



Fraunhofer

TESTED[®] DEVICE

Whale-Tech/SHA THETA
CWCableChain(CW28.068-700)
Report No. WH 2503-1599

Single product Particle Emission in Cleanroom (atmospheric)

Qualification Certificate

This is to certify that the product mentioned above, provided by

Whale Technology (Shanghai) Co., Ltd
Shanghai, China

has been awarded a Fraunhofer certificate TESTED DEVICE
bearing the report number WH 2503-1599.

The Wave-Shape Cleanroom Cable Chain (CW28.068-700, color: white) was assessed in compliance with ISO 14644-14. When operated under the specified test conditions (room temperature: $22^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$; relative humidity: $45\% \pm 5\%$), it is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanliness Class
$v_1 = 0.5 \text{ m/s}; a_1 = 1.0 \text{ m/s}^2$	2
$v_2 = 1.0 \text{ m/s}; a_2 = 2.0 \text{ m/s}^2$	1
$v_3 = 2.0 \text{ m/s}; a_3 = 4.0 \text{ m/s}^2$	1
Overall result	2

Please note: Transport damages, incorrect installation, aging behavior etc. can influence the test result.

WH 2503-1599
Report No. first document

Stuttgart, April 7, 2025
Place, date of first document issued

--
Report No. current document

--
Place, current date

on behalf of 
Dr.-Ing. Frank B rger, Project Manager Fraunhofer IPA

This document only applies to the named product in its original state and is valid for a period of 5 years from the date the first document was issued. The document can be verified under www.tested-device.com.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.