

## INTERFACE &amp; I/O CONTROLLER ICS

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## RS-485 DRIVERS, RECEIVERS, AND TRANSCEIVERS



Authorized Distributor

RS-485, also known as TIA-485(-A), EIA-485, is a standard defining the electrical characteristics of drivers and receivers for use in serial communications systems.

RS-485 supports inexpensive local networks and multidrop communications links, using the same differential balanced line over twisted pair as RS-422. It is generally accepted that RS-485 can be used with data rates up to 10 Mbit/s and distances up to 1,200 m (4,000 ft), but not at the same time.

SN65 series - for operation at temperatures from -40°C to 85°C

SN75 series - for operation at temperatures from 0°C to 70°C

Suffix: D = SOIC; R = Reel (full reel); EP = Enhanced Product (High Reliability, Tested at -55C to +125C); T = is calling out tiny reel

Mfg. Part No.	Case Style	Supply Voltage	No. of Drivers	Stock No.	Price Each 1-9+
<b>Differential Line</b>					
● SN75174N	DIP-16	4.75Vto5.25V	4Drivers	60K6927	2.22
● SN65LBC172AN	DIP-16	4.75Vto5.25V	4Drivers	75C7769	---
● SN75172DW	SOIC-20	4.75Vto5.25V	4Drivers	08F8098	---
● SN75LBC174DW	SOIC-20	4.75Vto5.25V	4Drivers	76C5198	---
<b>Differential Line Receiver</b>					
● SN75173N	DIP-16	4.75Vto5.25V	4Drivers	63K6423	---
● SN75ALS173N	DIP-16	4.75Vto5.25V	4Drivers	67K1128	---
● SN75LBC175D	SOIC-16	4.75Vto5.25V	4Drivers	35K4893	---
● SN75175D	SOIC-16	4.75Vto5.25V	4Drivers	36K3556	1.99
● SN65LBC173D	SOIC-16	4.75Vto5.25V	4Drivers	72C4070	---
● SN75LBC173D	SOIC-16	4.75Vto5.25V	4Drivers	76C5193	---
<b>Differential Transceiver</b>					
● SN75176BP	DIP-8	4.75Vto5.25V	1Drivers	60K6929	---
● SN75176BD	SOIC-8	4.75Vto5.25V	1Drivers	08F8127	---
● SN65LBC182D	SOIC-8	4.75Vto5.25V	1Drivers	75C7809	---
<b>Line</b>					
● SN75172N	DIP-16	4.75Vto5.25V	4Drivers	60K6926	---
● SN65176BD	SOIC-8	4.75Vto5.25V	1Drivers	08F5891	---
● SN65ALS176D	SOIC-8	4.75Vto5.25V	1Drivers	35K0739	---
<b>Line Driver</b>					
● SN75ALS174AN	DIP-16	4.75Vto5.25V	4Drivers	91F3648	---
<b>Line Driver / Receiver</b>					
