



O&E Package Solution

# Product Specification

Spec#:           TO Cap           (Aspherical)

AFN:           JDFZ-JS-L03          

VER:           000

**1. Product Description**

1.1 Specifications : TO Cap(Aspherical)

1.2 Drawing No. : HP1029003D

**2. Product Specifications**

2.1 Substrate Specifications

2.1.1 Material : Shell: 4J50 , Window: D-ZK3

2.1.2 Size : Shell: H=4.05 φ1.0 , LENS: φ2.0 X 0.863

2.1.3 Surface quality : Clear aperture optical surface conforms to MIL-PRF-13830B 60/40

2.1.4 Solder : HFJD low-temperature glass 3#(Lead-Free Glass) sintering packaging

2.2 Finished Product Specification

Dimension (mm)	Depth ( mm )	Effective Clear Aperture ( mm )
4.05±0.05	2.59±0.05	Φ0.8min

2.3 Spectrum Specifications

AR Coating on both side , T > 97%@1550nm

2.4 Airtightness

Leakage rate < 1X10<sup>-9</sup> Pa·m<sup>3</sup>/s He

**3. Appearance Quality**

Item	Criteria	Instruments
Visual inspection		
<b>3.1 Window</b>		
Surface particulate contamination/Scratch	Pocking > 0.03 mm Not allowed 3 pocking within 0.01 ~ 0.03mm Acceptable Pocking < 0.01mm Acceptable	Microscope 16X
Crack	Not allowed	Microscope 16X
Notches on the periphery of the glass sheet	depth	< 0.1 mm Acceptable Microscope 16X

	width	< 0.2 mm Acceptable	
<b>3.2 Brazed glass</b>			
Brazed glass spills	According to the drawing		Microscope 16X
Air bubbles are generated when sealed	Single bubbles in solder $\leq 1/5$ of the soldering surface Acceptable Less than 3 bubbles Acceptable Bubble position can only be located on the welding side 1/2 of the outer welding surface		Microscope 16X
Poorly sealed or other voids in the brazed area	No obvious gaps, impurities and other defects.		Microscope 16X
Discoloration	Uniform color or uniform gradients Acceptable.		Microscope 16X
Welding angle	Height difference < 0.03mm		Dial thickness gauges
<b>3.3 Metal shell</b>			
Buff	Maximum 0.02 mm		Visual
Surface	The color is uniform, and the shell is observed without discoloration.		Visual
Plating layer	No stains, rust, no bubbling		Microscope 25X
Triangle soldering	Sharp corner wear height < 1/3		Microscope 25X
Moving particles in the inner cavity	Not allowed		Microscope 25X
<b>3.4 Size</b>			
Interior height	According to the drawing		Vernier caliper

**4. Reliability test**

Item	Methods	Criteria	Sampling	Instruments
Solderability	Soldering in high temperature 500°C. After cooling down, using thrust meter to detect thrust.	Trust of welding > 3kg/mm <sup>2</sup>	Per lot	Thrust meter
High temperature boiling	100°C/0.095-0.105Mpa/10H	Air tightness <1X10 <sup>-9</sup> Pa·m <sup>3</sup> /s He	Per lot	High temperature cooking equipment Leak detector

**5. Package**

5.1 The product packaging box uses anti-static materials to ensure the cleanliness of the packaging box and ensure that the materials will not be polluted and corroded.

5.2 The boxes are packed into clean bags, filled with desiccant and vacuum baled.

5.3 The vacuum packaging bag is attached with a label, which contains: Lot No., product name, quantity, delivery date, and company name.

5.4 The packing box needs to have flexible materials such as foam to ensure that the vacuum of the packing box does not fail and is not damp.

