

Note:  
 1.RoHS 2011/65/EU and amendment directives (EU) 2015/863 compliant;  
 REACH 1907/2006/EC compliant.  
 2.Text:

Test Grade Designation:Each to Reference		
Grade IL/RL	IEC61753 Grade B	
Insertion Loss (IL)	97%≤0.25dB mean≤0.12dB	IEC 61300-3-4
Return Loss(RL)	≥50dB	IEC 61300-3-6
Test Wavelength	1310nm	Single-Mode
End face inspection	×400	

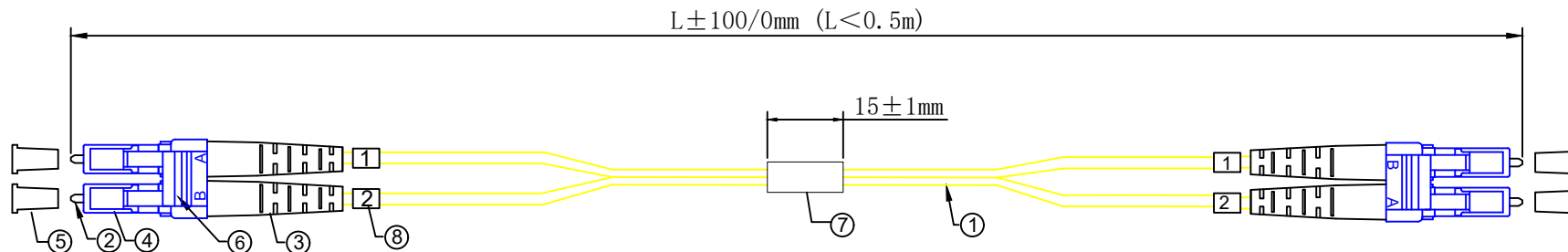
3. Operating Temperature: -40° C ~ +85° C  
 4. Storage Temperature: -20° C ~ +70° C  
 5. Min. bending radius : 10\*D(Static) 20\*D(Dynamic)  
 D:diameter of cable

**MATERIAL LIST:**

⑧	Ring (1) (2)	4pcs
⑦	Heat Shrink Tube (black)	2pcs
⑥	LC Clip (blue)	2pcs
⑤	LC Dust Cap White	4pcs
④	LC SM duplex Connector blue	4pcs
③	LC White Boot	4pcs
②	LC/UPC SM Ferrule	4pcs
①	Fiber Optical Cable SM OS2(G657.A2) 9/125 OD:2.0*4.0 <sup>+0</sup> <sub>-0.2</sub> mm Yellow Duplex LSZH	L+0.1m

NO.		SPECIFICATION STANDARD		QT' Y	REMARK	CUSTOMER		ITEM NO.	see the chart		
		NEW		2024/08/21	AO	PRODUCT NAME	LC/UPC-LC/UPC OS2 Duplex LSZH Patch cord 2.0	Manufacture country	CHINA	UNIT	mm
BY	CHK	REVISION RECORD MODIFICATIONS		DATE	REV.	DRAWNBY	CHECKBY	APPOBY	DATE		
						SYNERGY 21	SYNERGY 21	SYNERGY 21	2024/08/21		

SYNERGY 21



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BY	CHK	REVISION RECORD MODIFICATIONS		DATE	REV.	DRAWNBY	CHECKBY	APPOBY	DATE		
						SYNERGY 21	SYNERGY 21	SYNERGY 21	2024/08/21		

SYNERGY 21

PACKING DRAW

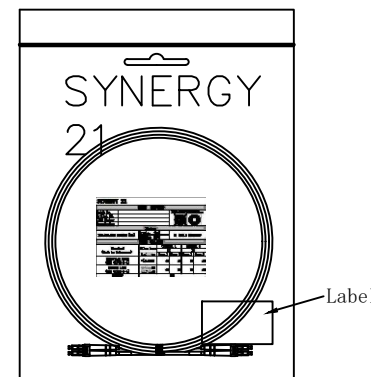


Chart:

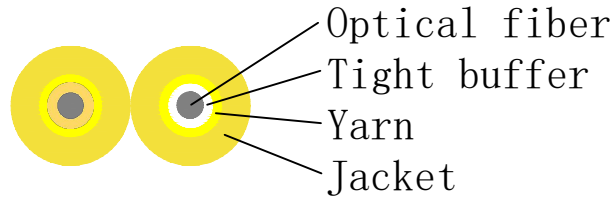
NO.	ITEM NO.	LENGTH	COLOR	EAN Nummer	PACKING
1	S216735V2	0.25m	Yellow	4038816136091	SYNERGY 21 BAG A
2	S216746V2	0.5m	Yellow	4038816219749	SYNERGY 21 BAG A
3	S216747V2	1m	Yellow	4038816129512	SYNERGY 21 BAG A
4	S216748V2	1.5m	Yellow	4038816129529	SYNERGY 21 BAG A
5	S216749V2	2m	Yellow	4038816129536	SYNERGY 21 BAG A
6	S216750V2	3m	Yellow	4038816129543	SYNERGY 21 BAG A
7	S216751V2	5m	Yellow	4038816129567	SYNERGY 21 BAG B
8	S216752V2	7.5m	Yellow	4038816129574	SYNERGY 21 BAG B
9	S216753V2	10m	Yellow	4038816129581	SYNERGY 21 BAG B
10	S216795V2	15m	Yellow	4038816129598	SYNERGY 21 BAG B
11	S216796V2	20m	Yellow	4038816129604	SYNERGY 21 BAG B

