SPECIFICATION

Spec. No.
Issue Date 2020.07.03

Attn:

Product name	TDK Model No.
Auto Focus Voice Coil Motor	***TVF-8100KA***

Notes:

Customer Approval

Signature	Date

TDK

Sales department

App.	PIC

Design department

App.	Con.	PIC

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Specifications Revise History

Product name WEB CAM Auto Focus Voice Coil Motor

TDK Model NO. TVF-8100KA

Present Specification	Revised Specifications	Revised Reasons	Date
TVF-8100KA(00)		Initial release	2020.07.03

Department in Charge	Record Date	Specifications No.
Sensor Actuator (B538)	2020.07.03	0

1.Application Range

These specifications specify general specifications and performance of Actuator of Mobile Camera Module。

2.Description

Our part No. in this specifications

T D K No. TVF-8100KA

3.Related Specifications

All parts including glue and solder of TDK VCM-TVF-8100KA fit into RoHS .

4.Contents

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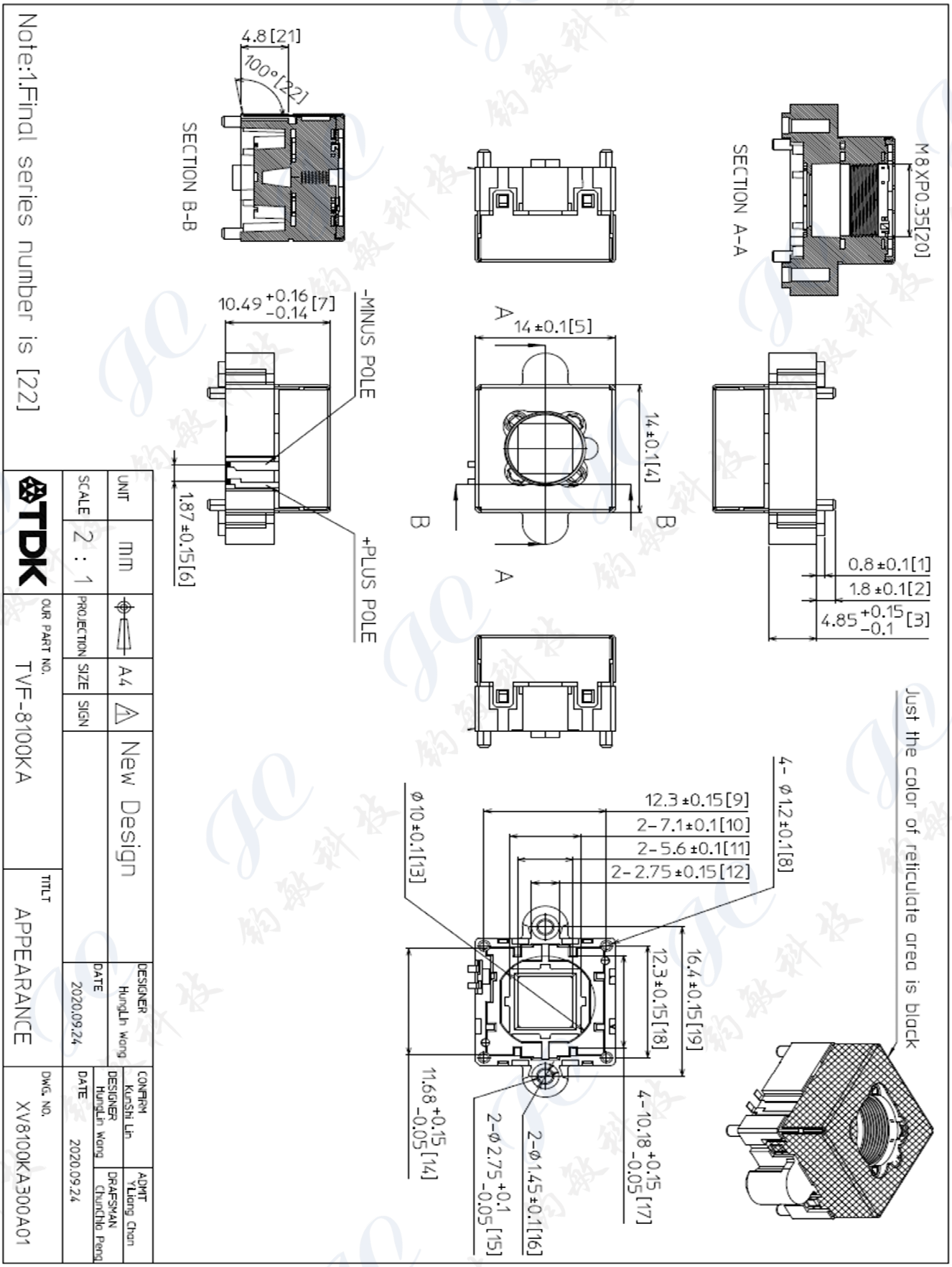
1 ・Appearance and Dimensions



SPECIFICATIONS

Target	No.	TVF-8100KA

1 .Applications

1－1. Application Range

（1） These specifications specify general specifications and performance of Auto-focus VCM.

