PRODUCT	**:**	CAMERA MODULE
MODEL NO.	**:**	CM6733-B800BA-E
SUPPLIER	**:**	TRULY OPTO-ELECTRONICS LTD.
DATE	**:**	December 6, 2011

CERT. No. 946535
ISO9001
TL9000

SPECIFICATION

Revision: 1.0

CM6733-B800BA-E

If there is no special request from customer, TRULY OPTO-ELECTRONICS LTD. will not reserve the tooling of the product under the following conditions:
1.There is no response from customer in two years after TRULY OPTO-ELECTRONICS LTD. submit the samples;
2.There is no order in two years after the latest mass production.
And correlated data (include quality record) will be reserved one year more after tooling was discarded.

TRULY OPTO-ELECTRONICS LTD.: CUSTOMER:

Quality Assurance Department:_____ Approved by: Technical Department:_____	Approved by:

REVISION RECORD

REV NO.	REV DATE	CONTENTS	REMARKS
1.0	2011-12-06	First release	

CONTENTS

WRITTEN BY	CHECKED BY	APPROVED BY
HUANG WEINA	WEI YOU XING	LIU TIE NAN

Key Information

Module No.		CM6733-B800BA-E
Module Size		8.60mm × 8.60mm ×5.80mm
Sensor Type		OV8820
Array Size		3296 × 2460
Sensor Power Supply	Core	1.5V + /-5%
	Analog	2.6 ~ 3.0V
	I/O	1.7~3.0V
Lens		1/3.2 inch 4Plastic+ IR
Focus(F.NO)		2.4+ /-5%
View Angle		66.1°+ /- 2°
Image Area		4614μm × 3444μm
Die dimensions		6350μm × 6750μm
Object Distance		10cm~infinity
Sensitivity		600mV/Lux-sec
Pixel Size		1.4μm × 1.4μm
IR Cutter		650nm
Sensor Temperature Range	Operating	-30°C to 70°C
	Stable Image	0°C to 50°C
Output Formats		10-bit RGB RAW
Maximum Image Transfer Rate	8Mpixel	24 fps
	EIS1080p	30 fps
	EIS720p	60 fps
Lens Chief Ray Angle		27°non-linear
Input Clock Frequency		6~27MHz
Max S/N Ratio		35dB
Dynamic Range		68dB @8x gain
Substrate		FPC
IC Package		COB
Sensor Power Requirement	Active	170 mA
	Standby	30μA
Dark Current		8 mV/s @60°C junction temperature
Package		Antistatic Plastic

Auto-Focus Specification

NO.	Item	Specification
1	Auto-Focus Type	VCM (Voice Coil Motor)
2	VCM Driver	Sensor internal
3	Power Supply	2.8~3.3 V
4	Rated Current	≤80mA
5	Resistance	16±3Ω
6	Settling Time	＜30ms
7	Hysteresis	≤±10μm
8	Focusing Range	10cm to infinity

Pin Assignment

No.	Name	Pin type	Description
1	AGND	Ground	Ground for analog circuit
2	AF_VDD	Power	Power for VCM
3	MCP	I/O	MIPI TX clock lane positive output
4	AVDD	Power	Power for analog circuit
5	MCN	I/O	MIPI TX clock lane negative output
6	DVDD	Reference	Power for digital circuit
7	DGND	Ground	Ground for digital circuit
8	DOVDD	Power	Power for I/O circuit
9	MDP2	I/O	MIPI TX third data lane positive output
10	NC		
11	MDN2	I/O	MIPI TX third data lane negative output
12	MCLK	Input	System input clock
13	DGND	Ground	Ground for digital circuit
14	FLASH	I/O	Flash control
15	MDP0	I/O	MIPI TX first data lane positive output
16	NC		
17	MDN0	I/O	MIPI TX first data lane negative output
18	SIOC	Input	SCCB input clock
19	DGND	Ground	Ground for digital circuit
20	SIOD	I/O	SCCB data
21	MDP3	I/O	MIPI TX fourth data lane positive output
22	RESET	Input	Reset (active low with internal pull up transistors)
23	MDN3	I/O	MIPI TX fourth data lane negative output
24	PWDN	Input	Power down (active low with internal pull up resistor)
25	DGND	Ground	Ground for digital circuit
26	SHUTTER	I/O	illumination control output
27	MDP1	I/O	MIPI TX second data lane positive output
28	NC		
29	MDN1	I/O	MIPI TX second data lane negative output
30	NC		

Electrical Characteristics

1. Absolute Maximum Ratings

parameter		absolute maximum rating[a]
supply voltage (with respect to ground)	V_{DD-A}	4.5V
	V_{DD-D}	3V
	V_{DD-IO}	4.5V
electro-static discharge (ESD)	human body model	2000V
	machine model	200V
all input/output voltages (with respect to ground)		-0.3V to V_{DD-IO} + 1V
I/O current on any input or output pin		± 200 mA

a. exceeding the absolute maximum ratings shown above invalidates all AC and DC electrical specifications and may result in permanent damage to the device. Exposure to absolute maximum rated conditions for extended periods may affect device reliability.

2. Functional temperature

parameter	range
operating temperature[a]	-30°C to +70°C junction temperature
stable operating temperature[b]	0°C to +50°C junction temperature

a. sensor functions but image quality may be noticeably different at temperatures outside of stable image range

b. image quality remains stable throughout this temperature range

3.DC Characteristics

symbol	parameter	min	typ	max	unit
supply					
V_{DD-A}	supply voltage (analog)	2.6	2.8	3.0	V
V_{DD-D}[a]	supply voltage (digital core)	1.425	1.5	1.575	V
V_{DD-IO}	supply voltage (digital I/O)	1.7	1.8	3.0	V
I_{DD-A}	active (operating) current[b]		100	125	mA
I_{DD-IO}			70	90	mA
$I_{DDS-SCCB}$	standby current		30	60	µA
$I_{DDS-PWDN}$			30	60	µA
digital inputs (typical conditions: AVDD = 2.8V, DVDD = 1.5V, DOVDD = 1.8V)					
V_{IL}	input voltage LOW			0.54	V
V_{IH}	input voltage HIGH	1.26			V
C_{IN}	input capacitor			10	pF

digital outputs (standard loading 25 pF)					
V_{OH}	output voltage HIGH	1.62			V
V_{OL}	output voltage LOW			0.18	V
serial interface inputs					
V_{IL}[c]	SIOC and SIOD	-0.5	0	0.54	V
V_{IH}[c]	SIOC and SIOD	1.28	1.8	3.0	V

