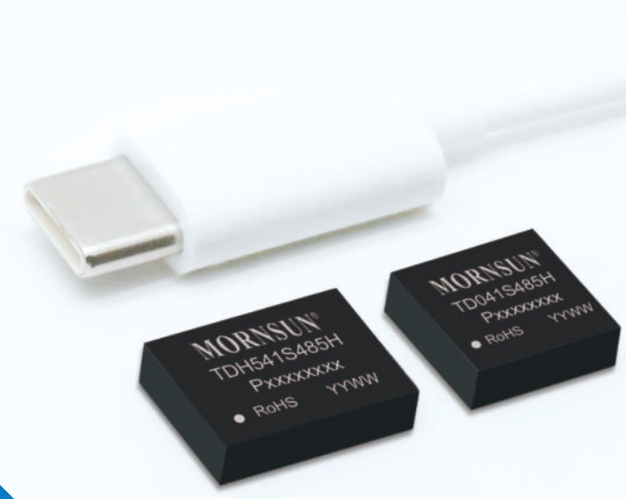
MORNSUN®



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"Chiplet SiP" R4 Series

The Integrated Isolated 485/CAN Transceiver

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Company Overview



Manufacturing Center in Huaihua



R&D Center in Guangzhou



Headquarter in Guangzhou

- Established: 1998
- Factory: 60000+ square meters
- Registered Capital: USD $30+ million
- Employees: 2600+
- Patents & IPRs: 1000+
- Business Coverage: Global
- Information Management: OA & ERP & CRM & EHR & PLM & ISP
- Certifications: ISO9001, IATF16949, ISO14001, OHSAS18001

Content

485/CAN Product Line ---------- 1

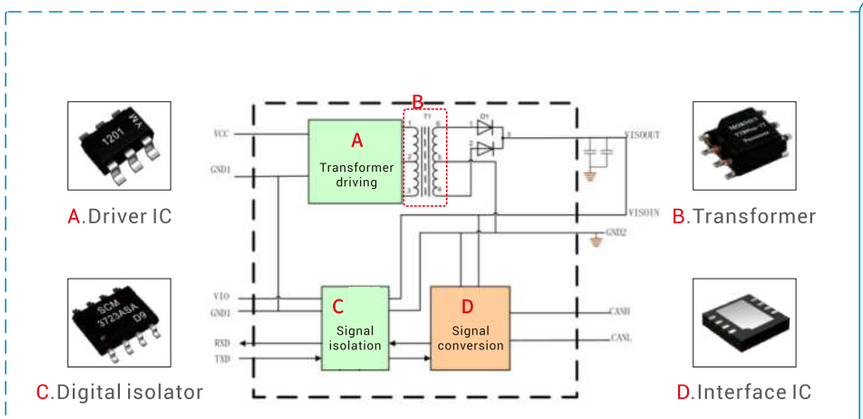
Advantages of Integrated Solution ---------- 3

Typical Application ---------- 5



485/CAN Product Line

Product type	Interface IC	Signal isolation IC	Non-integration	Integration	Protocol conversion
Low speed		SCM3721A SCM3723A		TDx31S485 TDx31SCAN	
Fast speed	SCM342xA SCM340xA	SCM3725A SCM3728A		TDx31S485H TDx31SCANH	
Ultra fast speed				TDx31SCANFD	
High-speed enhanced				TDx31S485H-E	
Automatic transceiving				TDx31S485H-A	
DFN high speed	SCM3401B		TD041S485H TD041SCANH TD041S485H-A TD041S485S TD041S485S-F	TD541S485H TD541SCANH TD541S485H-A TD541S485S TD541S485S-F	
CAN FD			TD041SCANFD	TD541SCANFD	
Automotive high speed				CTDx31SCANH	
Low consumption				TDx31S485-L	
High isolation voltage				TDHx01D485H TDH541S485H TDH541SCANH TDH541SCANFD TDH541S485H-A TDH541S485S-F	
High surge protection				TDx01D485HE	
Integrated AC/DC power				TLAxx-03K485(L) TLAxx-03KCAN	
UART/SPI to CAN					TDxUSPCAN
Dual-channel low speed				TDx22DCAN	
Dual-channel high speed				TDx22D485H-A	

