Thank you for giving UL the opportunity to partner with you.
Please note, Follow-Up Procedure Revisions or Report Revisions do not include Authorization Pages, Indices, Section General, and/or Appendices unless revisions were required or requested.

Should you have any questions, after reviewing the material, or need to report any inaccuracies, please reach out to your UL representative or find UL contact details for your local Customer Service Department at https://www.ul.com/about/locations.

Please find attached the related material

For your convenience, the below describes the related updates:

For revised/new documentation, please reference 2021-05-31 in the page headings.

Certificate of Compliance format now separates US and Canada certified Products by specified scheme and category.

If there are illegible images in this package, legible images may be found online via myUL Portal.

Volume(s) X13 Section(s) A6068 were added.

E158873-volX13-Index
E158873-20210531A-CertificateofCompliance
E158873-A6068-DescriptionUL
Figure-30-Total
E158873-A6068-TestRecordUL

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Times change, Trust Remains™

Index

Product Type	Model/Type Reference	Report Reference #	Status
NETWORK VIDEO RECORDER	XRN-6410B4, XRN-3210B4	E158873-A6027-UL	
NETWORK VIDEO RECORDER	PRN-6410B4, PRN-3210B4, XRP-4210B4, PRN-6400B4, PRN-3200B4	E158873-A6028-UL	
NETWORK VIDEO RECORDER	XRN-6410DB4	E158873-A6029-UL	
NETWORK VIDEO RECORDER	PRN-6410DB4, XRP-4310DB4, PRN-6400DB4	E158873-A6030-UL	
NETWORK CAMERA	PNM-9002VQ	E158873-A6031-UL	
NETWORK CAMERA	XNF-9010RV, XNF-9010RVM, XNF-9010RS	E158873-A6032-UL	
NETWORK CAMERA	PNM-9000QB	E158873-A6033-UL	
NETWORK CAMERA	XNP-9300RW, XNP-8300RW, XNP-6400RW	E158873-A6034-UL	
NETWORK CAMERA	TNV-8010C	E158873-A6035-UL	
OUTDOOR NETWORK CAMERA	PNM-8082VT	E158873-A6036-UL	
THERMAL CAMERA	TNM-3620TDY	E158873-A6037-UL	
DIGITAL VIDEO RECORDER	HRX-1621* (* is Blank or N or P : P=PAL, N=NTSC)	E158873-A6038-UL	
NETWORK CAMERA	PNM-9022V	E158873-A6039-UL	
NETWORK CAMERA	PNM-9322VQP	E158873-A6040-UL	
DIGITAL VIDEO RECORDER	HRX-821* (* is Blank or N or P : P=PAL, N=NTSC)	E158873-A6041-UL	
NETWORK I/O BOX	SPM-4210	E158873-A6042-UL	
NETWORK VIDEO RECORDER	XRN-2011*, XRN-2010*, XRN-3010*, XRN-1610*, XRN-2010P/DM, XRN-3010P/DM, XRN-3010A, XRN-2011A, XRN-2010A, XRN-1610A (* is blank or N or P: N=NTSC, P=PAL)	E158873-A6043-UL	
PUBLIC VIEW MONITOR	SMT-2730PV	E158873-A6044-UL	
PUBLIC VIEW MONITOR	SMT-3230PV	E158873-A6045-UL	
CAMERA HOUSING	SHB-9000H	E158873-A6046-UL	
PUBLIC VIEW MONITOR	SMT-1030PV	E158873-A6047-UL	
NETWORK CAMERA	XNP-9250R, XNP-8250R, XNP-6400R	E158873-A6049-UL	
NETWORK CAMERA	XNP-9250, XNP-8250, XNP-6400	E158873-A6050-UL	
NETWORK CAMERA	ONO-9081R	E158873-A6051-UL	
NETWORK CAMERA	ONV-9081R	E158873-A6052-UL	
NETWORK VIDEO RECORDER	XRN-1620B2	E158873-A6053-UL	

NETWORK VIDEO RECORDER	XRN-1620SB1	E158873-A6054-UL	
NETWORK VIDEO RECORDER	XRN-820S	E158873-A6055-UL	
NETWORK CAMERA	SCO-6020	E158873-A6056-UL	
NETWORK CAMERA	TNF-9010	E158873-A6057-UL	
NETWORK VIDEO RECORDER	PRN-3210B2, PRN-1610B2, XRN-6410RB2, XRN-3210RB2, XRN-6410B2, XRN-3210B2, PRN-3200B2, PRN-3205B2, PRN-1600B2, PRN-1605B2	E158873-A6058-UL	
NETWORK CAMERA	PNB-A6001	E158873-A6059-UL	
NETWORK CAMERA	PND-A6081RV, PND-A6081RF	E158873-A6060-UL	
NETWORK CAMERA	PNO-A6081R	E158873-A6061-UL	
LENS MODULE	SLA-T2480*, SLA-T2480V*, SLA-T4680*, SLA-T4680V*, SLA-T4680D, SLA-T4680DW, SLA-T4680DS, SLA-T2415, SLA-T2815B, SLA-T2480A, SLA-T2480VA, SLA-T4680A, SLA-T4680VA (* is blank or N or P: N = NTSC, P=PAL)	E158873-A6062-UL	
NETWORK CAMERA	PNV-A6081R	E158873-A6063-UL	
NETWORK CAMERA	XNB-6001*, XNB-H6240A, XNB-H6242A	E158873-A6064-UL	
NETWORK THERMAL CAMERA	TNO-3030T, TNO-3020T, TNO-3010T, TNO-3040T, TNO-3050T	E158873-A6067-UL	
NETWORK CAMERA	QNP-6320, QNP-6250	E158873-A6068-UL	
NETWORK CAMERA	QNP-6320H, QNP-6250H	E158873-A6069-UL	
NETWORK CAMERA	TID-600R	E158873-A6071-UL	

CERTIFICATE OF COMPLIANCE

Certificate Number	UL-US-2129053-0
Report Reference	E158873-A6068-UL
Date	11-Jun-2021
Issued to:	Hanwha Techwin Co Ltd 6, Pangyo-ro 319beon-gil, Bundang-gu Seongnam-si , Gyeonggi-do, Republic of Korea 13488
This is to certify that representative samples of	AZOT - Audio/Video, Information and Communication Technology Equipment See Addendum Page for Product Designation(s).
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 62368-1, 2nd Ed., Issue Date: 2014-12-01
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-2129053-0
Report Reference E158873-A6068-UL
Date 11-Jun-2021

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
QNP-6250	NETWORK CAMERA
QNP-6320	NETWORK CAMERA

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number	UL-CA-2124029-0
Report Reference	E158873-A6068-UL
Date	11-Jun-2021
Issued to:	Hanwha Techwin Co Ltd 6, Pangyo-ro 319beon-gil, Bundang-gu Seongnam-si , Gyeonggi-do, Republic of Korea 13488
This is to certify that representative samples of	AZOT7 - Audio/Video, Information and Communication Technology Equipment Certified for Canada See Addendum Page for Product Designation(s).
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	CSA C22.2 NO. 62368-1-14, 2nd Ed., Issue Date: 2014-12-01
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

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2/8/78 WX1 53

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CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-2124029-0
Report Reference E158873-A6068-UL
Date 11-Jun-2021

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
QNP-6250	NETWORK CAMERA
QNP-6320	NETWORK CAMERA

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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UL TEST REPORT AND PROCEDURE

Standard:	UL 62368-1, 2nd Ed, 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1-14, 2nd Ed, Issued: 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Listing
CCN:	AZOT, AZOT7 (Audio/video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	NETWORK CAMERA
Model:	QNP-6320, QNP-6250
Rating:	PoE (53 Vdc), 0.28 A
Applicant Name and Address:	HANWHA TECHWIN CO LTD 6, PANGYO-RO 319BEON-GIL, BUNDANG-GU SEONGNAM-SI GYEONGGI-DO 13488 KOREA

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

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Prepared By: Lawrence Lee / Project Handler Reviewed By: SeulKi Park / Reviewer

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Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.

ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.

iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

NETWORK CAMERA has been designed for INDOOR use and integrated a bracket for wall or ceiling mount.

It is a commercial equipment supplied from PoE (Power over Ethernet) and installed by service personnel.

Model Differences

QNP-6320 is basic model.

QNP-6250 are identical to basic model except model designation and zoom factor.

Test Item Particulars

Classification of use by	Instructed person
Supply Connection	External Circuit - not Mains connected ES1
Supply % Tolerance	None
Supply Connection – Type	PoE (Power over Ethernet)
Considered current rating of protective device as part of building or equipment installation	N/A
Equipment mobility	wall-mounted
Over voltage category (OVC)	OVC I
Class of equipment	Class III
Access location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified maximum operating ambient (°C)	55
IP protection class	IPX0
Power Systems	N/A
Altitude during operation (m)	2000 m or less
Altitude of test laboratory (m)	2000 m or less
Mass of equipment (kg)	1.64

Technical Considerations

- ☐ The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of : 55
- ☐ The product is intended for use on the following power systems : No direct connection

- Considered current rating of protective device as part of the building installation (A) : N/A
- Mains supply tolerance (%) or absolute mains supply values : No direct connection
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual

Additional Information

4789907577
- Maximum Normal Load: Continuous operation with motion.

Additional Standards

The product fulfills the requirements of: N/A

Markings and Instructions

Clause Title	Marking or Instruction Details
Equipment identification marking – Manufacturer identification	Listee's or Recognized companys name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
Equipment rating marking – ratings	"Input Ratings (voltage, frequency/dc, current/power)", "Output Ratings (voltage, frequency/dc, current/power)"
Website Manual -1	This product is intended to be supplied by a Listed Power Supply Unit marked "Class 2" or "LPS" or "PS2" and rated from PoE (53 Vdc), 0.28 A.
Website Manual -2	The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3.at shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL60950-1 or PS2 as defined in UL62368-1.
Hard Copy	A. IMPORTANT B. Please check 'Manuals' from out website, before connecting to the supply. C. Company website URL (https://www.~~)

Special Instructions to UL Representative

N/A

BD1.0	**TABLE: Production-Line Testing Requirements**					
BD1.1	**Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.**					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	N/A	N/A	N/A	N/A	N/A	N/A
BD1.2	**Earthing Continuity Test Exemptions – This test is not required for the following models:**					
	All models					
BD1.3	**Electric Strength Test Exemptions – This test is not required for the following models:**					
	All models					
BD1.4	**Electric Strength Test Component Exemptions – The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test.**					
	All models					

BE1.0	**Sample and Test Specifics for Follow-Up Tests at UL**				
Model	Component	Material	Test	Sample (s)	Test Specifics
N/A	N/A	N/A	N/A	N/A	N/A

4.1.2	TABLE: List of critical components					Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
Enclosure body (Plastic)	LOTTE CHEMICAL CORPORATION	HN-1068(+)(f1)	Min. 2.0 mm thick, rated V-0, 130 deg. C.	QMFZ2/8	UL (E115797)	
Transparent Cover dome (Plastic)	LG CHEM LTD	LUPOY UF1004C	Min. 1.5 mm thickness, V-2, 80 deg. C, See enclosure for dimension.	QMFZ2/8	UL (E67171)	
Dome Cover (Plastic)	LOTTE ADVANCED MATERIALS CO LTD	NH-1035(+)	Min. 2.0 mm thickness, rated Min. V-0, 80 deg. C.	QMFZ2/8	UL (E115797)	
Internal Plastic Part Materials	LOTTE CHEMICAL CORPORATION	NH-3303	Min. 1.1 mm thickness, rated Min. V-0, 80 deg. C.	QMFZ2/8	UL (E115797)	
Internal Plastic Part Materials - Alternate	SAMYANG CORPORATION	3025G(y) (f2)	Min. 0.9 mm thickness, rated Min. V-0, 80 deg. C.	QMFZ2/8	UL (E257054)	
Internal Plastic Part Materials - Alternate	LOTTE ADVANCED MATERIALS CO LTD	NH-1035(+)	Min. 0.8 mm thickness, rated Min. V-0, 80 deg. C.	QMFZ2/8	UL (E115797)	
Internal Plastic Part Materials - Alternate	Interchangeable	Interchangeable	Min. 1.5 mm thickness, rated Min. HB, 80 deg. C.	QMFZ2/8	UL	
Stepping Motor (PAN)	DONGGUAN SHINANO MOTOR CO LTD	STH-36C1078	12.0 Vdc, 0.6 A	-	Tested in equipment	
Stepping Motor (TILT)	DONGGUAN SHINANO MOTOR CO LTD	STH-36C1056	4.6 Vdc, 0.4 A	-	Tested in equipment	
Line Filter (LF3)	DONG GUAN TOP NATION ELECTRONIC LIMITED	SQE2020	14 mH, 130 deg. C, See enclosure for more detail.	-	Tested in equipment	