a. using the internal regulator is strongly recommended for minimum power down currents

b. active current is based on sensor resolution at full size and full speed, with AVDD = 2.8V and DOVDD = 1.8V, active current and standby current are both measured at room temperature

c. Based on DOVDD = 1.8V

4. Timing characteristics

symbol	parameter	min	typ	max	unit
oscillator and clock input					
f_{OSC}	frequency (XVCLK)	6	24	27	MHz
t_r, t_f	clock input rise/fall time			5 (10[a])	ns

a. if using internal PLL

5. VCM driver characteristics

parameter[a]	condition	min	typ	max	unit
power	AVDD, AGND	2.6	2.8	3.1	V
power on time			10		µs
DC performance					
resolution	100 µA/LSB		10		bits
differential non-linearity (DNL)	guaranteed monotonic	-1		+1	LSB
relative accuracy (INL)			±1		LSB
zero code error	set all 10 bits low		0.2		mA
output characteristics					
minimum output current			0.2		mA
maximum output current				100	mA
output power down current			4.5		mA
output current settling time	test code changed from 1/4 FS to 3/4 FS		200		µs

a. AVDD = 2.6 ~ 3.1V, Rs = 3.3Ω, Vvcm = AVDD, temperature = -30 ~ 70°C, VCM model as a R series with L where R = 26Ω and L = 680 uH

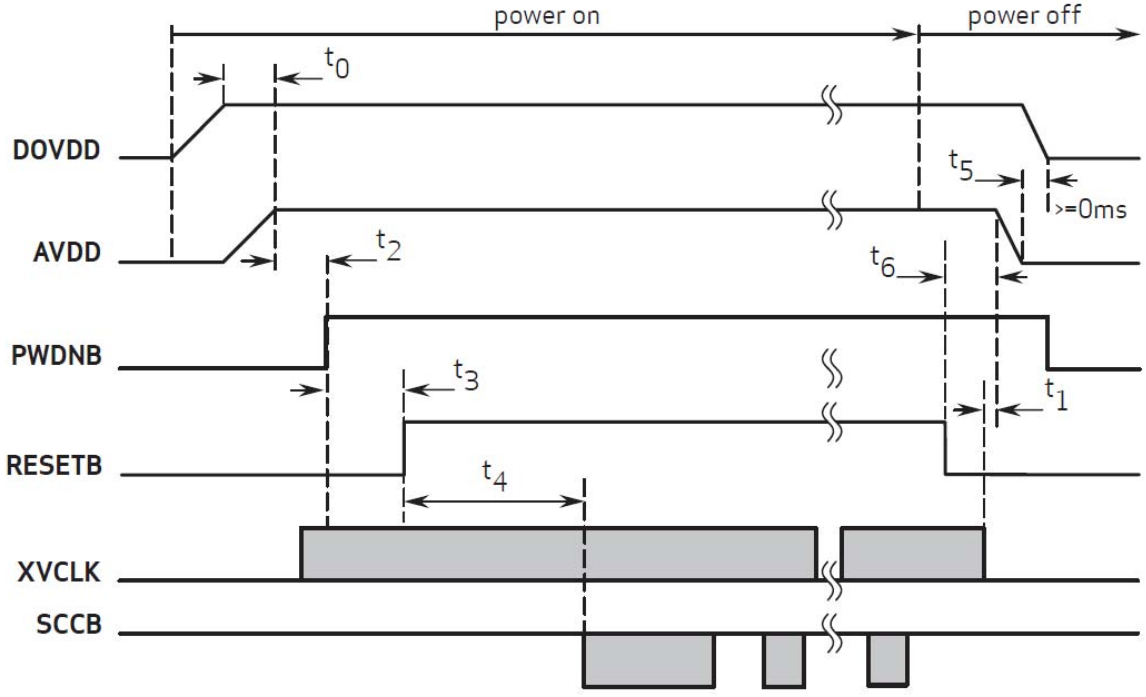
6. Power up sequence

Based on the system power configuration (1.8V or 2.8V for I/O power, using external DVDD or internal DVDD, the power up sequence will differ. If 1.8V is used for I/O power, using the internal DVDD is preferred. If 2.8V is used for I/O power, due to a high voltage drop at the internal DVDD regulator, there is a potential heat issue. Hence, for a 2.8V power system, OmniVision recommends using an external DVDD source. Due to the higher power down current when using an external DVDD source, OmniVision strongly recommends cutting off all powers, including the external DVDD, when the sensor is not in use in the case of 2.8V I/O and external DVDD.

a. power up with internal DVDD

For powering up with the internal DVDD and I2C access during the power ON period, the following conditions must occur:

1. when DOVDD and AVDD are turned ON, make sure DOVDD becomes stable before AVDD becomes stable
2. PWDNB is active low with an asynchronized design (does not need clock)
3. PWDNB must go low during the power on period
4. for PWDNB to go high, power must first become stable (AVDD to PWDNB ≥ 5 ms)
5. RESETB is active low with an asynchronized design
6. state of RESETB does not matter during power on period once DOVDD is up
7. master clock XVCLK should provide at least 2 ms before host accesses the sensor's registers
8. host can access I2C bus (if shared) during entire period. 20 ms after PWDNB goes high or 20 ms after RESETB goes high if reset is inserted after PWDNB goes high, host can access the sensor's registers to initialize sensor



Note: t0 ≥ 0ms, delay from DOVDD stable to AVDD stable, it is recommended to power up AVDD shortly after DOVDD has been powered up

t1 ≥ 0ms, delay from XVCLK off to AVDD off

t2 ≥ 5ms, delay from AVDD stable to sensor power up stable, PWDNB can be pulled high after this point, XVCLK can be turned on after power on

