

Note:
 1.RoHS 3.0 & Reach 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:

| | | | |
|-----|--|--------|--------|
| ⑫ | SC Duplex Connector Blue | 2pcs | |
| ⑪ | SC Clip Blue | 1pcs | |
| ⑩ | SC Dust Cap | 2pcs | |
| ⑨ | SC/UPC SM Ferrule | 2pcs | |
| ⑧ | Ring 1 2 | 4pcs | |
| ⑦ | Black Heat Shrink Tube | 2pcs | |
| ⑥ | LC Clip Blue | 1pcs | |
| ⑤ | LC Dust Cap White | 2pcs | |
| ④ | LC Duplex Connector Blue | 2pcs | |
| ③ | LC Flex-Angle boot ID: 2.0mm | 4pcs | |
| ② | LC/UPC SM Ferrule 126-128um | 2pcs | |
| ① | Fiber Optical Cable Duplex ϕ 2.0mm 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: 7.5mm

| | | | | | | | | | | | |
|-------------------|-----|---------------------------------|--|------------|------|--------------|--|---------------------|------------|------------|----|
| SYNERGY 21 | | | | | | | | | | | |
| | | Update test data | | 2022-4-06 | A2 | CUSTOMER | | ITEM NO. | | | |
| | | change "ROSH 2.0" to "ROSH 3.0" | | 2022-02-25 | A1 | PRODUCT NAME | SC/UPC-LC/UPC DX OS2 2.0mm, Flex-Angle boot | Manufacture country | CHINA | UNIT | MM |
| | | NEW | | 2021-09-08 | A0 | DRAWNBY | CHECKBY | APPOBY | DATE | | |
| BY | CHK | REVISION RECORD MODIFICATIONS | | | DATE | REV. | SYNERGY 21 | SYNERGY 21 | SYNERGY 21 | 2021-09-08 | |

| TEST REPORT | | | | | |
|-----------------------------------|--|-----------|-------------------|-----------|---|
| Batch No. | | | | | Attention: Please clean the fiber surfaces! Achtung: Bitte reinigen Sie Steckstrirrfächer! |
| Artikel NO. | | | | | |
| 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 $\lambda=1310\text{nm}$ | CHANNEL 1 | | CHANNEL 2 | |
| | | Conn. 1 | Conn. 2 | Conn. 1 | Conn. 2 |
| Insertion Loss (IEC 61300-3-4) | $\leq 0.30\text{dB}$ | dB | dB | dB | dB |
| Return Loss (IEC 61300-3-6) | UPC $\geq 50\text{dB}$ APC $\geq 60\text{dB}$ | dB | dB | dB | dB |
| RESULT | | OK | | | |

PACKING DRAW

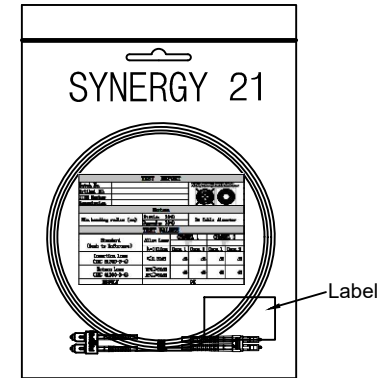
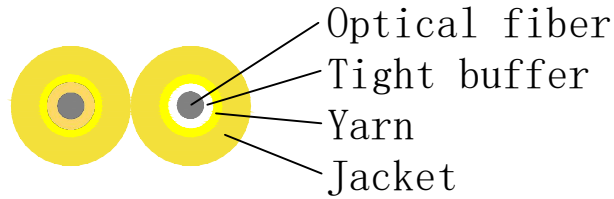


Chart:

| Item No. | Package | EAN Code | LENGTH (MM) |
|----------|---|---------------|-------------|
| S217030 | SinglePack: 1pc/SYNERGY 21 A bag/test report+label; SubPack: no; Carton +labelx2; | 4038816207234 | 500 |
| S217031 | SinglePack: 1pc/SYNERGY 21 A bag/test report+label; SubPack: no; Carton +labelx2; | 4038816113955 | 1000 |
| S217032 | SinglePack: 1pc/SYNERGY 21 A bag/test report+label; SubPack: no; Carton +labelx2; | 4038816114020 | 1500 |
| S217033 | SinglePack: 1pc/SYNERGY 21 A bag/test report+label; SubPack: no; Carton +labelx2; | 4038816114051 | 2000 |
| S217034 | SinglePack: 1pc/SYNERGY 21 A bag/test report+label; SubPack: no; Carton +labelx2; | 4038816114068 | 3000 |
| S217035 | SinglePack: 1pc/SYNERGY 21 B bag/test report+label; SubPack: no; Carton +labelx2; | 4038816114075 | 5000 |
| S217036 | SinglePack: 1pc/SYNERGY 21 B bag/test report+label; SubPack: no; Carton +labelx2; | 4038816114082 | 7500 |
| S217037 | SinglePack: 1pc/SYNERGY 21 A bag/test report+label; SubPack: no; Carton +labelx2; | 4038816207241 | 10000 |

| SYNERGY 21 | | | | | | | | | |
|------------|-----|-------------------------------|------------|-----|--------------|---|---------------------|---------------|---------|
| | | | | | CUSTOMER | | ITEM NO. | see the chart | |
| | | | | | PRODUCT NAME | SC/UPC-LC/UPC DX OS2 2.0mm, Flex-Angle boot | 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 | |

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 ² · km) | ≤0.091 |
| Zero dispersion slope typical value | | ps/(nm ² · 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 | |
| | Short term | N | Cable OD:1.2(±0.1)mm; 1.6(±0.1)mm | 30 |
| Tensile performance | Long term | N | Cable OD:3.0(±0.1)*6.0(±0.2)mm; 2.0(±0.1)*4.0(±0.2)mm | 40 |
| | | | Cable OD:1.2(±0.1)mm | 20 |
| | Short term | N/100mm | Cable OD: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 |
| 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 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 | | |