

SFP/XFP/QSFP Programmer

Features

- ◆ SFP/SFP+/SFP28/XFP/QSFP+/QSFP28 code programming
- ◆ Friendly graphic user interface (GUI)
- ◆ 5V DC power supply
- ◆ Small form & full metal case
- ◆ Mini-USB connection
- ◆ Free driver
- ◆ GUI Operating environment:
 - Win XP 32bit
 - Win 7 32bit
 - Win8 64bit
 - Win10 64bit



Applications

- ◆ Reading and Writing the EEPROM of SFP/SFP+/SFP28/XFP/QSFP+/QSFP28 module

Description

The “SFP & XFP&QSFP Programmer” can read or write the internal memory EEPROM of the module and display details of the EEPROM (such as the Part Number, Vendor Name, description and range), change the EEPROM if you know the Write protect password.

Programmer GUI

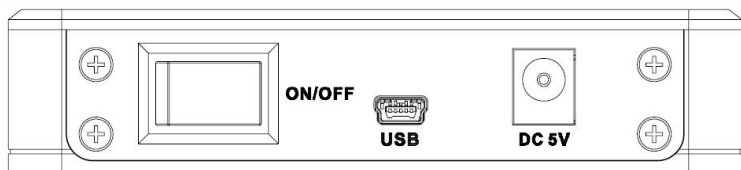
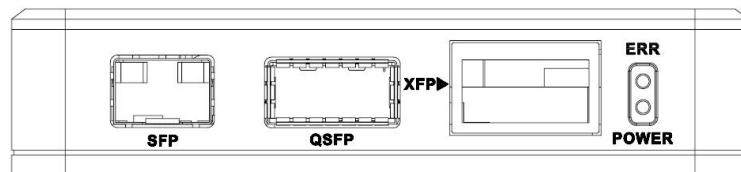
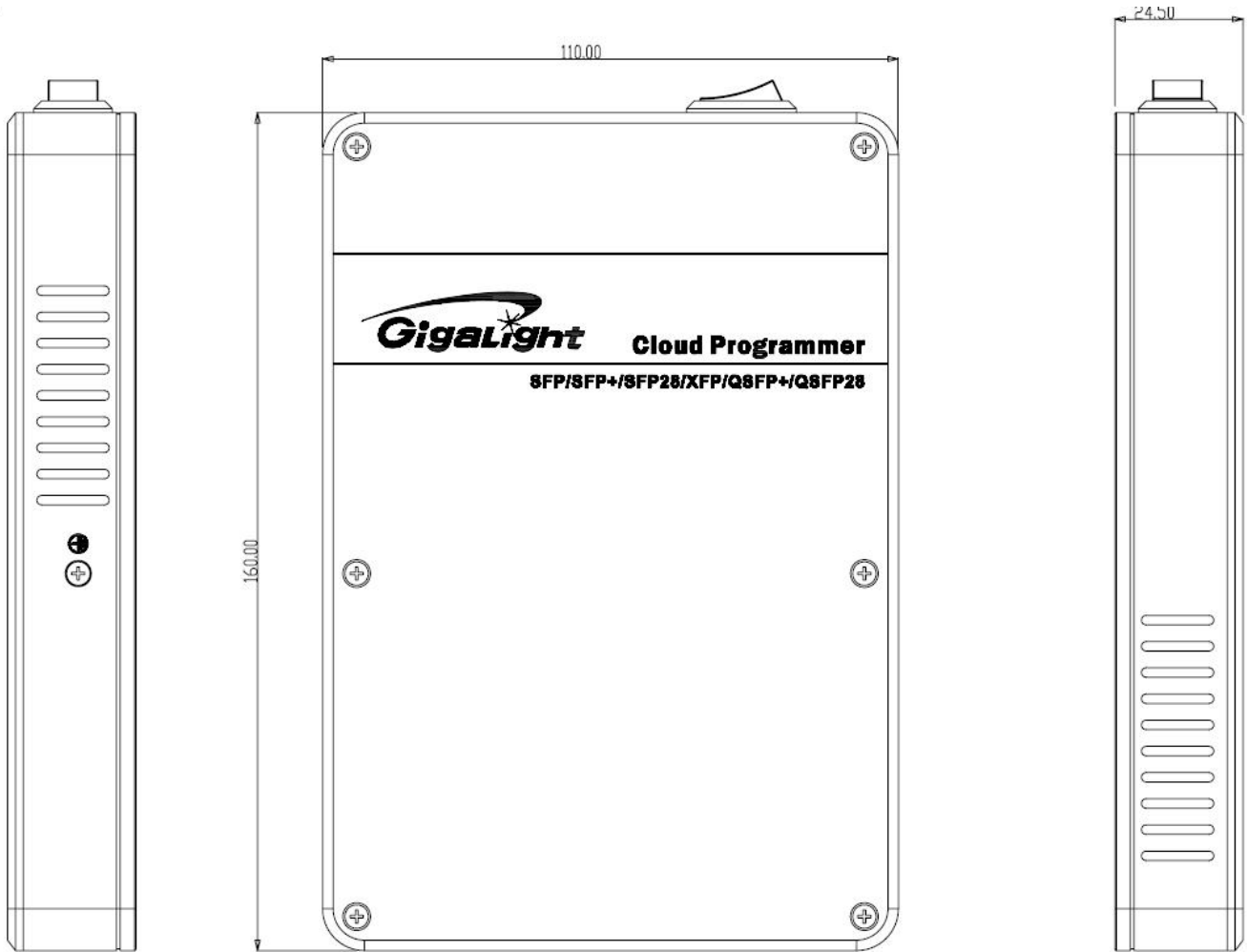
The screenshot shows the Gigalight software interface for SFP configuration. At the top, there are tabs for SFP, XFP, and QSFP. The SFP tab is active. The interface is divided into several sections:

- Option:** A dropdown menu for 'Module' is set to 'Gigalight'. Below it are input fields for 'PW Addr(0x)' and 'PW(0x)', and a 'Write' button.
- Information:** A table of SFP parameters:

Vendor Name	Gigalight	Length(SMF.km)	0
Part Number	GPP-85192-SRC	Length(SMF 100m)	0
Serial Number	S20170422	Length(50um OM2 10m)	0
Vender Revision	A	Length(62.5um OM1 10m)	0
Date Code	150806	Length(50um OM4 10m/copper m)	400
Wavelength(nm)	850	Length(50um OM3 10m)	300
- Local:** Radio buttons for 'A0' (selected) and 'A2_0'. Below are 'Import', 'Export', and 'Clear' buttons.
- Module:** Checkboxes for 'A0' (checked) and 'A2_0'. Below are 'Read' and 'Write' buttons, and a 'Type' dropdown menu set to 'F330'.

At the bottom of the interface, a large black banner displays the text: **Succeed to read SFP code**

Hardware Configuration



Unit:mm



USB: Mini USB, connected to PC

DC5V: DC Power

SFP: SFP Port, inserted SFP or SFP+ or SFP28 module

XFP: XFP Port, inserted XFP module

QSFP: QSFP Port, inserted QSFP+ or QSFP28 module

LED: ERR: reserved, no function

Power: power indicator,
Green: power OK
Off: NO power

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	-0.5	6	V
Storage Temperature	Ts	-10	+70	°C

Technical Specifications

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Tc	0		+50	°C
Operating Humidity	-	5		75 non-condensing	%
Power Supply Voltage	Vcc	4.5	5	5.5	V
Physical Dimensions		160(W)x110(D) x24.5(H)			mm
Net weight		377			g

Appendix



ONE USB cable
ONE Power Adapter

Operation procedure

1. Connected the power
2. Connected the USB to PC
3. Launch the GUI

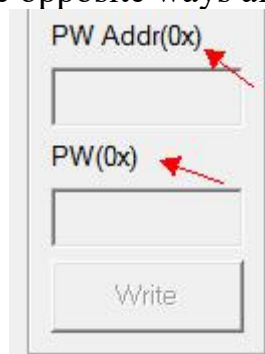
Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be Specifically confirmed in writing by GIGALIGHT before they become applicable to any particular order or contract. In accordance with the GIGALIGHT policy of continuous improvement specifications may change without notice. The publication of information in this data sheet does not imply freedom from patent or other protective rights of GIGALIGHT or others. Further details are available from any GIGALIGHT sales representative.