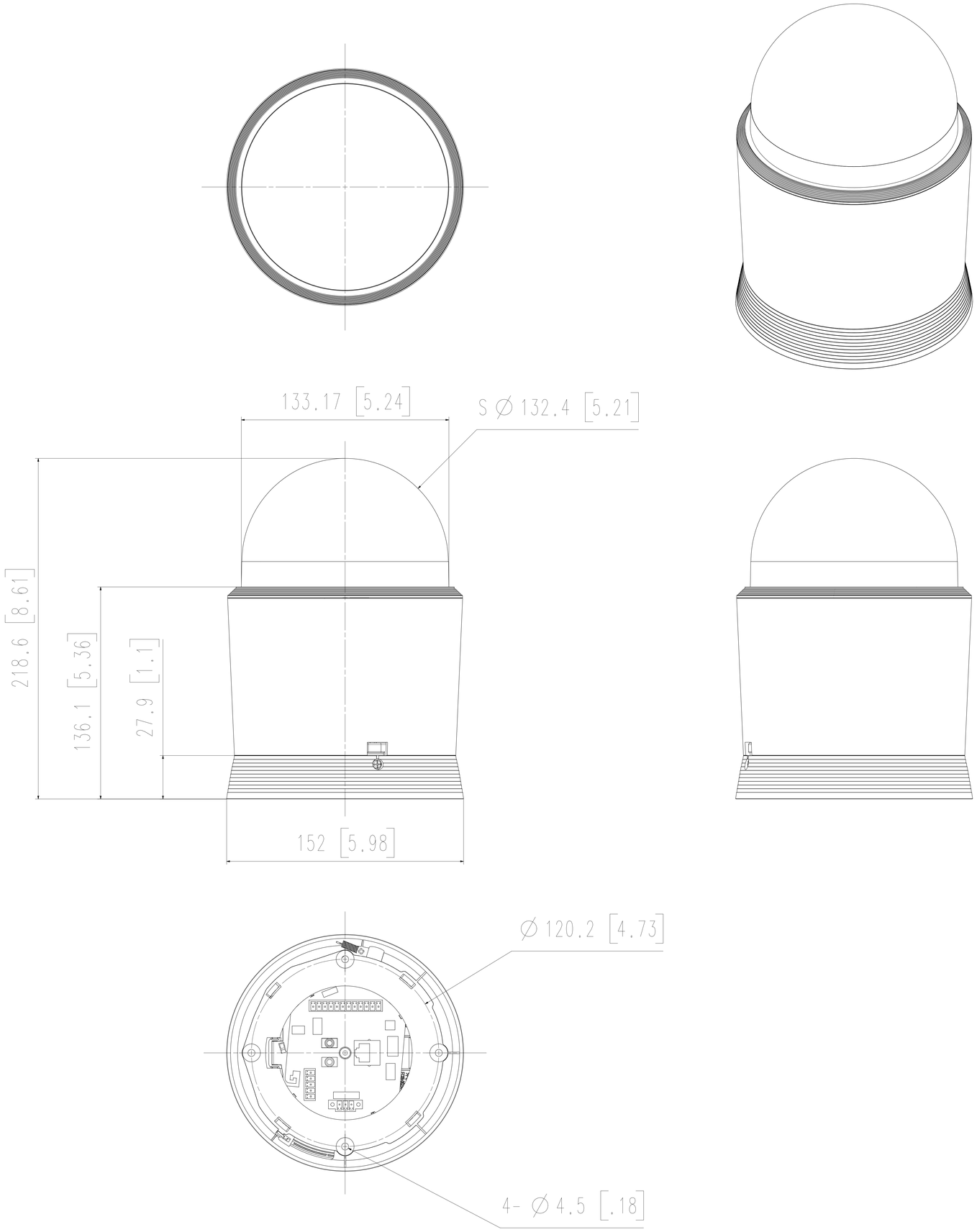
Line Filter (LF3) - Alternate	CLOVER Hi-Tech CO., LTD.	SQE2020	14 mH, 130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Transformer(T1)	DONG GUAN TOP NATION ELECTRONIC LIMITED	PN020STCA	130 deg. C, See enclosure for more detail.	-	Tested in equipment	
Transformer(T1) - Alternate	CLOVER Hi-Tech CO., LTD.	PN020STCA	130 deg. C, See enclosure for more detail.	-	Tested in equipment	
BAR CHOKE (L1)	Trigon Dongguan	ITP5015L2R5BU	2.5 uH, 85 deg. C	-	Tested in equipment	
BAR CHOKE (L1) - Alternate	CLOVER Hi-Tech CO., LTD.	AR5x15	2.5 uH, 125 deg. C	-	Tested in equipment	
Opto-coupler (PC1)	LITE-ON TECHNOLOGY CORPORATION	LTV-817	Isolation Voltage: 5300. Max. Operation Temperature:100 deg. C	FPQU2	UL (E113898)	
Opto-coupler (PC1) - Alternate	BRIGHT LED ELECTRONICS CORP	BPC-817S	Isolation Voltage: 5000. Max. Operation Temperature:100 deg. C	FPQU2	UL (E236324)	
Lithium Battery (BAT1)	SEIKO INSTRUMENTS INC MICRO-ENERGY DIV	ML414H	Rechargeable, Lithium (Coin), Rechargeable, Max. Charging Voltage: 3.4 Vdc, Max. Charging Current: 300 mAh	BBCV2	UL (MH15628)	
Thermal Pad	KOMOTECH CO LTD	KGP-1(a)	Rated V-0, min. 0.2 mm thickness, 150 deg. C	QMFZ2/8	UL (E245303)	
Internal Wiring	Interchangeable	Interchangeable	Marked VW-1	AVLV2	UL	
Connectors and Receptacles	Interchangeable	Interchangeable	Min. V-2	ECBT2	UL	
Connectors and Receptacles - Alternate	Interchangeable	Interchangeable	Copper alloy pins housed in bodies of plastic rated Min. V-2	QMFZ2	UL	
PWB	Interchangeable	Interchangeable	Min. V-0, 130 deg. C	ZPMV2	UL	

FPWB	Interchangeable	Interchangeable	Min. V-0	ZPXK2	UL (E218849)	
FPWB - Alternate	Interchangeable	Interchangeable	Min. V-0	ZPXK2	UL	
Label	Interchangeable	Interchangeable	Min. 55 deg. C if max. surface temperature not specified.	PGDQ2 or PGJI2	UL	

Enclosures

Type	Supplement Id	Description
Photographs	03-01	External View - 1
Photographs	03-02	External View - 2
Photographs	03-03	Internal View - 1
Photographs	03-04	Internal View - 2
Photographs	03-05	Internal View - 3
Photographs	03-06	Internal View - 4
Photographs	03-07	Lens view - 1
Photographs	03-08	Lens view - 2
Photographs	03-09	Drive board top
Photographs	03-10	Drive board bottom
Photographs	03-11	Interface board top
Photographs	03-12	Interface board bottom
Photographs	03-13	Motion board
Photographs	03-14	Network board top
Photographs	03-15	Network board bottom
Photographs	03-16	SD board
Photographs	03-17	Sensor board
Photographs	03-18	SMPS board top
Photographs	03-19	SMPS board bottom
Photographs	03-20	Motor
Diagrams	04-01	Enclosure Dimension
Manuals	06-01	Manual
Miscellaneous	07-01	Transformer (T1) specification - CLOVER Hi-Tech CO., LTD.
Miscellaneous	07-02	Transformer (T1) specification - DONG GUAN TOP NATION ELECTRONIC LIMITED
Miscellaneous	07-03	BAR CHOKE (L1) specification - CLOVER Hi-Tech CO., LTD.
Miscellaneous	07-04	BAR CHOKE (L1) specification - Trigon Dongguan
Miscellaneous	07-05	Line Filter (LF3) specification - CLOVER Hi-Tech CO., LTD.
Miscellaneous	07-06	Line Filter (LF3) specification - DONG GUAN TOP NATION ELECTRONIC LIMITED
Miscellaneous	07-07	Dual language safety labeling CRD
Miscellaneous	07-08	Label

The following Page(s) are related to Diagrams-01. The next supplement, if applicable, will be identified with a new Supplement Page Heading.



4	QNP-6320, QNP6250	21.04.30
3	QNP-6230	-
2	XNP-6320, XNP-6321	-
1	SNP-6321	-
No.	MODEL NAME	DATE

Unit:mm[inch]	SCALE:1/1	Hanwha Techwin

A0

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The following Page(s) are related to Manuals-01. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean the contaminated area on the product surface with a soft, dry cloth or a damp cloth.
   (Do not use a detergent or cosmetic products that contain alcohol, solvents or surfactants or oil constituents as they may deform or cause damage to the product.)
7. Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/ accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lighting storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product is intended to be supplied by a Listed Power Supply Unit marked "Class 2" or "LPS" or "PS2" and rated from PoE(53 Vdc), 0.44A. (QNP-6320H/QNP-6250H)
16. This product is intended to be supplied by a Listed Power Supply Unit marked "Class 2" or "LPS" or "PS2" and rated from PoE(53 Vdc), 0.28A. (QNP-6320/QNP-6250)
17. This product is intended to be supplied by isolation power.
18. If you use excessive force when installing the product, the camera may be damaged and malfunction.
    If you forcibly install the product using non-compliant tools, the product may be damaged.
19. Do not install the product in a place where chemical substances or oil mist exists or may be generated. As edible oils such as soybean oil may damage or warp the product, do not install the product in the kitchen or near the kitchen table.
    This may cause damage to the product.
20. When installing the product, be careful not to allow the surface of the product to be stained with chemical substance.
    Some chemical solvents such as cleaner or adhesives may cause serious damage to the product's surface.
21. If you install/disassemble the product in a manner that has not been recommended, the production functions/ performance may not be guaranteed.
    Install the product by referring to "Installation & connection" in the user manual.
22. Installing or using the product in water can cause serious damage to the product.
23. If your product works normal, the degree of preset precision is 0.2°. In the case of reboot due to outage, firmware upgrade, etc., its tolerance might have to be adjusted after checking for any changes in Preset setup.

WARNING

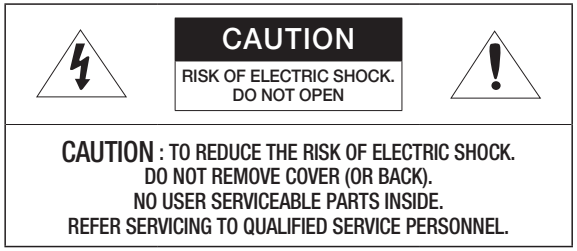
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENNINGS ON THE EQUIPMENT.

Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

To prevent injury, this apparatus must be securely attached to the Wall/ceiling in accordance with the installation instructions.

Pan/Tilt/Zoom motors and slip ring are warrantied for one year under continuous operation.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Class I construction

An apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

Battery

Batteries(battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

The battery cannot be replaced.

Disconnection Device

Disconnect the main plug from the apparatus, if it's defected. And please call a repair man in your location.

When used outside of the U.S., it may be used HAR code with fittings of an approved agency is employed.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

ATTENTION

IL Y A RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UNE BATTERIE DE TYPE INCORRECT.
METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS.

CAUTION

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Please use the input power with just one camera and other devices must not be connected.

The ITE is to be connected only to PoE networks without routing to the outside plant.

The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3at shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL60950-1 or PS2 as defined in UL62368-1.

Unit is intended for installation in a Network Environment 0 as defined in IEC TR 62102. As such, associated Ethernet wiring shall be limited to inside the building.

Please read the following recommended safety precautions carefully.

- Do not place this apparatus on an uneven surface.
- Do not install on a surface where it is exposed to direct sunlight, near heating equipment or heavy cold area.
- Do not place this apparatus near conductive material.
- Do not attempt to service this apparatus yourself.
- Do not place a glass of water on the product.
- Do not install near any magnetic sources.
- Do not block any ventilation openings.
- Do not place heavy items on the product.
- Please wear protective gloves when installing/removing the camera.
  The high temperature of the product surface may cause a burn.

User's Manual is a guidance book for how to use the products.

The meaning of the symbols are shown below.

- Reference : In case of providing information for helping of product's usages
- Notice : If there's any possibility to occur any damages for the goods and human caused by not following the instruction

※ Please read this manual for the safety before using of goods and keep it in the safe place.

We do not guarantee the quality of third-party products (e.g. lenses, accessories) that you separately purchase.

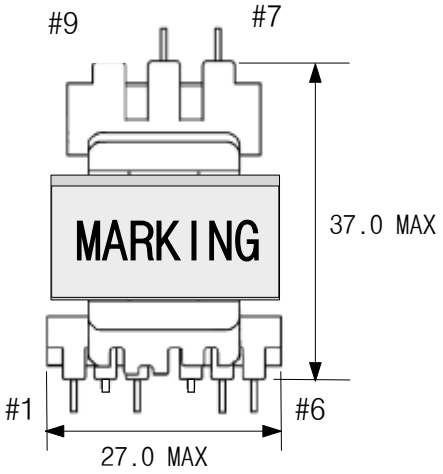
In particular installation environments, there might be interference in radio communications. When interference of electromagnetic waves occurs between the product and radio communication device, it is recommended to keep a certain distance between the two or change the direction of the receiving antenna.

The following Page(s) are related to Miscellaneous-01. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

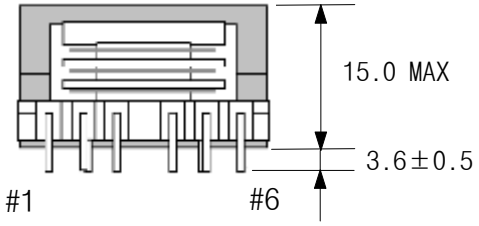
CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2012.11.26
PART NAME	TRANS-POWER S/W	PART NO	1400423

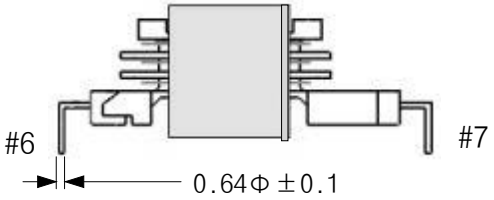
6. DIMENSION (UNIT:mm)



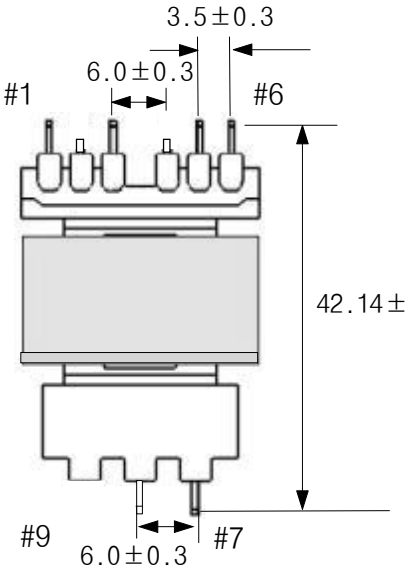
◈TOP VIEW◈



◈FRON VIEW◈



◈SIDE VIEW◈



◈BOTTOM VIEW◈

MARKING(BLACK)

1400423 -- PART NO.

