



MFPT 20~70 脉宽可调脉冲光纤激光器

使用手册

版权说明

“ ”

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MFPT

MFPT

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第一章 特性说明

MFPT 20-70




1066± 3nm S

MFPT 20-70

Class 4

第二章 安全信息

1 -

2

3

1

2

3

4

5

6

7

4

MFPT 20-70

24VDC

	+24VDC
	GND

DC

24 VDC

5

1

2

5cm

4

3

6

1

2



3

4

5

6

7

4-

Laser Institute of America(LIA)

13501 Ingenuity Drive, Suite 128

Orlando,Florida 32826

Phone:407 380 1553,Fax: 407 380 5588

Toll Free:1 800 34 LASER

American National Standards Institute

ANSI Z136.1, American National Standard for the Safe Use of Lasers

(Available through LIA)

International Electro-technical Commission

IEC 60825-1, Edition 1.2

Center for Devices and Radiological Health

21 CFR 1040.10 - Performance Standards for Light-Emitting Products

US Department of Labor - OSHA

Publication 8-1.7 - Guidelines for Laser Safety and Hazard Assessment.

Laser Safety Equipment

Laurin Publishing

Laser safety equipment and Buyer' s Guides

第三章 产品描述

MFPT

1-

MOPA

1060nm

25Pin

10KW

1

2

3

4 25

1

2

2-

MFPT-20M/S	20W
MFPT-30M/S	30W
MFPT-50M/S	50W
MFPT-70M	70W

3-

第四章 详细规格

1-

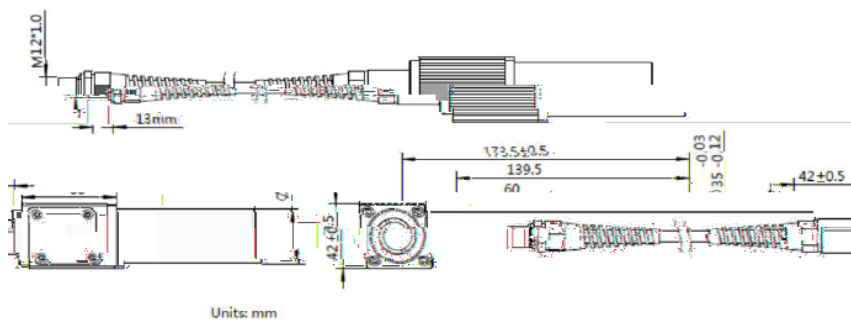
	MFPT-20M/S	MFPT-30M/S	MFPT-50M/S	MFPT-70M
Pnom(W)	20	30	50	70
(mJ)	0.7	1	1	1
(ns)	2~350		2~500	
(kHz)	1~4000			
(mm)	5~7			
	1.3	1.3	1.4	1.5
(%)	5			
(V)	24			
(W)	120	150	220	300
(nm)	1066± 3			
3dB nm	10~15			
(%)	10~100			
()	0~40			
()	-10~60			
Pout=Pnom 10% ~90%(us)	300			
Pout=Pnom 10% ~90%(us)	200			

(mm)	287× 219× 95	355× 266× 120	
(kg)	6	8	11

2-

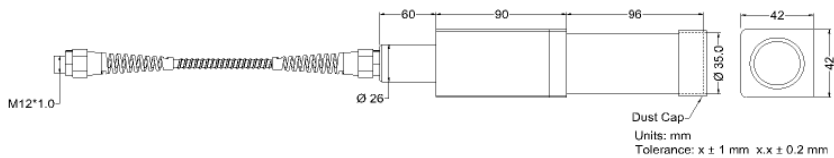
(MFPT-20-50)

mm



(MFPT-70)

mm



(MFPT-20)

