

1535 nm Micro-Chips laser core

Er, Yb:glass+Co: spinel bonding crystal is a bonding crystal formed by bonding co: spinel at the end of Er, Yb: glass. It can effectively improve the comprehensive performance of Er, Yb: glass laser. We design a special structure to reduce the thermal effect to meet high energy density lasers.

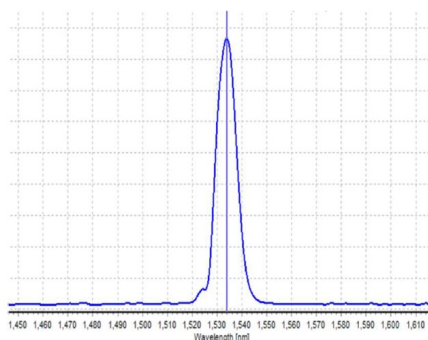
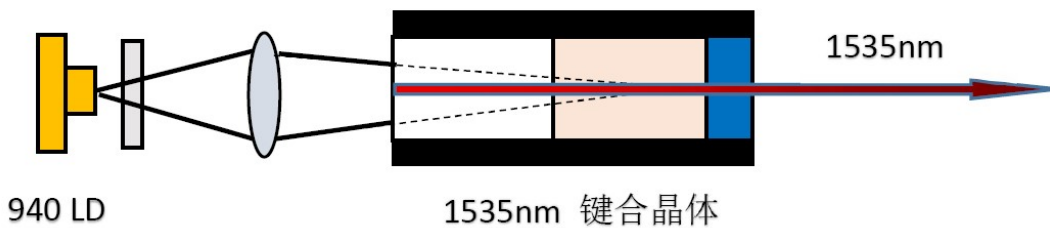
Bonding to form Er, Yb:glass+Co: spinel bonding crystals have the following effects:

- Improve the thermal effect of Er, Yb: Glass crystals
- Reduce the thermal lens effect formed during laser pumping
- Improve the beam quality of the laser
- Improve the output efficiency of the 1535 nm laser
- Improve the stability of the output capacity of the laser
- Improve the service life of the laser

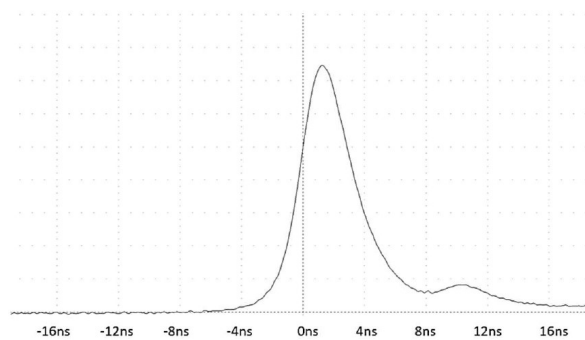
we uses surface activation bonding technology, which is a bonding technology at low or normal temperatures. The typical features are surface cleaning and surface activation.

Er, Yb:glass+Co: spinel bonded crystals have high bonding strength, small bonding surface absorption loss (generally less than 20ppm) and small change in bonding surface shape (bonding surface shape $< \lambda/8$).

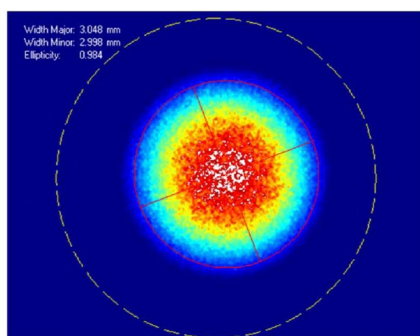
Typically Application: Laser Lidar, Laser rangefinders etc.

