光纤透镜, 神经网络大小

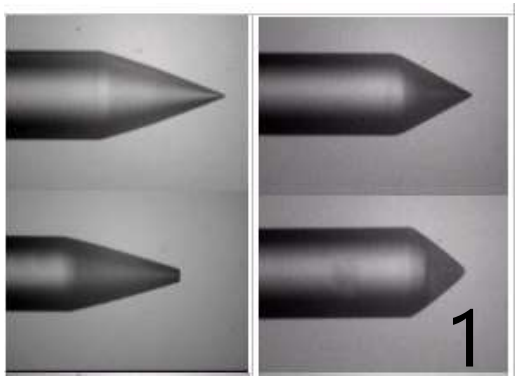
畅星兆 2019.10.12

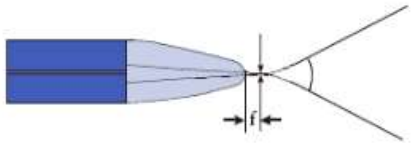
Lensed fiber (光纤透镜)

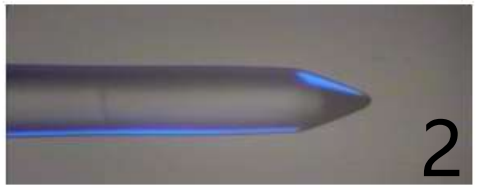
1. highpak.com
2. 西安盛佳光电 (raysung.cn/cn/)
3. 苏州波弗光电(bonphot.com)
4. IDIL
5. 深圳艾孚光电

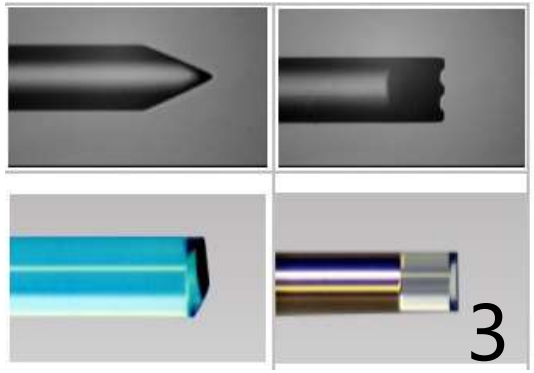
Highpak highpak.com/fibre.html

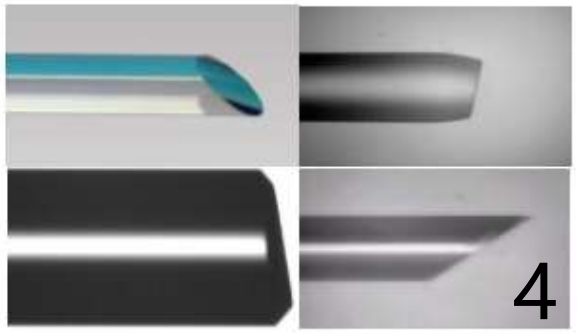
Lensed fiber , lensed fiber assembly, and fiber array are available in single mode, PM fiber, D-shape fiber and multi mode fiber; in conical, wedge, angle and other customer tip shapes with/without AR coating.











类别

1. Lensed Fibre / Metalized Fibre
2. Long-focus Lensed Fibre / Metalized Fibre
3. Cylindrical Lensed/Wedged Fibre
4. Angle Polished Fibre (0~10° or 30 - 50°

highpak.com/fibre.html

进度：未回复

可能需要提供的参数:

1.Wavelength, type of fiber, single more or multi-mode fiber? e.g. SFM-28,or PM1300, HI1060, etc. (波长, 光纤类型)

2.Type of lens: conical, wedge/cylindrical lens, or angled cylindrical lens, etc. (镜头类型)

3.Radius or lens, or far-field angle, or spot size. (半径或透镜, 远视场角, 光斑大小等光学参数)

4.Stripe length for lensed fiber, dimension of fiber assembly

5.Total length, connector, AR coating? (总长度等)

6.Quantity (数量)

