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# **HCS Site Registration Form**

In order to obtain a valid HCS Lifetime Warranty this form shall be filled and signed by the applicant. A separate HCS Site Registration Form shall be submitted for each and every site.

All test reports shall be submitted in electronic format only.

Any false, inaccurate, misleading or missing information shall turn void the HCS Site Warranty, the HCS Product Warranty and any other HCS Warranty.

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PART 1: Installer/Applicant details						
Full name						
Phone						
Email						
Title/Position						
Company name						
Phone						
Fax						
Full Address						
HCS Installer Certificate	Issued on		Expires on			
PART 2: Installation Site	e details					
End-user/owner company	/ name					
Site location						
Full address						
	•					
Total number of test report files submitted						
Note: Each drop (PL or CHANNEL) tested shall be identified by a specific name/number corresponding to the identification tag of the drop in the site.						
The installer shall submit <b>in a separate form</b> a detailed site description, including the following details:  1. Total Number of buildings in the site.  2. Total number of floors per each building.  3. Total number of wiring cabinets per each floor.  4. Total number of drops per each cabinet.  5. Full name & revision of test standard limits used for testing. Valid options:  ANSI/TIA-568: Commercial Building Telecommunications Cabling Standard.  ISO/IEC-11801: Information Technology-Generic Cabling for Customer Premises.  CENELEC EN 50173, Information Technology-Generic Cabling Systems.  6. Full name & revision of standards used for design, installation and administration. Valid options:  ANSI/TIA-569: Commercial Building Standard for Telecommunications Pathways and Spaces.  ANSI/TIA-606: Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.  ISO/IEC-18010: Information Technology- Pathways and spaces for Customer Premises.  7. Full details on test instrument used including type, model & software revision						

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### **HCS – HES Cabling Systems**



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List of components used				
Horizontal cable type	HCS P/N	HCS Batch number		
Connector type	HCS P/N	HCS Batch number		
Modular cord type	HCS P/N	HCS Batch number		

### PART 3: Test results summary

Notes:

- Copper test reports shall include all transmission parameters required by the relevant standard.
- Fiberoptic test reports shall include both attenuation & length.
- All reports shall be done in reference to the test limits of one of the standards indicated in Part 2 of this document and shall have clear Pass/Fail criteria.

Test Report File Name	Copper Drops tested			FO D	)rops	No. of Pass	No. of Fail	Identification Number of	
	No.	CAT	U/S	PL/CH	No.	Fiber	Results Re	Results	Failed Drops

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#### **PART 4: HCS Warranty Terms and Limitations**

The HCS Warranty granted for this site shall be valid only if all the following conditions have been met:

- 1. All the system components are HCS approved passive connectivity products. Any active equipment, public network interface, or terminal equipment are not covered by the HCS Lifetime Warranty.
- 2. The entire system has been installed and commissioned by an authorized HCS Certified Installer.
- 3. The entire site was installed in full compliance to the INCREMENTAL INSTALLATION & TESTING PROCEDURE, detailed in the HCS Site Installation Procedure, in pages 4 and 5 of this document.
- 4. All equipment used in the installation has been installed and tested in full compliance to the practices specified in the HCS Manuals, according to the latest revision of the relevant standards and with full compliance with the registered category performance.
- 5. Any site, cabling system, permanent link, channel or components that have not be installed in full compliance to the above terms and limitations are not covered by the HCS Lifetime Warranty nor by HCS Product warranty.

### The HCS Warranty is limited to the following conditions:

Only the repair or replacement of elements in a Certified HCS network by HCS or by its designated Certified Installer is provided under this warranty. This warranty is limited to the original end user for whom it was installed and is not transferable. This warranty is only applicable to the transmission properties and applications of the category, standard or draft standard to which the warranted channels or links were tested to, as indicated in the specific warranty. Updates, modifications and revisions of standards published after the date of testing may not be retroactively applied to this warranty.

This warranty is only applicable to Channels and Links that were tested & reported. Failed or non-tested Links or Channels are automatically excluded from the warranty. Channel warranty is not applicable to Link warranty and vise-versa.

HCS makes no other representation or warranty of any other kind, expressed or implied with respect to the components sold hereunder, whether as to merchantability, fitness for a particular purpose or any other matter. Under no circumstances or conditions shall the HCS be liable or responsible for any claim of any buyer for costs, expenses, direct or consequential damages due to the use or misuse of the HCS products.

This warranty does not include modular cords and terminated work-area cables.

This warranty shall be expanded only to the extent required by applicable local law.

