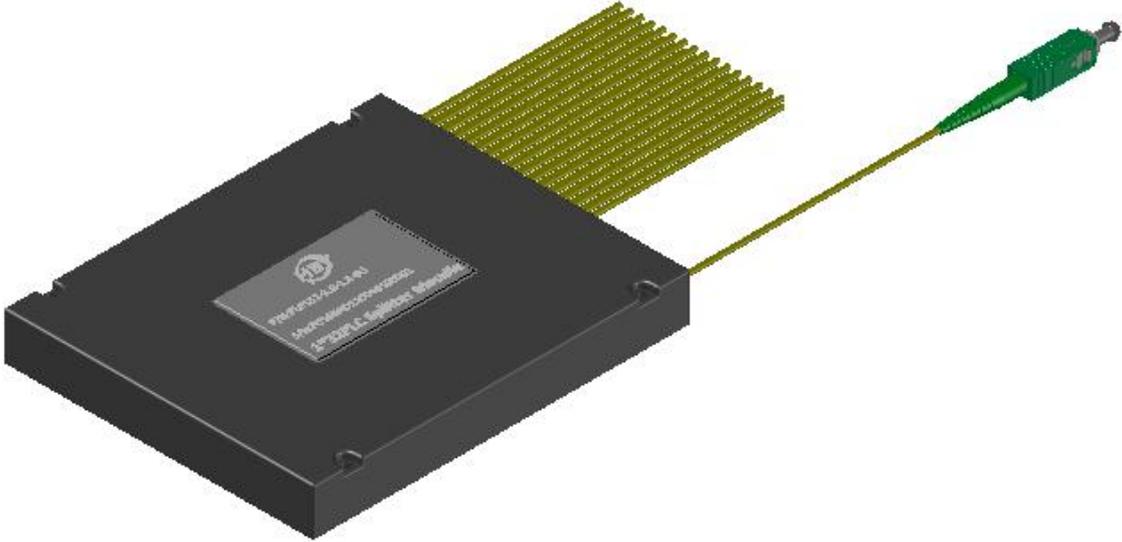




规格书

specification

产品名称 Product Name	PLC 光分路器 PLC SPLITTER	产品型号/规格 Product Modle	1X64/Cassette Type
文件编号 File Numbers	PH-164SA-03	版本 Version	2015-0A
生产料号 Production part no		订单号 PO Numbers	
			
	制作 ESCRIBED	审核 CHECKED	批准 APPROVED
姓名 NAME			
日期 DATE			

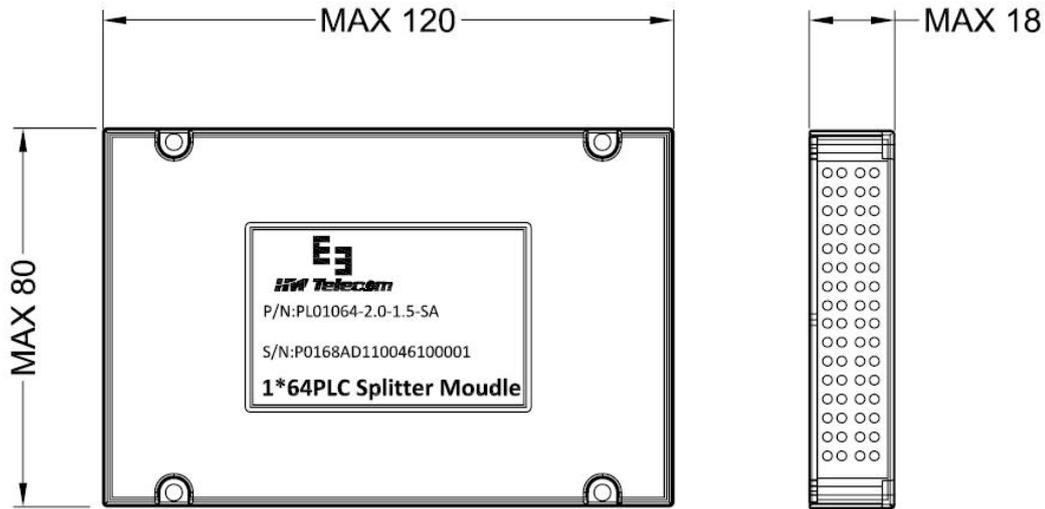
	产品规格书 Product Specification	Edition: OB	Page: 1 / 9
	产品名称 Product Name	HBY 1X64 ABS BOX type plc splitter	