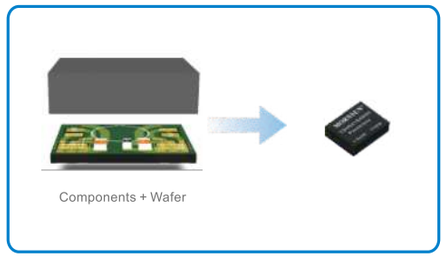


C+D
Isolated RS485/
CAN transceiver

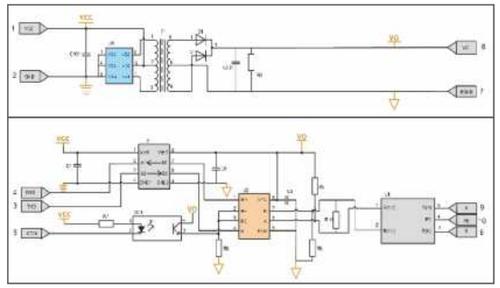
A+B+C+D
Integrated isolated
RS485/
CAN transceiver

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Advantages of Integrated Solution



VS



Integrated Solution

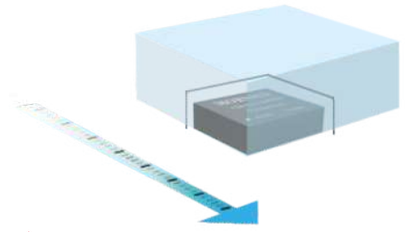
Discrete solution

(Interface IC + Isolation IC + Driver IC + Transfomer)

1 Small Size for Industry Trend

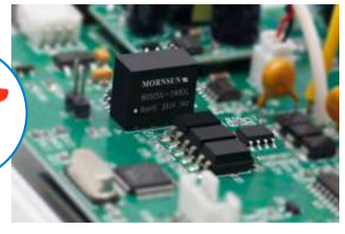
Compared with the discrete solution, the R4 series with System in Packaging (Chiplet SiP) technology reduces layout space by 77% and dimensions more than 90 %.

layout space reduction by 77%



- 5000VDC Isolation
- 13*10*3.1mm with DFN package
- –40℃ to +105℃

VS



2 High Reliability to Meet AEC-Q100

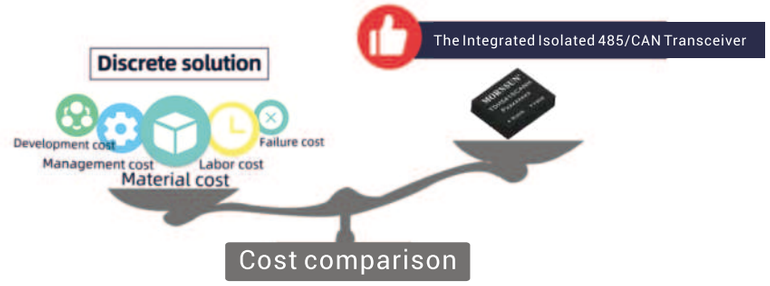
R4 series balances normalized materials, production automation, higher product consistency, reliability and easy to use.

Vibration: Acceleration 10g	Temperature Shock: –55℃ to 125℃, 1000 circulations
Mechanical Shock: Peak acceleration 1500g	High Temp. Working Test: 40+ days in 105℃
High Temp. Cooking Test: Dustproof and waterproof for 3 days	Temperature Humidity Bias(THB) Test: 40+ days in 85/85%RH (Double 85)
High Temp. Storage Test: 1000 hours on 125℃	ESD: ± 15KV



3 R4 series to save cost

The cost of any solution includes not only development cost and material cost but also manufacturing cost, management cost, maintenance cost, .etc.



