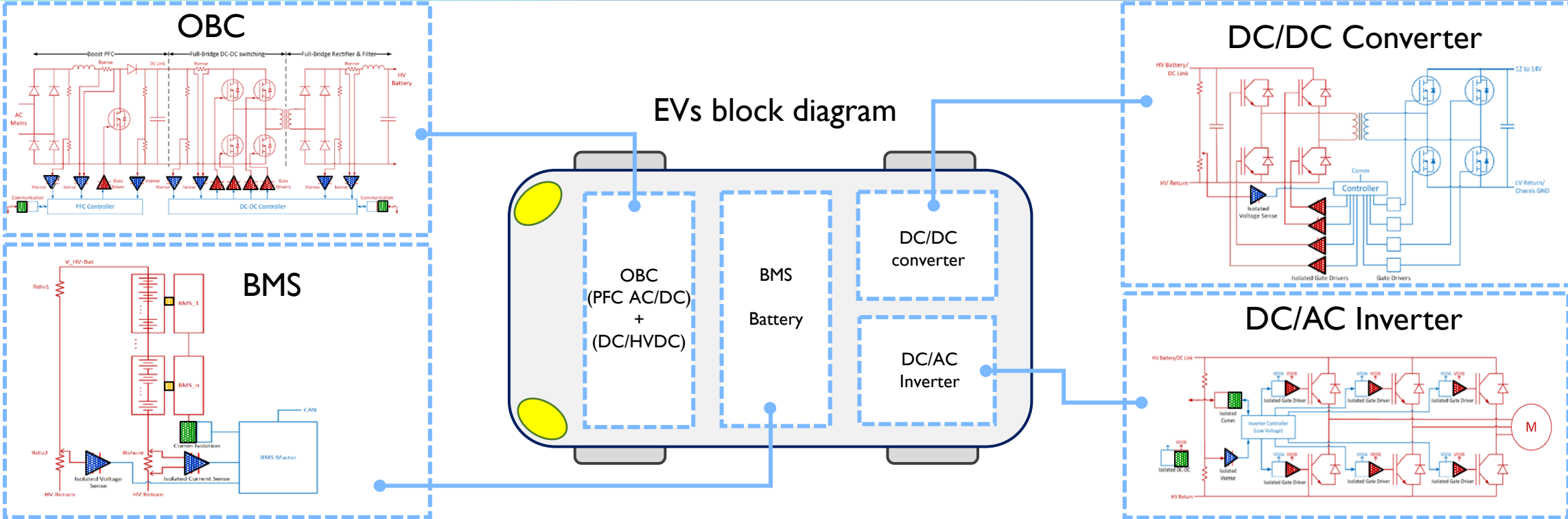
LTX-353 (SOP4)

LTX-213 (SSOP4)

LTX-1200 (LSOP4)
- AECQ-102 PhotoRelay

LTX-7258-A (DIP 6)

LTX-258J (LSOP16)



Gate driver



Part Number	Package	Type	Peak output A
LTV-155E	SOP5	Rail to Rail	1.0
LTV-3120	DIP8	Rail to Rail	3.0
LTV-6341/5341	LSOP6/LSOP5	Rail to Rail	3.0
LTV-33XJ	LSOP16	Fault detect	5.0

Isolation Amplifier



Part Number	Package	Type	Gain	Input
LTV-7840	DIP8	Analog	8.0(+5%)	+200mV
LTV-C790	LSOP8	Analog	8.2(+3%)	+200mV
LTV-C797	LSOP8	Digital	-	+200mV