目录

1 Product Structure (Unit: MM)	2
2 Specification	2
3 Insertion Loss	3
4 Return Loss	3
5 Directivity	3
6 Polarization Dependent Loss-PDL	4
7 Endface Test	4
8 Insert/Pull Test	5
9 Tensile Test	5
10 Torsion Test	6
11 High and Low Temperature Cycling Test	6
12 Low Temperature Test	6
13 Dry Heat Test	7
14 Salt Spray Test	7
15 Vibration Test:	7
16 Humidity test	8
17 Water Immersion Test	8
18 Flame Retardant Requirements	9
19 Product Packaging Information	9

	产品规格书 Product Specification	Edition: OB	Page: 2 / 9
	产品名称 Product Name	HBY 1X64 ABS BOX type plc splitter	

1 Product Structure (Unit: MM)



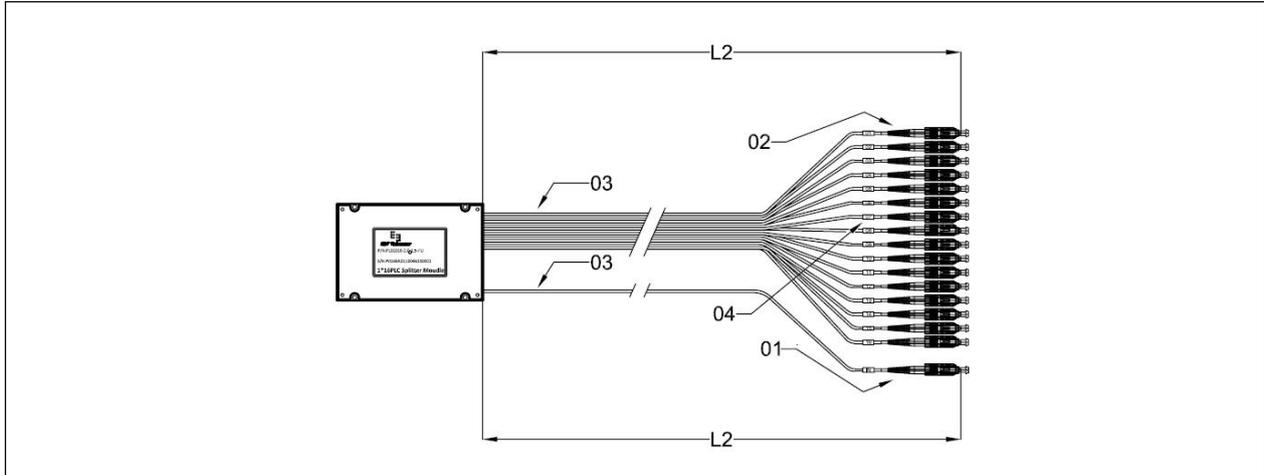
2 Specification

2.1 Optical Characteristics (exclude connector loss)

Category	Specification					Remarks
	nm		1310	1490	1550	
Test Wavelength	nm		1310	1490	1550	
Insertion Loss	MAX	dB	20.5	20.5	20.5	
Channel Uniformity	MAX	dB	1.7	1.7	1.7	
Polarization Dependent Loss -PDL	MAX	dB	0.5	0.5	0.5	
Directivity	MIN	dB	55			
Return Loss	MIN	dB	55			
Connector Insertion Loss	MAX	dB	0.1 each			
Adapter Insertion Loss	MAX	dB	N/A			
Working Wavelength	nm		1260.....1650			
Storage Temperature	°C		-40.....+85			
Operating Temperature	°C		-40.....+85			

	产品规格书 Product Specification	Edition: OB	Page: 3 / 9
	产品名称 Product Name	HBY 1X64 ABS BOX type plc splitter	

2.2 Optical cable and other requirements



Category		Specification	Remarks
Fiber Cable	Type NO:3	G657A1	
	Outer diameter /MaterialNO:3	Ø2.0/PVC	
	Input endface Length:L1	1.5±0.3m	aqua color
	Output endface Length:L2	1.5±0.3m	
Connector type	Input endface NO:1	SC/APC Green	
	Output endface NO:2	SC/APC Green	
Number tube NO:04		IN/Input No./Output	