西安盛佳光电 raysung.cn/

可以实现球形, 锥形, 楔形, 斜楔形, 斜面多种形状

对透镜的光斑, 远场等参数进行测试

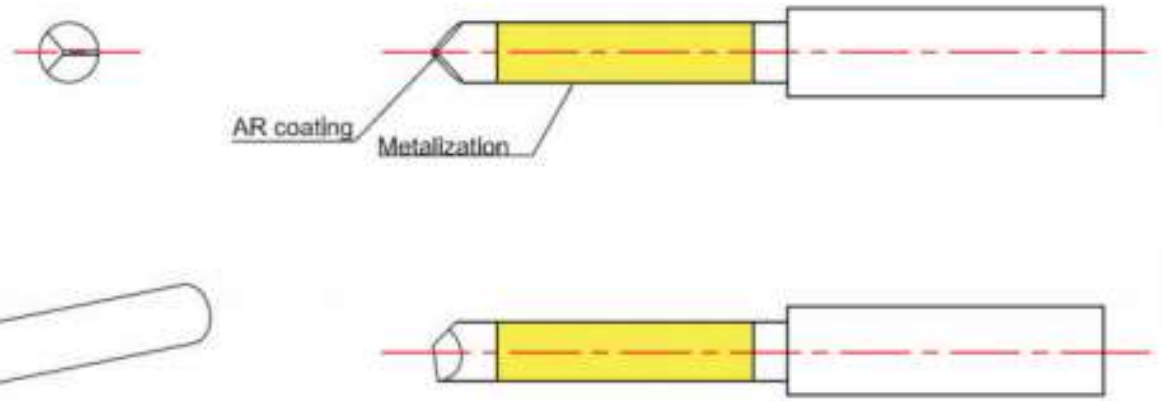
额外: 金属化, 镀高反膜, FC封装, 加光纤光栅

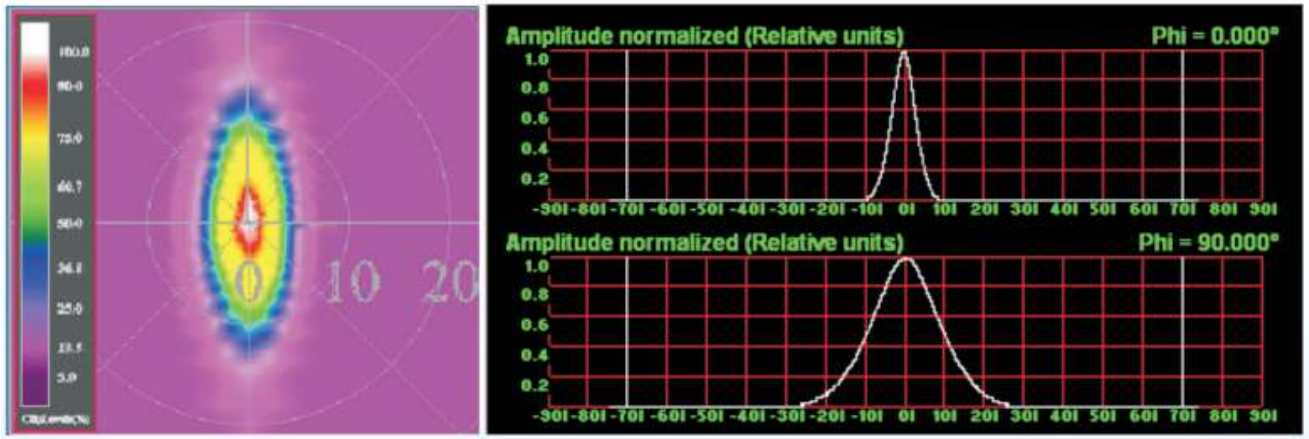
咨询结果

1. 他们的测试工艺是红外波段
2. 可以提供光纤, 我们设计, 按照我们的要求进行加工. (前提: 光纤规格符合他们机器的要求)

QQ: 191528965

斜楔形光纤透镜





楔形透镜的典型远场光斑

参数	规格	公差
透镜半径	1~16um	±1um
楔角（全角）	50° ~120°	±5°
斜角	8°, 30°~60°	±1°, ±5°
光纤类型	SMF-28e, Hi1060, Hi980, PM980, etc	
连接器	Bare fiber, FC/APC, SC/PC, SC/APC, etc	