SC-04B SC-AABBCCDE-- LOT NO.

MAKER(TRADENAME)

INSULATION SYSTEM DESIGN NO(CLASS-B)

LOT NO

YEAR(AA)	MONTH(BB)	DAY(CC)
2011Y→11 2012Y→12 2013Y→13	JAN→01 FEB→02 DEC→12	1st DAY→01 2nd DAY→02 31thDAY→31

PRODUCT CODE(D)	MANUFACTURER OF CORE(E)
A:KOREA PRODUCT C:CHINA(WENDENG) D:CHINA(DONGGUAN) E:CHINA(ZAOZHUANG)	S:SAMWHA K:DONGYANGGUANG N:JISHUN

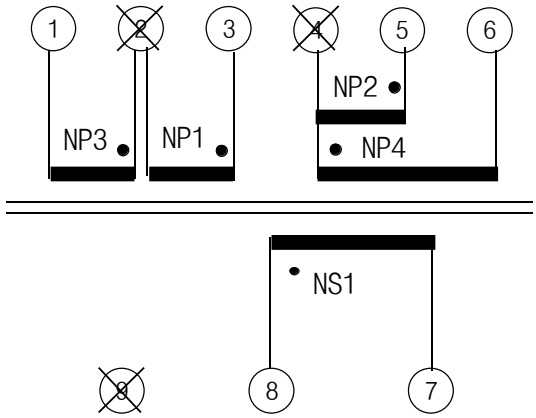
※ CENTER AIR GAP : TOP GAP
※ REMOVE PIN : #9
※ CENTER BOND : SW-860H or ES-928P-2
※ CUTTING AFTER SOLDERING : #2,#4

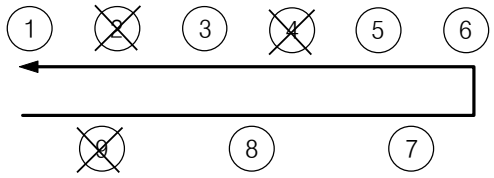
CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 12.11.26 技術部	金基泰 12.11.26 技術部	劉成宰 12.11.26 技術部	5/27

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2012.11.26
PART NAME	TRANS-POWER S/W	PART NO	1400423

7. SCHEMATIC DIAGRAM





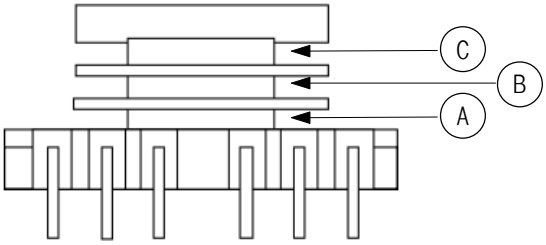
WINDING	BOTTOM VIEW	C.W
BOBBIN INSERT	BOTTOM SIDE	
TUBE PIN	X	
N.C PIN	X	
REMOVE PIN	#9	
CUTTING PIN	#2,#4	

8. WINDING SPECIFICATION

NO	NAME	TERMINAL NO.		WINDING			
		START	FINISH	WIRE	TURNS	WINDING METHOD	SECTION
1	NP1	3	2	2UEW 0.50φ	4	SOLENOID	A
2	NP2	5	4	2UEW 0.30φ	2	SOLENOID	
3	NS1	8	7	2UEW 0.50φ	4	SOLENOID	B
4	NP3	2	1	2UEW 0.50φ	4	SOLENOID	C
5	NP4	4	6	2UEW 0.30φ	2	SOLENOID	

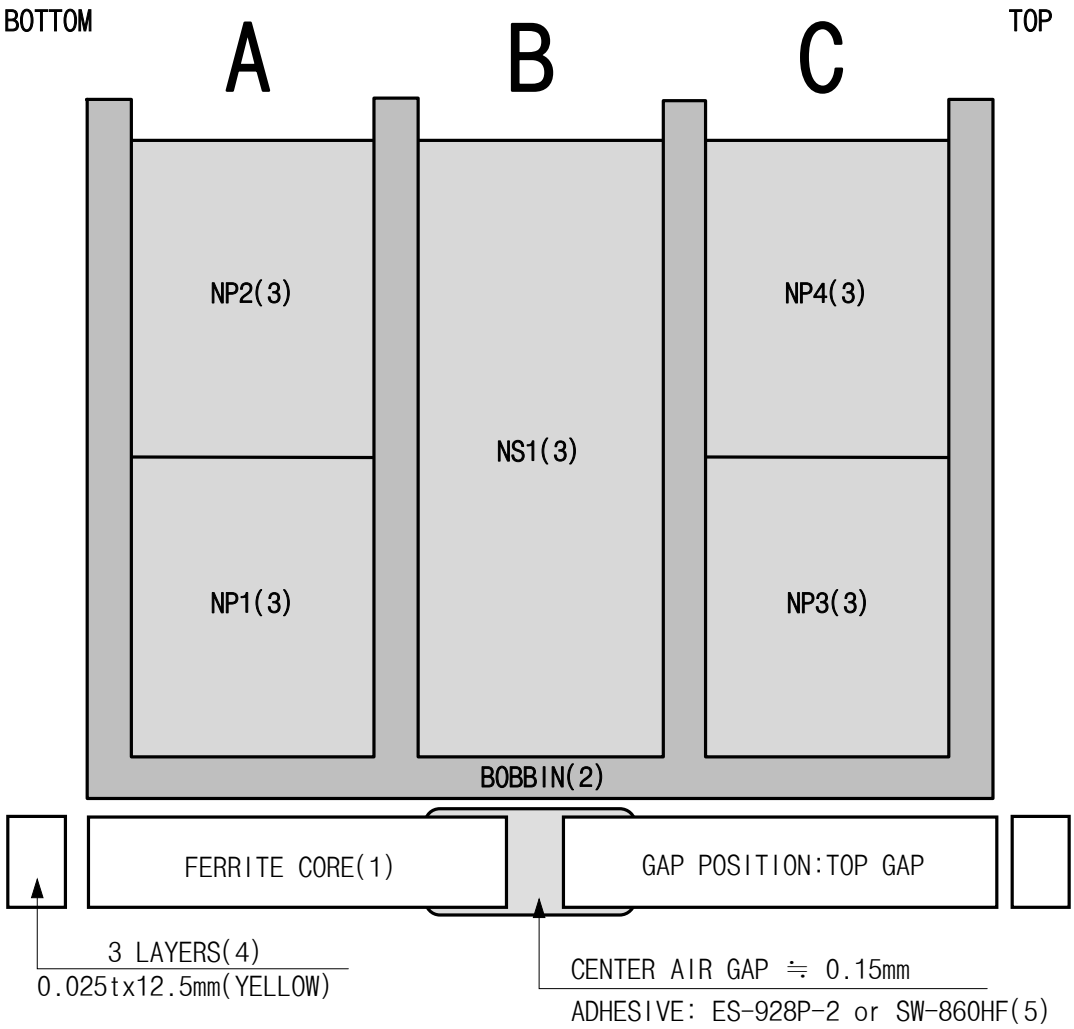
WIRE SPECIFICATION	CONDUCTOR		
	WIRE	DIAMETER[mm]	TOLERANCE OF DIAMETER[mm]
	2UEW	0.30	±0.003
	2UEW	0.50	±0.003

* REGARDING ABOVE TABLE STANDARD, THICKNESS OF WIRE MUST BE OVER SPECIFICATION.



CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 12.11.26 技術部	金基泰 12.11.26 技術部	劉成宰 12.11.26 技術部	6/27

14. CONSTRUCTION



· WINDING :

· PS TAPE :

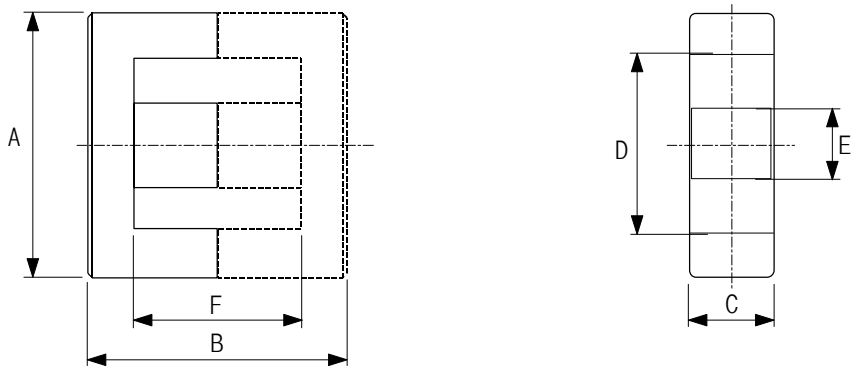
16. LIST OF MATERIAL

NO	COMPONENT	NAME OF MATERIAL	MANUFACTURER OF MATERIAL	UL FILE NO
1	CORE	PL-7 EE2515W HE4 EE2515W PC40 EE2515W	SAMWHA ELECTORNICS CO., LTD. RUYUAN DONGYANGGUANG MAGNETICS MATERIALS CO., LTD. SHANGHAI JISHUN MAGNETIC MATERIAL CO.,LTD.	
2	BOBBIN	PHENOLIC 94V-0 EE2515W V"TYPE 9PIN(6+3)	SUMITOMO BAKELITE CO.,LTD.(PM-9820)	E41429
3	WIRE	2UEW 0.30Ø 0.50Ø	DONGYANG ELECTRONICS IND CO.,LTD.(UEW MW75) CNI CABLE CO.,LTD.(UEW MW75)	E102761 E210918
4	CORE FIXING TAPE	POLYESTER FILM TAPE 0.025T×12.5W(Y)	METAL LINE CO.,LTD.(Cat.No. 800(a)) JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO.,LTD.(Cat.No. PZ)	E162848 E165111
5	ADHESIVE	EPOXY RESIN ES-928P-2 SW-860HF	CHEM TECH CO.,LTD. SUNGWOO CHEMICAL CO.,LTD.	
6	SOLDER	BAR, WIRE	ALPHA METALS CO.,LTD.	
	FLUX	EF-9301 JS-7000S-2	ALPHA METALS CO.,LTD. KOKI KOREA CO.,LTD.	
7	VARNISH	DVB-2085(*)	NOROO PAINT & COATINGS CO.,LTD.	E93947
8	MARKING	INK(Black)	HITACHI CHEMICAL CO.,LTD.	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2012.11.26
PART NAME	TRANS-POWER S/W	PART NO	1400423

※ CORE DIMENSION ※



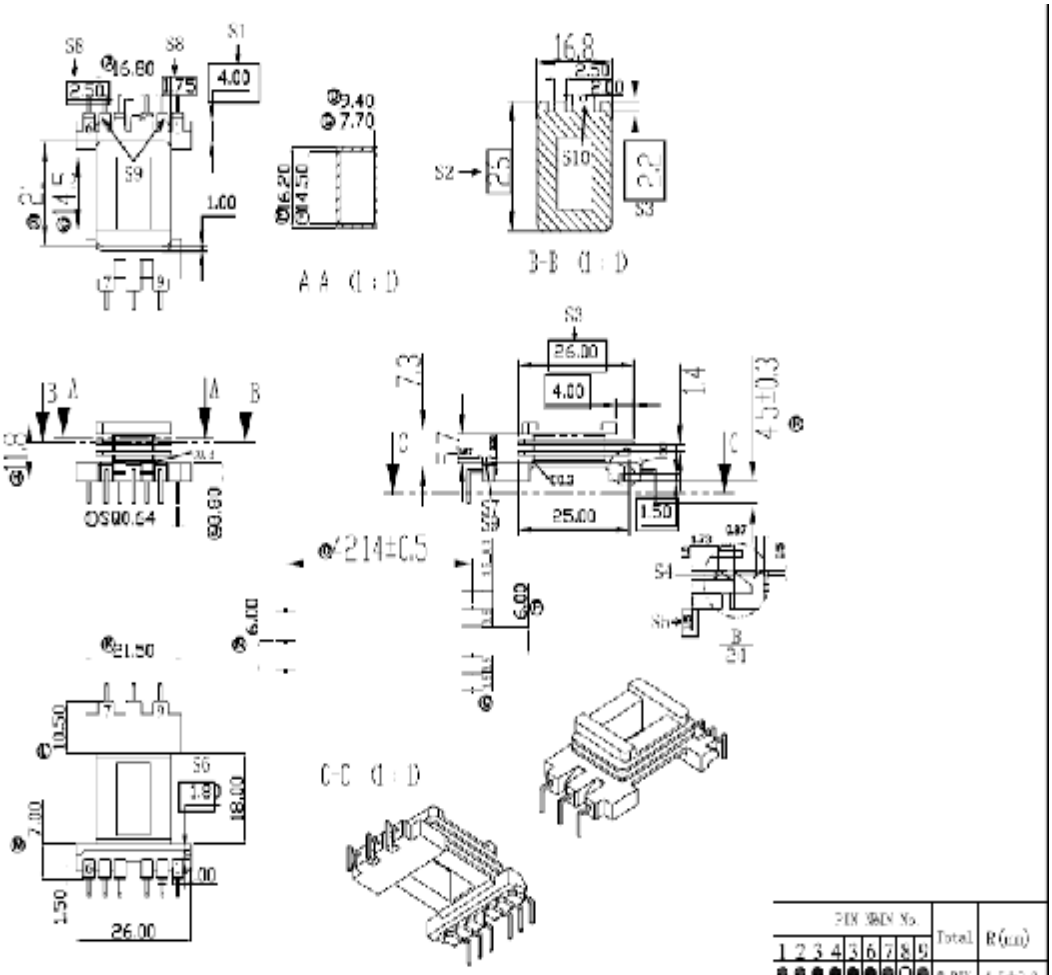
TYPE	DIMENSION(mm)						EFFECTIVE PARAMETER			REMARKS
	A	B	C	D	E	F	Le(mm)	Ae(㎟)	Ve(㎤)	
EE2515W	25.05 ±0.5	7.00 ±0.15	14.00 ±0.30	17.90 ±0.40	7.25 ±0.25	4.00 ±0.15	36.8	92.52	3404.8	SAMWHA
EE2515W	25.05 ±0.5	7.00 ±0.15	14.00 ±0.30	17.90 ±0.40	7.25 ±0.25	4.00 ±0.15	36.83	92.36	3402.4	DONGYANG GUANG
EE2515W	25.05 ±0.5	7.00 ±0.15	14.00 ±0.30	17.90 ±0.40	7.25 ±0.25	4.00 ±0.15	36.83	92.36	3402.4	JISHUN

CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 12.11.26 技術部	金基泰 12.11.26 技術部	劉成宰 12.11.26 技術部	17/27

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2012.11.26
PART NAME	TRANS-POWER S/W	PART NO	1400423

※ BOBBIN DIMENSION ※

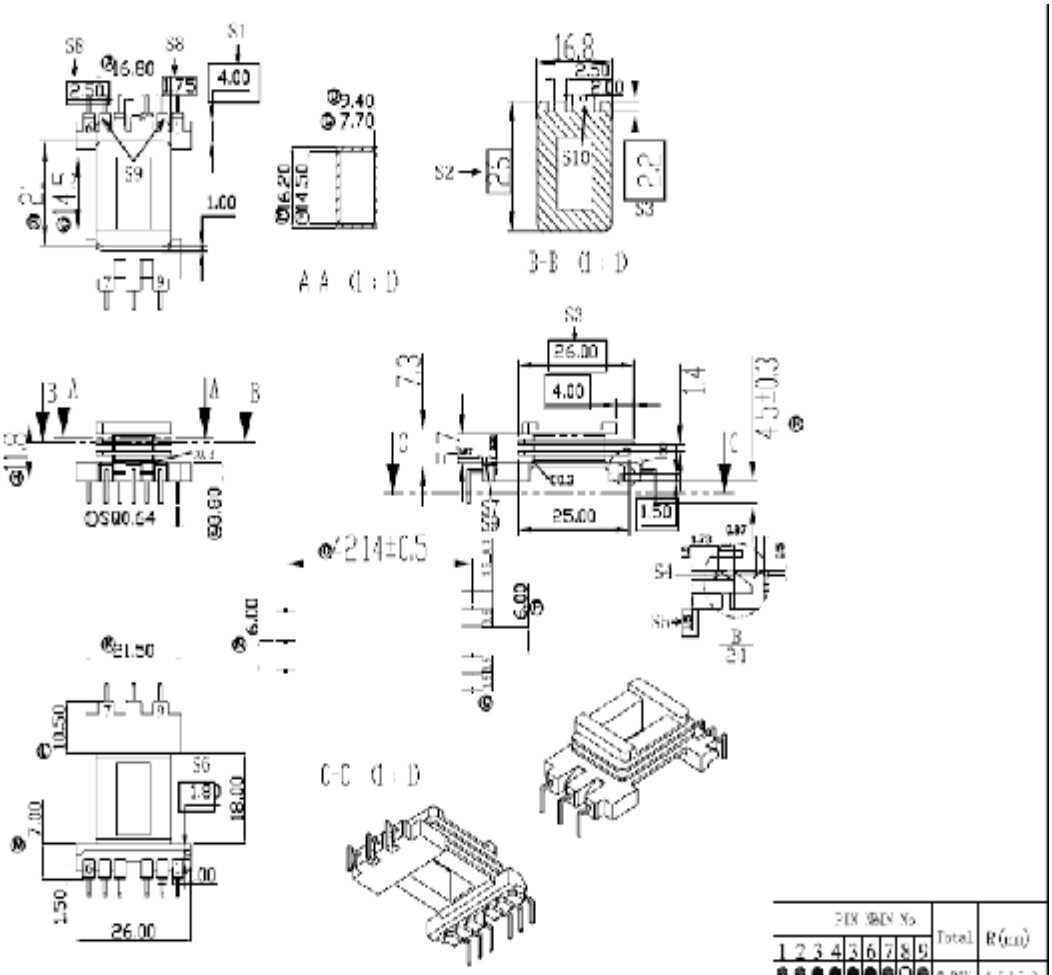


CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 12.11.26 技術部	金基泰 12.11.26 技術部	劉成宰 12.11.26 技術部	21/27

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2012.11.26
PART NAME	TRANS-POWER S/W	PART NO	1400423

※ BOBBIN DIMENSION ※



CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 12.11.26 技術部	金基泰 12.11.26 技術部	劉成宰 12.11.26 技術部	21/27

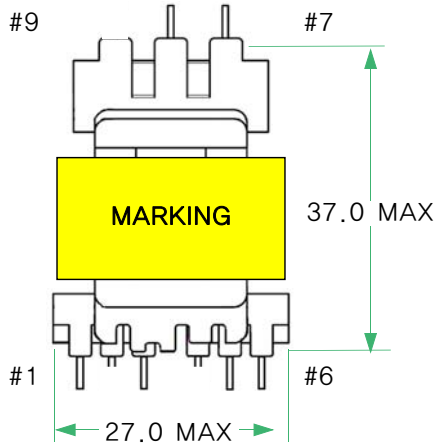
The following Page(s) are related to Miscellaneous-02. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	4 OF 46
		DATE	2012. 09. 14.
PART NAME	POWER TRANS	MODEL NAME	PN020STCA
PART NO.	1400423	TYPE	EE2515W

6. APPEARANCE & DIMENSION

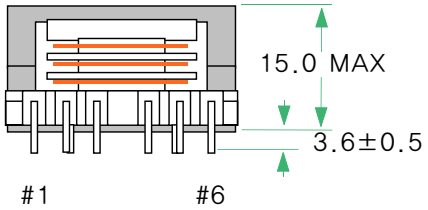
《 TOP VIEW 》



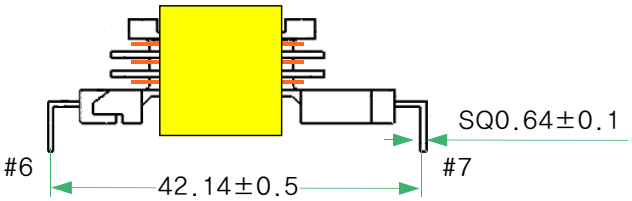
※ MARKING(BLACK) : 1400423 E173643 TNS YCI-130 1208EK

1400423	PART No.							
E173643	MAKER (TRADE NAME) {YAO SHENG ELECTRONIC CO.,LTD.(UL No)}							
TN	DONG GUAN TOP NATION	CHINA FACTORY ID						
TNS	TOP NATION(SU ZHOU)							
YCI-130	YAO SHENG ELECTRONIC 'CLASS B' SYSTEM							
12	Lot No	Year	2012 : 12 2013 : 13...					
08		Week	First Week : 01 Second Week : 02...					
E	DAY	MON	TUE	WED	THU	FRI	SAT	SUN
		A	B	C	D	E	F	G
Y	MANUFACTURER OF CORE							
	Y	YOUNGHWA	S	SAMWHA				
	T	TDG	M	DMEGC				
	Z	KAIYUAN						

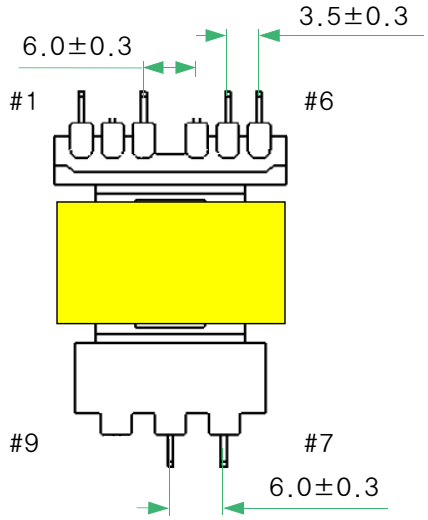
《 FRONT VIEW 》



《 SIDE VIEW 》



《 BOTTOM VIEW 》



DONG GUAN TOP NATION ELECTRONIC LIMITED

NO.3 INDUSTRICAL AREA.JUZHOU SHIJIE TOWN DONGGUAN CHINA

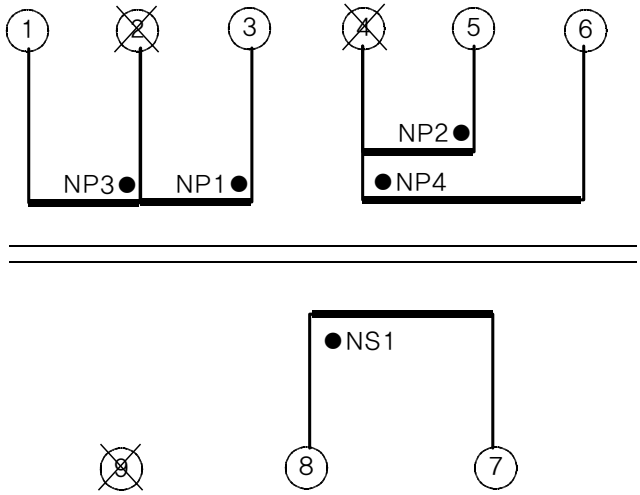
TEL:86-769-86632772 FAX:86-769-86315197

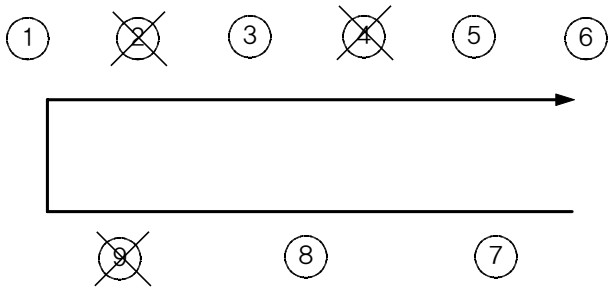
DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19360122	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	5 OF 46
		DATE	2012. 09. 14.
PART NAME	POWER TRANS	MODEL NAME	PN020STCA
PART NO.	1400423	TYPE	EE2515W

7. SCHEMATIC DIAGRAM

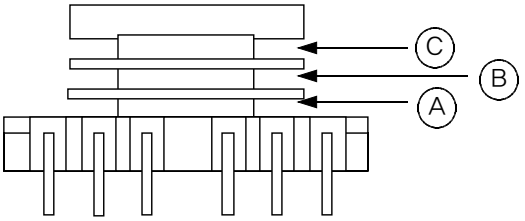




WINDING	BOTTOM VIEW	C.W
BOBBIN INSERT	BOTTOM	
REMOVE PIN	#9	
N.C PIN	-	
CUT PIN	#2, #4	
TUBE PIN	-	

8. WINDING SPECIFICATION

WINDING ORDER	SYMBOL	TERMINAL NO		WIRE	TURNS	WINDING METHOD	REMARKS
W1	NP1	3	2	2UEW 0.50φ	4	A SECTION SOLENOID	
W2	NP2	5	4	2UEW 0.30φ	2	A SECTION SOLENOID	
W3	NS1	8	7	2UEW 0.50φ	4	B SECTION SOLENOID	
W4	NP3	2	1	2UEW 0.50φ	4	C SECTION SOLENOID	
W5	NP4	4	6	2UEW 0.30φ	2	C SECTION SOLENOID	



◇ REGARDING ABOVE TABLE STANDARD, THICKNESS OF WIRE MUST BE OVER SPECIFICATION RANGE.

DONG GUAN TOP NATION ELECTRONIC LIMITED

NO.3 INDUSTRICAL AREA.JUZHOU SHIJIE TOWN DONGGUAN CHINA

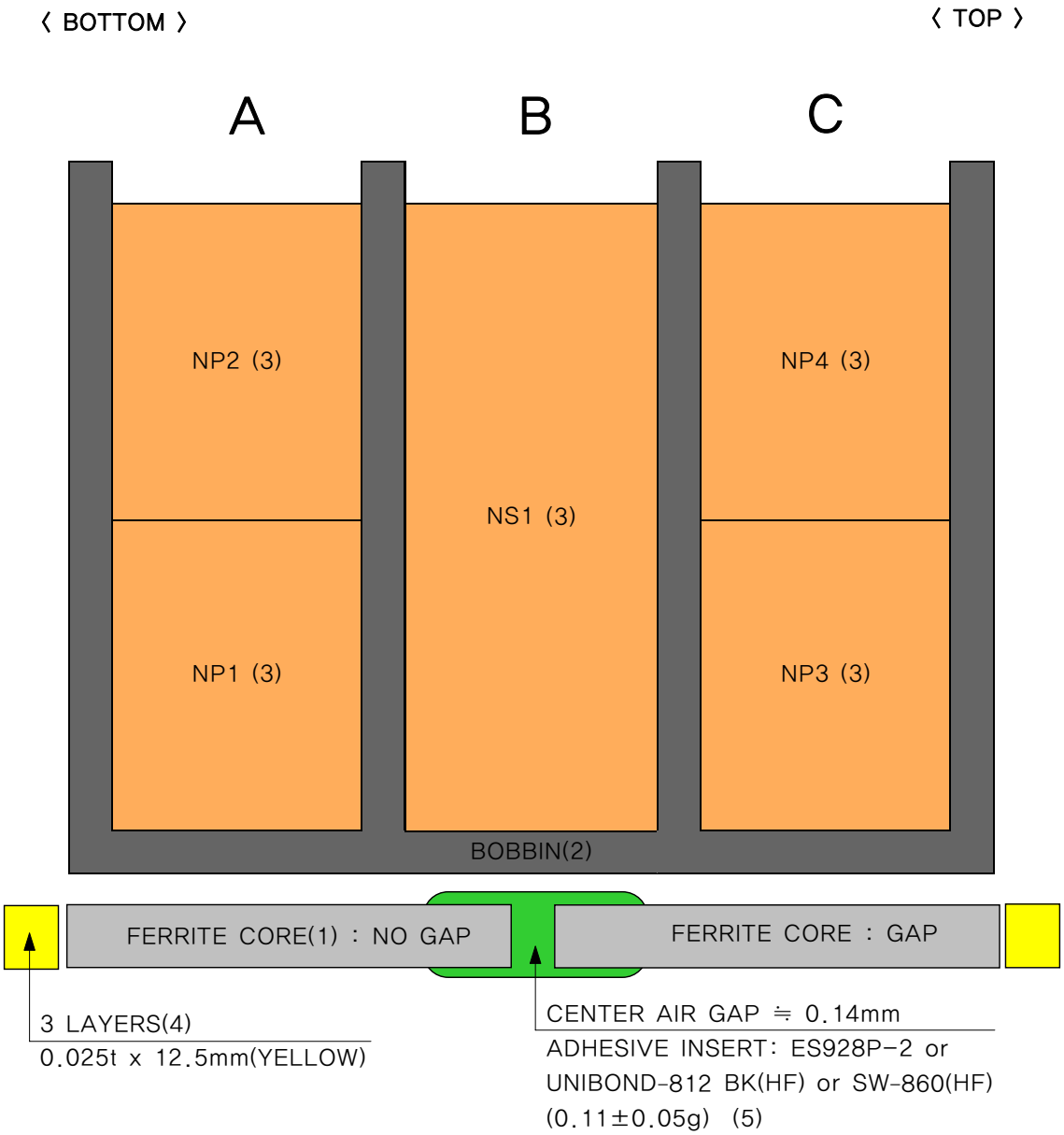
TEL:86-769-86632772 FAX:86-769-86315197

DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19360122	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	8 OF 46
		DATE	2012. 09. 14.
PART NAME	POWER TRANS	MODEL NAME	PN020STCA
PART NO.	1400423	TYPE	EE2515W