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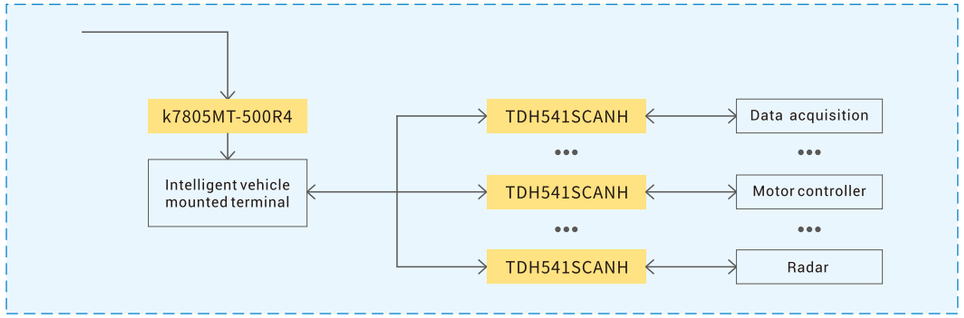
Typical Application

RS485/CAN transceiver with integrated power supply

The product integrates 5V high-efficiency isolated power supply, reduces dimensions and improves reliability.

Datasheet

Typical application: Intelligent ADAS system on board



Features



TD(H)541S485/CANH

- 3.1mm thickness with DFN package
- Isolated voltage up to 5000VDC
- Meet AEC-Q100

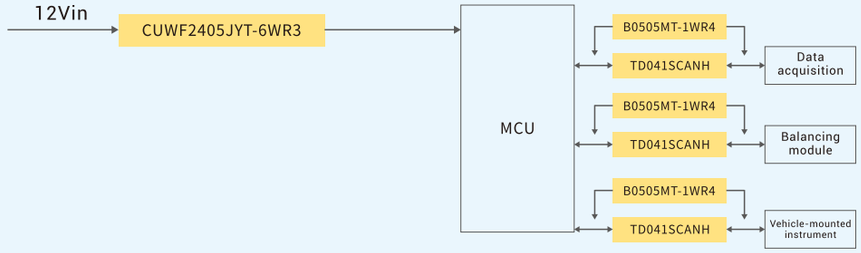
Product number	Type of bus	Baud rate (bps)	Digital I/O Voltage (VDC)	Node number	Isolated voltage (VDC)	Package
TD541S485H	RS485	1M	3.3,5	256	3000	DFN
TDH541S485H	RS485	1M	3.3,5	256	5000	DFN
TD541SCANH	CAN	1M	3.3,5	110	3000	DFN
TDH541SCANH	CAN	1M	3.3,5	110	5000	DFN
TD541SCANFD	CAN FD	5M	3.3,5	110	3000	DFN
TDH541SCANFD	CAN FD	5M	3.3,5	110	5000	DFN
TD541S485H-A	RS485	500K	3.3,5	256	3000	DFN
TDH541S485H-A	RS485	500K	3.3,5	256	5000	DFN
TD541S485S	RS485	12M	3.3,5	256	3000	DFN
TD541S485S-F	RS485	10M	3.3,5	256	3000	DFN
TDH541S485S-F	RS485	10M	3.3,5	256	5000	DFN

Isolated RS485/CAN transceiver

Datasheet

The series can be matched with power supply to improve system reliability.

Typical application: Automotive electronics- main control BCU



Features



TD041S485/CANH

- 1.6mm thickness with DFN package
- Isolated voltage up to 3750Vrms
- Meet AEC-Q100

Product number	Type of bus	Baud rate (bps)	Digital I/O Voltage (VDC)	Node number	Isolated voltage (Vrms)	Package
TD041S485H	RS485	1M	3.3,5	256	3750	DFN
TD041SCANH	CAN	1M	3.3,5	110	3750	DFN
TD041SCANFD	CAN FD	5M	3.3,5	110	3750	DFN
TD041S485H-A	RS485	500K	3.3,5	256	3750	DFN
TD041S485S	RS485	12M	3.3,5	256	3750	DFN
TD041S485S-F	RS485	10M	3.3,5	256	3750	DFN