● SN65HVD1791D	SOIC-14	4.5Vto5.5V	1Drivers	08P3879	---
<b>RS422 / RS423 / RS485 Receiver</b>					
● SN75173D	SOIC-16	4.75Vto5.25V	4Drivers	08F8102	---
<b>RS422 / RS423 Receiver</b>					
● SN75175N	DIP-16	4.75Vto5.25V	4Drivers	60K6928	---
<b>RS422 / RS485 Transceiver</b>					
● SN75ALS180N	DIP-14	4.75Vto5.25V	1Drivers	08F8013	---
● SN75ALS181N	DIP-14	4.75Vto5.25V	1Drivers	76C5105	---
● SN65HVD33D	SOIC-8	3Vto3.6V	1Drivers	61K1684	0.80
● SN65HVD30DR	SOIC-8	3Vto3.6V	1Drivers	84K3663	---
● SN65HVD31D	SOIC-8	3Vto3.6V	1Drivers	84K3664	---
● SN65HVD32DR	SOIC-8	3Vto3.6V	1Drivers	84K3667	---
● SN65HVD379D	SOIC-8	3Vto3.6V	1Drivers	84K3668	---
● SN65HVD1794D	SOIC-8	4.5Vto5.5V	1Drivers	34P6330	---
● SN65HVD179D	SOIC-8	4.5Vto5.5V	1Drivers	84K3660	---
● SN65HVD50D	SOIC-8	4.5Vto5.5V	1Drivers	84K3670	---
● SN65HVD33DR	SOIC-14	3Vto3.6V	1Drivers	61K1685	3.26
● SN65HVD34D	SOIC-14	3Vto3.6V	1Drivers	61K1686	---
● SN65HVD34DR	SOIC-14	3Vto3.6V	1Drivers	61K1687	1.78
● SN65HVD35DR	SOIC-14	3Vto3.6V	1Drivers	61K1689	---
● SN65ALS180D	SOIC-14	4.75Vto5.25V	1Drivers	35K0740	---
● SN75ALS180D	SOIC-14	4.75Vto5.25V	1Drivers	52F2693	2.04
<b>RS485 Transceiver</b>					
● SN65HVD12P	DIP-8	3Vto3.6V	1Drivers	75C7743	---
● SN65HVD1781P	DIP-8	3.3Vto5V	1Drivers	08R2504	---
● SN65HVD21P	DIP-8	4.5Vto5.5V	1Drivers	22H0103	---
● SN65HVD3082EP	DIP-8	4.5Vto5.5V	1Drivers	61H5398	---
● SN75LBC184P	DIP-8	4.75Vto5.25V	1Drivers	36K7625	---
● SN65LBC176AP	DIP-8	4.75Vto5.25V	1Drivers	75C7789	---
● SN65LBC179P	DIP-8	4.75Vto5.25V	1Drivers	75C7801	---
● SN65LBC180N	DIP-14	4.75Vto5.25V	1Drivers	75C7808	---
● SN75LBC180AN	DIP-14	4.75Vto5.25V	1Drivers	76C5215	---
● SN75LBC180N	DIP-14	4.75Vto5.25V	1Drivers	92B8970	---
● SN75LBC179AP	DIP-50	4.75Vto5.25V	1Drivers	76C5210	---
● SN65HVD3085EDGKR	MSOP-8	4.5Vto5.5V	1Drivers	21J8893	1.22
● SN65HVD10QD	SOIC-8	3Vto3.6V	1Drivers	22H0094	---
● SN65HVD12D	SOIC-8	3Vto3.6V	1Drivers	58K2335	---
● SN65HVD10D	SOIC-8	3Vto3.6V	1Drivers	72K9420	2.54
● SN65HVD11D	SOIC-8	3Vto3.6V	1Drivers	72K9421	2.54
● SN75HVD10D	SOIC-8	3Vto3.6V	1Drivers	76C5167	---
● SN75HVD11D	SOIC-8	3Vto3.6V	1Drivers	76C5170	---

