

Appearance and Dimensional Inspection

Preface

MAXMAC checks ion-module appearance and drawing dimensions through visual inspection, digital-caliper measurement and optical measurement. Numbered drawing locations connect each dimensional requirement to the measurement record and original inspection photographs.

The report covers six modules, 59#-64#, and 18 measurement locations. All 108 dimensional readings were within their specified limits. Visual inspection recorded intact components, smooth surfaces, clear identification, correctly seated clips and undamaged connector interfaces. The group received Pass.

Visual Inspection Checklist

Inspection item	Recorded observation
Surface / components	Smooth finish; no damage or dents
Marks and identification	Complete and clear
Clips / snap features	Correctly seated
Connector interface	Intact and undamaged
Contact blades	No skew or deformation

Measurement Method

Use the numbered drawing to identify each location. Measure the basic dimensions with a digital caliper and optical measurement equipment, record the readings against each sample, and compare them with the lower and upper limits.

Equipment: QH4030 optical measuring instrument, E-040; digital caliper, E-050, 0-300 mm range and 0.01 mm resolution.

Test basis: Kunlun environmental reliability test plan.

Original 18-Point Drawing

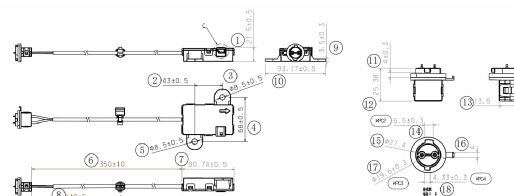


Figure 1 Original drawing and numbered inspection locations 1-18, source p. 54.



Figure 2 Original caliper measurement at point 1 on sample 59#, source p. 54.

Dates: 26 June-7 July 2025.

Testing: MAXMAC laboratory.

Recorded ambient: start 25 °C / 65% RH; end 26 °C / 72% RH.

Source: Leg8 pp. 50-57.

Complete Dimensional Results: 18 Points × Six Samples

Point	Drawing nominal / tol.	Lower / upper	59#	60#	61#	62#	63#	64#
1	21.5 ±0.5	21 / 22	21.51	21.50	21.49	21.49	21.49	21.48
2	43 ±0.5	42.5 / 43.5	42.613	43.078	42.552	42.519	42.618	42.660
3	8.5 ±0.5	8 / 9	8.44	8.43	8.44	8.45	8.45	8.44
4	68 ±0.5	67.5 / 68.5	67.998	67.699	68.047	68.062	68.025	67.963
5	8.5 ±0.5	8 / 9	8.44	8.43	8.44	8.44	8.41	8.44
6	350 ±10	340 / 360	347.344	344.230	343.230	345.163	340.404	347.182
7	80.74 ±0.5	80.24 / 81.24	80.73	80.74	80.73	80.73	80.75	80.75
8	140 ±5	135 / 145	141.30	140.48	140.26	140.16	139.43	140.47
9	3.5 ±0.3	3.2 / 3.8	3.49	3.50	3.49	3.51	3.51	3.51
10	93.17 ±0.5	92.67 / 93.67	93.028	92.941	93.040	93.071	92.972	93.035
11	4 ±0.3	3.7 / 4.3	3.88	3.89	3.88	3.87	3.88	3.88
12	25.38 ±0.48	24.9 / 25.86	25.38	25.39	25.40	25.43	25.40	25.42
13	13.6 ±0.38	13.22 / 13.98	13.93	13.95	13.94	13.94	13.94	13.95
14	6.5 ±0.3	6.2 / 6.8	6.52	6.52	6.54	6.54	6.53	6.54
15	27.4 ±0.48	26.92 / 27.88	27.07	27.06	27.08	27.07	27.08	27.09
16	4 ±0.34	3.66 / 4.34	4.08	4.06	4.07	4.07	4.08	4.09
17	19.6 ±0.3	19.3 / 19.9	19.31	19.32	19.33	19.33	19.31	19.32
18	4.33 ±0.3	4.03 / 4.63	4.43	4.45	4.44	4.45	4.46	4.44

Table 1 All dimensions in mm. The 18 points follow the numbered source drawing; all six samples were recorded as OK. Original data: Leg8 pp. 51-52.

Acceptance at each point: lower limit ≤ measured dimension ≤ upper limit.

Verified readings: 18 points × 6 modules = **108**. All 108 lie within their recorded drawing limits.

Example, point 2: 43 ±0.5 mm gives limits of 42.5-43.5 mm. The six recorded values span **42.519-43.078 mm**, within those limits.

Original Inspection Evidence and Sample Traceability

Six-Sample Appearance Record

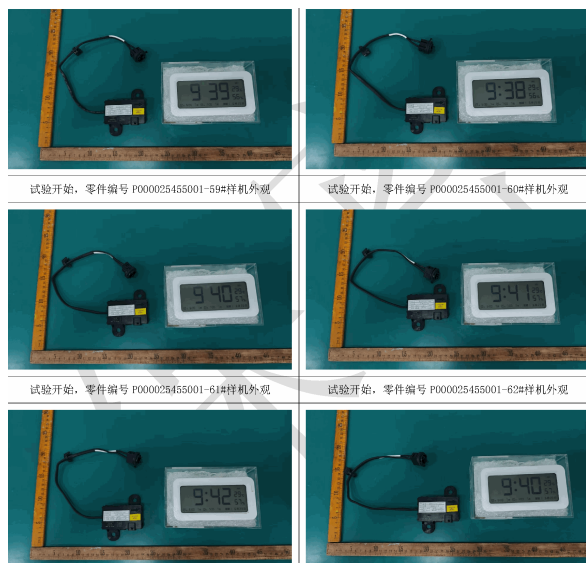


Figure 3 Original appearance photographs for 59#-64#: rows show 59# / 60#, 61# / 62#, and 63# / 64#. Source p. 53.

Recorded Group Result

For every sample, the report records smooth appearance, no component damage or surface dents, complete and clear marking, correctly seated clips, intact connector ports and contact blades without skew or deformation. Dimensions met the drawing requirements. Final judgment: **Pass**.

Optical Measurement at Point 2

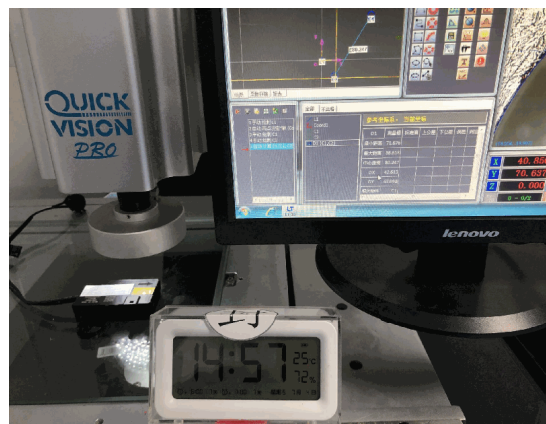


Figure 4 Original optical measurement of point 2 on sample 59#, source p. 54.

Caliper Measurement at Point 8



Figure 5 Original measurement photograph for point 8, source p. 55.

Source index: method / equipment p. 50; numbered drawings pp. 50-51 and 54; results pp. 51-52; appearance p. 53; point-by-point measurement photographs pp. 54-57.

Original report: Kunlun-DVC_R-30.01-P000025455001-008-V1.0. Version 1.0: 26 October 2026.