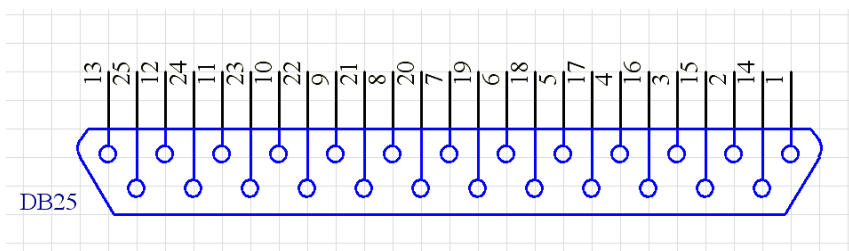
mm

(MFPT-30~70)

mm



9	
14 15	
11 12 16 21	
17	+5± 0.25V DC
18	MO
	: MO
	: MO
19	booster /
	: booster
	: booster
20	()
22	1. () /
	2. ,
23	: :
24 25	



2 DB-25

1 DB25

2 Pin1-8 8bit Pin1 LSB Pin8 MSB Pin

0-255 0-100%

	1	2	3	4
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	1
6	0	0	1	1
7	0	1	1	1
8	1	1	1	1
	50%	75%	87.5%	93.75%

3 9 1 8 9
 9 1US 1 8
 1 9 2 μs
 10KHz 100
 μs
 4 11,12,16,21 11 12

12	11	16	21	
		L	L	
		H	L	PD &
		L	H	
		H	H	PD

12,16,21 18,19 11
 1

5 18 (EE)

5 ms

19 (EM)

18

ON

PCB

PCB

18

18

18

19

19

6 19

19

10

19

EE

5ms

EM

EE

EMON

EMON

EE ON 5ms

EMON

19

PCB

19

EMON

19

PCB

18

7 20

20

0.1 0.9

8 22

22

Pin2

Pin3

19 EM 18 EE

19 19

9 23

18 19

18 EE 19 EM

2us 23

2-

1

1

2

DB25

5.2.2

DB-25

3

18,19,22	
23	
20	

4

5 24 V DC 10

6 1 8 9

7 18 EE ON

8 5ms

9 19 19
 ON/OFF

EE 10 ON/OFF EM OFF 500ms

11 EE,EM 18 19
 12

2

1 20

20

20

2 20

20

3 1 8 9 /

4 18 19

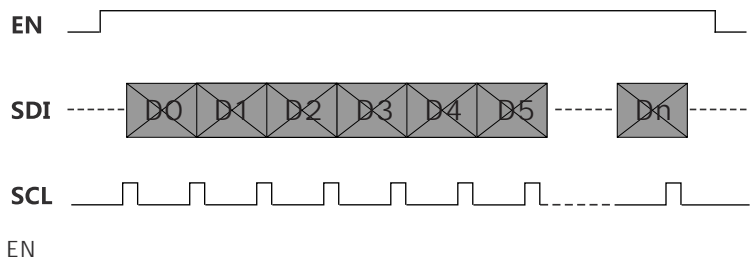
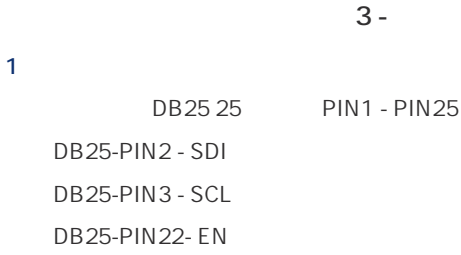
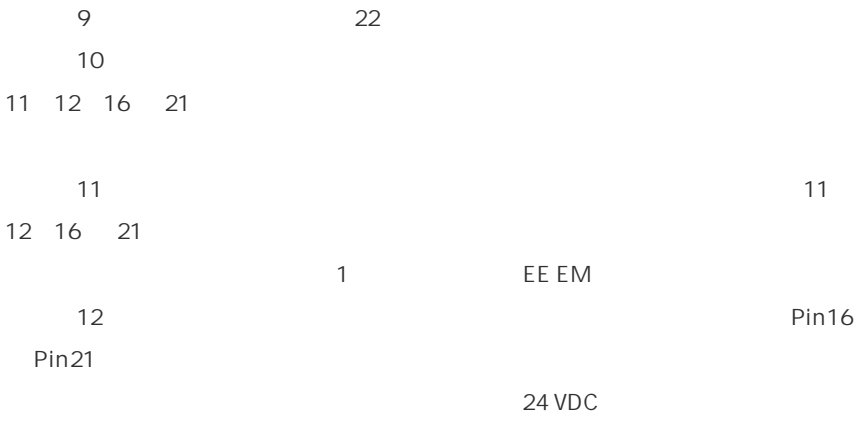
5 EE ON EM OFF,