3 Insertion Loss

- ◆ Test Wavelength:1310-1550 nm
- ◆ Required Value: <20.5dB
- ◆ Test can be performed on any channel

4 Return Loss

- ◆ Test Wavelength: 1310-1550 nm
- ◆ Required Value: >55 dB
- ◆ Test can be performed on any channel

5 Directivity

- ◆ Test wavelength: 1310-1550 nm
- ◆ Required Value: >55 dB
- ◆ Required testing interface QTY=log22(Output interface):log2(64)=6

	产品规格书 Product Specification		Edition: OB	Page: 4 / 9
	产品名称 Product Name		HBY 1X64 ABS BOX type plc splitter	

6 Polarization Dependent Loss-PDL

- ◆ Test Wavelength: 1310-1550 nm
- ◆ Required Value: < 0.5dB
- ◆ Required testing interface QTY=log22(Output interface):log2(64)=6

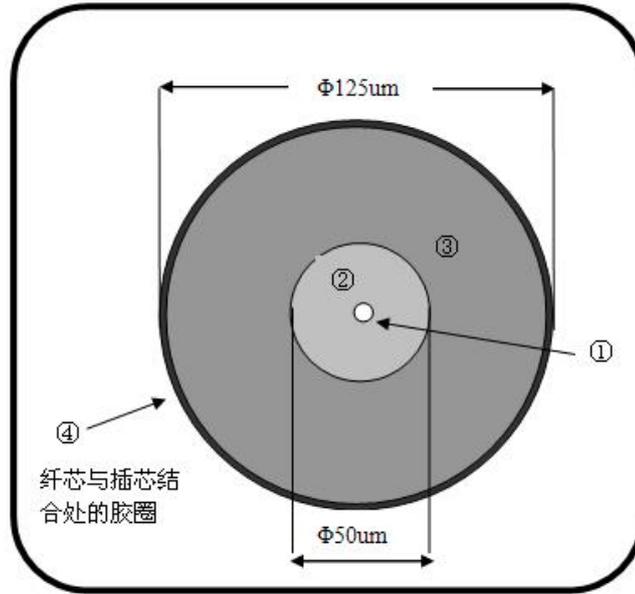
7 Endface Test

- ◆ Inspection method: wear finger cots according to dust-proof requirements
- ◆ Place the connector in the front jack the detector, rotate adjustment ring until the image in the monitor is clearest.
- ◆ Then, observe in accordance with the criteria (see table below):

Area	Class A standard (excellent)			Class b standard (Good)			Class C standard(Qualified)		
	Scratches	Dirty spots	Crack	Scratches	Dirty spots	Crack	Scratches	Dirty spots	Crack
①Area: Mode field of light parts	No	No	No	No	No	No	No	No	No
②Area: within $\Phi 50\mu\text{m}$	No	No	No	No	No	No	No	No	No
③Area: between $\Phi 50\mu\text{m} \sim \Phi 125\mu\text{m}$	No	No	No	Allow 1pc/ 1um	Allow 1pc/ 1um	Allow 1pc/ 1um	Allow 1pc/ 1um	Allow 2pc/ 2um	Allow 2pc/ 2um
④Area: rubber gasket	No	No	No	Allow 1pc/ 1um	Allow 1pc/ 1um	Allow 1pc/ 1um	Allow 1pc/ 1um	Allow 2pc/ 2um	Allow 2pc/ 2um

- ◆ If quarantine is stained and the gun with nitrogen purge, then observed, repeat 1~2 times, qualifying into circulation box
- ◆ Not meeting the standard, put the insertion core in the clean paper to wipe in one direction 3~5 times, then observe and put the passed items into circulation box
- ◆ if scratches and dirt do not meet the requirements and cannot be erased, the device is identified into circulation box in the nonconforming areas and corresponding records are made in the record. (In accordance with the "test-clean-check" steps)
- ◆ All the endface are required to meet class a standard
- ◆ Endface sketch

	产品规格书 Product Specification	Edition: OB	Page: 5 / 9
	产品名称 Product Name	HYB 1X64 ABS BOX type plc splitter	



8 Insert/Pull Test

Loss should be within the following limits in reference to the initial value

- ◆ Variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 55 dB in process of Testing

The test shall be conducted under the following conditions::

