

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

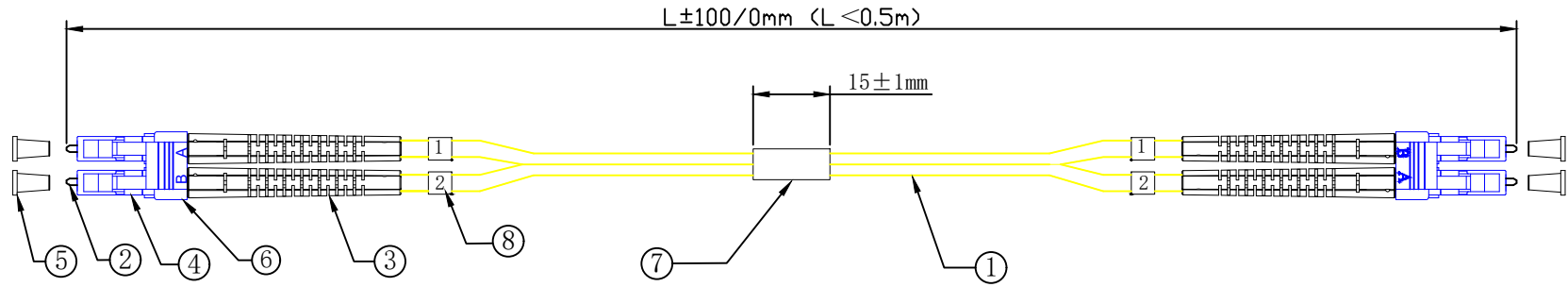
Test Grade Designation:Each to Reference		
Grade IL/RL	IEC61753 Grade B	
Insertion Loss (IL)	97%≤0.25dB mean≤0.12dB	IEC 61300-3-4
Return Loss(RL)	≥50dB	IEC 61300-3-6
Test Wavelength	1310nm	Single-Mode
End face inspection	×400	

MATERIAL LIST:

⑧	Ring 1 2	4pcs	
⑦	Black Heat Shrink Tube	2pcs	
⑥	LC Clip Blue	2pcs	
⑤	LC Dust Cap White	4pcs	
④	LC Duplex Connector Blue	4pcs	
③	LC Flex-Angle boot ID: 2.0mm	4pcs	
②	LC/UPC SM Ferrule 126-128um	4pcs	
①	Fiber Optical Cable Duplex φ2.0mm OS2(G657.A2) 9/125um Yellow LSZH	L+0.1m	
NO.	SPECIFICATION STANDARD	QT'Y	REMARK

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

SYNERGY 21											
					CUSTOMER				ITEM NO.	see the chart	
					PRODUCT NAME	LC/UPC-LC/UPC DX OS2 2.0mm, Flex-Angle boot	Manufacture country	CHINA	UNIT	mm	
					NEW	2024-08-16	A0	DRAWNBY	CHECKBY	APPOBY	DATE
BY	CHK	REVISION RECORD MODIFICATIONS			DATE	REV.	SYNERGY 21	SYNERGY 21	SYNERGY 21	2024-08-16	



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BY	CHK	REVISION RECORD MODIFICATIONS			DATE	REV.	SYNERGY 21	SYNERGY 21	SYNERGY 21	2024-08-16	

PACKING DRAW

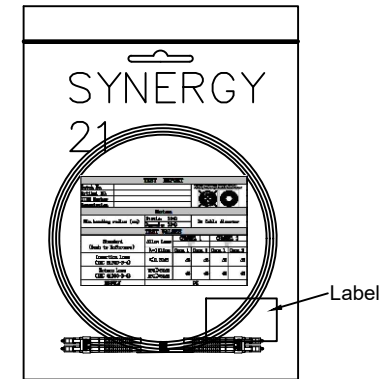


Chart:

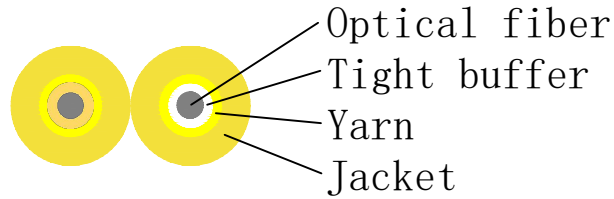
NO.	ITEM NO.	LENGTH	COLOR	EAN Nummer	PACKING
1	S217039	0.25m	Yellow	4038816233417	SYNERGY 21 BAG A
2	S217040	0.5m	Yellow	4038816114112	SYNERGY 21 BAG A
3	S217041	1m	Yellow	4038816114204	SYNERGY 21 BAG A
4	S217042	1.5m	Yellow	4038816114228	SYNERGY 21 BAG A
5	S217043	2m	Yellow	4038816114235	SYNERGY 21 BAG A
6	S217044	3m	Yellow	4038816114303	SYNERGY 21 BAG A
7	S217045	5m	Yellow	4038816114310	SYNERGY 21 BAG B
8	S217046	7.5m	Yellow	4038816114327	SYNERGY 21 BAG B
9	S217047	10m	Yellow	4038816114358	SYNERGY 21 BAG B
10	S217048	15m	Yellow	4038816207258	SYNERGY 21 BAG C
11	S217049	20m	Yellow	4038816114402	SYNERGY 21 BAG C

PACKING:SYNERGY 21 PE BAG+LABEL

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

SYNERGY 21										
						CUSTOMER		ITEM NO.	see the chart	
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			NEW	2024-08-16	A0	DRAWNBY	CHECKBY	APPOBY	DATE	
BY	CHK	REVISION RECORD MODIFICATIONS			DATE	REV	SYNERGY 21	SYNERGY 21	SYNERGY 21	2024-08-16

### 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	i	1.4672	
	1550nm	i	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.	see the chart		
					PRODUCT NAME	Fiber optic cable	Manufacture country	CHINA	UNIT	mm
		NEW	2024-08-16	AO	DRAWNBY	CHECKBY	APPOBY	DATE		
BY	CHK	REVISION RECORD MODIFICATIONS	DATE	REV	SYNERGY 21	SYNERGY 21	SYNERGY 21	2024-08-16		