6 EE ON EM ON 1 8

7 22 EE EM OFF
 EE EM ON

18 19 22 EE EM ON

8 24V 5V



2

4 BYTE 32 bit

[HEAD] -> [PULSEWIDTH]

2 BYTE 2 BYTE

HEAD = 0x A501

PULSEWIDTH =

10ns, 0x A501000A 32bit

4 -

1

1

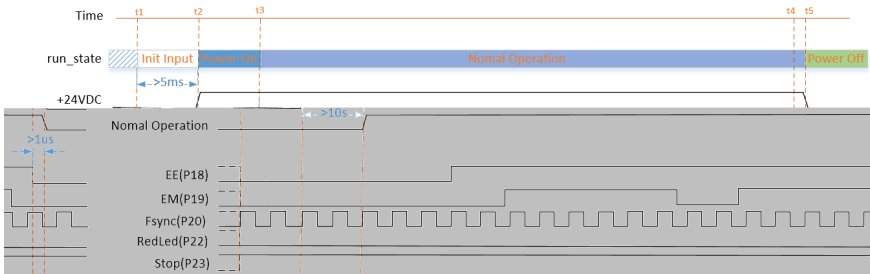
5 ms

10 s

2

EE

1 μs



4

1

EE EM

1 μ s

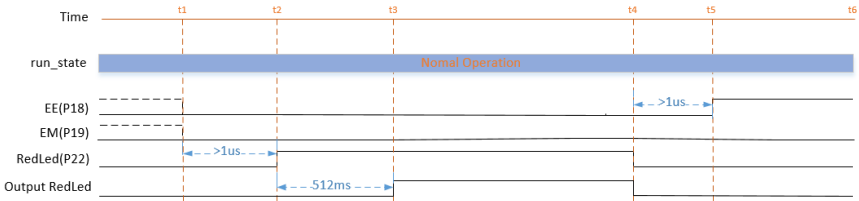
RedLed

512 ms

2

RedLed

1 μ s



5 STOP

1 Stop

Stop

Stop

100 ms

20M 70M

50us

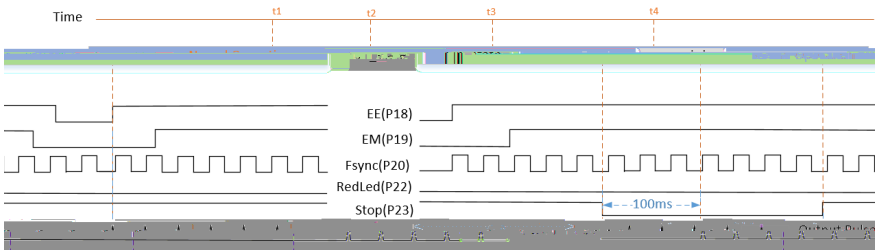
2

Stop

1000 ms

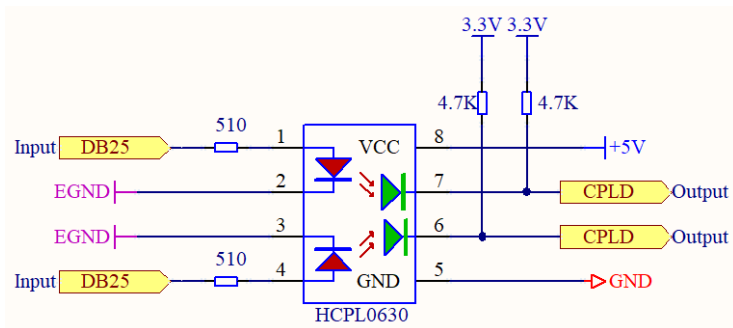
20M 70M

50us



5 -

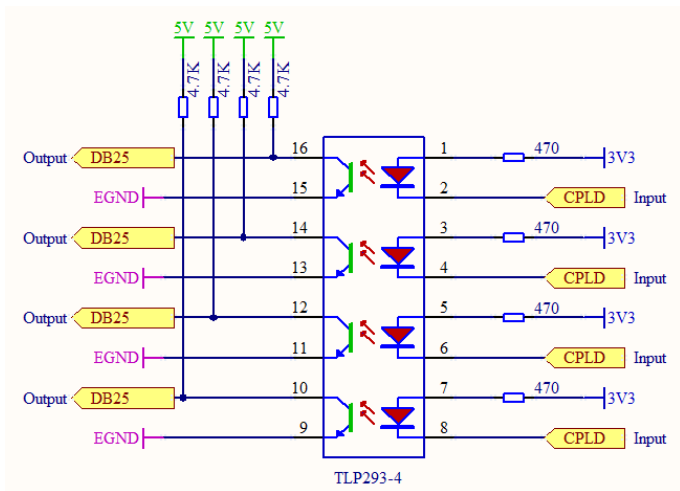
1



5 mA

15 mA

2



5 V(Pin 5 V)

50

mA

6 -

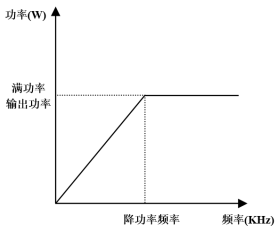
MFPT

/

/ns	MFPT-20M/S	MFPT-30M/S	MFPT-50M/S	MFPT-70M
500	/	/	45	63
450	/	/	45	65
400	/	/	45	68
350	28	28	51	69
300	28	28	53	72
250	30	30	55	76
220	32	32	57	80
200	34	34	59	82
180	36	36	61	85
160	38	38	63	89
150	40	40	66	92
135	44	44	70	96
125	48	48	75	101
100	54	54	85	113
80	60	60	95	131
60	68	68	110	162
50	75	75	120	194
40	90	90	140	260
30	105	105	180	400
20	140	140	240	800
15	170	170	310	1000
10	230	230	500	1200
8	320	320	650	1400
5	450	450	1050	1600
2	1200	1200	2000	2400

