



This Confirmation of Product Type Approval is valid only as of 21/OCT/2008 for the below listed product.

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of American Bureau of Shipping (ABS), on 21/OCT/2008 the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) and a valid Product Design Assessment (PDA) for the below listed product, entitling the product to type approval.

The validity of the Manufacturing Assessment is dependent on satisfactory audits as required by the Rules.

The Product Design Assessment is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product. For Date of ABS Rules used for evaluation; Please refer to the ABS Rules below. ABS makes no representations regarding type approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

HCS-HES Cabling Systems

Model Name(s): HCS P/N H07-00402 Category 7 4x2x23# S/FTP LSOH
Horizontal Cable

Presented to:

HCS-HES Cabling Systems
Turgut Reis Mah. Barbaros Cad.
Glyimkent Kooperarif ici Vadi Bulvari No:1
Istanbul
34235 ESENIER
Turkey

Intended Service:	Data Communications, LAN, Ethernet, Video, or Digital audio for marine applications.
Description:	The cable is made up of 4 individually foil-shielded twisted pairs, cabled together, overall shielded with a tinned-copper braid overall jacketed 23 AWG, S/FTP, CM, Non-Plenum, Horizontal (Solid) low smoke, zero-halogen and flame retardant for indoor use.
Ratings:	Temperature operating range: -20 to 60 degrees C, Voltage: 72 Vdc max.
Service Restrictions:	Unit Certification is not required for this product.
Comments:	Records of test are to be maintained and are to be submitted upon request by the surveyor.
Notes / Documentation:	This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product. Approval documentation: Intertek Certificate of Conformity: 3064805-001, Report No.3023466, technical report DELTA-N312209, DANAK-19J1619.
Term of Validity:	This Design Assessment Certificate number 07-LD284713-PDA, dated


19/Nov/2007 will expire on 18/Nov/2012 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2008, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

ABS Rules:

2007 Steel Vessel Rules 1-1-4/7.7 and 4-8-3/9.1, and MODU Rules 4-3-4/13.1.1

National Standards:**International Standards:**

ISO/IEC 11801:2002, IEC 61156-5 Category 7 and IEC 60332-1

Government Authority:**EUMED:****Others:**

Manager, ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.