

Features :

- Operating voltage: 3.3V
- I/O-Isolation 2500 VDC
- RSM3485CT baud rate : 9600bps(MAX)
- RSM3485CHT baud rate : 115200bps(MAX)
- Bus protection
- Quiescent Current<35mA
- No External Components Required
- ESD Protection (Contact : ±4KV ; Air : ±8KV)
- Operating temperature : -40 ~ +85



Description

RSM3485 series is the fully isolation and half duplex transceiver, which integrates with the power isolation, electrical isolation, the RS-485 interface chip and the bus protection function. It is suitable for the data transmission for bidirectional data communication or multi node bus. The maximum transmission data rate is up to 115200bps. It is built-in isolated DC/DC inverter, with the isolation voltage up to 2500VD, It is small, no need peripheral circuit, convenient to embed the user equipment. The bus is with the ESD protection function, meets the standard of IEC61000-4-2.

Model Selection Guide

Order Code	Input Voltage		Baud rate(bps)	Package
	Vin(VDC)	Range(VDC)		
RSM3485CT	3.3	3.17-3.45	9600	DIP10
RSM3485CHT			115200	DIP10

Parameter

Item	Specification	Min	Typ	Max	Units
Input Voltage		3.17	3.3	3.45	VDC
Operating Temperature		-40		+85	
Storage Temperature		-55		+125	
Isolation voltage			2500		VDC
Isolation capacitance			40		pF
Humidity		10		95	%
Quiescent Current		17		35	mA
Device Amounts		32		128	Point
Propagation delay time		50		100	μS
CON pin current				5	mA
ESD Protection	Contact			±4	KV
	Air			±8	KV

Receiver Function

Input(V _{A-B})	Control(CON)	Output(RXD)
V _{A-B} +0.2VDC	1	1
V _{A-B} -0.2VDC	1	0

Driver Function

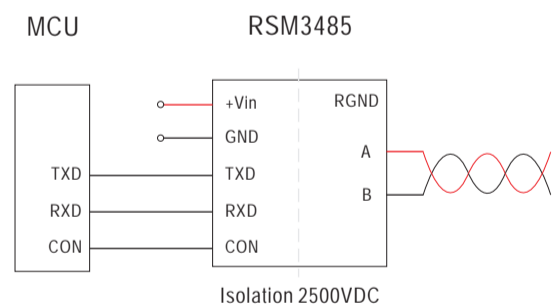
Input(TXD)	Control(CON)	Output(A)	Output(B)
1	0	1	0
0	0	0	1

Application

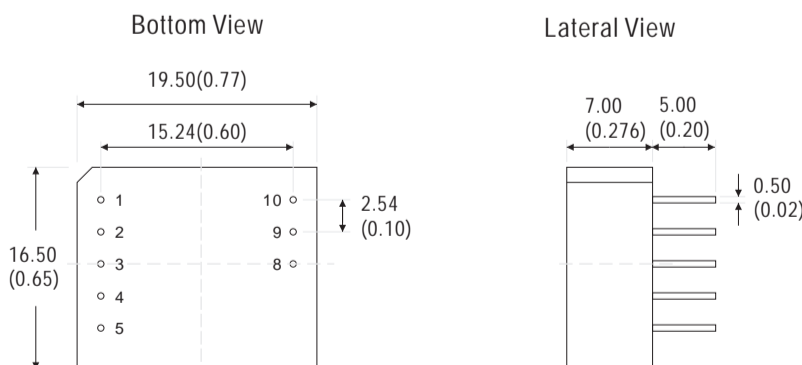
Application Area

- Industry control
- Automatic control on electrical power system
- Building Control Systems
- Communication
- Programmable Logic Controller
- Mining

Typical Circuit



Mechanical Dimension



Units : mm (inch)
Tolerances : ±0.25mm (±0.01inch)

Pin Connections

Pin	Function	Description
1	+Vin	positive pole
2	GND	negative pole
3	TXD	Driver input data
4	RXD	Receiver output data
5	CON	Driver/Receiver transform control
8	B	RS485 B pin
9	A	RS485 A pin
10	RGND	RS485 Bus Isolated Ground