1

2



350ns

MFPT-30M

28KHz

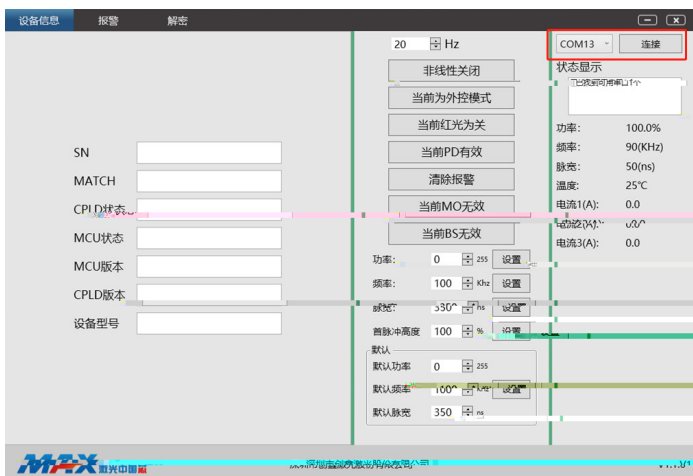
28KHz ,

7 -

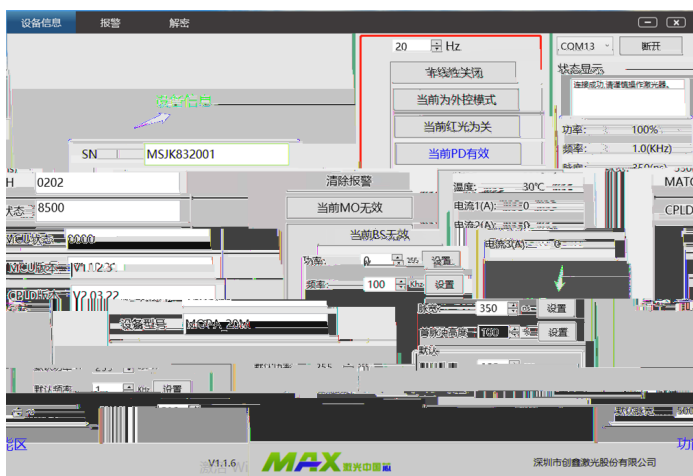
1.



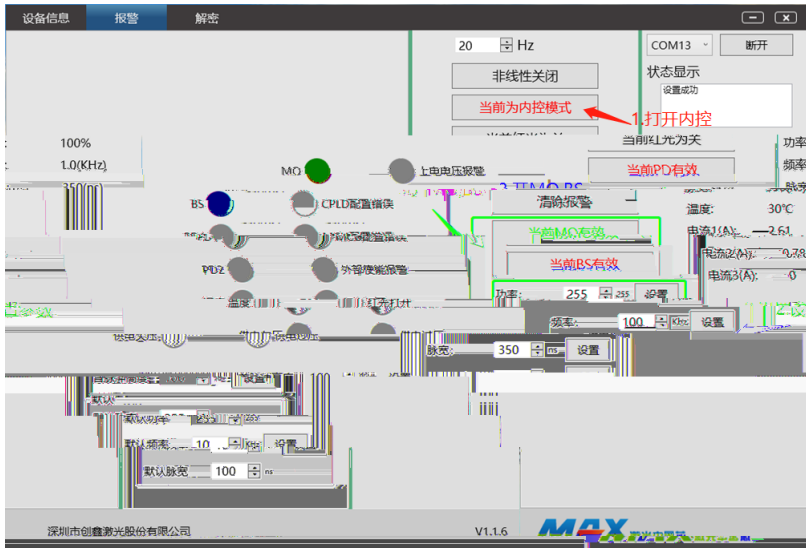
2.



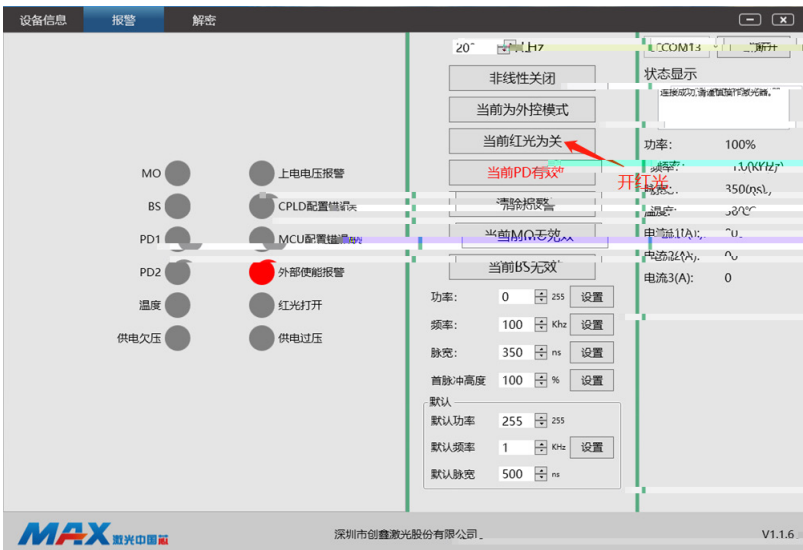
3.



4.



5.



6.

7.

"

MO: MO

BS: BS

PD1/PD2

PD

:

/

:

CPLD/MCU

:

8.

"

"



第六章 常见故障处理

1 -

1

2

3

4

5 DB25

6 PIN18 PIN19

7

DB25

2 -

1

2

3

4

5

2

6

7

第七章 服务与维修

1 -

2 -

400-900-9588

第八章 保修声明

1 -

2 -

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2
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4
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6