t3 ≥ 1ms, delay from sensor power up stable to RESETB pull up

t4 ≥ 20ms, delay from RESETB pull high to SCCB initialization

t5 ≥ 0ms, delay from AVDD off to DOVDD off

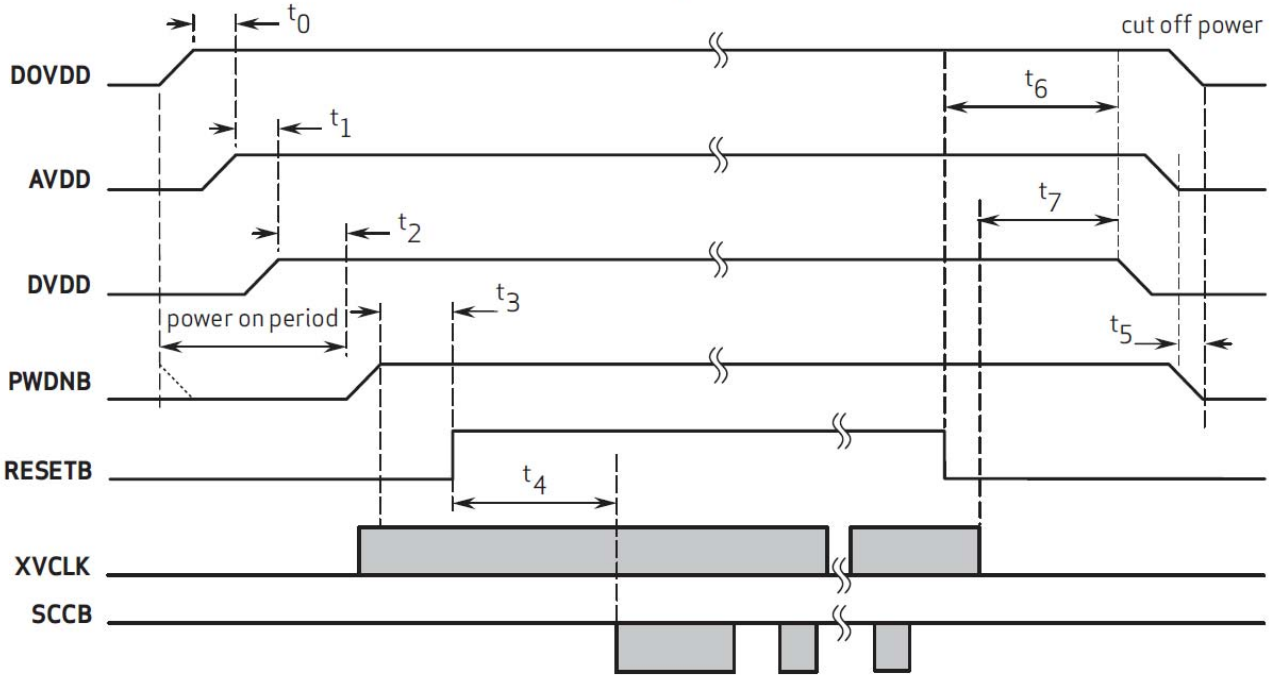
t6 ≥ 0ms, delay from RESETB pull low to AVDD off

b. power up with external DVDD source

For powering up with an external DVDD source and I2C access during the power ON period, the following conditions must occur:

1. when DOVDD and AVDD are turned ON, make sure DOVDD becomes stable before AVDD becomes stable
2. when AVDD and DVDD are turned ON, make sure AVDD becomes stable before DVDD becomes stable
3. PWDNB is active low with an asynchronized design (does not need clock)
4. for PWDNB to go high, power must first become stable (DVDD to PWDNB ≥ 5 ms)
5. all powers are cut off when the camera is not in use (power down mode is not recommended
6. RESETB is active low with an asynchronized design
7. state of RESETB does not matter during power on period once DOVDD is up
8. master clock XVCLK should provide at least 2 ms before host accesses the sensor's registers
9. host can access I2C bus (if shared) during entire period. 20 ms after PWDNB goes high or 20 ms after RESETB goes high if reset is inserted after PWDNB goes low, host can access the sensor's registers to initialize sensor

DOVDD first, then AVDD, followed by DVDD, and rising time is less than 5 ms



Note t0 ≥ 0 ms: delay from DOVDD stable to AVDD stable, it is recommended to power up AVDD shortly after DOVDD has been powered up

t1 ≥ 0 ms: delay from AVDD stable to DVDD stable

t2 ≥ 5 ms: delay from DVDD stable to sensor power up stable

t3 ≥ 1ms, delay from sensor power up stable to RESETB pull up

t4 ≥ 20ms, delay from RESETB pull high to SCCB initialization

t5 ≥ 0ms, delay from AVDD off to DOVDD off

t6 ≥ 0ms, delay from RESETB pull low to DVDD off

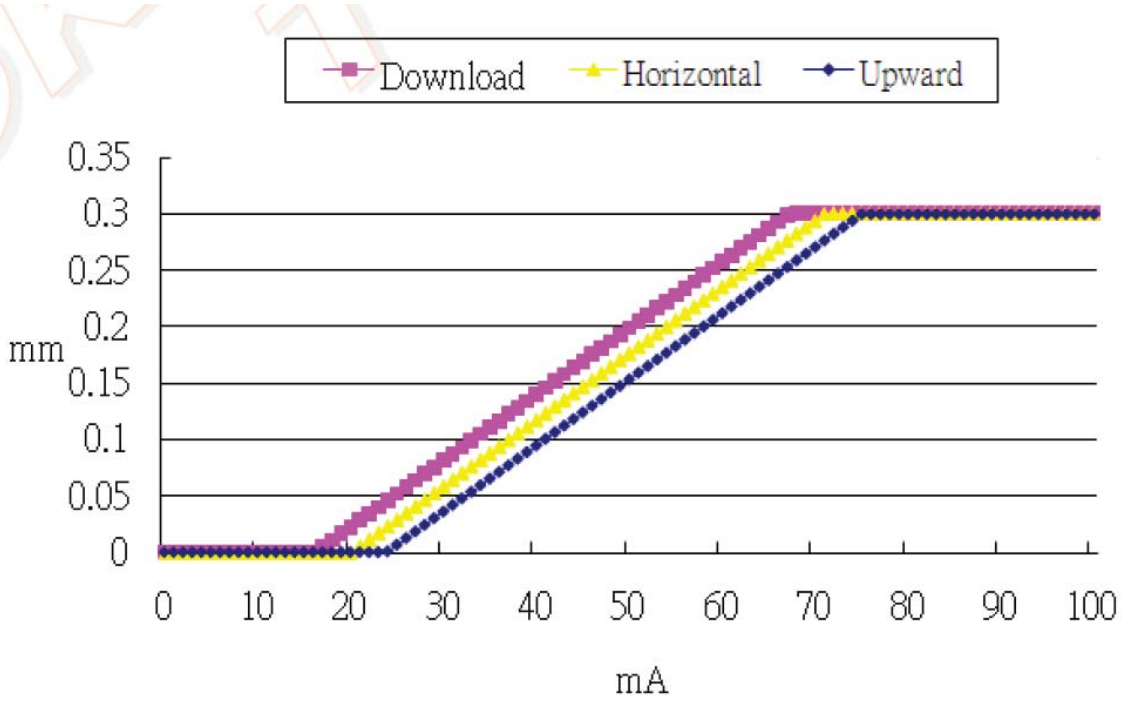
t7 ≥ 0ms, delay from XVCLK off to DVDD off

Note: For more information of sensor please refer to the OV8820 specification.

