Adam module Industrial rail 1-4 channel 4-20mA analog optical transceiver Specification

Overview

This series of devices adopt large-scale FPGA design and original technology, and can support 1-4 channel analog signal (current/voltage) to optical fiber relay at the same time. The device is powered by 12-55V AC or DC power supply, high performance FPGA programmable devices, no MCU processing, high-speed conversion, sampling frequency can reach 20KHZ, 12-bit AD conversion chip, which solves the problems of electromagnetic interference, ground loop interference and lightning damage, greatly improving the problem. Control signal reliability, security and confidentiality, and also solve the problem of limited cable transmission distance.

Photo

Features

- The device is paired, the local signal input, and the opposite signal output;

- Support 4~20mA, 1-4 way current; or support 0~10V/0~5V, 1-4 way voltage; 4 channels of analog input and output can be combined arbitrarily;

- 4-channel analog AD/DA channel uses FPGA parallel read and write, non-MCU sequential read and write mode, each channel analog delay <0.1ms;

- Each analog quantity reads high-speed sampling data through FPGA, and the sampling rate is 20K times/second, which is much higher than similar products in the market;

- Multimode fiber/single mode fiber is optional, multimode can transmit 2KM, single mode can transmit 20KM, ST/SC/FC interface is optional;

- Signal failure protection function; display of electrical interface and fiber running status in all directions

  4-20ma interface anti-radar to IEC61000-4-5 (8/20µS) differential mode: 6KV, impedance (2Ω); common mode: 6KV, impedance (2Ω) standard

- Support wide range of AC and DC input, support internal isolation, redundant dual power input, power supply overload protection, anti-reverse protection

- Super lightning protection function: lightning protection, anti-induction high voltage, anti-surge, etc.;

- No fan to efficiently dissipate heat and reduce repair time;

- Provide DIN 35mm rail mounting or wall mounting mounting.
- Wide temperature type: working temperature -40 ° C ~ +85 ° C;
- All models are tested by 100% baking machine;

Parameters

◆ Fiber

Optical port: 1
Optical fiber: single fiber and double fiber
Fiber Interface: FC/SC/ST/LC (SFP)
Wavelength: 850nm/1310nm multimode;
1310nm/1550nm single mode
No relay transmission distance: 20~120Km
Typical transmit power:

Single mode 1310/1550nm: ≥-9dBm

Multimode 850nm: -18dBm
Multimode 1310nm: -25dBm
Acceptable sensitivity range: -28dBm~- 40dBm

◆ Current analog

Input and output range: 0~20mA (including 4~20mA)
Resolution: 12 digits
Sampling rate: 20K times / sec
Time delay: <0.1ms
Maximum load capacity: 600Ω
Input resistance: 125Ω

Accuracy: 0.4% (normal temperature)

◆ Voltage analog

Input and output range: 0~10V (including 0~5V)

Resolution: 12 digits

Sampling rate: 20K times / sec

Time delay: <1ms

Maximum load capacity: 600Ω

Input resistance: 100KΩ

Accuracy: 0.4% (normal temperature)

◆ Working environment

Working temperature: -40 ° C - +85 ° C
Storage temperature: -40 ° C - +85 ° C
Working humidity: 0% - 95% (no condensation)
MTBF: >100,000 hours

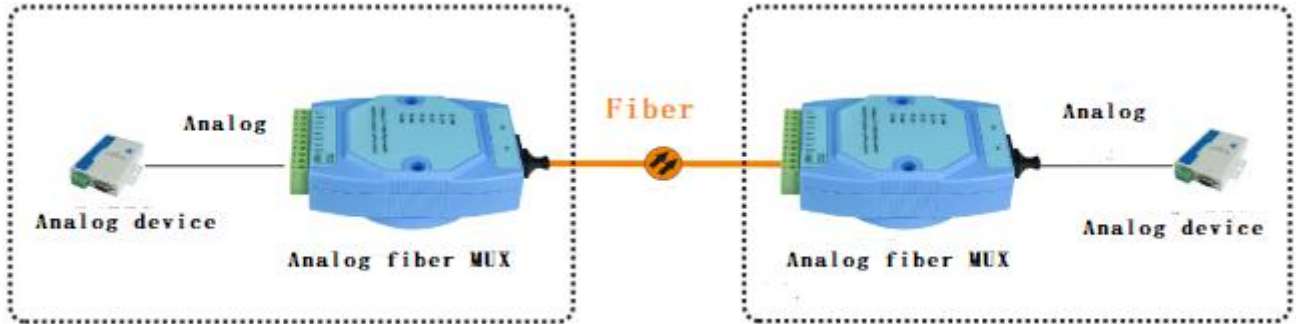| Product number	FCP-A4G
Product function description	Simultaneous transmission of 4 analog interfaces on the fiber
Service port description	1 fiber interface; 16 analog interfaces
Power supply	power input: AC&DC12-55V power consumption <5W overload protection: support; reverse connection protection: support; redundancy protection: support Shell: Adam moudle shell Installation method: rail mounting, wall mounting

Product Size	Dimensions: 72mm (length) x 125mm (width) x 26.0mm (height)
weight	0.35kg/set

Application

Point to Point application：