E-mail: sales@gigalight.com
Web: <http://www.gigalight.com>

User Guide

When the software has the suffix "(0x)" in the tags of data, it means indicates that they belong to Hexadecimal number format, and then do not need to add prefix "0x" in the process of inputting the data. For example, the data which is tagged "PW (0x)", belongs to Hexadecimal number. Moreover, the data belongs to Decimal number when the data is tagged "10", like 16. The opposite ways also have same regulations. Such as:



Decimal number

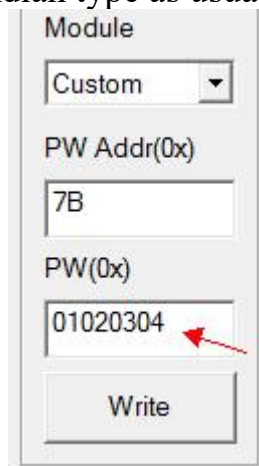
When the software do not has the suffix "(0 x)" in the tags of data, it means indicates that they belong to Decimal number format. For example, the data are Decimal number with the tags which show "Wavelength (nm)". Moreover, the data are Decimal number when the data show "10", like 10. Such as:

Information	
Vendor Name	Gigalight
Part Number	GP-3124-L2CD
Serial Number	GE1506100004
Vendor Revision	11.0
Date Code	150610
Wavelength(nm)	1310
Length(SMF.km)	20
Length(SMF 100m)	200
Length(50um OM2 10m)	0
Length(62.5um OM1 10m)	0
Length(50um OM4 10m/copper m)	0
Length(50um OM3 10m)	0

Big-endian and Little-endian

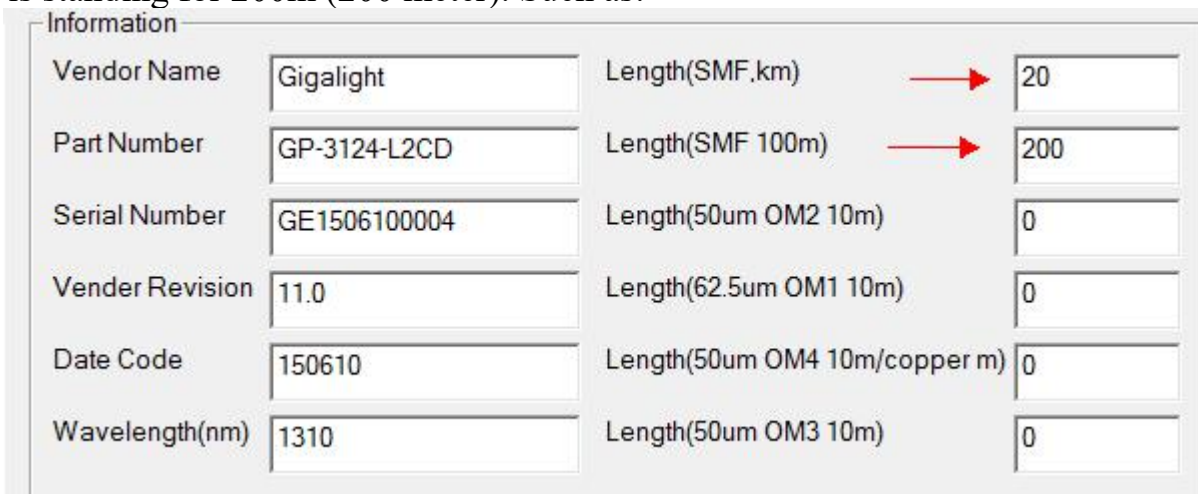
Unless there are some special explanations in the handbook, otherwise all of the data are

dividing into Little-endian type as usual. Such as:



Unit

When the software has the suffix of unit in the tags of data, it means indicates that the data owns this unit as well as without this unit in these data. For example, some data were tagged “Wavelength (nm)”, it means indicates that the unit of these data have nm (nanometer) as their unit. Thus, when the data shows “850”, it means indicates that the data stands for 850nm (850nanometer). In additional, “Length (SMF, 100m)” means indicates that the unit of data is 100m (100 meter), and then when the data shows “2” is standing for 200m (200 meter). Such as:



Information	
Vendor Name	Gigalight
Part Number	GP-3124-L2CD
Serial Number	GE1506100004
Vender Revision	11.0
Date Code	150610
Wavelength(nm)	1310
Length(SMF,km)	20
Length(SMF 100m)	200
Length(50um OM2 10m)	0
Length(62.5um OM1 10m)	0
Length(50um OM4 10m/copper m)	0
Length(50um OM3 10m)	0

Illegal operation

Any illegal operation is able to bringing an unstable result. Such as:

Information		Information	
Vendor Name	Gigalight	Vendor Name	Gigalight
Part Number	GP-3124-L2CD	Part Number	GP-3124-L2CD
Serial Number	GE1506100004	Serial Number	GE1506100004
Vender Revision	11.0	Vender Revision	11.0
Date Code	150610	Date Code	AAAA
Wavelength(nm)	1310	Wavelength(nm)	1310
Right		Wrong	

The Introduction of use

The screenshot shows the Gigalight software interface with the following elements:

- 1**: A red box highlights the top navigation tabs: SFP, XFP, and QSFP.
- 2**: A red box highlights the 'Information' section, which includes fields for Vendor Name, Part Number, Serial Number, Vender Revision, Date Code, and Wavelength(nm). The 'Date Code' field is circled in red.
- 3**: A red box highlights the bottom status bar, which displays the message "There is no device".

Tab Control

As shown in the above picture, ① area is used to select the module type of the operation.

Working AREA

As shown in the above picture, ② area is used to the operations of reading and writing code.

- Option Group

Module: Module manufacturers

The default reading and writing code pattern is supporting the module of Gigalight Company. The Custom option is a user-defined option for customer and provides opportunities for customers to set their own passwords in the given passwords address.

PW Address (0x): The starting address password

Format: DDPPRR, DD stands for IIC device address; PP stands for the page number, if the password in the lower address page, and then this data could stand for any value; RR stands for register address. Such as:

(1) When a module code is 0xA0 in the IIC address, register address is 0x7B, because its register address is located in low the page address (not paging), the page number can be any value (such as 0 x00),and then you should enter "A0007B";

(2) When a module code is 0xA2 in the IIC address, page number is 0x10, register address is 0XxFC, and you should enter "A210FC". If certain elements less than 1 byte in the input data, it has to add 0 in the highest order. Such as, PP (page number) is 0x01, and then you have to enter "01", it will appear mistake when you only input "1".

PW(0x): PW(0x): Password.

The range of password are 0-0xFFFFFFFF.

If the inputting data less than 4 bytes, there is no need to add 0 in the highest order, such as the password is 0x8436, can be directly input "8436" as well as input "00008436".

Write: The button of writing the password

- Information group

Please refer to the corresponding MSA document of optical module.

- Local Group

Data Imports and Exported.

Note:

the radio button labels like "A0" indicates that the objective data for the operation are that IIC address is 0xA0 among the whole block data; Like "A2_0" indicates that the objective data for the operation are that IIC address is 0xA2 high address, 0 pages data block. Please refer to the corresponding MSA agreement for the memory map.

A0 : The select objective data are the operation of MSA normative Standard ID (code file) page. For more details, please refer to the MSA documentation.

A2_0: The select objective data are the operation of MSA normative Standard user optional page. For more details, please refer to the MSA documentation.

Import: The button of Data import. The import content are related with the path of the select objective data. If the select objective data are the content of A0, and then the data import will deposit in A0 buffer zone.



Succeed to open code file

Export : The button of Data export. The export contents are related to the select objective data. For instance, if A0 was selected as objective data, in a result, A0 will be exported.

The screenshot shows the SFP configuration window. The 'Information' section is highlighted with a red box, containing the following fields:

Vendor Name	Gigalight	Length(SMF.km)	0
Part Number	GP-8503-02xD	Length(SMF 100m)	0
Serial Number	M122222	Length(50um OM2 10m)	200
Vender Revision	1.0	Length(62.5um OM1 10m)	200
Date Code	121120	Length(50um OM4 10m/copper m)	0
Wavelength(nm)	850	Length(50um OM3 10m)	0

Below the information section, there are 'Local' and 'Module' sections. The 'Local' section has radio buttons for 'A0' (selected) and 'A2_0'. The 'Module' section has checkboxes for 'A0' (checked) and 'A2_0'. There are 'Import', 'Export', 'Clear', 'Read', and 'Write' buttons. A red arrow points to the 'Export' button. At the bottom, a status bar displays the message: **Succeed to save code file** with a red arrow pointing to it.

- Display Group

Clear: delete all the data, and input 0 in any data buffer zone.

- Module Group

The operation of Module

A2: When select A2 data for operation, it means indicates that the data block was operated by reading and writing.

A0_2: When select A0_2 data for operation, it means indicates that the data block was operated by reading and writing.

Read: Read data. The data what has read will deposit in relevant buffer zone.

Write: Write data. The operation of writing is input the data from buffer zone to relevant address.

Status Bars

As shown in the picture, (3) area is used to display operation status.

Module

A0 A2_0 Type:

A new device is opened ←