- ◆ Pull/Insert: 500 times
- ◆ Record a data every 10 times
- ◆ Data is recorded 50 times in total
- ◆ Clean pins and adapter's elastic sleeve before recording very time
- ◆ Not mechanical damage, such as deformation, loss, corrosion, relaxation and other phenomena
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY= $\log_2 22(\text{Output interface}) : \log_2(64) = 6$

9 Tensile Test

Loss should be within the following limits in reference to the initial value

- ◆ variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 55 dB in process of Testing

The test shall be conducted under the following conditions::

- ◆ Load: 5 N
- ◆ Tensile variation in process of testing: 0.5N/s
- ◆ Duration: 60s
- ◆ Tensile Point: 0.3m distance from fiber cable ends
- ◆ Test Wavelength 1310-1550nm

	产品规格书 Product Specification	Edition: OB	Page: 6 / 9
	产品名称 Product Name	HBY 1X64 ABS BOX type plc splitter	

- ◆ Required testing interface QTY=log22(Output interface):log2(64)=6

10 Torsion Test

Loss should be within the following limits in reference to the initial value

- ◆ variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 55 dB in process of Testing

The test shall be conducted under the following conditions:

- ◆ applied force:15N
- ◆ The distance between the Torsion point and shell underside is 22~28cm
- ◆ Max Torsion Angle: $\pm 180^\circ$
- ◆ number of torsions: 100 times
- ◆ Torsion Speed: 10 Times/min.
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY=log22(Output interface):log2(64)=6

11 High and Low Temperature Cycling Test

Loss should be within the following limits in reference to the initial value

- ◆ variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 50 dB in process of Testing

The test shall be conducted under the following conditions:

- ◆ High Temperature= $+75^\circ\text{C}$, Temperature rate of change: $1^\circ\text{C} / \text{min}$
- ◆ Low Temperature= -25°C , Temperature change rate $1^\circ\text{C} / \text{min}$
- ◆ High and low temperature points to stay four hours separately
- ◆ Duration: 96h
- ◆ Cycles: 12 times
- ◆ 2 hours returned to 25°C
- ◆ Keep 2 hours at 25°C , then test
- ◆ Insertion value should be tested at least one time per 10 mins. in process of testing.
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY=log22(Output interface):log2(64)=6

12 Low Temperature Test

Loss should be within the following limits in reference to the initial value

- ◆ variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 50 dB in process of Testing

The test shall be conducted under the following conditions:

- ◆ Temperature= -25°C

	产品规格书 Product Specification	Edition: OB	Page: 7 / 9
	产品名称 Product Name	HBY 1X64 ABS BOX type plc splitter	

- ◆ Duration:96H
- ◆ 2 hours returned to 25°C from -25°C
- ◆ Test after Keeping 2 hours at 25°C
- ◆ Insertion value should be tested at least one time per 60 mins. in process of testing.
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY= $\log_2(\text{Output interface})$: $\log_2(64)$ =6

13 Dry Heat Test

Loss should be within the following limits in reference to the initial value

- ◆ variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 50 dB in process of Testing
- ◆ The test shall be conducted under the following conditions::
- ◆ Temperature=+75°C
- ◆ Duration: 96h
- ◆ 2 hours returned to 25°C
- ◆ Test after Keeping 2 hours at 25°C
- ◆ Insertion value should be tested at least one time per 60 mins. in process of testing.
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY= $\log_2(\text{Output interface})$: $\log_2(64)$ =6

14 Salt Spray Test

Loss should be within the following limits in reference to the initial value

- ◆ variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 50 dB in process of Testing
- ◆ The test shall be conducted under the following conditions::
- ◆ Salt Spray concentration: 5%
- ◆ Condition: 35°C, 48H
- ◆ Test its optical performance at room temperature, and record data
- ◆ Place in salt spray chamber from the test system, heated to 35 °C, then keep 48H
- ◆ Lower the temperature to room temperature, then remove the samples to place 2H, test the optical performance after wiping
- ◆ No mechanical damage, such as deformation, loss, corrosion, relaxation and other phenomena
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY= $\log_2(\text{Output interface})$: $\log_2(64)$ =6

15 Vibration Test:

Loss should be within the following limits in reference to the initial value

- ◆ Variation value of Insertion Loss should be ≤ 0.50 dB in process of testing

	产品规格书 Product Specification		Edition: OB	Page: 8 / 9
	产品名称 Product Name	HYB 1X64 ABS BOX type plc splitter		

- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 50 dB in process of testing

The test shall be conducted under the following conditions:

- ◆ Frequency: 10-55 Hz
- ◆ Amplitude: 0.75mm (1.52mm Max)
- ◆ Cycles: 15 times
- ◆ Time: 90 min divided in three perpendicular directions
- ◆ Every 5 seconds to test the attenuation of at least one port
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY= $\log_2(\text{Output interface})$: $\log_2(64)=6$

16 Humidity test

Loss should be within the following limits in reference to the initial value

- ◆ Variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 50 dB in process of testing

The test shall be conducted under the following conditions:

- ◆ Temperature = $+40^\circ\text{C}$
- ◆ humidity = 93%
- ◆ Duration: 96 h
- ◆ 25°C 2 hours returned to 25°C
- ◆ Test after Keeping 2 hours at 25°C
- ◆ Insertion value should be tested at least one time per 60 mins. in process of testing.
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY= $\log_2(\text{Output interface})$: $\log_2(64)=6$

17 Water Immersion Test

Loss should be within the following limits in reference to the initial value

- ◆ Variation value of Insertion Loss should be ≤ 0.50 dB in process of testing
- ◆ The difference between Initial Value and final test value should be ≤ 0.30 dB
- ◆ Return loss should be ≥ 50 dB in process of testing

The test shall be conducted under the following conditions:

- ◆ elevation of water: 15mm
- ◆ Temperature: 43°C
- ◆ Soaking time: 168 h
- ◆ Insertion value should be tested at least one time per 10 mins. in process of testing.
- ◆ Test Wavelength 1310-1550nm
- ◆ Required testing interface QTY= $\log_2(\text{Output interface})$: $\log_2(64)=6$

	产品规格书 Product Specification	Edition: OB	Page: 9 / 9
	产品名称 Product Name	HBY 1X64 ABS BOX type plc splitter	

18 Flame Retardant Requirements

Test standard

- ◆ HB: UL94 standard anti-flame retardant is the lowest grade.
- ◆ Ask for 3 to 13 mm thick samples, the burning rate of less than 40 mm per minute
- ◆ Samples less than 3 mm thick, the burning rate per minute less than 70 mm or 100 mm sign is extinguished
- ◆ V-2: After samples twice fire test for 10 seconds the flame extinguished within 60 seconds and Blazers fall.
- ◆ V-1: After samples twice fire test for 10 seconds the flame extinguished within 60 seconds and No Blazers fall
- ◆ V-0: After samples twice fire test for 10 seconds the flame extinguished within 30 seconds. No Blazers fall
- ◆ Optical splitter, Optical cable and ABS housings should comply with the above flame retardant V0

19 Product Packaging Information

19.1 Product packing: Foam

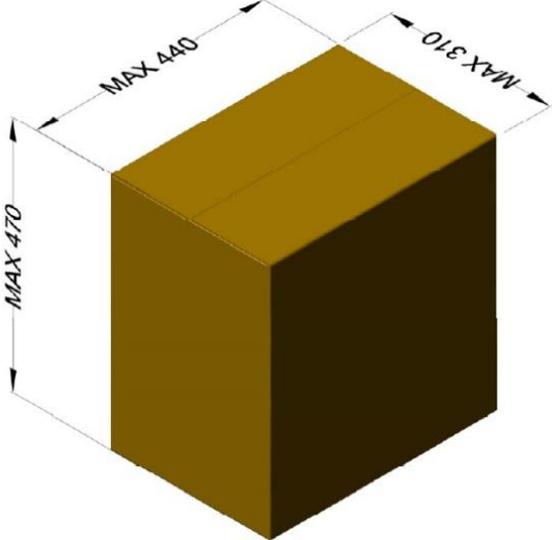


	产品规格书 Product Specification	Edition: OB	Page: 10 / 9
	产品名称 Product Name	HBY 1X64 ABS BOX type plc splitter	

19.2 Inner packing (MM)

	Size (MM)	310×290×50
	N.W.(KG/2PCS)	0.54
	QTY (PCS/Box)	1
	G.W. (KG/Box)	0.64

19.3 Outer packing

	Size (MM)	440×310×470
	QTY (PCS/Box)	20
	N.W.(KG/Box)	10.8
	G.W. (KG/Box)	12.8