参数	规格	公差	单位
剥皮长度	≥10	±1	mm
楔角	90,100（典型值）	±5	deg.
斜角	45（典型值）	±5	deg.
AR 角	8, 12或定制	±1	deg.
透镜曲率半径1	4~14	±1	um
工作距离1	3~30		um
远场光斑椭圆度	1:2~1:5		-

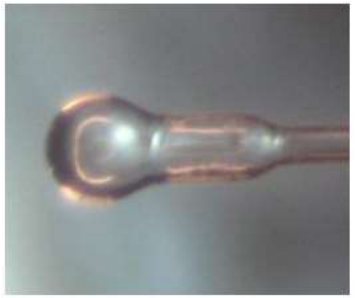
苏州波弗光电

http://www.bonphot.com/cp/html/?754.html

斜面光纤 (1)

大工作距离透镜光纤 (2) (3)

锥形透镜单模光纤 (4)

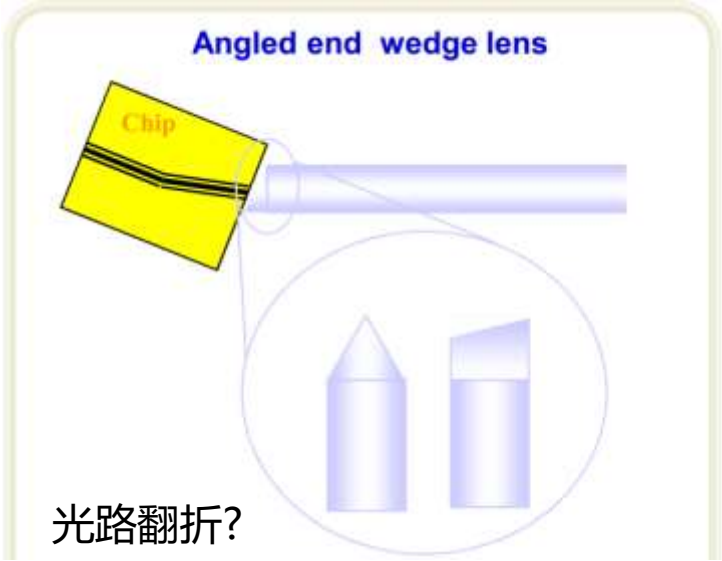
咨询结果:

代理, 网址: www.wttechnology.com.

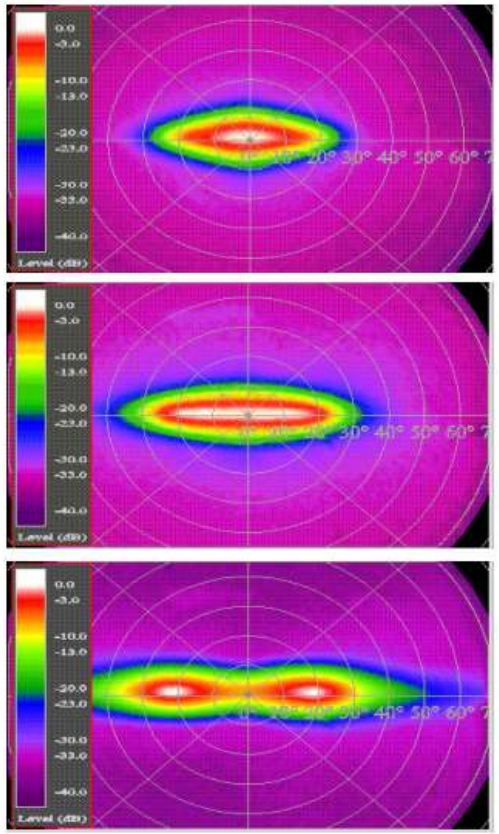
wttechnology

different wavelengths: 405, 677, 860, 980, 1300 - 2000 nm

Manufacturing cycle: 1 – 3 weeks



The shape of the lens is controlled in one or both planes to match FWHM of the source