7. VCM Specification

NO.	Item	Condition	Specification
1	Motor Size	Without terminal Including sensor space	8.5*8.5*4.2 mm
2	Absolute Max Current		≤100mA
3	Moving Tilt	0～0.26mm	＜21′
4	Sensitivity		≤10μm/mA
5	Starting Current	Optical Axis: +Z direction	≥15mA
6	Hysteresis	10mA-80mA-10mA Step by 5mA	≤±10μm
7	Torque (Thread gauge)		≤150gf-cm
8	Rated Stroke	Under 80mA input current and moving direction is upward	≥0.26mm
9	Lens Unit Weight		≤0.09g nominal

Performance Diagram

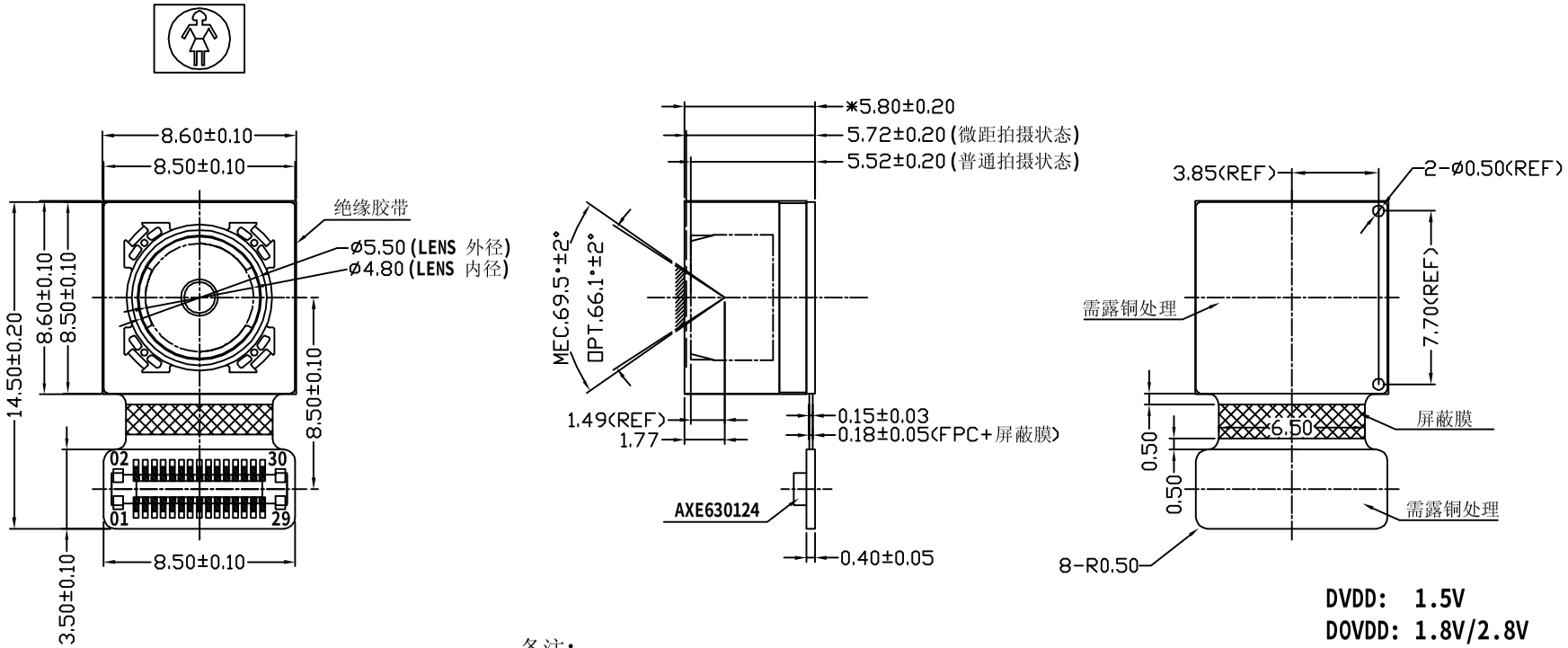


Mechanical Drawing

RoHS

Customer No.:

CM6733-B800BA-E Camera Module



30PIN DESCRIPTION

PIN NO.	SIGNAL
1	AGND
2	AF_VDD
3	MCP
4	AVDD
5	MCN
6	DVDD
7	DGND
8	DOVDD
9	MDP2
10	NC
11	MDN2
12	MCLK
13	DGND
14	FLASH
15	MDP0
16	NC
17	MDN0
18	SIOC
19	DGND
20	SIOD
21	MDP3
22	RESET
23	MDN3
24	PWDN
25	DGND
26	SHUTTER
27	MDP1
28	NC
29	MDN1
30	NC

DVDD: 1.5V
DOVDD: 1.8V/2.8V
AVDD: 2.8V
AF_VDD:2.8V

备注:
1.带*尺寸为关键尺寸;
2.未标注圆角为R0.2;
3.FPC为软硬结合板 ’软板部分覆盖黑色电磁波屏蔽膜 ;
4.I2C地址为0x6C (write) and 0x6D (read) ;
5.PWDN 低电平有效 ’RESET 低电平有效 ;
6.lens:40019A2 ;VCM:TVF-653ABB ;
7.模组头部四周覆盖绝缘膜 ’绝缘膜厚0.05mm ’绝缘膜从马达左边开始贴 ’最后回到左边重叠

主要参数(Module Specification)	
焦距(EFL)	4.39 mm
光圈(F.NO)	2.4±5%
视场角(View Angle)	66.1° ± 2°
畸变(Distortion)	< 1 %
景深(Focusing Range)	10 cm~Infinity
感光芯片(Chip Type)	OV8820
象素(Array Size)	8.0M
镜头类型(lens Size)	1/3.2 INCH 4P+IR

Actuator Specification	
Type	VCM Parameter
Control Mode	IIC
Supply Voltage	2.8V~3.3 V
Coil Resistance	16±3 ohm
Rated Current	no more than 80mA
Lens Movement	0-0.30mm

