

Main Product for Automotive Application



Network in Vehicle

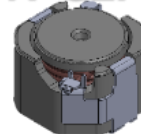
ACT45B/1210



Control System : CAN-bus, Flex-ray, etc.
Multimedia System : MOST, etc.

ECM/ECU

N-CLF



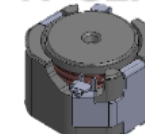
SPM



DC/DC Converter : Coil for PS
Noise Countermeasure :

Lighting

N-CLF



EHR



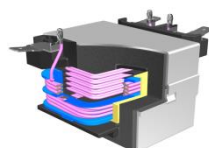
LED: Coil for Power Supplies
DC/DC Converter : Transformer

EV/HEV

Power Trans

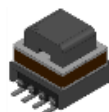


DC/DC Converter : Main TRF

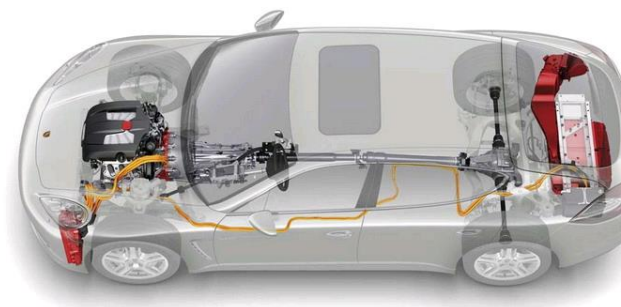


OBC : Main Transformer

IGBT TRF



IGBT Gate Drive : Drive TRF



Sensor System

TPL



3Dcoil LF Antenna



TPMS(Tire Pressure Monitoring System)/
Smart Key/Immobilizer

EP6



Parking Sensor

ADAS

TFM



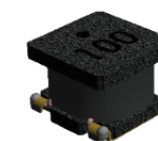
VLS-HBX



ADAS: ADAS ECU, SRR, Laser R
Image sensing camera, View camera

Car Multi-media System

VLS-EX

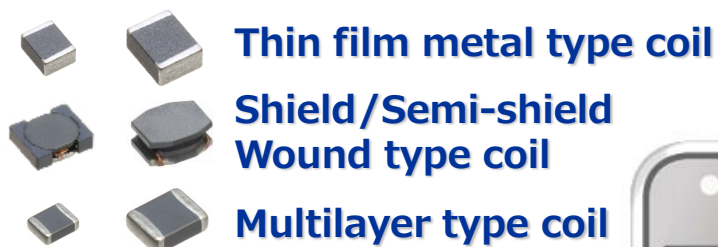


MLI



Entertainment : Car Navigation System
Car Audio System
Wireless Communication : GPS, ITS

Power circuit (PMIC)



Thin film metal type coil

**Shield/Semi-shield
Wound type coil**

Multilayer type coil

TFM, VLS, VLF, MLP series

- 0603inch(1608) -
- Low loss

RF circuit / Tuner block



Multilayer type RF coil

MLG, MLK, MHQ series

- 01005inch(0402) -
- Same Q level with wound type

Base band circuit



**Ferrite chip beads
/power beads**

MMZ, MPZ series

- 01005inch(0402) -
- Select from 8 material

Near Field Communication



Multilayer type ferrite coil

MLF1005 series

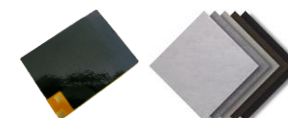
- 0402inch(1005) -
- Downsize



ESD Suppressor

TES0603 series

- 0201inch(0603) -



**Antenna module
Noise Suppression sheet**

Interface(MIPI,USB2.0/3.0,HML,HDMI,etc.)



Thin film·Multilayer type CMF

TCM, MCZ, TCE series

- 0202inch(0605) -
- include ESD function

Power management

- DC-DC converter, AC-DC converter
Transformer
Full automatic winding
- DC-DC converter, Filter, Class-D amp
Power inductor
Wire-wound/Full-Shield/Ferrite



(CLF-NIT)

Wire-wound/Full-Shield/Metal



(SPM)

Wire-wound/Semi-Shield/Ferrite



(VLS-EX)



(VLS-CX)

Wire-wound/Semi-shield/Metal



(VLS-HBX)

Thin film/Meal



(TFM)

Multilayer/Ferrite



(MLP)

RF inductor (MHQ,MLG,MLK)



Signal inductor

Multi-layer

Wire-wound

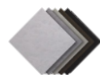


(MLF)



(NL,NLC,NLCV)

Magnetic sheet (IFL04,IBF15)



Balun (ATB)



Air
conditioner

Washing
machine

LCD-TV

Health
care

LED
lighting

Filter for wired interface

CMF

Thin-film



(TCM)

Multi-layer



(MCZ)

Wire-wound



(ACM)

Pulse transformer (ALT)

Full automatic winding



3-terminal filter (MEA)



General use

- EMC

Beads (MMZ,MPZ)



CMF (ZJYS)



Main Product for industry applications

Power management

- AC-DC converter, DC-DC converter
Reactor

Transformer

Full automatic winding

Ferrite core

- DC-DC converter

Power inductor

Wire-wound/Full-Shield/Ferrite

(CLF-NIT)

Wire-wound/Full-Shield/Metal

(SPM)

Wire-wound/Semi-Shield/Ferrite

(VLS-EX)

(VLS-CX)

Wire-wound/Semi-shield/Metal

(VLS-HBX)

Communication

- WLAN/Cellular/ISM/Zigbee

RF inductor (MHQ,MLG,MLK)

- PLC, LAN

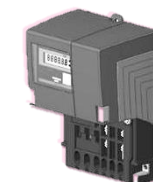
Signal inductor (NL,NLV,NLCV)

Pulse transformer (ALT)

Full automatic winding

Smart meter

Wind power generation



EMC components

Line filter



Ferrite core



CMF (ZJYS)



Beads (MMZ,MPZ)



HEMS controller



(Smart grid)

Solar photovoltaic power system

