

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 $\phi$ 3.0 OS2 G652.D 9/125um Yellow LSZH	L	
⑦	Black Heat shrink tubing	2	
⑥	Ring 1, 2	2	
⑤	LC White Boot	4	
④	LC blue Clip	2	
③	LC 3.0 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

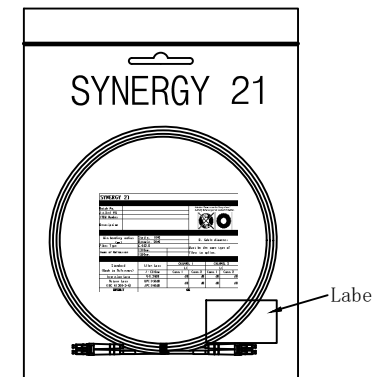
		Changed the ring number to 1,2	2022-11-1	A4
		Update test data	2022-4-06	A3
		UPDATE COMPLIANT	2013-06-24	A2
		Fiber cable OD 2.0 to 3.0mm	2012-08-13	A1
		NEW	2011-01-21	A
BY	CHK	REVISION RECORD MODIFICATIONS	DATE	REV.

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	2012-08-13		

chart:

NO.	ITEM NO.	LENGTH.	color	EAN Nummer	PACKING
1	S216247	0.5M	Yellow	4038816224316	SYNERGY 21 BAG A
2	S216250	1M	Yellow	4038816224347	SYNERGY 21 BAG A
3	S216253	2M	Yellow	4038816224378	SYNERGY 21 BAG B
4	S216256	3M	Yellow	4038816224408	SYNERGY 21 BAG B
5	S216259	5M	Yellow	4038816224439	SYNERGY 21 BAG B
6	<b>S216261</b>	7.5M	Yellow	4038816224453	SYNERGY 21 BAG B
7	<b>S216262</b>	10M	Yellow	4038816224460	SYNERGY 21 BAG B

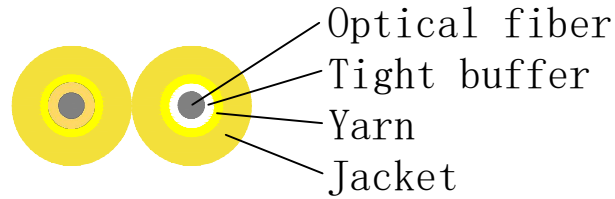
PACKING DRAW



PACKING:SYNERGY 21 PE BAG+LABEL

SYNERGY 21													
CUSTOMER						ITEM NO.	See the chart						
		UPDATE COMPLIANT				2013-06-24	A2	PRODUCT NAME	LC/UPC-LC/UPC OS2 9/125um Duplex LSZH Patch cord	manufacture country	CHINA	UNIT	MM
		Fiber cable OD 2.0 to 3.0mm				2012-08-13	A1	DRAWNBY	CHECKBY	APPOBY	DATE		
		NEW				2011-01-21	A	SYNERGY 21	SYNERGY 21	SYNERGY 21	2012-08-13		
BY	CHK	REVISION RECORD MODIFICATIONS				DATE	REV.						

### 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
Crush	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		