PACKING:SYNERGY 21 PE BAG+LABEL

SYNERGY 21					
TEST REPORT					
Batch No.		Attention: Please check the laser radiation!			
Artikel NO.		Aufmerksamkeit: Bitte überprüfen Sie die Laserstrahlung!			
ITEM Number					
Description					
Notes					
Min. bending radius (mm)	Static: 10*D	D: Cable diameter			
	Dynamic: 20*D				
TEST VALUES					
Standard (Each to Reference)	Allow Loss $\lambda = \dots$ nm	CHANNEL 1		CHANNEL 2	
		LC	LC	LC	LC
Insertion Loss (IEC 61300-3-4)	<0.30dB	Conn. 1	Conn. 2	Conn. 1	Conn. 2
		dB	dB	dB	dB
Return Loss (IEC 61300-3-6)	dB	Conn. 1	Conn. 2	Conn. 1	Conn. 2
		dB	dB	dB	dB
<b>RESULT</b>			<b>OK</b>		

SYNERGY 21										
CUSTOMER						ITEM NO.	See the chart			
PRODUCT NAME		LC/UPC-LC/UPC OM4 50/125um Duplex LSZH Patch cord		UNO ITEM NO.		CHINA	UNIT	mm		
DRAWNBY		CHECKBY		APPOBY		DATE				
BY	CHK	NEW		2024-08-21	AO	SYNERGY 21	SYNERGY 21	SYNERGY 21	2024-08-21	
REVISION RECORD MODIFICATIONS				DATE	REV.					

### Cable cross-section



#### G657A2 Characteristic of Optical Fiber

Item	Unit	Specification	
		G. 657A2	
Mode field diameter	1310nm	μm	8.6 ± 0.4
	1550nm	μm	9.6 ± 0.5
Cladding diameter		μm	124.3~125.0
Cladding non-circularity		%	≤1.0
Core concentricity error		μm	≤0.5
Coating diameter		μm	245 ± 5
Coating/cladding concentricity error		μm	≤10
Cable cut-off wavelength		nm	≤ 1260
Attenuation Coefficient	1310nm	dB/km	≤0.35
	1550nm	dB/km	≤0.21
Macro-bend loss (1 turn, 7.5mm radius)	1550nm	dB	≤0.5
	1625nm	dB	≤1.0
Proof stress level		kpsi	100
PMD	Maximum Individual Fiber	ps/√km	0.2
	Link Design Value (M=20, Q=0.01%)	ps/√km	0.1
	Typical Value	ps/√km	0.04
Effective group index of refraction	1310nm	/	1.4672
	1550nm	/	1.4683
Zero dispersion wavelength		nm	1300~1322
Zero dispersion slope		ps/(nm <sup>2</sup> · km)	≤0.091
Zero dispersion slope typical value		ps/(nm <sup>2</sup> · km)	0.086

Other parameters meet standard ITU-T G.657

#### Cable structure and parameter

Item	Contents	Unit	Value	
Tight buffer fiber	Diameter	mm	0.9±0.05	
	Material	/	LSZH	
Filler	Material	/	Yarn	
	Diameter	mm	2.0(±0.1)×4.1(±0.2)	3.0(±0.1)×6.1(±0.2)
Outer jacket	Material	/	LSZH	
	Color	/	SM: Yellow OM1/OM2: Orange OM3:Aqua OM4:Violet	
Tensile performance	Short term	N	Cable OD:1.2(±0.1)mm; 1.6(±0.1)mm	30
			Cable OD:3.0(±0.1)*6.0(±0.2)mm; 2.0(±0.1)*4.0(±0.2)mm	40
	Long term	N	Cable OD:1.2(±0.1)mm	20
			Cable OD:1.6(±0.1)mm Cable OD:3.0(±0.1)*6.0(±0.2)mm; 2.0(±0.1)*4.0(±0.2)mm	40
Crush	Short term	N/100mm	Cable OD:1.2(±0.1)mm	200
			Cable OD:1.6(±0.1)mm;3.0(±0.1)*6.0(±0.2)mm; 2.0(±0.1)*4.0(±0.2)mm	500
	Long term	N/100mm	Cable OD:1.2(±0.1)mm;1.6(±0.1)mm	100
			Cable OD:3.0(±0.1)*6.0(±0.2)mm; 2.0(±0.1)*4.0(±0.2)mm	200
Cable attenuation		dB/km	SM: ≅ 0.4 at 1310nm, ≅ 0.3 at 1550nm MM: ≅ 1.0 at 1300nm, ≅ 3.0 at 850nm	
Cable weight (Approx.)		kg/km	7.3	13.5

### SYNERGY 21

					CUSTOMER		ITEM NO.	
					PRODUCT NAME	Fiber optic cable	UNO ITEM NO.	CHINA UNIT mm
		NEW	2024-08-21	AO	DRAWNBY	CHECKBY	APPOBY	DATE
BY	CHK	REVISION RECORD MODIFICATIONS	DATE	REV	SYNERGY 21	SYNERGY 21	SYNERGY 21	2024-08-21