OPF232	OPF485

RS-232 to Plastic Fiber
RS-485/422/232 to Plastic Fiber

1 Usage

OPF232 port powered RS - 232 to plastic fiber optical converter is used to implement the RS-232 via plastic optical fiber transmission. BOSHIKA electronic invented   port powered RS-232 to plastic fiber optic converter without external power supply, and it is the world's smallest fiber optic converter.

OPF485   RS - 232/485/422 to plastic fiber optical converter is used to implement the RS - 485, RS - 422 or RS - 232 transmission   via plastic optical fiber. It is   world's smallest RS-485/422/232 to plastic fiber optical converter.

OPF232, OPF485 is mainly used for short distance serial port signals (50 meters) of plastic optical fiber communication.They have advantage of resistance to break, easy connection, high isolation voltage, anti electromagnetic interference, resistance to lightning strike, etc.

2 Hardware Installation

OPF232 type RS - 232 to fiber optical converter shape for db-9 / db-9 dongle size, including female DB-9 RS-232,no external power supply, using a pair of plastic optical fiber connectors.

OPF485 type RS - 232/485/422 to fiber optical converter shape for db-9/db-9 dongle size, including female DB-9 RS-232, product profile has   terminals connect the RS - 485, RS - 422 and 5 v power supply, using a pair of plastic optical fiber connectors.

Connect transmitter socket (TX, light grey) through the plastic optical fiber to   the other product's receiver socket(RX, blue). Keep the fiber optical converters, fiber optic socket clean.

3、Performance Characteristics

OPF232 and OPF485 plastic fiber optic converters have the highest baudrate of 115.2 Kbps. No any initialization Setting! Unique zero delay automatic TXD-RXD exchange technology ensures that suitable for all software! OPF232 needs no power supply! OPF485 has a 5V($\pm$0.5V) power supply。

socket	Hp、Avago、Agilent standard		Electronic	Female DB-9 RS-232
media	Optical Plastic Fiber,such as PMMA			Terminals RS-485/422/232
Serial port	RS-232（RXD、TXD、GND）		Size weight	DB-9/DB-9、70 gram
	RS-485（A、B、GND）、RS-422		distance	50 meter
Wave length	650nm		fiber	In diameter1mm;out dia 2.2mm

4、Figure
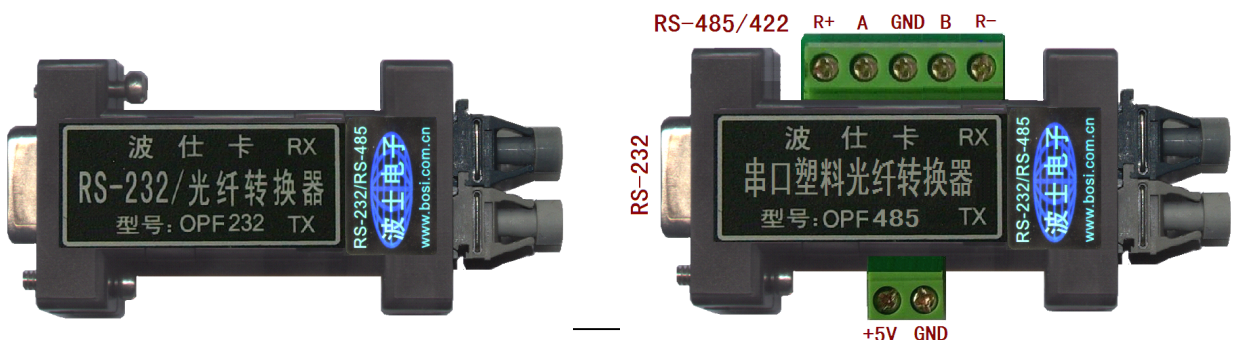
Appendix : plastic optical fiber communication and the connection profile

Optical Plastic Fiber is mainly used in low speed and short distance transmission, in the field of industrial control bus system and Internet development prospect, with high transmission bandwidth, anti-interference performance, stable signal, etc. Due to its excellent electrical "noise" immunity, Plastic Optical Fiber has become the industrial and automotive automation application instead of copper in the field of competitive products. Plastic optical fiber communication is suitable for: factory automation and control of industrial equipment, system interconnection data link, circuit board to the circuit board and frame to frame, telecommunications switching systems, computer peripherals and data link, extend bus RS - 232/485, local area network (LAN), digital video, medical instruments.
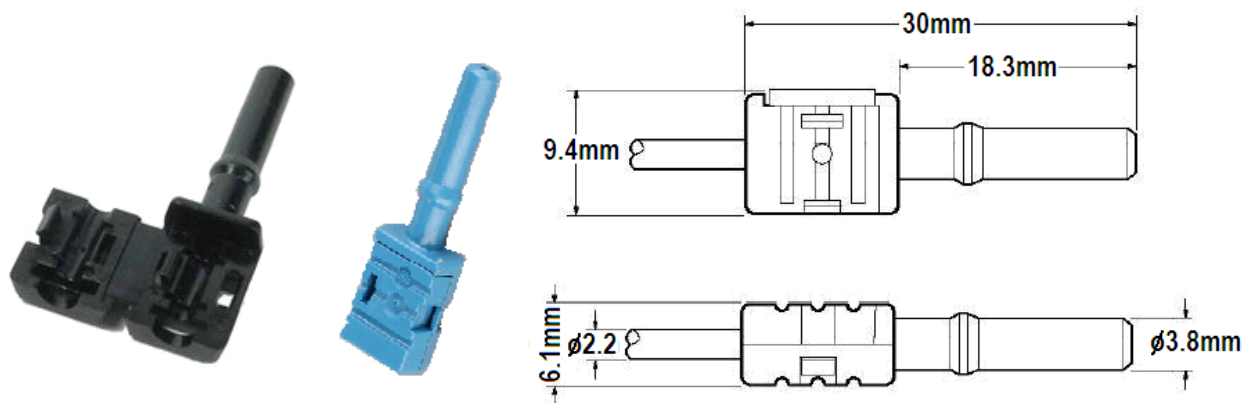
Communication plastic optical fiber connector can be used for Φ 1/2.2 mm plastic optical fiber communication. Connectors for single wire lock type. All connecting parts can be used to achieve rapid plugging effect. Single wire connector marked different colors are available, and to identify the sender and receiver of the connection. Double head connecting the card slot position, guarantee the accuracy of the insert time orientation. Joint material for flame retardant material.

Plastic optical fiber has relatively advantage to glass fiber: should not be broken, easy connection. Plastic optical fiber inside diameter is 1 mm, greater than 0.1 mm of glass fiber, and plastic is soft material, so should not be broken. Plastic optical fiber connectors do not need "high temperature welding" of glass fiber, so it can directly use the blade to cut off the plastic optical fiber and insert into the connector. Plastic optical fiber's weakness is short distance,always 50 merers,not more than 100meters.