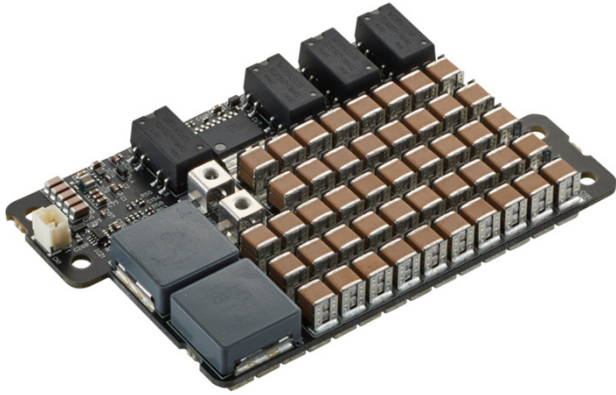
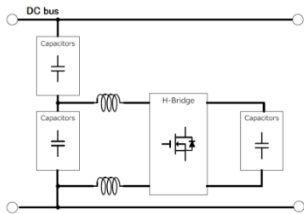


Active Power Decoupling (APD)



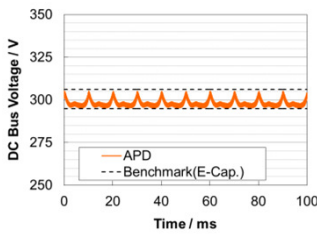
Specifications :

Dimension	W59.7 X D95.5 x H11.55 mm
Working DC Voltage	DC300 ~ 400 V
Maximum Inverter Power	1 kVA
DC Bus Ripple	15 Vpp@ 300 V, 50 uF total
Maximum Working Temperature	85°C
Cooling	Natural cooling
Withstand Voltage	1.8 kVrms at DC bus to 12V
Input	DC bus, 12 V power supply



! Removal of Electrolytic capacitor from DC bus

- APD enables the use of ceramic capacitor for handling power ripple
- By removing electrolytic capacitor, it allows -
 - to extend the life of system
 - higher system working temperature without sacrificing system lifetime
 - lower profile of the system



! Reduction of DC bus capacitor size

- APD could realize same DC bus voltage ripple with 85% of the volume of conventional e-caps. (130 uF, 450 V rated x 5)
- By applying PR control, higher harmonics at DC bus voltage could be reduced. Owing to this, bandwidth of DC bus control could be set higher.



! Easy to connect with existing system

- It works with 12V supply and CAN communication only
- Due to operation with high efficiency by the utilization of GaN HEMT, dedicated cooling system is not required

Application Example



- AC
- LED
- ESS
- Onboard Charger