（2） These specifications may be changed for improvement ffter agreement between both parties。

（3） If any suspicion or inconvenience occurs in the contents of this specifications, it shall be resolved by the two parties.

（4） If there are no comments about Auto-Focus VCM,these specifications are applied for Auto-Focus camera module.

（5） Standard of Sampling

(Ⅰ) Appearance SPEC. follow Level II AQL 0.65% sampling

(Ⅱ) Performance SPEC. follow n=5,C(0,1)

1－2. Evaluation Conditions

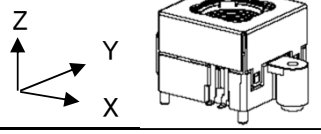
（1） **Optical Axis of Lens is the direction of gravity and Actuator should move Upward。**

（2） Standard evaluation environment

If no errors occur in evaluation , the following range of conditions is acceptable。

Temperature １５～３５℃ ; Humidity ３０～８０％ R.H.

1－3 Product Information

No.	Items	Specifications
1	Lens Module Diameter	M8.0XP0.35 (Diameter)
2	Working Direction	Along the Optical Axis
3	Operation Environ.	-30～70℃ 10～90%RH
4	Storage Environ.	At ambient temperature and humidity.(Within six months after product delivery)
5	Particle	≤ 50 um
6	**Torque (Thread gauge)**	**< 150 gf-cm**
7	Definition of Direction	

2 .General Specifications

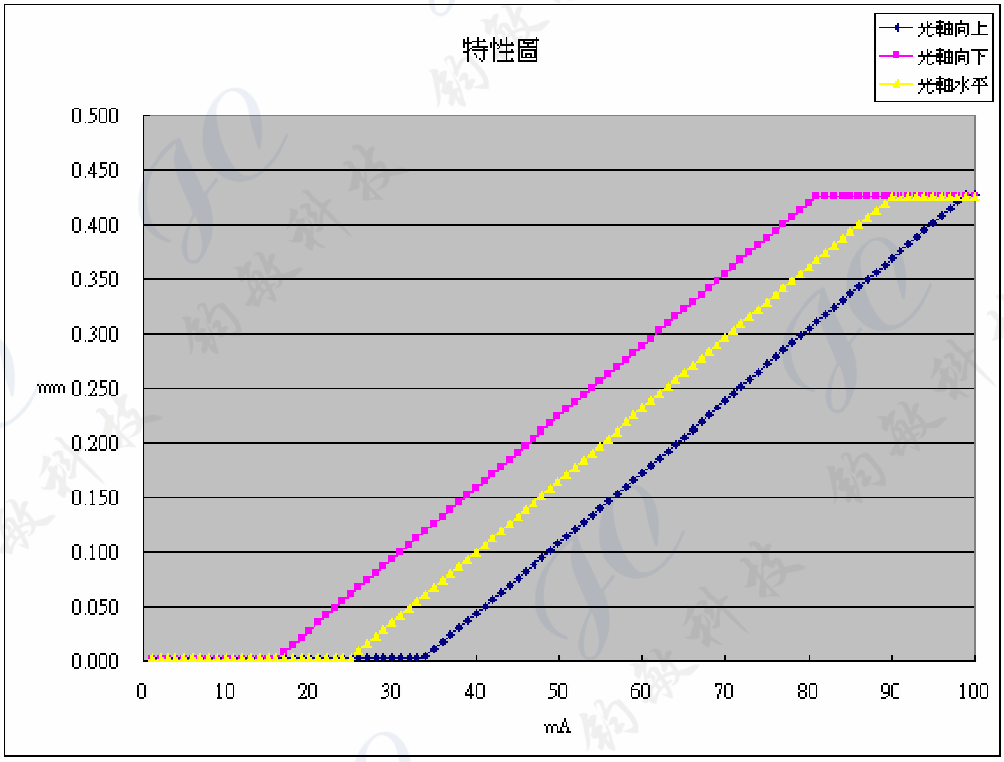
No.	Items	Specifications
1	Rated Load Current Stroke>0.33mm (Horizontal)	80mA Max. (Including 0.6g lens)
2	Working Range (Vertical)	0～0.4mm
3	Total Stroke (Vertical)	≥ 0.33mm
4	DC Resistance of Coil	24.8-30.2Ω
5	Unit Weight	≤ 3.3g (Actuator+Holder)
6	Dimensions	14mm*14mm*10.5mm (refer to Figure Diagram)
7	Power Consumption (0.33mm)	≤ 200mW
8	Hysteresis 0~100~0mA (Step by 5mA)	≤ 10 um

SPECIFICATIONS

Target	No.	TVF-8100KA

3 .Performance Specifications (With 0.6g lens)

No.	Items	Specifications	Condition
1	Maximum allowable Current	150mA Max.	Reference
2	Sensitivity	4.15~9 um/mA	
3	Rated Stroke	≥ 0.33mm	
4	Starting Current	15~35 mA	Optical Axis: +Y direction
5	Moving Tilt	≤ 21'	0～0.33mm Optical Axis：+Z direction

Actuator Polarity
Lens shift upward (+Z direction) with supply, positive(+) voltage to focus+ terminal.

4 .Performance Diagram