High speed



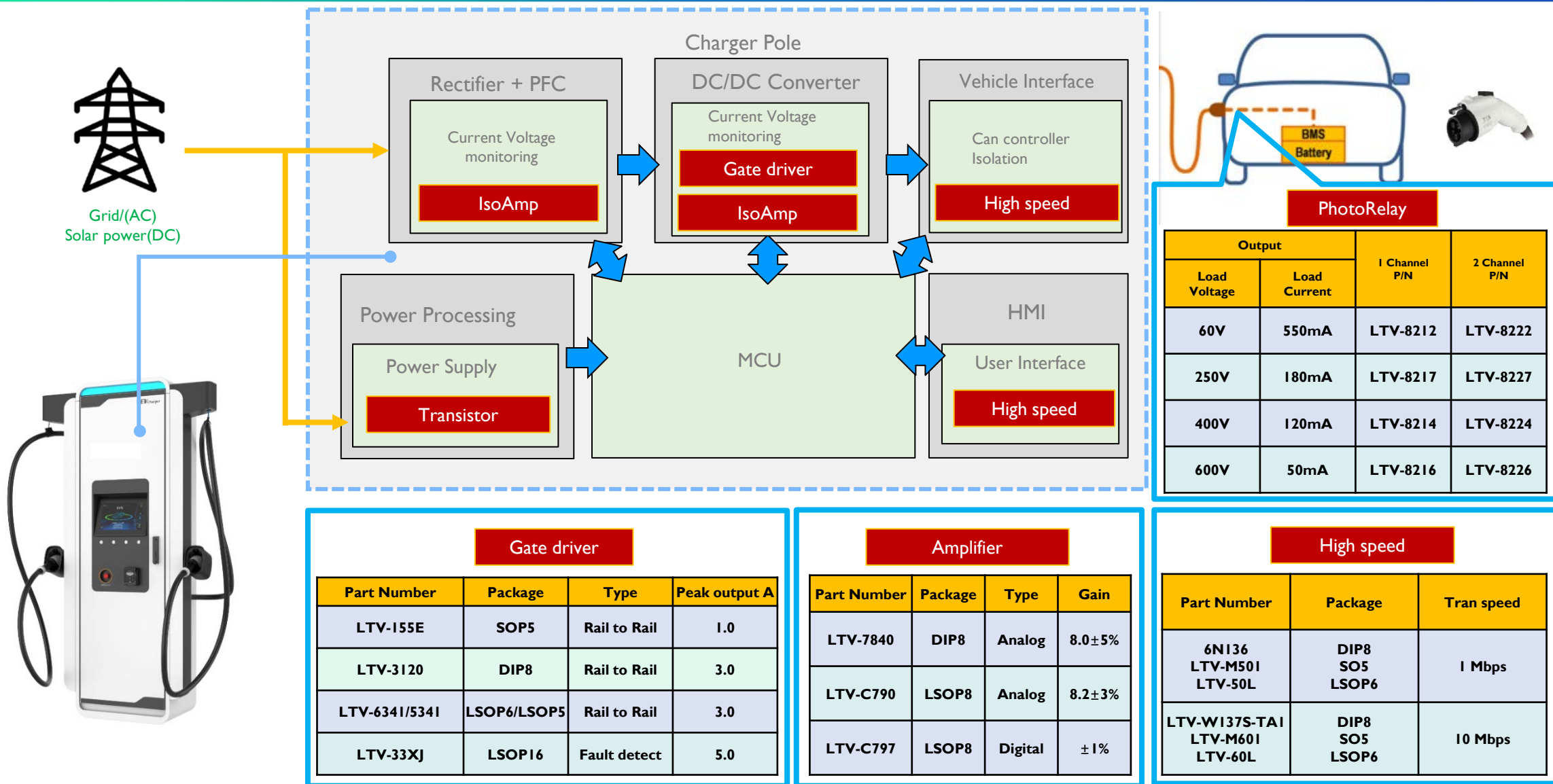
Part Number	Package	Tran speed
6N136 LTV-M501 LTV-50L	DIP8 SO5 LSOP6	1 Mbps
LTV-W137S LTV-M601 LTV-60L	DIP8 SO5 LSOP6	10 Mbps