CUSTOMER APPROVE		AMEND			手机摄像模组	TRULY OPTO-ELECTRONICS LTD.		
Mechanical	Electrical	NO.	CONTENT	DATE	TOLERANCE : DECIMAL .x ± .30 .xx ± .20 ∠ ± 1/4°	PRODUCT NO. CM6733-B800BA-E	DRAW NO.	REV B
						DWN 李高阳 20111025	DSN 李高阳 20111025	
						CHKD 韦有兴 20111025	APPD 刘铁楠 20111025	
		1	修改Holder与模组高度	20111027		NOT IN SCALE	UNIT mm	SHEET: 1/1

Appearance Specification

NO.	Item	Standard	Importance Class
1	Top side of Lens	No obvious impurity and oil impurity on the front of lens within the half area; The defect(unfeeling) limitation: width≤1mm, length≤2mm, the defect number≤2; No feeling defect; The width of defects and gaps on the outside of Lens≤0.3mm. Others are unlimited.	A
2	Screw glue	Normally screw glue shall be symmetrical distributed around lens circle side. Particular circs, glue distribution must not disturb customer's assembly operation.	A
3	Holder	No obvious impurity and distortion of outline. The width and length of defect is unlimited, the depth≤0.1mm and ≤1/4 of the thickness of Holder.	B
4	Sealed glue	Sealed glue distributing between holder and FPC must be symmetrical and smooth. Not allow glue leakage and asymmetric thickness. After holder assembly, the thickness distance between one side and its opposite side shall be less than 0.2mm. Excess glue over the holder shall not make the outside dimension be out of control.	A
5	FPC/PCB	Edge defect limitation: width≤1/2H (H is minimum.)、length≤1mm、defect numbers per edge≤2(No tearing gap inby edge for FPC); Edge outshoot limitation (width≤0.3mm, length≤1mm). No obvious impurity and crease on the surface. If there was shield film on the surface, the spot size of the film shall be less than 0.3mm×1mm and no line is exposed. If it was not be cleaned and did not influence the total thickness, it would be permitted. Label and mark shall be clear enough to be discerned.	A
6	Connector	No dust, fingerprint, and not allows to turning colors, distortion; Solder must be well; No open circuit or short circuit	A

7	Gold finger	No dust, fingerprint, and not allows to turning colors, burned, unsmoothed and peeled; No open circuit or short circuit; The defect width shall be smaller than 20% of gold finger's width. No copper/nickel exposed in defect. Numbers of defected pin shall be less than 3. The defect limitation:width≤0.08mm,length≤5mm.	A
8	Stiffener	Holder anchor pole length overtopping the steel plate shall be less than 0.2mm. No dust, rust and deep scratch on the steel surface without Double coated tapes.	B
9	Double coated tapes	Adhered direction shall be right. Not allows to excess steel plate edge. No alveoli and stick. Not allows to peel glue and rip protective paper when tear the protective paper.	B
10	Protective film	No dust in the glue side. Not allows to float or drop.	B

Remark:

1. The definition of the appearance importance class

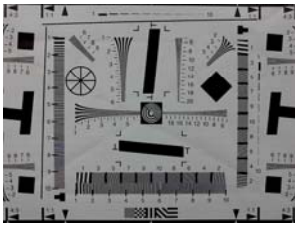
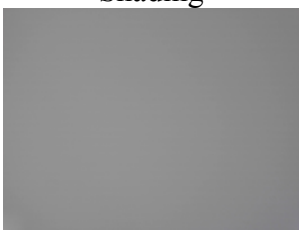
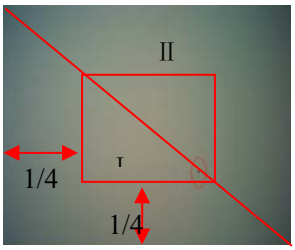
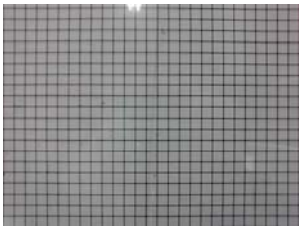
A： The defect can be found in the finished product, or have obvious visual differences from good products, such as crack, defect and dust, or influence image quality, or are appointed by the customer. We will emphasize these items and check all products.

B：The defect can be found in the finished product and has visual difference from the good one, but will not affect customer's aesthetic judgement. Or the defect can not be found in the finished product and will not generate functional problem, but will slightly influence sequential manufacture process or condition. We will supervise these items in the manufacturing process and check products selectively.

2. Sampling standard

Referenced standard: GB/T 2828.1-2003/ISO 2859-1:1999 and ANSI/ASQC.4-1993 Ⅱ

Image Specification

NO.	Item	Standard	Important Class
1	TV Line 	Center≥1400 0.7 viewing field ≥1000	A
2	Shading 	TBD	A
3	Blemish 	Ⅰ area：Blemish number≤1 Ⅱ area：Blemish number≤4	B
4	Color 	TBD	B
5	Gray Scale 	TBD	B
6	Distortion 	＜1%	B

Reliability Specification

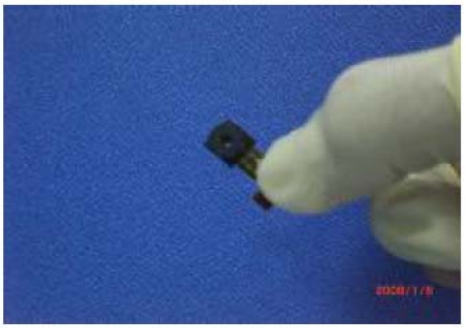
No.	Test item	Test condition	Judgment
1	Temperature strike cycle [Power off]	Low temperature:-30°C±2℃ for 30 min High temperature:+80°C±2℃ for 30 min Cycle:10 times	1.Function： Resolution: difference<20% after test Shading: difference<20% after test 2.Appearance: Do not exit NG after test
2	High temperature and high humidity storage	Temperature:60°C Humidity:90%RH Time:96 hours	
3	Low temperature operating	Temperature:-20°C±2℃ Time:96 hours	
4	High temperature operating	Temperature:70°C±2℃ Time:96 hours	
5	Low temperature storage	Temperature:-30°C±2℃ Time:96 hours	
6	High temperature storage	Temperature:80°C±2℃ Time:96 hours	
7	ESD test [Power off]	C:150pF R:330Ω Voltage:±2KV Air discharge: Cycle:10 times	
8	Vibration Test [Packaged]	Frequency:10Hz~55Hz~10Hz Amplitude:1.5 mm Times: each X,Y,Z directions for 30mins	
9	Dropping test [Packaged]	Product dropping from 150cm height to smooth marble Drop style:1 coner,3 arris,6 faces Test times:10	