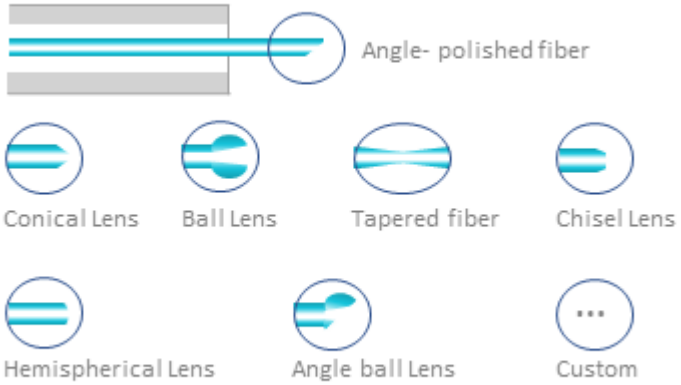


When you communicate with WT&T regarding lensed fibers, please provide following information:

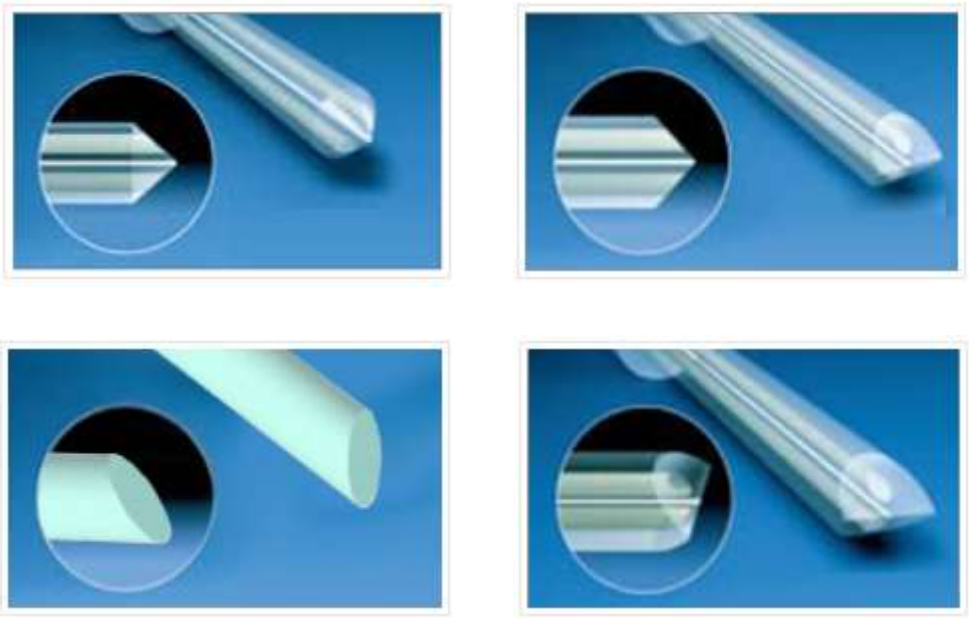
- Describe your application (if possible, provide simple drawings of required assembly)
- Required type and length of optical fiber
- Operating wavelength, optical power and temperature range
- Required working distance and output light divergence (or focused spot size)
- Type of fiber termination (optical connector, ferrule, V-grove, cleaved fiber e.t.c)
- Fiber protection and required assembly flexibility
- Special testing requirements
- Quantity and delivery time

IDIL https://www.idil-fibres-optiques.com/product/end-fiber-shaping/

angle polishing, angle lens (角型), conical lens (圆锥), conical lens with flat top, tapered lens, ball lens (球状), ball lens with large working distance, wedge angle (screw driver) lens (楔形), prism lens (棱镜), 8° to 45° face angle lens (面角镜), graded index(折射率渐变), cleave(劈开), splice (拼接) and others.