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PART 5: Installer/A	pplicant	<b>Statements</b>
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By signing my full name below I hereby state that the following is true and valid:

- 1. My personal details indicated in PART 1 of this document.
- 2. I am fully authorized to represent the company indicated in PART 1 of this document.
- 3. I carefully read and fully understood all terms, conditions & limitations detailed in all 5 pages of this document.
- 4. I have fully informed the end user of this cabling system about all terms, conditions & limitations detailed in this document.
- 5. All permanent links and channels in this site have been designed, installed, documented & tested in full compliance with the standards indicated in PART 2 of this document.
- 6. I am fully aware of the fact that any false statement I made in this document will turn void the HCS

Warranty granted for this site.					
Binding signature	<b>9</b> :				
Company Stamp					
Signed on	Date:	Place:			

### Attachments:

- A. Detailed site description (as indicated in PART 2 of this document).
- B. Detailed test results in electronic form.
- C. Additional documentation (pls specify):

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## **HCS Site Installation Procedure**

This HCS Site Installation Procedure shall be used in order to obtain a valid HCS Lifetime Warranty and/or HCS Product Warranty.

Failing to comply with any part of this document shall turn the HCS Lifetime Warranty and/or HCS Product Warranty void.

#### PART 1: Basic installation guidelines

#### Installation shall fully conform to ANSI/TIA-568 and ANSI/TIA-569 latest editions.

- 1. Avoid any cable abuse, including kinking, twisting and crushing.
- 2. Maximum pulling tension of horizontal cable should not exceed 8 Kgf (78N).
- 3. The cable path should not include more than 3 turns of 90° in each link.
- 4. The dynamic bend radius should be minimum 8 times the cable OD.
- 5. The static bend radius should be minimum 4 times the cable OD.
- 6. Avoid proximity to power cables, transformers, elevator shafts and any other source of EMI.
- 7. Avoid any proximity to heat sources.
- 8. The cable must never be exposed to temperatures lower than -20C and higher than +60C.
- 9. During installation the cable temperature and the room temperature must never be lower than 0C and higher than +40C.
- 10. Indoor cables must never be exposed sunlight, rain and excessive humidity.
- 11. Do not bundle the cables during installation lay them as randomly as possible.
- 12. Avoid creating neat service loops.
- 13. Use only soft cable ties loosely tied at uneven intervals.
- 14. During cable termination remove the absolute minimum of jacket required the keep the pair twist to the point of connection.
- 15. Always use proper tools and equipment for installation and testing

#### PART 2: Installation procedure

Each and every HCS site shall be installed according to the **INCREMENTAL INSTALLATION & TESTING PROCEDURE**, as follows:

1. In any new CAT 6A/Class EA installation, first install 20-30 links, terminate them and test them as Permanent Links.

In any new CAT 6/Class E installation, first install 2-3 links, terminate them and test them as Permanent Links.

In cases where the termination stage is done later, terminate the links with HCS keystone jacks having the same Category as the horizontal cable.

- 2. Review all the results carefully and verify that all parameters, including but not limited to RL & NEXT, pass with margins of 3 dB minimum over the standard requirements.
- 3. If all CAT 6A/Class EA results provide 3dB minimum margin in all parameters you may continue the installation, installing 50 links at a time and testing at least 10% of links installed (5 links minimum in every 50 link batch).

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If all CAT 6/Class E results provide 3dB minimum margin in all parameters you may continue the installation, installing 100 links at a time and testing at least 1% of links installed (1 link minimum in every 100 link batch).

4. In case any link shows margins smaller than of 3 dB stop the installation and check for the reason. If you cannot find the reason please contact HCS for assistance.

The installation process must not continue until the source of problem is found and all results obtained are above the 3dB minimum margin.

In any case of doubt, question or problem pls contact HCS headquarters for further instruction.

5. All the above pilot tests shall be saved with plots, indicating all the relevant details, including time, date and site name, and shall be sent to HCS headquarters for inspection.

### PART 3: Test equipment guidelines

The test equipment used for all testing shall be:

- 1. State-of-the-art test equipment specially designed for testing of cabling systems in local area networks.
- 2. Properly calibrated as required in the instrument manual and by the test instrument manufacturer.
- 3. Loaded with the latest standard limits valid at the time of testing for the standard used.
- 4. In full compliance with the accuracy level relevant to the products tested.

#### **PART 4: Installer Credentials**

- 1. All people involved in any stage of the site installation, including cable pulling, laying, cutting, terminating and testing, whether as company employees, contractors or sub-contractors, shall be **supervised and trained** by officially trained and certified HCS installers with a valid HCS Installation Partner Certificate (*CHIP*).
- 2. All people involved in any stage of the site installation, including cable pulling, laying, cutting, terminating and testing, whether as company employees, contractors or sub-contractors, shall carefully review this document and follow its procedures and guidelines.

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