Precautions For Using CCM Modules

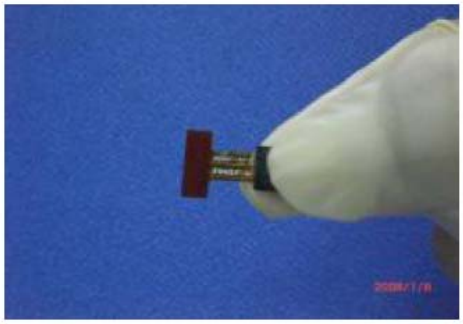
Handing Precautions

—DO NOT try to open the unit enclosure as there is no user-serviceable component inside. To prevent damage to the camera module by electrostatic discharge, handling the camera module only after discharging all static electricity from yourself and ensuring a static-free environment for the camera module.
—DO NOT touch the top surface of the lens.
—DO NOT press down on the lens.
—DO NOT try to focus the lens.
—DO NOT put the camera module in a dusty environment.
—To reduce the risk of electrical shock and damage to the camera module, turn off the power before connect and disconnect the camera module.
—DO NOT drop the camera module more than 60 cm onto any hard surface.
—DO NOT expose camera module to rain or moisture.
—DO NOT expose camera module to direct sunlight.
—DO NOT put camera in a high temperature environment.
—DO NOT use liquid or aerosol cleaners to clean the lens.
—DO NOT make any charges or modifications to camera module.
—DO NOT subject camera module to strong electromagnetic field.
—DO NOT subject the camera module to excessive vibration or shock.
—DO NOT Impact or nip CCM module with speculate things
—DO NOT alter, modify or change the shape of the tab on the metal frame.
—DO NOT make extra holes on the printed circuit board, modify its shape or change the positions of components to be attached.
—DO NOT damage or modify the pattern writing on the printed circuit board.
—Absolutely DO NOT modify the zebra rubber strip (conductive rubber) or heat seal connector
—Except for soldering the interface, DO NOT make any alterations or modifications with a soldering iron.
—DO NOT twist FPC of CCM.