PhotoRelay



Output		1 Channel P/N	2 Channel P/N
Load Voltage	Load Current		
60V	2000mA	LTV-8211	-
400V	120mA	LTV-8214	LTV-8224
600V	50mA	LTV-8216	LTV-8226
1800V	20mA	LTX-7258-A	-

Automotive DC charging station





Thank you

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Empowering A Green Future

LITEON[®]
——光寶科技

2022-2023 OSD Product Roadmap

Photocoupler
Solutions



Automotive
Photocouplers

Non-Opto solutions

2022

2023

Product
with
Package

Analog Isolation
Amplifier coupler
- *Current Sensors*
(DIP8)

5.0A IGBT Gate Drive
With Active Miller Clamp,
Rail to Rail output Voltage
With UVLO
(LSOP8)

Digital Isolation
Amplifier coupler
(LSOP8)



1800V Photo Relay
(DIP6-5pin)

High Linearity
Analog coupler
(400mil DIP8)

1.0A Dual-Output Gate Drive
with integrated DESAT Detection,
FAULT and UVLO Status Feedback
(LSOP16)

Analog Isolation
Amplifier coupler
- *Current Sensors*
(LSOP8)

Multi-channels
High Speed
Digital Isolators
2CH/3CH/4CH
(SOIC8/SOIC16/LSOIC16)

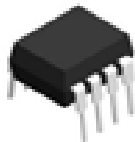


1500V Photo Relay
(LSOP16-12pin)

Analog Isolation
Amplifier coupler
- *Voltage Sensors*
(LSOP8)

High-Speed IC coupler (10MBd)/
IGBT Gate Drive (3.0A)
(15mm LSOP8)

Part
Number



LTV-7840



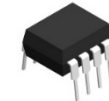
LTV-K342/H342



LTV-C797



LTX-7258



LTV-W300/W20x



LTV-339J



LTV-C790



LTVC-77x0/77x1



LTX-258J



LTV-C87x



LTV-H61L/LTV-H313

IGBT gate driver 對比型號表

Manufacturer	Competitor P/N	LiteOn			
		Part Number	Peak Current	Vcc	Package
Broadcom	HCPL-3150	LTV-3150	1.0A	15-30	DIP8
Vishay	VO3150A				
Sharp	PC924				
Broadcom	ACPL-T350	LTV-T350	2.5A	15-30	DIP8
Broadcom	HCPL-3120	LTV-3120	3.0A	15-30	DIP8
Cosmo	KTLP350				
Toshiba	TLP350				
Sharp	PC925L				
Renesas (NEC)	PS9505				
Toshiba	TLP151	LTV-155E	1.0A	10-30	SO5
Toshiba	TLP152	LTV-152	2.5A	10-30	SO5
Toshiba	TLP705	LTV-5314	1.5A	10-30	LSOP5
Toshiba	TLP5701				
Toshiba	TLP5754	LTV-5341	3.0A	15-30	LSOP5
Broadcom	HCPL-W314/P314	LTV-314N-H	1.0A	10-30	LSOP6
Toshiba	TLP701	LTV-6314	1.5A	10-30	LSOP6
Broadcom	ACPL-P343	LTV-6341	3.0A	15-30	LSOP6
Renesas (NEC)	PS9308L2				
Broadcom	ACPL-H342	LTV-H342	4.0A	15-30	LSOP8
Broadcom	ACPL-332 ACPL-331	LTV-332J-TP1 LTV-331J-TP1	5.0A 2.5A	15-30	LSOP16
Broadcom	ACPL-330 ACPL-333	LTV-330J-TP1 LTV-333J-TP1	2.5A 5.0A	15-30	LSOP16

