

Note:  
ROHS 3.0 AND REACH Compliant

Test:

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	Fiber Optical Cable Duplex $\phi$ 2.0 OS2 G652.D 9/125um Yellow LSZH	L	
⑦	Black Heat shrink tubing	2	
⑥	Ring 1, 2	4	
⑤	LC White Boot	4	
④	LC blue Clip	2	
③	LC 2.0 SM Blue Duplex Connector	4	
②	LC/UPC SM Ferrule $\phi$ 125-126um	4	
①	LC White Dust cap	4	
NO	SPECIFICATION STANDARD	QT' Y	REMARK

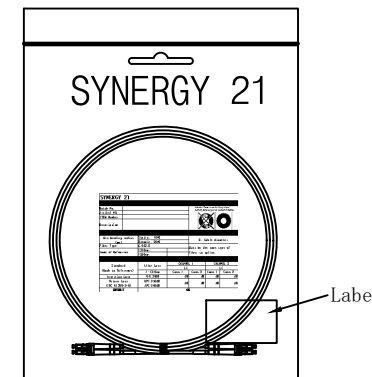
SYNERGY 21									
CUSTOMER				ITEM NO.			See the chart		
PRODUCT NAME		LC/UPC-LC/UPC OS2 9/125um Duplex LSZH Patch cord		Manufacture country		CHINA	UNIT	MM	
DRAWNBY		CHECKBY		APPOBY		DATE			
SYNERGY 21		SYNERGY 21		SYNERGY 21		2017-10-15			

		Changed the ring number to 1,2	2022-11-1	A2
		Update test data	2022-4-06	A1
		NEW	2017-10-15	A
BY	CHK	REVISION RECORD MODIFICATIONS	DATE	REV.

chart:

NO.	ITEM NO.	LENGTH.	color	EAN Nummer	PACKING
1	S216746	0.5M	Yellow	4038816068842	SYNERGY 21 BAG A
2	S216747	1M	Yellow	4038816147608	SYNERGY 21 BAG A
3	S216748	1.5M	Yellow	4038816068866	SYNERGY 21 BAG A
4	S216749	2M	Yellow	4038816068873	SYNERGY 21 BAG A
5	S216750	3M	Yellow	4038816068880	SYNERGY 21 BAG B
5	S216751	5M	Yellow	4038816068910	SYNERGY 21 BAG B
5	S216752	7.5M	Yellow	4038816147615	SYNERGY 21 BAG B
5	S216753	10M	Yellow	4038816068927	SYNERGY 21 BAG B

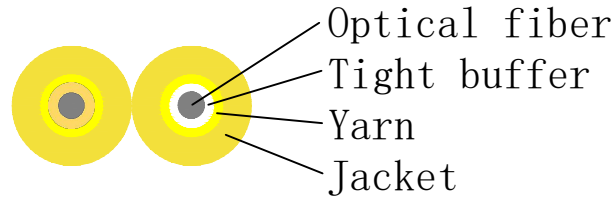
PACKING DRAW



PACKING:SYNERGY 21 PE BAG+LABEL

SYNERGY 21										
CUSTOMER						ITEM NO.		See the chart		
PRODUCT NAME				LC/UPC-LC/UPC OS2 9/125um Duplex LSZH Patch cord		Manufacture country		CHINA	UNIT MM	
DRAWNBY			CHECKBY			APPOBY		DATE		
NEW			2017-10-15		A					
BY	CHK	REVISION RECORD MODIFICATIONS			DATE	REV.	SYNERGY 21	SYNERGY 21	SYNERGY 21	2017-10-15

### Cable cross-section



G652D Characteristic of Optical Fiber

Item		Unit	Specification
			G. 652D
Mode field diameter	1310nm	μm	9.2 ± 0.4
	1550nm	μm	10.4 ± 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 (100 turn, 60mm radius)	1550nm	dB	≤0.03
	1625nm	dB	≤0.05
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
Effective group index of refraction	1310nm	/	1.4672
	1550nm	/	1.4683
Zero dispersion wavelength		nm	1300~1324
Zero dispersion slope		ps/(nm <sup>2</sup> · km)	≤0.091
Zero dispersion slope typical value		ps/(nm <sup>2</sup> · km)	

Other parameters meet standard ITU-T G.652D

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	2021-11-08	A	DRAWNBY	CHECKBY	APPOBY	DATE		
BY	CHK	REVISION RECORD MODIFICATIONS	DATE	REV	SYNERGY 21	SYNERGY 21	SYNERGY 21	2021-11-08		