ADS 1200

Audio and data transceiver

DESCRIPTION

The ADS 1200 series offers four data channels, two audio channels, and two contact closure channels over duplex multi-mode or one single mode fiber. All channels are full-duplex. A versatile fiber modem providing a solution for almost every application.

FEATURES

Audio, data and contact closures over one or two fibers

Two full-duplex broadcast-quality audio channels

Four full-duplex data channels

Two full-duplex contact closure channels

Adjustment-free installation and operation

Compact, modular design

Description

The ADS 1200 series consists of a range of fiber-optic transceivers with four data channels, two audio channels and two contact closure channels, all full-duplex, providing the right solution for almost every application.

The audio channels offer broadcast quality, while the contact closure channels have potential-free outputs. Each data channel is fully independent and enables transmission speeds from DC to 64 kb/s. Available data interfaces are RS-232, RS-422, two- or four-wire RS-485, TTY, Manchester and Bi-phase.

With its wide operating temperature range the ADS 1200 series can be used for a variety of purposes, including traffic monitoring, city surveillance and airport security.

Audio

Number of channels	2 full duplex
Bandwidth	40 Hz to 15 kHz
Sampling rate	16-bit
Input/output level	0 dBV (+6 dBV maximum)
Total harmonic distortion	62 dBA
Input impedance	>50 k or 600 balanced
Output impedance	<50 balanced
Connector type	RJ-45

Data

Number of channels	4 full duplex
Data interfaces	2x RS-232, 2x RS-422/485 (2- or 4-wire)
Interface support	Current loop, TTY, TTL, Manchester, and Bi-phase
Data format	Asynchronous, serial
Date rate per channel	DC to 64 kbit/s
Sample rate per channel	512 ksamples/s
Connector type	RJ-45

Contact Closures

Number of channels	2 full duplex
Input	5 V 10 k pull-up input
Input activation	<0.75 V (<1.5 k to ground)
Output	Fail-safe, potential-free
Switch rating	1 A at 30 Vdc
Connector type	RJ-45

LED status indicators

DC	Power-on indicator (green)
Sync	Full-duplex link (green), local (red) or remote (yellow) synchronisation error
D1, D3	RS-4xx data activity on input (red/green = 1/0)
D2, D4	RS-232 data activity on input (green/off = 1/0)

Power

Power consumption	<4 W
Rack-mount units	MC 10 and MC 11 power supply cabinets
Stand-alone units (/SA)	11 to 15 Vdc (PSA-UN12DC or PSR-12DC)

Environmental

Operating temperature	-40 °C to +74 °C (-40 °F to +165 °F)
Storage temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Relative humidity	100,000 hours
Safety and EMC	IEC/EN 60950, IEC/EN 60825, IEC/EN 61000, EN 50130-4, EN 50081-1, EN 55022, FCC part 15, UL

Mechanical

Specs

Mechanical

Dimensions (h x w x d)	128 x 35 x 190 mm (5 x 1.4 x 7.5 in)
Housing	Rack-mount or stand-alone
Weight	450 g (15.9 oz)

Optical

Device	ADS1200 TRX	ADS1250 TRA	ADS1250 TRB
Fiber type	2x MM (62.5 µm)	1x SM (9 µm)	1x SM (9 µm)
Output wavelength	850 nm	1310 nm	1550 nm
System link budget	20 dB*	25 dB	25 dB
Link length	6 km	55 km	55 km
Minimum link loss	0 dB	0 dB	0 dB
Output power	>-15 dBm*	> -7 dBm	> -7 dBm
Input sensitivity	-35 dBm	-32 dBm	-32 dBm
Connector type	ST	FC	FC
	*For 50/125 m fiber, subtract 4 dB		

Ordering Information

ADS 1200 TRX	Dual fiber audio/data multiplexer 2x MM
ADS 1250 TRA	Single fiber audio/data multiplexer 1x SM /A
ADS 1250 TRB	Single fiber audio/data multiplexer 1x SM /B