Correct



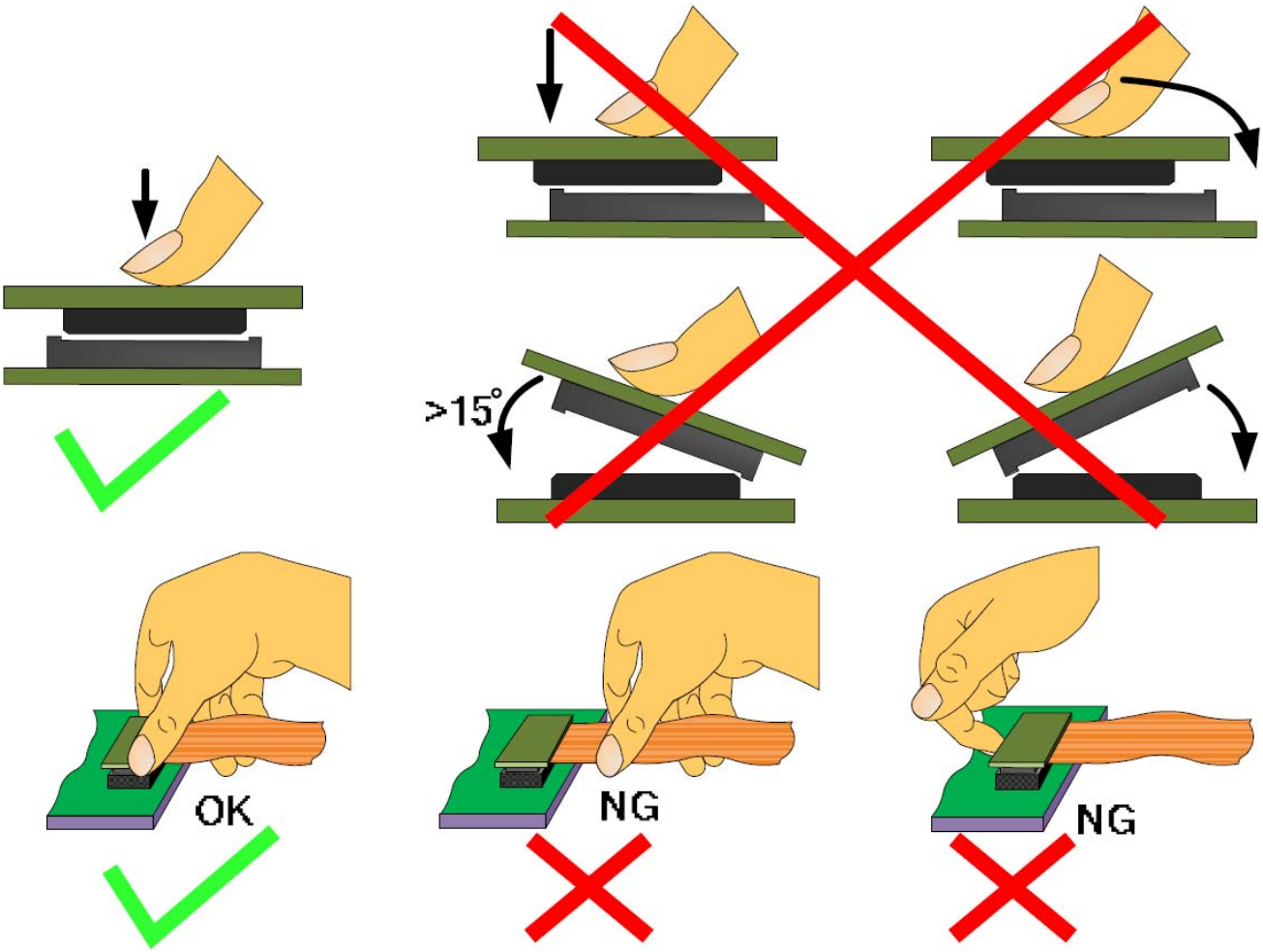
Incorrect



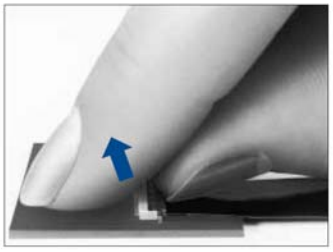
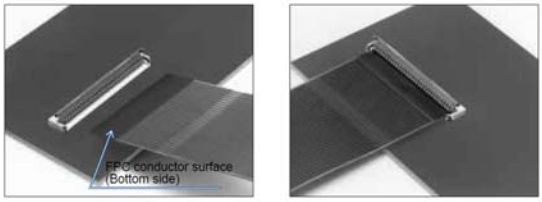
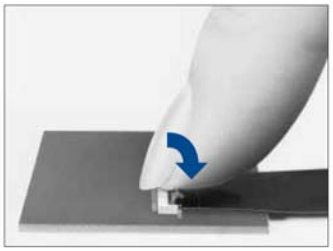
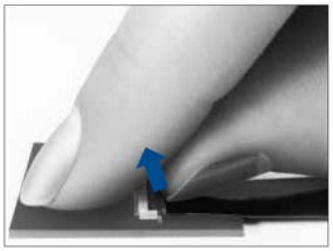
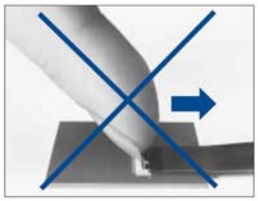
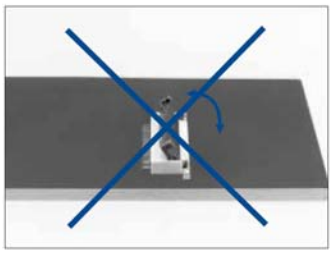
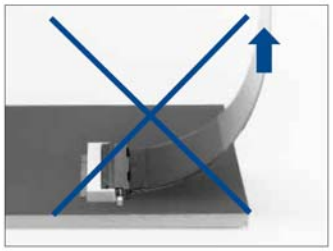
Incorrect

Precaution for assemble the module with BTB connector:

Please note the position of the male and female connector position, don't assemble or assemble like the method which the following picture shows

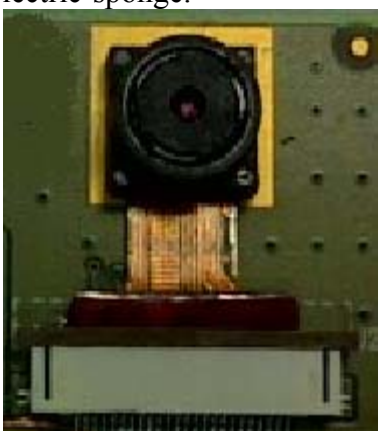


Precaution for assemble the module with ZIF connector:

Operation	Precautions
1. FPC/FFC Termination procedure. Connector installed on the board. 1) Lift up the actuator. Use thumb or index finger.  2) Assure that the FPC/FFC is fully inserted parallel to mounting surface, with the exposed conductive traces facing down.  3) Rotate down the actuator until firmly closed. It is critical that the inserted FPC/FFC is not moved and remains fully inserted. Should the FPC/FFC be moved, open the actuator and repeat the process, starting with Step 1 above.  **2. FPC/FFC Removal** 1) Lift up the actuator. 2) Carefully remove the FPC/FFC. 	1) Do not apply excessive force or use any type of tool to operate the actuator.   2) The connector will assure reliable performance when the actuator is open to 130° maximum. Do not exceed this angle, as this may cause permanent damage to the connector.  3) Application of excessive force to the inserted FPC/FFC may cause damage to connector and may affect the reliability of electrical connection. If specific application requires continuous or repeated pull or bend of the inserted FPC/FFC, assure that the forces are NOT transmitted directly to the connector. 

Precaution for assembling the module to terminal unit

The temperature of running module is high base on the high-integrated sensor. In order to enhance the heat dissipation and reduce the noise infection from high temperature, TRULY recommend that the module's backside should be touched with rigid material directly, like as PCB or metal. If necessary, it's recommended the module backside is affixed with the materials which can transfer heat, like as electric-fabric, electric-adhesive, or electric-sponge.



Precaution for soldering the CCM:

	Manual soldering	**Machine drag soldering**	**Machine press soldering**
No ROHS product	290℃ ~350℃. Time: 3-5S.	330℃ ~350℃. Speed: 4-8 mm/s.	300℃ ~330℃. Time: 3-6S. Press: 0.8~1.2Mpa
ROHS product	340℃ ~370℃. Time: 3-5S.	350℃ ~370℃. Speed: 4-8 mm/s.	330℃ ~360℃. Time: 3-6S. Press: 0.8~1.2Mpa

(1) If soldering flux is used, be sure to remove any remaining flux after finishing to soldering operation. (This does not apply in the case of a non-halogen type of flux.) It is recommended that you protect the lens surface with a cover during soldering to prevent any damage due to flux spatters.
(2) The CCM module and board should not be detached more than three times. This maximum number is determined by the temperature and time conditions mentioned above, though there may be some variance depending on the temperature of the soldering iron.

Other precautions

For correct using please refer to the relative criterions of electronic products.

Limited Warranty

Unless agreed between TRULY and customer, TRULY will replace or repair any of its CCM modules which are found to be functionally defective when inspected in accordance with TRULY CCM acceptance standards for a period of one year from date of shipments. Cosmetic/visual defects must be returned to TRULY within 90 days of shipment. Confirmation of such date shall be based on freight documents. The warranty liability of TRULY limited to repair and/or replacement on the terms set forth above. TRULY will not be responsible for any subsequent or consequential events.

Return CCM under warranty

No warranty can be granted if the precautions stated above have been disregarded. The typical examples of violations are:

-Holder is apart from module.
-Holder or Connector is anamorphic.
-Connector is turnup.
-FPC is lacerated or discon-nexion, and so on.