11. INTERNAL CONSTRUCTION



· Winding :
· Ps tape :

DONG GUAN TOP NATION ELECTRONIC LIMITED

NO.3 INDUSTRICAL AREA.JUZHOU SHIJIE TOWN DONGGUAN CHINA

TEL:86-769-86632772 FAX:86-769-86315197

DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19360122	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	15 OF 46
		DATE	2012. 09. 14.
PART NAME	POWER TRANS	MODEL NAME	PN020STCA
PART NO.	1400423	TYPE	EE2515W

20. MATERIAL LIST

No	Component	Name of Material	Manufacturer Component	Class	UL file No
1	Core	EE2515WC YP2	Young hwa ferrite co.,ltd		
		EE2515WC PL-7	Sam wha electronics co., ltd.		
		EE2515 TP4	TDG Holding co.,ltd		
		EE2515 DMR40	Hengdian Group DMEGC Magnetics co., ltd.		
		EE2515 KP4	Mianyang KAIYUAN magnetism material co., ltd.		
2	Bobbin	94V-0 (PM9820) PHENOL RESIN EE2515W "V TYPE" (6+3 PIN)	Sumitomo bakelite co.,ltd	B	E41429
3	Wire	2UEW 0.30Φ 2UEW 0.50Φ	Heng ya electric (dongguan) ltd.	B	E197768
			Jung Shing wire co.,ltd.	B	E174837
			Shanghai Asia pacific electric co., ltd.	B	E214423
			Heng ya electric kun shan ltd.	B	E245514
4	Core fixing tape	polyester film tape 0.025tx12.5㎜(yellow)	Jingjiang yahua pressure sensitive glue co., ltd(CT)	B	E165111
5	Adhesive	UNIBOND-812 BK(HF)	Green star co.,ltd		
		ES928P-2	Chemtech co.,ltd.		
		SW-860(HF)	Sungwoo chemical co., ltd.		
6	Varnish	DVB-2085(*)	Noroo paint & coatings co ltd.	B	E93947
		ES925-43D#	Chemtech co.,ltd.	B	E258329
7	Solder	LEAD FREE	Solnet metal industry co.,ltd		
			Shenmao technology inc.		
8	Flux	YF-990	Xin yuan co.,ltd.		
9	Marking	INK (BLACK) LABEL(Transparency)	Kk enterprise co.,ltd.		

DONG GUAN TOP NATION ELECTRONIC LIMITED

NO.3 INDUSTRICAL AREA.JUZHOU SHIJIE TOWN DONGGUAN CHINA

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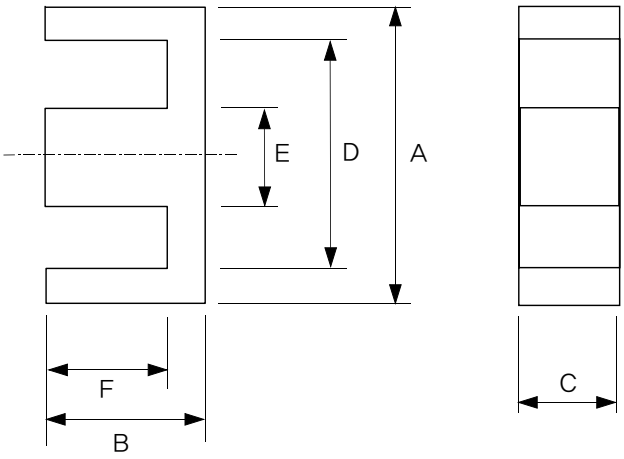
DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19360122	

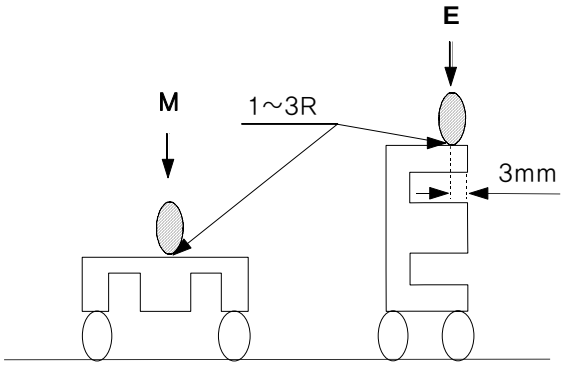
CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	22 OF 46
		DATE	2012. 12. 04.
PART NAME	POWER TRANS	MODEL NAME	PN020STCA
PART NO.	1400423	TYPE	EE2515W

22. EE CORES DIMENSIONS [EE2515W]



※ CORE INTENSITY STANDARD



-. TEST CONDITION : AiKOH - 1322

-. FIXED SPEED : 20mm / MIN

TYPE	DIMENSIONS IN MM						EFFECTIVE PARAMETERS			INTENSITY STANDARD (kgf MIN)		Remarks
	A	B	C	D	E	F	le(㎜)	Ae(㎜²)	Ve(㎜³)	M	E	
EE2515WC	25.05 ±0.50	6.95 ±0.15	14.00 ±0.30	17.90 ±0.40	7.25 ±0.25	3.95 ±0.15	38.10	96.70	3687.70	3	3	Young hwa
EE2515WC	25.05 ±0.50	7.00 ±0.15	14.00 ±0.30	17.90 ±0.40	7.25 ±0.25	4.00 ±0.15	36.80	92.52	3404.80	3	3	Sam Wha
EE2515	25.05 ±0.75	6.95 ±0.15	14.00 ±0.30	17.50 MIN	7.25 ±0.25	3.95 ±0.15	37.05	91.25	3380.70	3	3	TDG
EE2515	25.05 ±0.75	6.95 ±0.15	14.00 ±0.30	17.90 ±0.40	7.25 ±0.25	3.95 ±0.15	36.60	91.80	3359.88	3	3	DMEGC
EE2515	25.05 ±0.50	6.95 ±0.15	14.00 ±0.30	17.90 ±0.40	7.25 ±0.25	3.95 ±0.15	38.10	96.70	3687.70	3	3	KAIYUAN

	A	B	C	D	E	F
1	24.93	7.02	13.85	17.80	7.24	4.01
2	24.93	7.03	13.86	17.82	7.25	4.08
3	24.95	7.05	13.84	17.81	7.23	4.06
4	24.96	7.04	13.84	17.80	7.23	4.02
5	24.95	7.06	13.84	17.82	7.24	4.03

DONG GUAN TOP NATION ELECTRONIC LIMITED

NO.3 INDUSTRICAL AREA.JUZHOU SHIJIE TOWN DONGGUAN CHINA

TEL:86-769-86632772 FAX:86-769-86315197

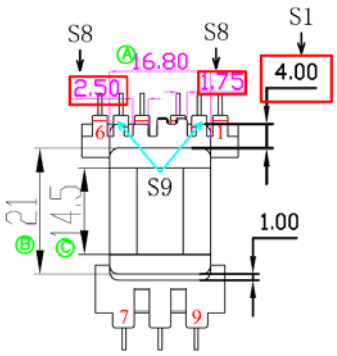
DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19360122	

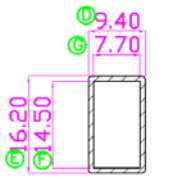
CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	28 OF 46
		DATE	2012. 12. 04.
PART NAME	POWER TRANS	MODEL NAME	PN020STCA
PART NO.	1400423	TYPE	EE2515W

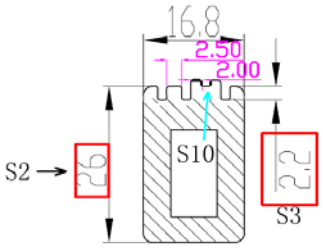
28. BOBBIN

(UNIT : mm)





A-A (1 : 1)



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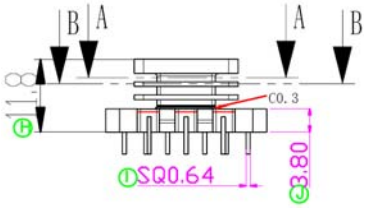

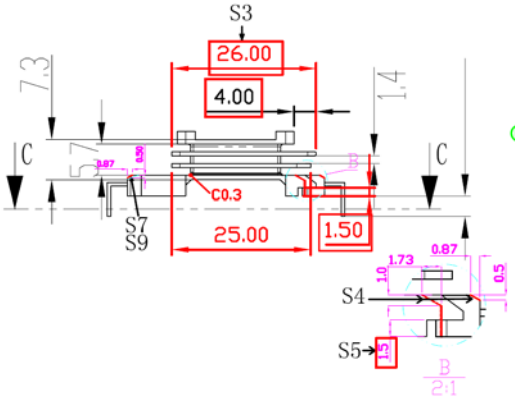

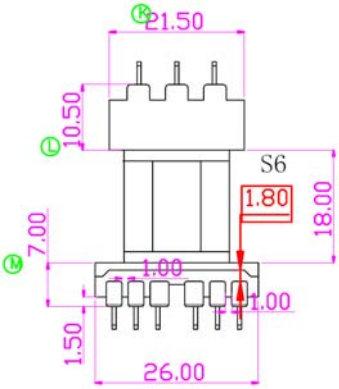

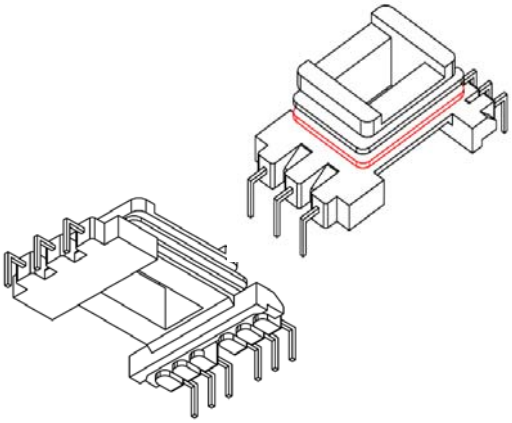

〈JIARUI〉

	O	P	Q	R
spec	42.14 ±0.50	6.00 ±0.20	3.50 ±0.20	4.50 ±0.30
1	42.14	6.01	3.51	4.51
2	42.15	6.01	3.52	4.52
3	42.13	6.03	3.52	4.50
4	42.15	6.02	3.53	4.52
5	42.14	6.03	3.52	4.54

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
spec	16.80 ±0.30	21.00 ±0.30	14.50 ±0.20	9.40 ±0.20	16.20 ±0.30	14.50 ±0.20	7.70 ±0.20	11.80 ±0.20	0.64 ±0.03	3.80 ±0.10	21.50 ±0.30	10.50 ±0.20	7.00 ±0.20	6.00 ±0.20
1	16.81	21.02	14.51	9.41	16.22	14.50	7.71	11.80	0.64	3.81	21.50	10.51	7.02	6.03
2	16.82	21.03	14.52	9.42	16.23	14.52	7.72	11.82	0.63	3.82	21.55	10.53	7.01	6.04
3	16.82	21.03	14.52	9.41	16.21	14.52	7.71	11.81	0.63	3.83	21.54	10.52	7.03	6.06
4	16.80	21.04	14.51	9.42	16.21	14.51	7.73	11.81	0.65	3.83	21.52	10.54	7.02	6.03
5	16.83	21.05	14.49	9.43	16.19	14.53	7.73	11.82	0.63	3.82	21.50	10.53	7.03	6.04

DONG GUAN TOP NATION ELECTRONIC LIMITED

NO.3 INDUSTRICAL AREA.JUZHOU SHIJIE TOWN DONGGUAN CHINA

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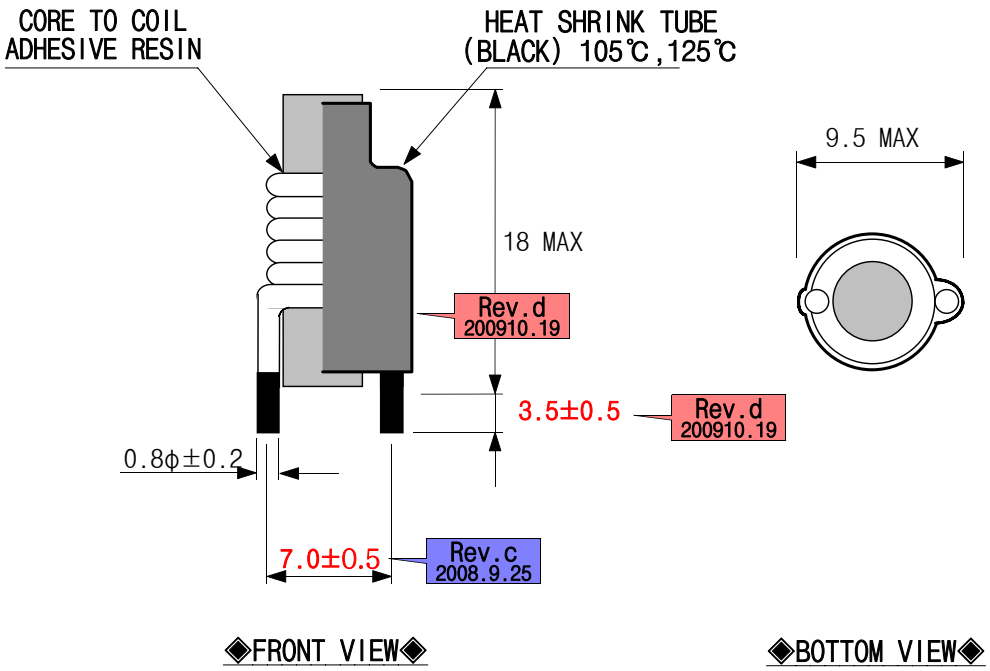
DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19360122	

The following Page(s) are related to Miscellaneous-03. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

CUSTOMER : POWERNET TECHNOLOGIES.