High Speed 對比型號表

Manufacturer	Competitor P/N	LiteOn			
		Part Number	Data Rate (Typ.)	VDD	Package
Fairchild	H11L1-M	H11Lx	2MBd	3.3/5	DIP6
Solidstate	SDS6011				
Broadcom	6N136	6N136	1MBd	Max 30	DIP8
Renesas (NEC)	PS8501				
Toshiba	6N136				
Vishay	6N136	6N137	10MBd	3.3/5	DIP8
Renesas (NEC)	PS9587				
Toshiba	TLP2601				
Everlight	6N137	LTV-M501	1MBd	Max 30	SO5
Broadcom	HCPL-M452				
Renesas (NEC)	PS8101				
Toshiba	TLP2309	LTV-M501-3	1MBd	Max 30	SO5
Broadcom	ACPL-M50L				
Broadcom	ACPL-M60L	LTV-M601	10MBd	3.3/5	SO5
Renesas (NEC)	PS9117				
Sharp	PC410L0NIP0F				
Toshiba	TLP113				
Toshiba	TLP2362	LTV-M61L	10MBd	3.3/5	SO5
Broadcom	ACPL-M61L				
Renesas (NEC)	PS9123				
Toshiba	TLP2361	LTV-063L	10MBd	3.3/5	SO8
Broadcom	HCPL-0631				
Renesas (NEC)	PS9817A-2				
Toshiba	TLP2116	LTV-064L	10MBd	3.3/5	SO8
Broadcom	ACPL-064L-500E				
Toshiba	TLP2110				
Broadcom	ACPL-W50L, P50L	LTV-50L	1MBd	Max 30	LSOP6
Toshiba	TLP719				
Broadcom	ACPL-P611	LTV-60L	10MBd	3.3/5	LSOP6
Renesas (NEC)	PS9317L2				
Toshiba	TLP2761	LTV-61L	10MBd	3.3/5	LSOP6

Photo relay 對比型號表

Manufacturer	Competitor P/N	LiteOn			
		Part Number	Off-state V	On-state RMS(mA)	Package
Omron	G3VM-61DR	LTV-8211	60	2000	DIP4
Panasonic	AQY212EH	LTV-8212	60	550	DIP4
TOSHIBA	TLP222A/TLP227A				
Toward	AA37				
PN Toward	AA34	LTV-8217	250	180	DIP4
EL	EL425A				
Panasonic	AQY214/AQY210				
TOSHIBA	TLP222G/TLP227G	LTV-8214	400	120	DIP4
Toward	AA31/AA30				
Panasonic	AQY216EH				
Everlight	EL460A	LTV-8216	600	50	DIP4
Cosmo	KAQY216				
Panasonic	AQW284EHAX				
Omron	G3VM-61VY3	LTV-8224	400	120	DIP8
Omron	G3VM-61VY2-TR	LTV-171G	60	1600	SOP4
Panasonic	AQY212S	LTV-172A	60	550	SOP4
TOSHIBA	TLP172AM				
Panasonic	AQY210S				
TOSHIBA	TLP172G	LTV-172G	350	110	SOP4
IXY	CPC1035NTR				
Panasonic	AQY214S				
TOSHIBA	TLP176G	LTV-176G	400	120	SOP4
Toward	AG74S				
Panasonic	AQV258				
TOSHIBA	TLX9160T	LTV-7258-A	1800	20	DIP6
		LTV-258J	1500	20	LSOP16

Isolation Amplifier 對比型號表

Manufacturer	Competitor P/N	LiteOn				
		Part Number	Type.	Gain (V/V)	Vin+-	Package
Broadcom	HCPL-7840	LTV-7840	Analog	8.03+/-5%	+/-200mV	DIP8
Broadcom	HCPL-7860	LTV-7860	Digital	+/-1%	+/-200mV	DIP8
Broadcom	ACPL-C790	LTV-C790	Analog	8.2+/-3%	+/-200mV	LSOP8
Broadcom	ACPL-C797	LTV-C797	Digital	+/-1%	+/-200mV	LSOP8
Broadcom	ACPL-C870	LTV-C870	Analog	1.0+/-3%	0-2V	LSOP8