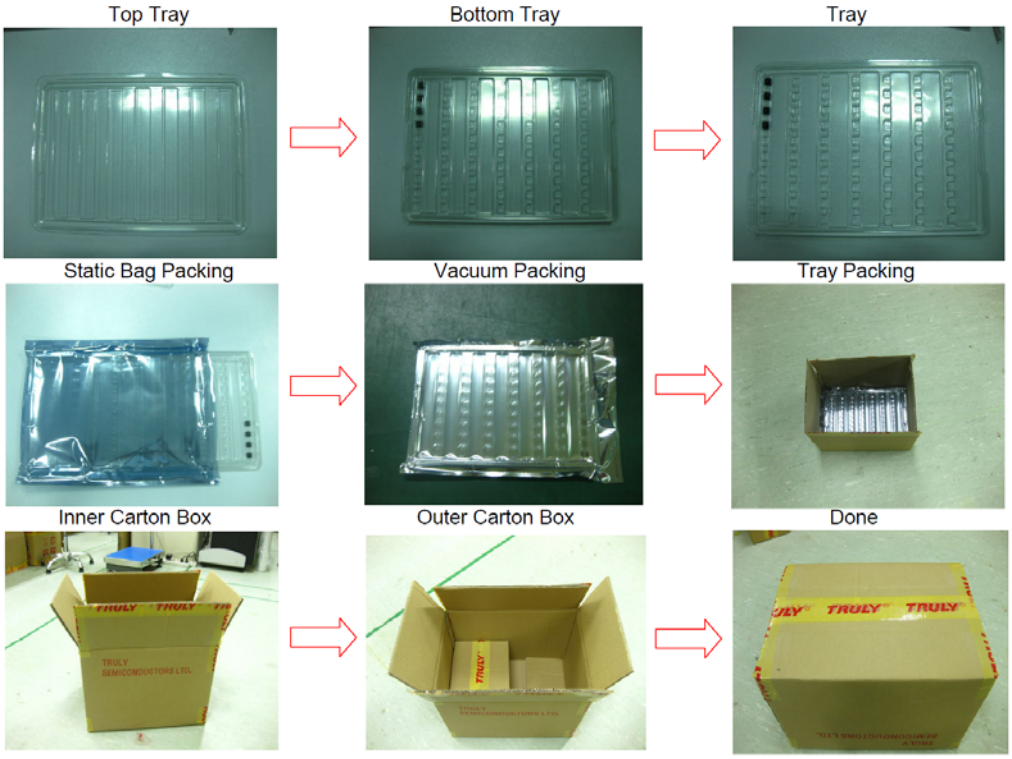
Module repairs will be invoiced to the customer upon mutual agreement. Modules must be returned with sufficient description of the failures or defects. Any connectors or cable installed by the customer must be removed completely without damaging the PCB eyelet, conductors and terminals.

Pakage Specification

Packaging Design One

Product No.	CM6733-B800BA-E	Release date	
Product name	Compact Camera Module	Releaser	
Supplier	TRULY OPTO-ELECTRONICS LTD.	Recycle	☐YES ■ NO
Quantity/ each box	TBD	Material for box	■ paper ☐ plastic
Outer carton box size	405mm*290mm*290mm	Box type	■new ☐update
Quantity / inner box * Quantity / outer box	TBD		

Packing Standards:



There are TBD modules each plastic plate.

There are TBD modules each inner carton box..

There are 4 inner carton boxes in each outer carton box.

Requirements of outer carton box :

1. Weight(Max): 0.75 Kg
2. Height (Max): 0.29 M
3. Prohibition: Box made by log

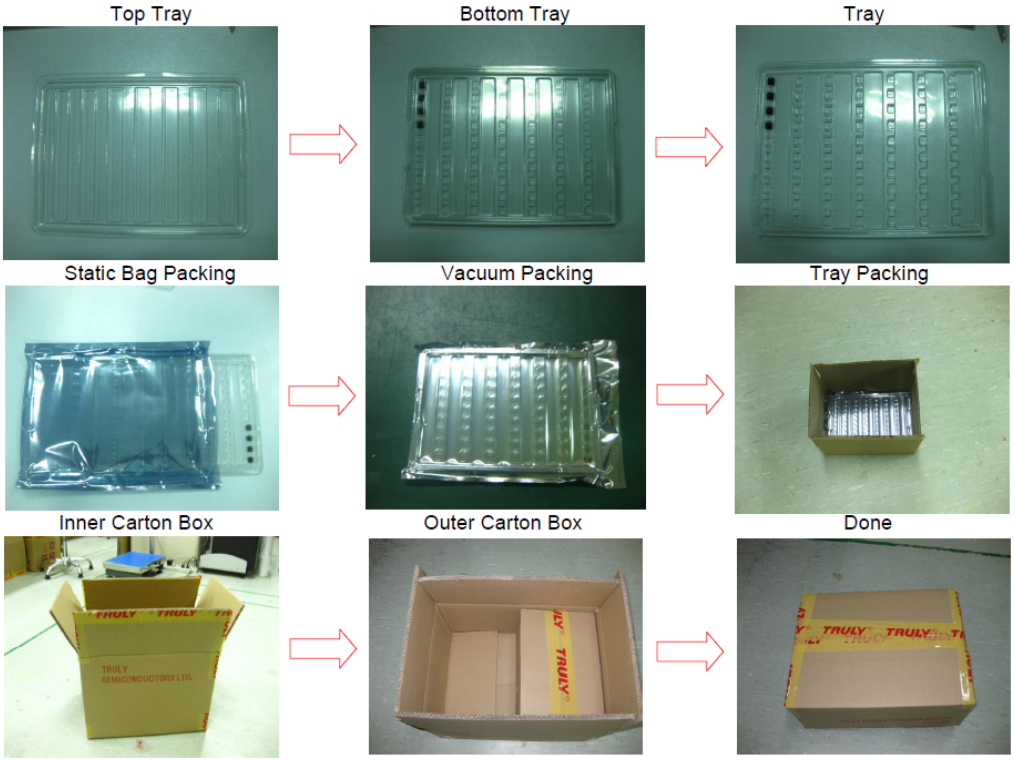
Material for Plastic tray

It is made of antistatic polystyrene which has no chemical pollution. Surface resistivity : 10^6 ohm/sq

Packaging Design Two

Product No.	CM6733-B800BA-E	Release date	
Product name	Compact Camera Module	Releaser	
Supplier	TRULY OPTO-ELECTRONICS LTD.	Recycle	☐YES ■ NO
Quantity/ each box	TBD	Material for box	■ paper ☐ plastic
Outer carton box size	405 mm *280 mm *170 mm	Box type	■new ☐update
Quantity / inner box * Quantity / outer box	TBD		

Packing Standards:



There are TBD modules each plastic plate.

There are TBD modules each inner carton box..

There are 2 inner carton boxes in each outer carton box.

Requirements of outer carton box :

4. Weight(Max): 0.65 Kg
5. Height (Max): 0.17 M
6. Prohibition: Box made by log

Material for Plastic tray

It is made of antistatic polystyrene which has no chemical pollution. Surface resistivity : 10^6 ohm/sq

PRIOR CONSULT MATTER

1.①For Truly standard products, we keep the right to change material, process for improving the product property without notice on our customer.
②For OEM products, if any change needed which may affect the product property, we will consult with our customer in advance.
2. If you have special requirement about reliability condition, please let us know before you start the test on our samples.

FACTORY CONTACT INFORMATION

FACTORY NAME: TRULY OPTO-ELECTRONICS LTD.
FACTORY ADDRESS: Truly Industrial Area, ShanWei City, GuangDong, China
FACTORY PHONE: 86-0660-3380061 FAX: 86-0660-3371772