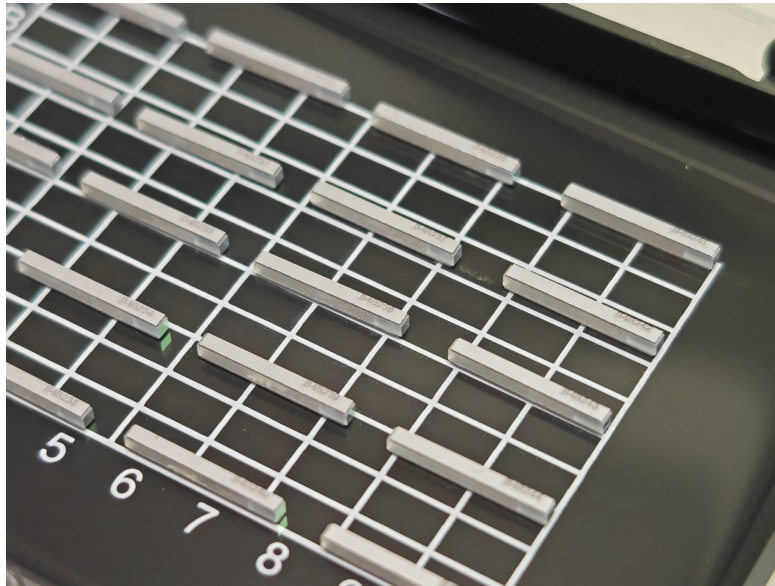
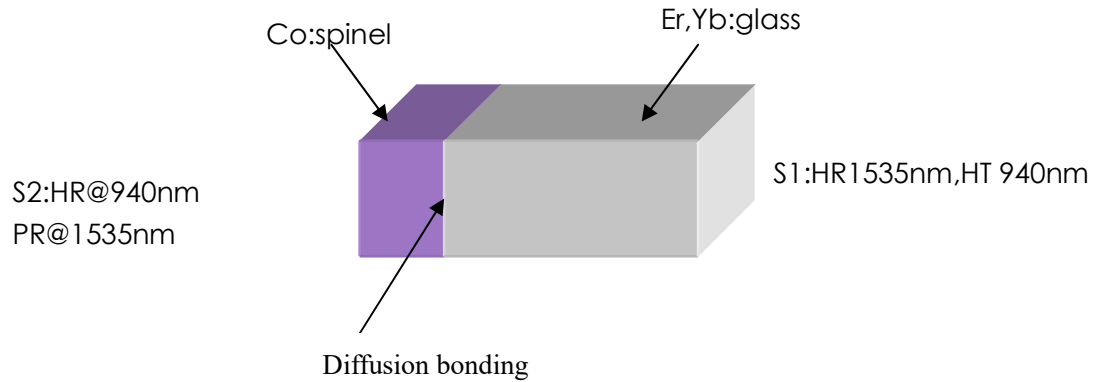


Laser Wavelength



Laser pulse width





| Item | Grade | Part No. | Dimension (mm) | Output energy@25℃ | Frequency | Pulse width | Beam size | Stability | Divergence angle |
|------|-------|---------------|----------------|-------------------|-----------|-------------|-----------|-----------|------------------|
| 1 | 40uj | DB1535-40-01 | 1.4x1.0x5.5 | 40uj@4A 0.35ms | 1KHz | 4+/-1ns | 100um | <3% | <16mrad |
| 2 | 100uj | DB1535-100-02 | 1.4x1.0x7 | 100uj@7A 1.5ms | 10KHz | 4+/-1ns | 200um | <3% | <16mrad |
| 3 | 200uj | DB1535-200-02 | 1.4x1.0x8 | 200uj@10A 1.5ms | 10KHz | 4+/-1ns | 250um | <3% | <16mrad |
| 4 | 300uj | DB1535-300-02 | 1.4x1.0x10 | 300uj@12A 2ms | 10KHz | 4+/-1ns | 300um | <3% | <16mrad |
| 5 | 500uj | DB1535-500-02 | 1.4x1.0x13 | 500uj@20A 2ms | 10KHz | 5+/-1ns | 400um | <3% | <16mrad |
| 6 | 750uj | DB1535-750-01 | 2.0x1.6x17 | 750uj@25A 2ms | 5KHz | 6+/-1ns | 500um | <3% | <16mrad |

For higher energy 1535nm laser that we can provide ErYb:Glass, Co: Spinel per customer design.

If you are interested please contact us soon: mail to sales@lcoptical.com or lasertec01@gmail.com