Report No.：FCQC170227001

Test Report

Product Name：Optical Cable

Model：FireFiber-AT

Date：27th Feb 2017

Test Report

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<table>
<tr><td>Product Name</td><td>Optical Cable</td><td>Model</td><td>FireFiber-AT</td></tr>
<tr><td>Length</td><td>9000m</td><td>Reel No.</td><td>PD20170202~05</td></tr>
<tr><td>Test standard</td><td colspan="3">GB 16280-2014 Line Type Fire Detectors
GB/T 7424.2-2008 IEC 60794-1-2-2003 (equivalent)
YD/T 1258.3-2009 IEC 60794-2-11-2005 (equivalent)</td></tr>
<tr><td>Test introduction</td><td colspan="3">The test includes 18 test items, among which item 14, 15, 16, and 17 are destructive tests and others are conventional tests.
Test result: This batch of optical cable has passed all 18 test items .

Stamp:

Date： 27th Feb. 2017</td></tr>
<tr><td>Approved by</td><td></td><td>Test engineer</td><td></td></tr>
</table>

Test Result

No.	Item		Specification	Rest result
1	Appearance	Outer diameter	3.3mm ± 0.1mm	3.27~3.39
2		Color	Blue	Pass
3	Material	Stainless spiral tube	SUS201	Pass
4		Reinforcement layer	Kevlar（DuPont)	Pass
5		Braid	SUS304	Pass
6		Outer tube	LSZH	Pass
7	Optical fiber	Optical type	Multimode（62.5/125） Corning fiber	Pass
8		Fiber core	2	Pass
9		Fiber color	White and orange	Pass
10	Optical property	Attenuation	≤3.0 dB/km(850nm)	Pass, see page 3
11			≤1.0 dB/km(1300nm)	Pass, see page 3
12		Effective group refractive index	1.496(850nm)	Pass
13			1.491(1300nm)	Pass
14	Mechanical property	Allowed stretch	Long-term: 200N， Short-term: 300N	Pass
15		Allowed flattening pressure	Long-term: 2000N， Short-term: 3000N	Pass
16		Bending radium	Static: 33mm，Dynamic: 66mm	Pass
17	Environmental property	Applicable temperature	-20℃~+85℃	Pass
18	silk-screen	silk-screen on optical cable	Sensor Cable BB2MM	Pass

Test Result

No.	Reel No.	Length (m)	Attenuation		Test result
			≤3.0 dB/km (850nm)	≤1.0dB/km (1300nm)	
1	PD20170202	2549	White fiber-2.892	White fiber-0.536	Pass
2			Orange fiber-2.818	Orange fiber-0.517	Pass
3	PD20170203	2547	White fiber-2.866	White fiber-0.536	Pass
4			Orange fiber-2.846	Orange fiber-0.515	Pass
5	PD20170204	2020	White fiber-2.884	White fiber-0.511	Pass
6			Orange fiber-2.906	Orange fiber-0.537	Pass
7	PD20170205	2024	White fiber-2.887	White fiber-0.507	Pass
8			Orange fiber-2.894	Orange fiber-0.527	Pass
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