深圳艾孚光电 efprecise.com



产品特点

Product features

1、楔形、锥形、斜面等各种形状

2、各种光斑，如各种圆度的椭圆形、圆形

3、多模光纤、单模光纤、PM光纤和各种医疗用光纤

4、保偏光纤的猫眼能控制2度以内

5、研磨角度控制在2度以内

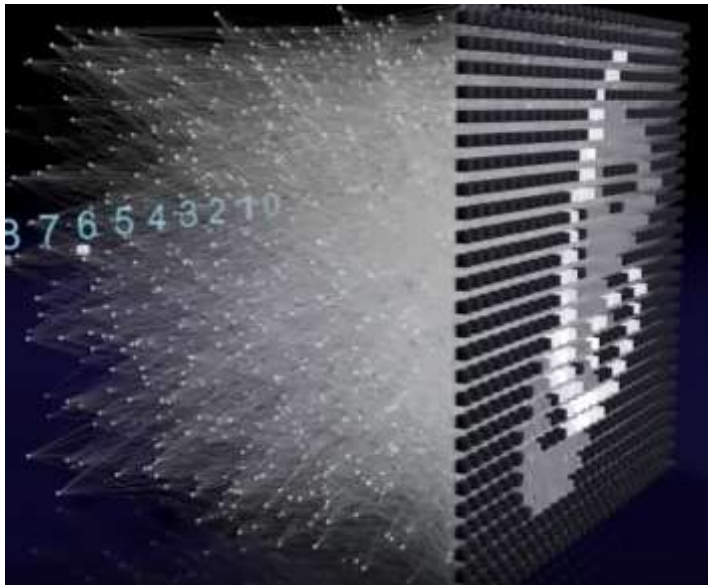
正在联系

微信: 15361621944

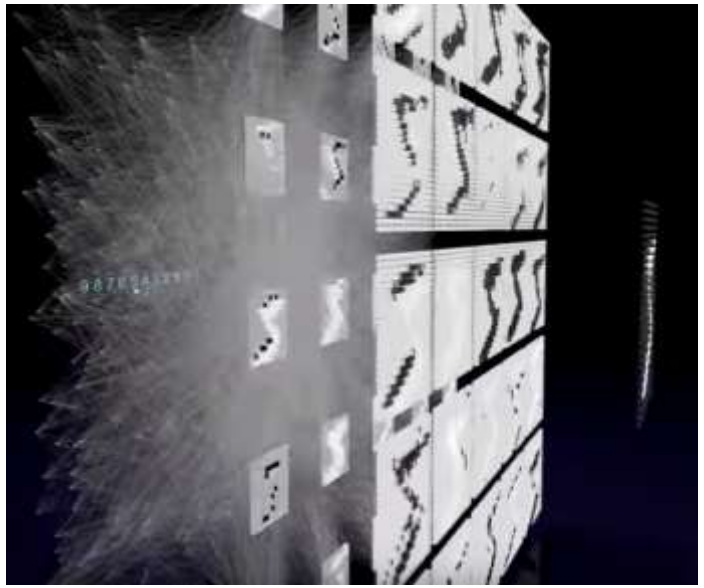
神经网络典型值

Video: Neural Network 3D Simulation

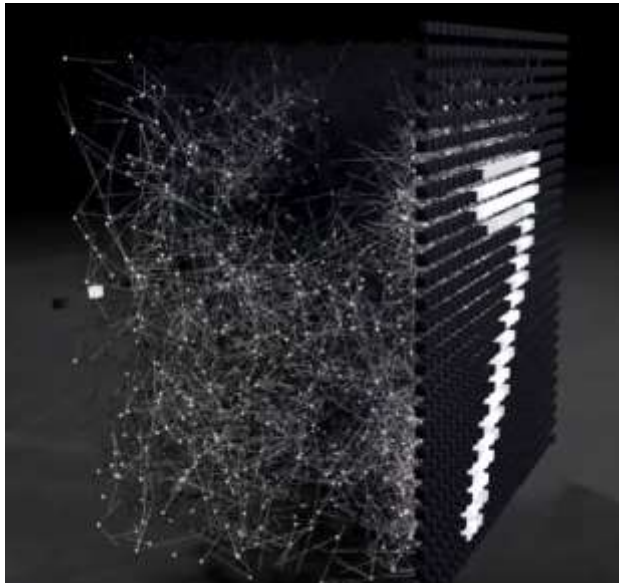
Type: Perceptron
Data Set: MNIST
Hidden Neurons: 2000
Synapses: 1191000
Synapses shown: 2%
Learning: WCor



Type: Convolutional
Data Set: MNIST
Hidden Neurons: 19794
Synapses: 3610000
Synapses shown: 2%
Learning: BP