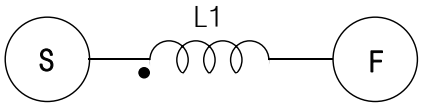
SPECIFICATIONS		DATE	2005. 3. 7
PART NAME	COIL-CHOKE	PART NO	1420401

4. DIMENSION (UNIT:mm)



CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	李元珠 05.03.07 技術部	朴鍾奎 05.03.07 技術部	朴東國 05.03.07 技術部	2/12

5. SCHEMATIC DIAGRAM



6. WINDING SPECIFICATION

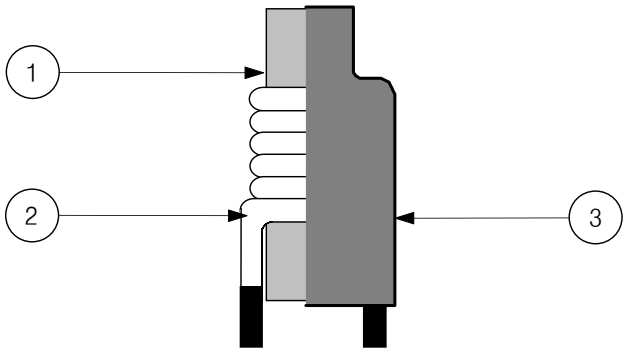
NO	TERMINAL NO.		WINDING		
			WIRE	TURNS	WINDING METHOD
L1	S	F	1UEW 0.8ϕ	10.5 Ts	1 LAYER SOLENOID

* REGARDING ABOVE TABLE STANDARD, THICKNESS OF WIRE MUST BE OVER SPECIFICATION.

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2005. 3. 7
PART NAME	COIL-CHOKE	PART NO	1420401

8. CONSTRUCTION



9. LIST OF MATERIAL

NO	COMPONENT	NAME OF MATERIAL	MANUFACTURER OF MATERIAL	UL FILE NO
1	CORE	L-82 AR 5x15 YL-82 AR 5x15	SAMWHA ELECTRONICS CO., LTD. YOUNGHWA FERRITE CO., LTD.	
2	WIRE	1UEW 0.8ϕ	DONGYANG ELECTRONICS CO.,LTD. CNI CABLE CO.,LTD. (ANSI TYPE(RATED 130℃)=MW28, MW75)	E102761(S) E210918
3	TUBE	HEAT SHRINK TUBE 105℃,125℃(BLACK)	HAN KYUNG COMPONENT TRADING CO.,LTD. SHENZHEN CHANGYUAN ELECTRONIC MATERIAL CO., LTD.	E222852(S) E180908
4	ADHESIVE RESIN	THREE BOND 1401 SK-1000	THREE BOND CO., LTD. SEKYE CHEMICAL CO., LTD.	
5	FLUX	JS-7000S2	KOKI SANEI KOREA CO., LTD.	
6	SOLDER	Sn100% BAR, WIRE	SAMHWA NON-FERROUS METAL IND.CO.,LTD.	

Rev.b 2007.12.22

Rev.b 2007.12.22

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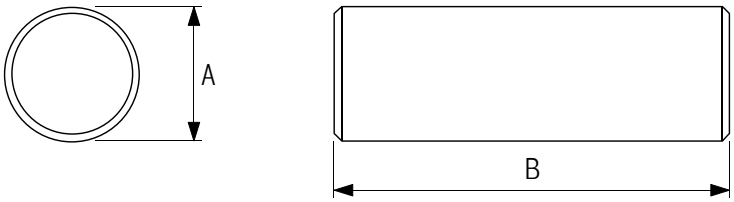
	李元珠 05.03.07 技術部	朴鍾奎 05.03.07 技術部	朴東國 05.03.07 技術部	7/12

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2005. 3. 7
PART NAME	COIL-CHOKE	PART NO	1420401

※ CORE DIMENSION ※



TYPE	DIMENSION (mm)		REMARK
	A	B	
AR5x15	5.00 ±0.2	15.00 ±0.25	SAMWHA
AR5x15	5.00 +0 -0.3	15.00 ±0.5	YOUNGHWA

MATERIALS	SYMBOL	UNIT	L-81	YL-82
INITIAL PERMEABILITY	μiac		350±25%	350±25%
SATURATION FLUX DENSITY	Bs	mT	330	330
REMANENCE	Br	mT	80	80
COERCIVITY	Hc	A/m	48	48
CURIE TEMPERATURE	Tc	℃	>170	>150
DENSITY	δ	kg/m^3	$5.0x10^3$	$5.0x10^3$
RESISTIVITY	ρ	MΩ/m	2.0	2.0

CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	李元珠 05.03.07 技術部	朴鍾奎 05.03.07 技術部	朴東國 05.03.07 技術部	8/12

The following Page(s) are related to Miscellaneous-04. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

S P E C I F I C A T I O N F O R A P P R O V A L

CUSTOMER NAME: POWERNET CUSTOMER PT/NO: 1420401

TRG PT/NO: ITP5015L2R5BU SAMPLE SUBMIT NO: _____ DATE: 2012.11.2

2. Electronical Characteristic

1. INDUCTANCE: AT: 1KHz, 1.0V

   L(S-F) =2.5uH ±15%

   (CHROMA TELECOM TRANSFORMER TEST SYSTEM MODEL3312)

2. DC RESISTANCE: AT: 25℃

   R(S-F) = 12mΩ MAX

   (CHROMA16502 OHM METER)

3. INSULATION RESISTANCE: 100MΩ @500VDC

4. IDC: 5.0A MAX |L0A-L5.0A|*100%/L0A≤10%

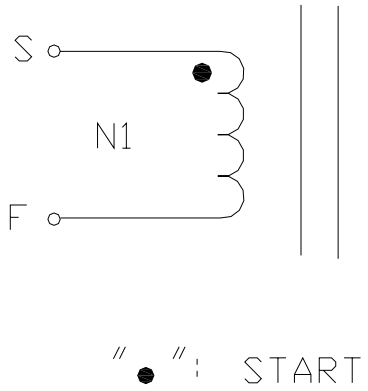
3. Operating Temperature Range

-25℃ to +85℃ Including Temperature Rise

4. Keep Temperature Range

-25℃ to +85℃

5. Circuit Diagram



S P E C I F I C A T I O N F O R A P P R O V A L

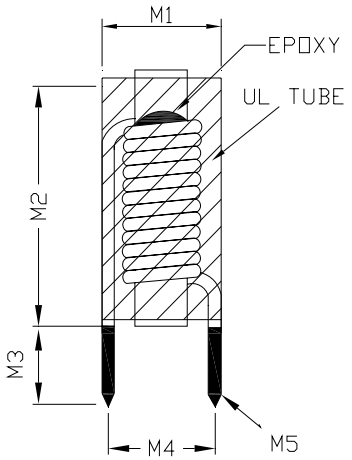
CUSTOMER NAME: POWERNET CUSTOMER PT/NO: 1420401

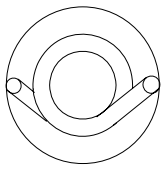
TRG PT/NO: ITP5015L2R5BU SAMPLE SUBMIT NO: _____ DATE: 2012.11.2

6. Winding Specification

NO	Terminal		Wire	Turns	Winding Method
	Start	Finish			
L	S	F	1UEW 0.8	10.5Ts REF.	Handmade

7. Shape and Dimension





UNIT:mm

	DIML	TOL.
M1	10.5	Max
M2	18.0	Max
M3	3.5	±0.5
M4	7.0	±0.5
M5	0.8Ø	±0.1

S P E C I F I C A T I O N F O R A P P R O V A L

CUSTOMER NAME: POWERNET CUSTOMER PT/NO: 1420401

TRG PT/NO: ITP5015L2R5BU SAMPLE SUBMIT NO: _____ DATE: 2012.11.2

8. Material List

NO.	Object/Part no.	Manufacturer/Trademark.	Type/Model NO.	UL NO.
1	CORE	FENGYI MAGNETOELECTRICITY CO., LTD	R 5*15	N/A
		TONGLI ELECTRONIC CO., LTD OR EQUAL	R 5*15	N/A
2	WIRE	SHANDONG SAINT ELECTRONIC MATERIAL CO.,LTD	1UEW	E194410
		SHANGHAI ASAI PACIFIC ELECTRIC CO.,LTD EQUAL	1UEW	E214423
3	UL TUBE	HAMBURG INDUSTRIES CO LTD EQUAL	HEAT-SHRINKABLE	E255394
4	SOLDER	DYFENCO ELECTRONIC CHEMICAL CORP. EQUAL	D9930/SN100	N/A
5	EPOXY	WELLS ELECTRONIC MATERIAL CO.,LTD EQUAL	6020H	E213437

S P E C I F I C A T I O N F O R A P P R O V A L

CUSTOMER NAME: POWERNET CUSTOMER PT/NO: 1420401

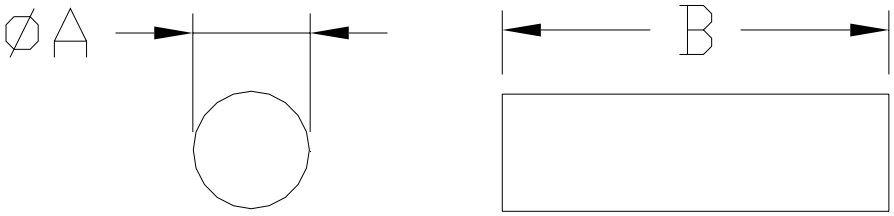
TRG PT/NO: ITP5015L2R5BU SAMPLE SUBMIT NO: _____ DATE: 2012.11.2

12. Power Core Specification:

Characteristics

Symbol	Unit	E2F
uiac		400±25%
BS		2700
T.C	℃	> 150
d	g/cm^3	4.8
tan δ /uiac	10^{-6}	< 60
a ur	10^{-6}/℃	30-150

Core Dimension(mm):



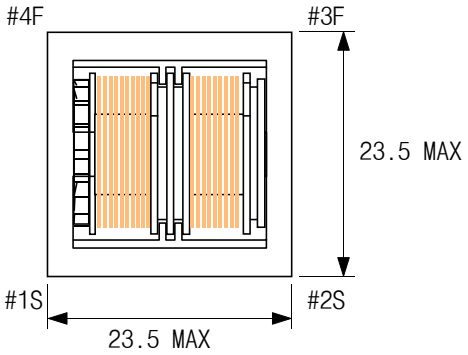
¢ A: 5.0±0.2 B: 15.0±0.5

The following Page(s) are related to Miscellaneous-05. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2013.01.16
PART NAME	LINE FILTER	CODE NO	1420603

6. DIMENSION (UNIT:mm)



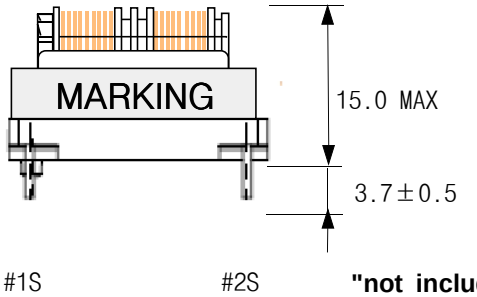
TOP VIEW

MARKING(BLACK)

1420603 SC-AABBC ----- LOT NO.

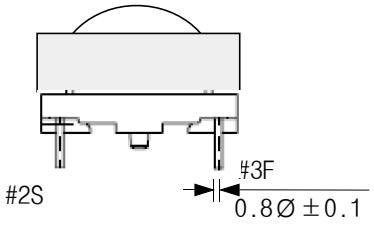
- PRODUCT CODE
- WEEK
- YEAR
- MAKER
- PART NO.