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## RS-485 DRIVERS, RECEIVERS, AND TRANSCEIVERS (CONT.)

Mfg. Part No.	Case Style	Supply Voltage	No. of Drivers	Stock No.	Price Each 1-9+
<b>RS485 Transceiver</b>					
● SN75HVD12D	SOIC-8	3Vto3.6V	1Drivers	76C5173	---
● SN75HVD12DR	SOIC-8	3Vto3.6V	1Drivers	76C5174	3.03
● SN65HVD08D	SOIC-8	3Vto5.5V	1Drivers	17M9320	4.96
● SN75HVD08D	SOIC-8	3Vto5.5V	1Drivers	32H6456	---
● SN65HVD1781D	SOIC-8	3.15Vto5.5V	1Drivers	85M0100	---
● SN65HVD22D	SOIC-8	4.5Vto5.5V	1Drivers	16M2474	---
● SN65HVD3085ED	SOIC-8	4.5Vto5.5V	1Drivers	21J8891	---
● SN65HVD3088ED	SOIC-8	4.5Vto5.5V	1Drivers	21J8895	---
● SN65HVD485ED	SOIC-8	4.5Vto5.5V	1Drivers	21J8899	---
● SN65HVD485EDR	SOIC-8	4.5Vto5.5V	1Drivers	21J8902	---
● SN65HVD3082ED	SOIC-8	4.5Vto5.5V	1Drivers	61H5396	---
● SN65HVD3082EDR	SOIC-8	4.5Vto5.5V	1Drivers	61H5397	---
● SN65HVD24D	SOIC-8	4.5Vto5.5V	1Drivers	73H4411	---
● SN65HVD1785D	SOIC-8	4.5Vto5.5V	1Drivers	94M9570	---
● SN65LBC176AD	SOIC-8	4.75Vto5.25V	1Drivers	29C2991	---
● SN65LBC184DR	SOIC-8	4.75Vto5.25V	1Drivers	75C7812	---
● SN75LBC179AD	SOIC-8	4.75Vto5.25V	1Drivers	76C5208	1.35
● SN75LBC182D	SOIC-8	4.75Vto5.25V	1Drivers	76C5217	---
● SN75LBC184DR	SOIC-8	4.75Vto5.25V	1Drivers	76C5220	---
● SN65HVD1176D	SOIC-8	4.75Vto5.25V	1Drivers	82H5435	---
● SN75HVD1176D	SOIC-8	4.75Vto5.25V	1Drivers	82H5798	---
● SN75LBC184D	SOIC-8	4.75Vto5.25V	1Drivers	83F9186	---
● SN65HVD96D	SOIC-8	4.75Vto5.5V	1Drivers	79R8400	---
● SN65LBC180AD	SOIC-14	4.75Vto5.25V	1Drivers	75C7804	---
● SN75LBC180AD	SOIC-50	4.75Vto5.25V	1Drivers	76C5213	---
<b>Transceiver</b>					
● SN75ALS1177N	DIP-16	4.75Vto5.25V	2Drivers	76C5084	---
● SN65HVD37D	SOIC-14	3Vto3.6V	1Drivers	82T4169	---
● SN65HVD1792D	SOIC-14	4.5Vto5.5V	1Drivers	34P6326	---
● SN65HVD1793D	SOIC-14	4.5Vto5.5V	1Drivers	34P6328	---
● SN75LBC172A16DW	SOIC-16	4.75Vto5.25V	4Drivers	73H4600	---
● SN75LBC174A16DW	SOIC-16	4.75Vto5.25V	4Drivers	73H4602	---
● SN65LBC172A16DW	SOIC-16	4.75Vto5.25V	4Drivers	74M8372	1.42
● SN65LBC175D	SOIC-16	4.75Vto5.25V	4Drivers	75C7784	---
● SN75LBC173AD	SOIC-16	4.75Vto5.25V	4Drivers	76C5190	---
● SN75LBC172ADW	SOIC-20	4.75Vto5.25V	4Drivers	34C4125	---

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## LVDS DRIVERS AND RECEIVERS



## Applications:

- Media Tablets
- Storage & Peripherals

- Mobile Handsets
- Wireless LAN Card & Broadband Access
- PMP/MP3 Players

**FIN1001:** 3.3V LVDS 1-Bit High Speed Differential Driver. The driver translates LVTTL signal levels to LVDS levels with a typical differential output swing of 350 mV which provides low EMI at ultra low power dissipation even at high frequencies.

**FIN1002:** 3.3V LVDS 1-Bit High Speed Differential Receiver. The receiver translates LVDS levels, with a typical differential input threshold of 100 mV, to LVTTL signal levels. LVDS provides low EMI at ultra low power dissipation even at high frequencies.

**FIN1104:** LVDS 4 Port High Speed Repeater; **FIN1108:** LVDS 8 Port High Speed Repeater. Repeaters are designed for high-speed interconnects utilizing Low Voltage Differential Signaling (LVDS) technology.

Mfg. Part No.	Case Style	Signaling Rate	Peak-to-Peak Jitter Max	Stock No.	Tape Cut 1-24+
<b>Differential Driver, 3V to 3.6V</b>					
● FIN1001M5X	SOT-23-5	600Mbps	1ns	82C2736	0.83
<b>Differential Receiver, 3V to 3.6V</b>					
● FIN1002M5X	SOT-23-5	400Mbps	1ns	82C2738	0.56
<b>LVDS Repeater, 3V to 3.6V</b>					
● FIN1104MTCX	TSSOP-24	800Mbps	135ps	82C2773	0.96
● FIN1104MTC	TSSOP-24	800Mbps	85ps	82C2772	---
● FIN1108MTD	TSSOP-48	800Mbps	135ps	28H9763	2.23

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## ANALOG INTERFACE - LVDS CIRCUITS



Authorized Distributor

## Applications:

- Multidrop / Multipoint Clock and Data Distribution
- Clock Distribution in Advanced TCA (ATCA) and MicroTCA (uTCA, uTCA) Backplanes

**Low-voltage differential signaling**, or LVDS, also known as TIA/EIA-644, is a technical standard that specifies electrical characteristics of a differential, serial communications protocol. LVDS operates at low power and can run at very high speeds using inexpensive twisted-pair copper cables.

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