

### TEST REPORT

REPORT NO.: 2014EEA0665

PAGE : 1 OF 10

This Test Report refers only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This test report shall not be reproduced, except in full and shall not be used for any purpose by any means or forms (including but not limited to advertising purposes) without written approval from Managing Director, SIRIM QAS International Sdn. Bhd. Please refer overleaf/last page for Conditions Relating to the Use of Test Report contain in this Test Report shall apply.

Applicant : ETD MAKMUR (M) SDN. BHD.,  
 No. 11, Jalan SP 2/8,  
 Taman Serdang Perdana, Seksyen 2,  
 43300, Seri Kembangan, Selangor.

Manufacturer : ZHEJIANG HEADWAY COMMUNICATION EQUIPMENT  
 MANUFACTURING CO., LTD  
 Taihu Rd, Eco & Tech Development Zone,  
 Changxing, Zhejiang, China.

Product : FIBER OPTIC CABLES

Reference Standard /  
 Method of test : IEC 60794-1-2: 1999  
 : ST/TF/CTA02/INDOOR CABLE

Description of sample : Brand : ATTEL  
 Model : INDOOR CABLE  
 No. of cores : 2  
 No. of fibers per tube : 2  
 Outersheath : Low smoke zero halogen

Date received : 23 JUN 2014

Job No./Ref.No. : J20141420534 (K2)


Overall test result : **COMPLIED (See page 2 for details)**

Issued date : 08 AUG. 2014

Approved Signatory

  
 (DANIAL NAIM BIN MAT RASHID)  
 Testing Executive



  
 (SURIAN BIN RASOL)  
 Senior Testing Executive,  
 Electrical & Electronic Section 1,  
 Testing Services Department

This Test Report refers only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This test report shall not be reproduced, except in full and shall not be used for any purpose by any means or forms (including but not limited to advertising purposes) without written approval from Managing Director, SIRIM QAS International Sdn. Bhd.

### SUMMARY OF TEST:

1. This is a witness test report as requested by the applicant
2. The test that has been conducted were as follows;

Item	Test	Method
<b>1.0</b>	<b>Optical characteristic</b>	
1.1	Macro bending loss (1550 nm)	IEC 60793-1-47
	Proof Stress	ST/TF/CTA02/INDOOR CABLE
1.2	Attenuation coefficient (1310/1550 nm)	IEC 60793-1-40
1.3	Chromatic dispersion	IEC 60793-1-42
1.4	Polarized mode dispersion coefficient	IEC 60793-1-48
1.5	Fiber geometry	IEC 60793-1-20
1.6	Cut-off wavelength	IEC 60793-1-44
<b>2.0</b>	<b>Mechanical characteristic</b>	
2.1	Tensile strength test	IEC 60794-1-E1
2.6	Bend test	IEC 60794-1-E11
<b>3.0</b>	<b>Environmental characteristic</b>	
3.1	Temperature cycling test	IEC 60794-1-F1

3. All tests were conducted at manufacturer's premises: Zhejiang Headway Communication equipment manufacturing co.,Ltd,China.
4. The samples subjected to the test were chosen to represent the range of the optical core of 2-cores , as agreed between the supplier and purchaser.
5. All the tests were carried out at ambient temperature of 25 °C ± 5 °C, unless otherwise specified
6. The abbreviation used in this test report denotes as follows;

Pass : Complied with the requirement  
 N/A : Not applicable  
 Fail : Failed  
 NC : Not conducted