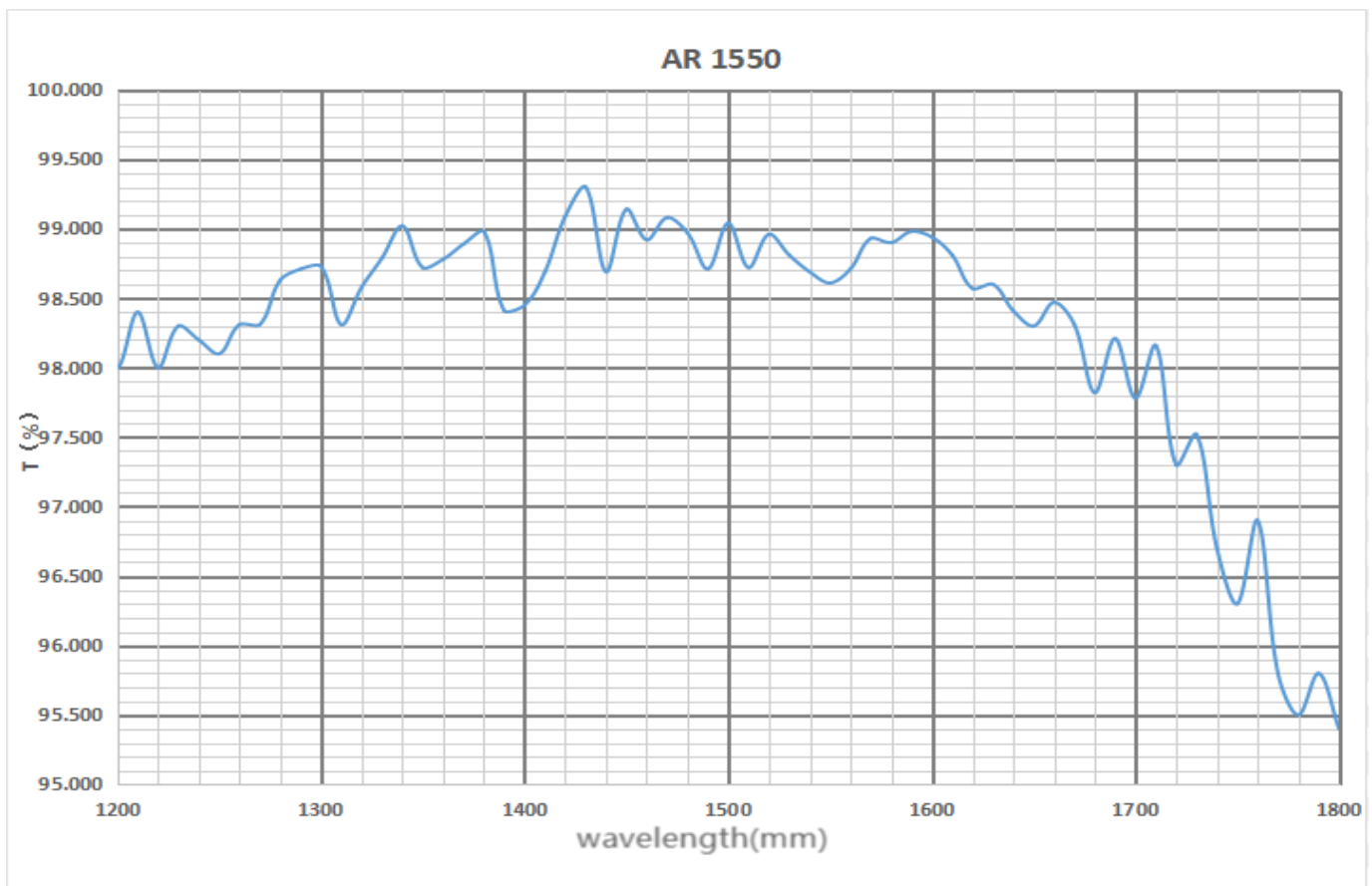
**6. Shipping**

6.1 The products should be packed in a sturdy box. The box should meet fragile goods transport requirements.

6.2 Avoid direct exposure to the rain, snow and mechanical collision during transportation.

6.3 Inspection reports should be packed in the packing box and the report should meet the requirements according to the drawings.

**7.Spectrum**



8.Drawing No. : HP1029003D

