

MM1192

2023/07/20

Outline

This IC is a transceiver IC incorporates some of the externally configured functions built into a basic model that can build a bus line with a pair of wires (twisted pair wire, etc.).

It has a built-in input signal synthesis circuit required for communication, an output stage that drives the bus line, and a 5V power supply circuit that can be operated with a single power supply.

The AMI signal is adopted as the waveform processed by the transmitting unit and the receiving unit.

It has strong noise immunity and enables mutual communication even when telephone equipment, security equipment, audio or video equipment, air conditioning equipment, and various other equipment are connected by a long bus line.

Built-in function

- Input signal synthesis circuit
- Output Tr for bus line drive
- 5V regulator

Specifications

| Number of data lines | Signal waveform | Data signaling rate typical [kbps] | Data signaling rate upper limit [kbps] | Transmission distance upper limit [m] | Number of nodes upper limit |
|----------------------|-----------------|------------------------------------|--|---------------------------------------|-----------------------------|
| 2 | AMI | 9.6 | 100 | 1200 | 256 |

| Product name | Operating Ambient Temperature lower limit [deg C] | Operating Ambient Temperature upper limit [deg C] | VCC operating voltage lower limit [V] | VCC operating voltage upper limit | Recommended bias voltage lower limit [V] | Recommended bias voltage upper limit [V] |
|--------------|---|---|---------------------------------------|-----------------------------------|--|--|
| | | | | | | |

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| | [deg.C] | [deg.C] | [V] | [V] | | | |
|--------------|--------------------------|---|---|--|--|---|---|
| MM1192XFBE | -20 | 75 | 4.5 | 5.5 | 8 | 40 | |
| | | | | | | | |
| Product name | Supply Current Tup. [mA] | Transmitting output voltage lower limit [Vpp] | Transmitting output voltage upper limit [Vpp] | Transmitting waveform symmetry lower limit | Transmitting waveform symmetry upper limit | Receiving sensitivity lower limit [Vpp] | Receiving sensitivity upper limit [Vpp] |
| MM1192XFBE | 8 | 3.8 | 4.6 | 0.75 | 1.25 | 0.65 | 0.85 |

| Product name | Noise resistivity lower limit [Vpp] | Input impedance [kΩ] | Boot strap output voltage [V] |
|--------------|-------------------------------------|----------------------|-------------------------------|
| MM1192XFBE | 0.55 | 36 | 8 |

Package

SOP-16B