Type: Spiking
Data Set: MNIST
Hidden Neurons: 10000
Synapses: 1977064
Synapses shown: 5%
Learning: STDP+BM



https://www.youtube.com/watch?v=3JQ3hYko51Y

Recurrent neural network based language model

input vector: 30000 – 200000

size of hidden layer: 30 – 500

starting learning rate: 0.1

https://www.isca-speech.org/archive/interspeech_2010/i10_1045.html

Long Short-Term Memory Recurrent Neural Network Architectures for Large Scale Acoustic Modeling

C	P	Depth	N	Dev (%)	Train (%)	WER (%)
840	-	5L	37M	67.7	70.7	10.9
440	-	5L	13M	67.6	70.1	10.8
600	-	2L	13M	66.4	68.5	11.3
385	-	7L	13M	66.2	68.5	11.2
750	-	1L	13M	63.3	65.5	12.4
6000	800	1L	36M	67.3	74.9	11.8
2048	512	2L	22M	68.8	72.0	10.8
1024	512	3L	20M	69.3	72.5	10.7
1024	512	2L	15M	69.0	74.0	10.7
800	512	2L	13M	69.0	72.7	10.7
2048	512	1L	13M	67.3	71.8	11.3

Experiments with LSTM and LSTMP RNN architectures

C	P	Depth	N	WER (%)
1024	512	3L	20M	10.7
1024	512	2L	15M	10.7
800	512	2L	13M	10.7
700	400	2L	10M	10.8
600	350	2L	8M	10.9

Experiments with LSTMP RNN architectures

C: number of memory cells

P: number of recurrent projection units

N: total number of parameters

https://www.isca-speech.org/archive/interspeech_2014/i14_0338.html

LSTM Neural Networks for Language Modeling

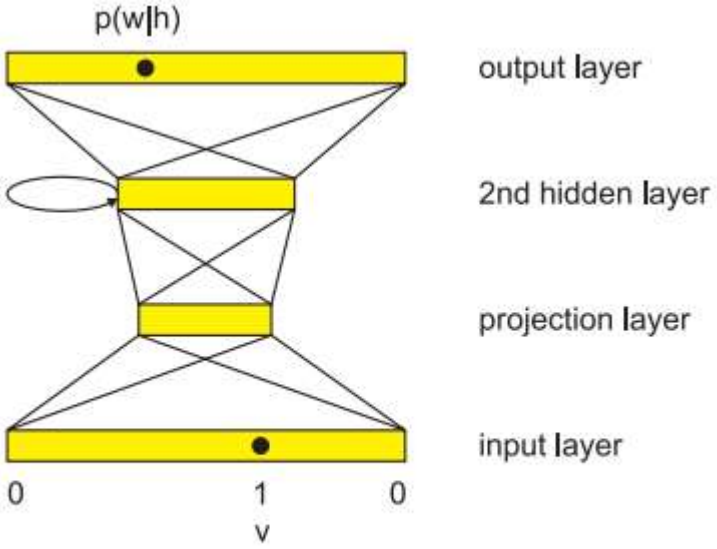


Figure 2: Neural network LM architecture

1-of-K coding (K: number of words in the vocabulary)

150 hidden nodes corresponds to 7.6 M parameters

350 hidden nodes corresponds to 7.1 M parameters

https://www.isca-speech.org/archive/interspeech_2012/i12_0194.html

TTS Synthesis with Bidirectional LSTM based Recurrent Neural Networks

input feature vector: 355 dimensions

The configurations of model training for HMM, DNN and DBLSTM-RNN based TTS systems are listed as following:

1) HMM: MDL=1 for both LSP and F0 decision tree growing
2) DNN_A: 6 hidden layers with 512 nodes per layer
3) DNN_B: 3 hidden layers with 1024 nodes per layer
4) Hybrid_A: a hybrid of DNN and BLSTM-RNN. 4 hidden layers with 512 nodes per layer, where the bottom 3 hidden layers are feed-forward structure with sigmoid activation functions, while the top hidden layer is Bidirectional RNN structure with LSTM (256 forward nodes and 256 backward nodes)
5) Hybrid_B: the hybrid structure as Hybrid_A, but with 2 lower hidden layers with sigmoid activation functions and 2 upper hidden layers with BLSTM-RNN (256 forward nodes and 256 backward nodes)

https://www.isca-speech.org/archive/interspeech_2014/i14_1964.html