LOT NO		
YEAR(AA)	WEEK(BB)	PRODUCT CODE(C)
2012Y→12 2013Y→13 2014Y→14	1'st WEEK→01 2'nd WEEK→02 3'rd WWEK→03	A:KOREA PRODUCT C:CHINA(WENDENG) D:CHINA(DONGGUAN) E:CHINA(ZAOZHUANG)

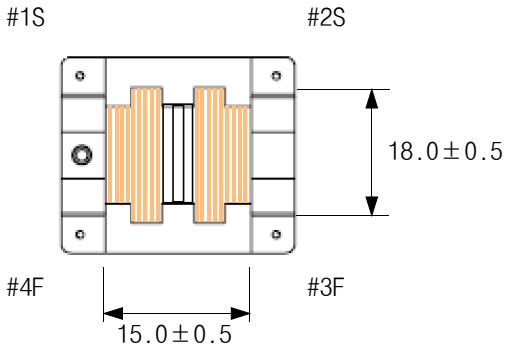


"not include solder fillet"

FRONT VIEW



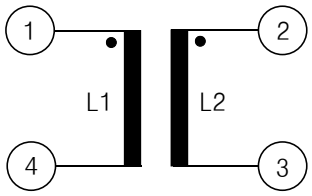
SIDE VIEW

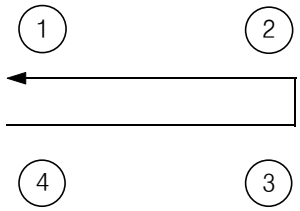


BOTTOM VIEW

CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 13.01.16 技術部	金基泰 13.01.16 技術部	劉成宰 13.01.16 技術部	4/22

7. SCHEMATIC DIAGRAM





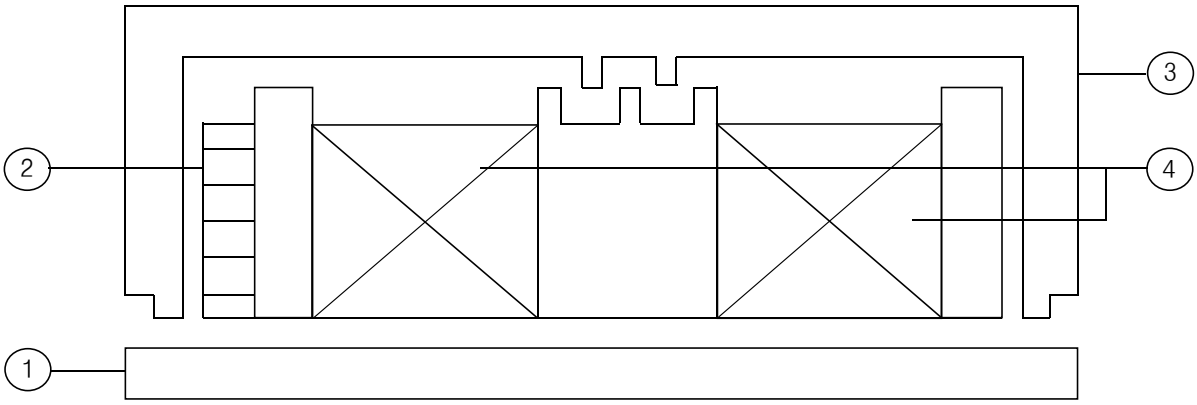
WINDING	BOTTOM VIEW	C.C.W
BOBBIN INSERT	SIDE INSERT	
N.C PIN	X	
REMOVE PIN	X	

8. WINDING SPECIFICATION

NO	TERMINAL NO		WINDING		
	START	FINISH	WIRE	TURNS	METHOD
L1	1	4	2UEW 0.45Ø	47±1 Ts	SOLENOID
L2	2	3	2UEW 0.45Ø	47±1 Ts	SOLENOID
WIRE SPECIFICATION			CONDUCTOR		
			WIRE	DIAMETER[mm]	TOLERANCE OF DIAMETER[mm]
			2UEW	0.45	±0.003

* REGARDING ABOVE TABLE STANDARD, THICKNESS OF WIRE MUST BE OVER SPECIFICATION.

13. CONSTRUCTION



14. LIST OF MATERIAL

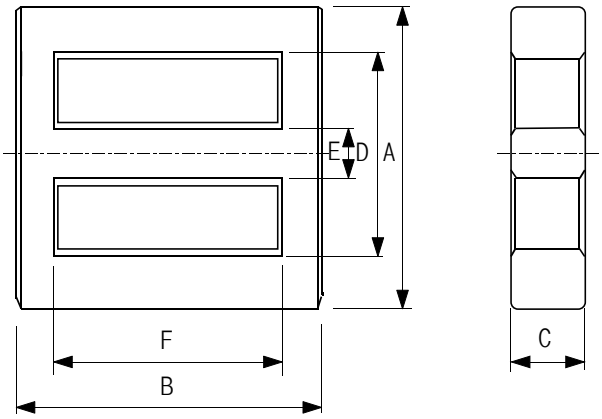
NO	COMPONENT	NAME OF MATERIAL	MANUFACTURER OF MATERIAL	UL FILE NO
1	CORE	SM-100, SQE 2020 HL10, SQE 2020 JSH10K, SQE 2020	SAMWHA ELECTRONICS CO.,LTD. Ruyuan Dongyangguang Magnetic Materials CO.,LTD. SHANGHAI JISHUN MAGNETIC MATERIAL CO.,LTD.	
2	BOBBIN	P.E.T. 94V-0 2 SECTION	E I DUPONT DE NEMOURS & CO INC. (FR-530)	E41938
3	BASE	PHENOLIC, 94V-0 H" TYPE 4PIN	MOMENTIVE SPECIALTY CHEMICALS GMBH. (PF 2736(a)(b)) CHANG CHUN PLASTICS CO.,LTD.(T375HF)	E61040 E59481
4	WIRE	2UEW 0.45Ø	DONGYANG ELECTRONICS IND CO.,LTD. CNI CABLE CO.,LTD. (ANSI TYPE(RATED 130℃)=MW28, MW75)	E102761 E210918
5	VARNISH	DVB-2085(*)	NOROO PAINT & COATINGS CO.,LTD.	E93947
6	SOLDER	BAR, WIRE	ALPHA METALS CO.,LTD.	
	FLUX	EF-9301 JS-7000S-2	ALPHA METALS CO.,LTD. KOKI KOREA CO.,LTD.	
7	MARKING	INK or LABEL	HITACHI CHEMICAL CO.,LTD.(BLACK)	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2013.01.16
PART NAME	LINE FILTER	CODE NO	1420603

※ CORE DIMENSION ※

SQE



TYPE	DIMENSION(mm)						REMARKS
	A	B	C	D	E	F	
SQE 2020	20.1 ±0.4	20.1 ±0.4	5.4 ±0.2	15.9 MIN	4.0 ±0.2	15.9 MIN	SAMWHA
SQE 2020	20.1 ±0.4	20.1 ±0.4	5.4 ±0.2	15.9 MIN	4.0 ±0.2	15.9 MIN	DONGYANG GUANG
SQE 2020	20.1 ±0.4	20.1 ±0.4	5.4 ±0.2	15.9 MIN	4.0 ±0.2	15.9 MIN	JISHUN

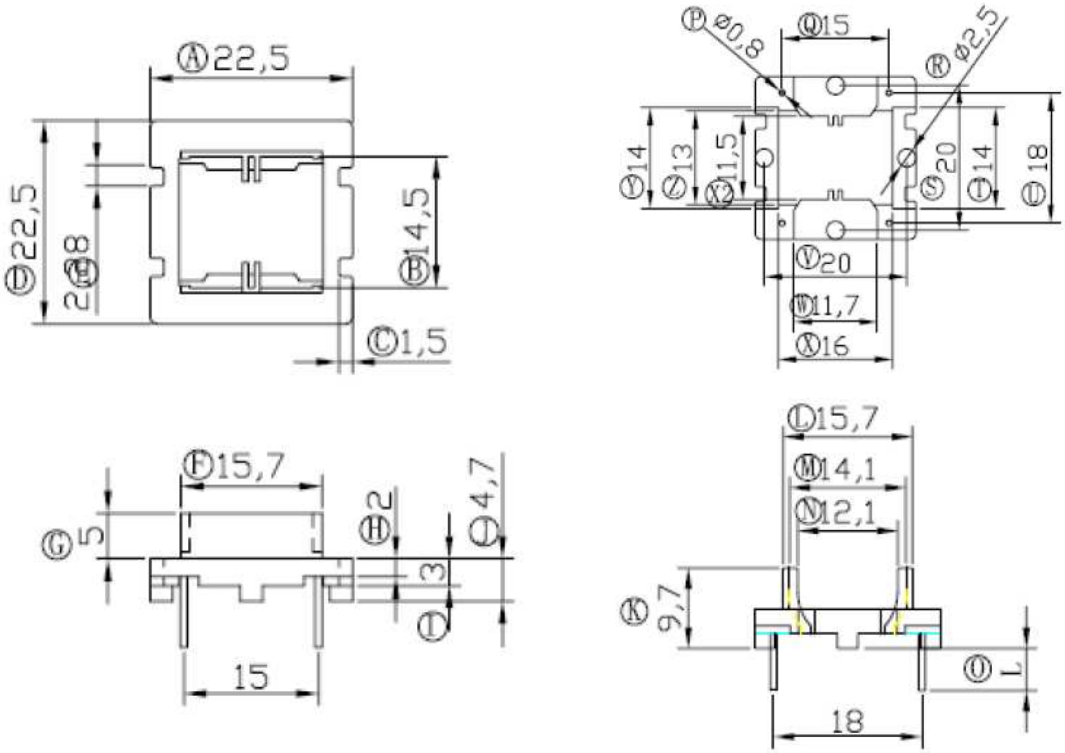
	A	B	C	D	E	F
1	20.08	20.12	5.46	16.08	3.96	16.06
2	20.42	20.44	5.43	15.98	4.00	15.95
3	20.16	20.12	5.41	16.04	3.96	15.94
4	20.25	20.26	5.43	15.96	3.97	15.98
5	20.32	20.34	5.41	16.04	3.98	16.00

CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 13.01.16 技術部	金基泰 13.01.16 技術部	劉成宰 13.01.16 技術部	11/22

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2013.01.16
PART NAME	LINE FILTER	CODE NO	1420603

※ BOBBIN(GEAR) DIMENSION ※



Q	R	S	T	U	V	W	X	Y	Z
15.0 ±0.2	2.5 ±0.1	20.0 ±0.3	14.0 ±0.2	18.0 ±0.3	20.0 ±0.1	11.7 ±0.2	16.0 ±0.2	14.0 ±0.2	13.0 ±0.2
15.05	2.52	20.04	14.03	18.00	20.02	11.73	15.97	14.02	13.03
15.06	2.53	20.07	14.04	18.01	20.03	11.76	15.99	14.02	13.05
15.04	2.53	20.01	14.03	17.99	20.00	11.72	16.00	14.00	13.01
15.07	2.51	20.05	14.05	17.99	19.99	11.71	15.99	14.03	13.06
15.05	2.52	20.08	14.04	18.00	20.20	11.73	15.98	14.03	13.06

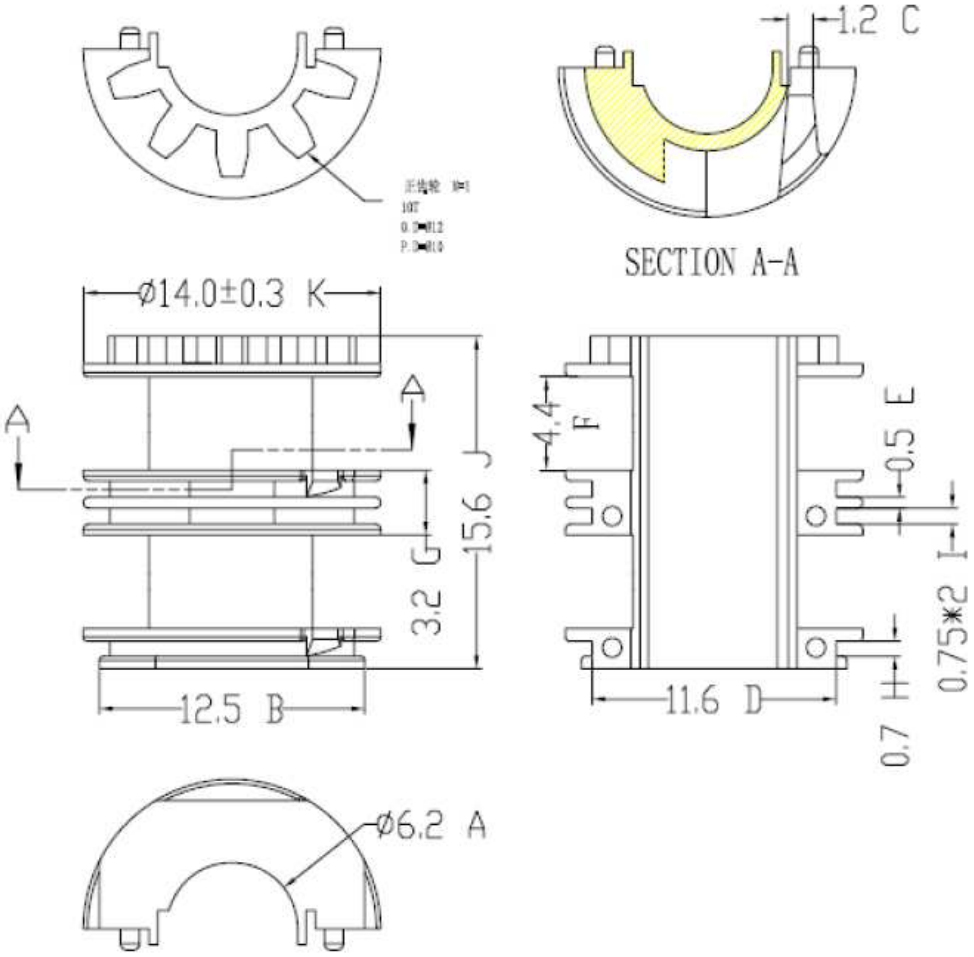
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
S.T.D	22.5 ±0.3	14.5 ±0.2	1.5 ±0.1	22.5 ±0.3	2.28 ±0.1	15.7 ±0.2	5.0 ±0.2	2.0 ±0.1	3.0 ±0.1	4.7 ±0.2	9.7 ±0.2	15.7 ±0.2	14.1 ±0.2	12.1 ±0.2	3.7 ±0.1	0.8 ±0.1
1	22.51	14.57	1.50	22.52	2.27	15.72	5.02	2.00	3.01	4.69	9.68	15.73	14.12	12.16	3.71	0.80
2	22.52	14.53	1.52	22.50	2.25	15.72	5.04	2.03	3.02	4.68	9.67	15.72	14.10	12.11	3.73	0.80
3	22.48	14.58	1.50	22.54	2.29	15.72	5.05	2.01	3.00	4.71	9.69	15.76	14.11	12.07	3.73	0.80
4	22.49	14.55	1.53	22.51	2.32	15.70	5.03	2.02	3.01	4.70	9.73	15.71	14.11	12.14	3.71	0.81
5	22.49	14.51	1.52	22.56	2.29	15.74	5.01	1.99	3.01	4.69	9.71	15.68	14.10	12.15	3.70	0.81

CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 13.01.16 技術部	金基泰 13.01.16 技術部	劉成宰 13.01.16 技術部	15/22

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		DATE	2013.01.16
PART NAME	LINE FILTER	CODE NO	1420603

※ BOBBIN(BASE) DIMENSION ※



S.T.D	A	B	C	D	E	F	G	H	I	J	K
	6.2 ±0.2	12.5 ±0.2	1.2 ±0.1	11.6 ±0.2	0.5 ±0.1	4.4 ±0.2	3.2 ±0.1	0.7 ±0.1	0.75 ±0.1	15.6 ±0.2	14.0 ±0.2
1	6.25	12.53	1.27	11.66	0.53	4.41	3.20	0.71	0.74	15.64	14.07
2	6.21	12.51	1.24	11.62	0.51	4.43	3.21	0.71	0.74	15.62	14.09
3	6.23	12.55	1.21	11.62	0.51	4.45	3.20	0.72	0.75	15.62	14.05
4	6.20	12.54	1.22	11.67	0.52	4.46	3.23	0.71	0.77	15.65	14.03
5	6.24	12.53	1.26	11.63	0.52	4.42	3.20	0.70	0.76	15.62	14.07

CLOVER Hi-Tech CO., LTD.	DESIGN	CHECK	APPROVAL	PAGE
	朴秀晶 13.01.16 技術部	金基泰 13.01.16 技術部	劉成宰 13.01.16 技術部	16/22

The following Page(s) are related to Miscellaneous-06. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

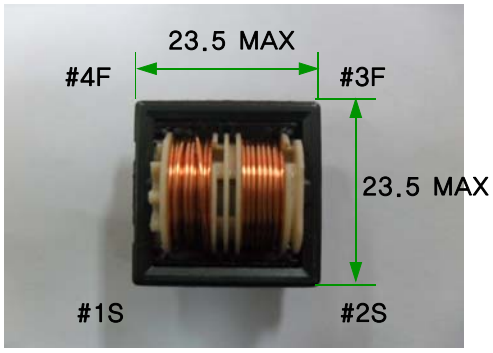
CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	4 OF 30
		DATE	2013. 01. 15.
PART NAME	LINE FILTER	MODEL NAME	L32,46SF_DPN
PART NO.	1420603	TYPE	SQE2020

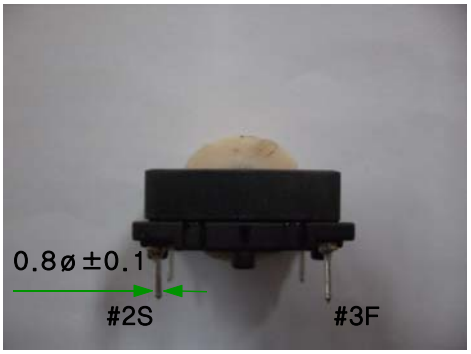
6. APPEARANCE & DIMENSION

※ MARKING(BLACK) :									1420603 TNS1301CT
1420603	PART No.								
TN	DONG GUAN TOP NATION								CHINA FACTORY ID
TNS	TOP NATION(SU ZHOU)								
13	Lot No	Year	2013 : 13 2014 : 14...						
01		Week	First Week : 01 Second Week : 02...						
C	DAY	MON	TUE	WED	THU	FRI	SAT	SUN	
		A	B	C	D	E	F	G	
T	MANUFACTURER OF CORE								
	T	TDG							

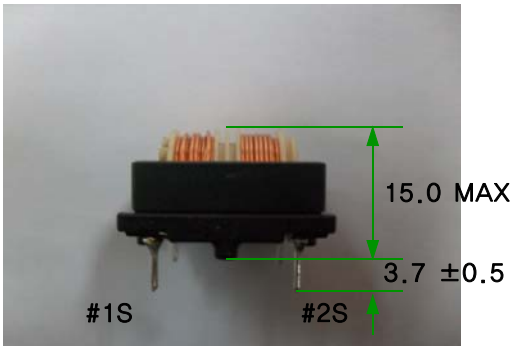
《 TOP VIEW 》

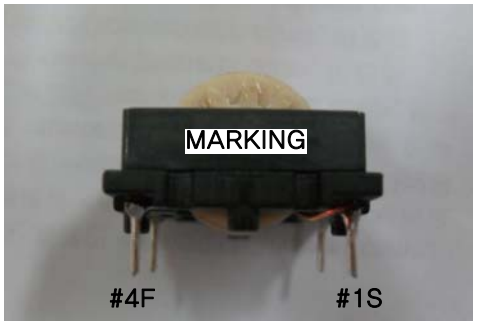


《 SIDE VIEW 》

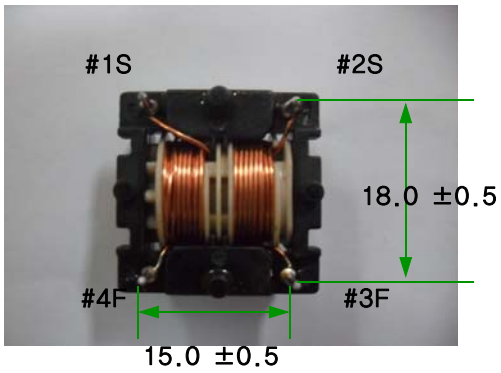


《 FRONT VIEW 》

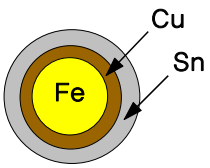




《 BOTTOM VIEW 》



* PIN 도금 사양



DONG GUAN TOP NATION ELECTRONIC LIMITED

NO.3 INDUSTRICAL AREA, JUZHOU SHIJIE TOWN DONGGUAN GUANGDONG CHINA

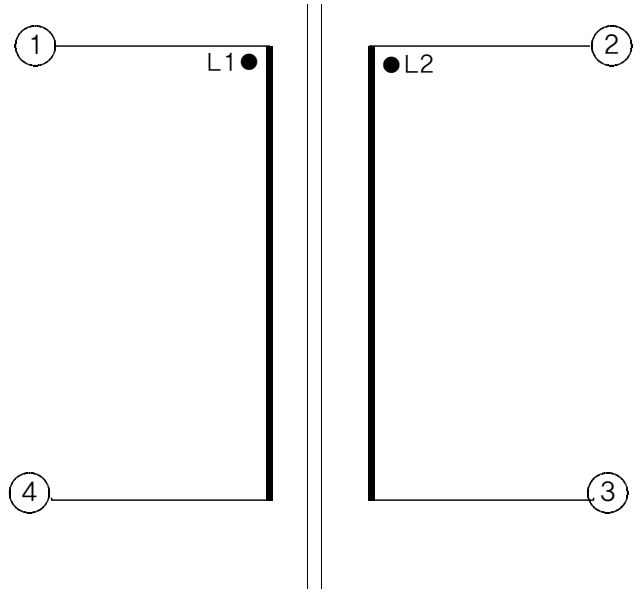
TEL:86-769-86632772 FAX:86-769-86315197

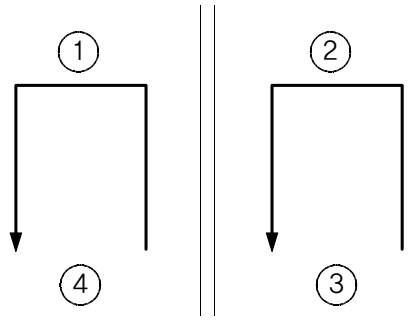
DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19320028	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	5 OF 30
		DATE	2013. 01. 15.
PART NAME	LINE FILTER	MODEL NAME	L32,46SF_DPN
PART NO.	1420603	TYPE	SQE2020

7. SCHEMATIC DIAGRAM





WINDING	BOTTOM VIEW	C.C.W
BOBBIN INSERT	SIDE INSERT	
REMOVE PIN	-	
N.C PIN	-	
CUT PIN	-	
TUBE PIN	-	

8. WINDING SPECIFICATION

WINDING ORDER	SYMBOL	TERMINAL NO		WIRE	TURNS	WINDING METHOD	REMARKS
W1	L1	1	4	2UEW 0.45φ	47±1	SOLENOID	
W2	L2	2	3	2UEW 0.45φ	47±1	SOLENOID	

WIRE SPECIFICATION	CONDUCTOR		
	WIRE	DIAMETER(mm)	TOLERANCE OF DIAMETER(mm)
	2UEW	0.45	±0.003

◇ REGARDING ABOVE TABLE STANDARD, THICKNESS OF WIRE MUST BE OVER SPECIFICATION RANGE.

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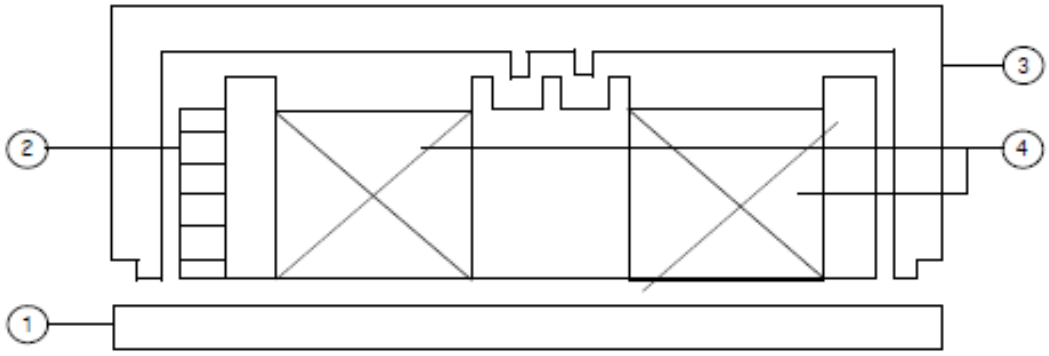
CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	10 OF 30
		DATE	2013. 01. 15.
PART NAME	LINE FILTER	MODEL NAME	L32,46SF_DPN
PART NO.	1420603	TYPE	SQE2020

17. CONSTRUCTION



18. MATERIAL LIST

No	Component	Name of Material	Manufacturer Component	Class	UL file No
1	Core	SQE2020 TL13	TDG Holding co.,ltd		
2	Bobbin	94V-0 (PF2736(a)(b)) PHENOL RESIN SQE2020 "H" (4P)	Momentive specialty chemicals gmbh co. ,ltd	B	E61040
3	Gear	94V-0 P.E.T (FR530) SQE2020(2F)	E I dupont de nemours & co., inc	F	E41938
4	Wire	2UEW 0.45Φ	Jung Shing wire co.,ltd.	B	E174837
			Shanghai Asia pacific electric co., ltd.	B	E214423
			Heng ya electric kun shan ltd.	B	E245514
5	Varnish	DVB-2085(*)	Noroo paint & coatings co ltd.	B	E93947
		ES925-43D#	Chemtech co.,ltd.	B	E258329
6	Solder	LEAD FREE	Solnet metal industry co.,ltd		
			Shenmao technology inc.		
7	Flux	YF-990	Xin yuan co.,ltd.		
8	Marking	INK(black) LABEL(transparency)	Kk enterprise co.,ltd.		

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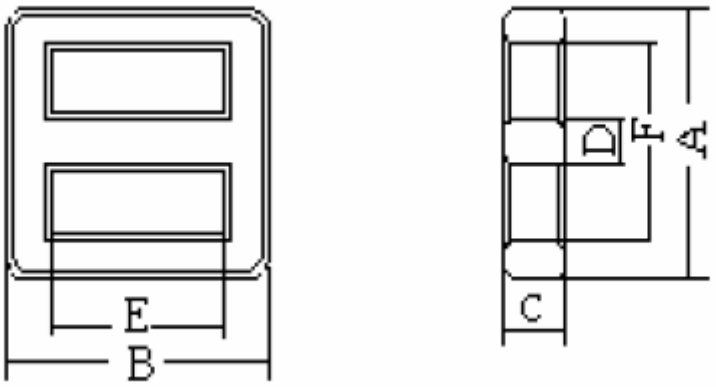
FILE NO.	YS19320028	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	15 OF 30
		DATE	2013. 01. 15.
PART NAME	LINE FILTER	MODEL NAME	L32,46SF_DPN
PART NO.	1420603	TYPE	SQE2020

18. UU CORES DIMENSIONS (UNIT : mm)



TYPE	DIMENSIONS IN MM						EFFECTIVE PARAMETERS			Remarks
	A	B	C	D	E	F	le(㎜)	Ae(㎜²)	Ve(㎜³)	
UU1014S	20.10 ±0.40	20.10 ±0.40	5.40 ±0.20	4.00 ±0.20	15.90 MIN	15.90 MIN	50.77	22.05	1119.5	TDG

	A	B	C	D	E	F
1	20.12	20.18	5.42	4.06	15.96	15.97
2	20.18	20.18	5.47	4.07	15.92	15.96
3	20.18	20.15	5.45	4.05	15.92	15.98
4	20.18	20.13	5.47	4.06	15.98	15.97
5	20.17	20.16	5.46	4.06	15.97	15.99

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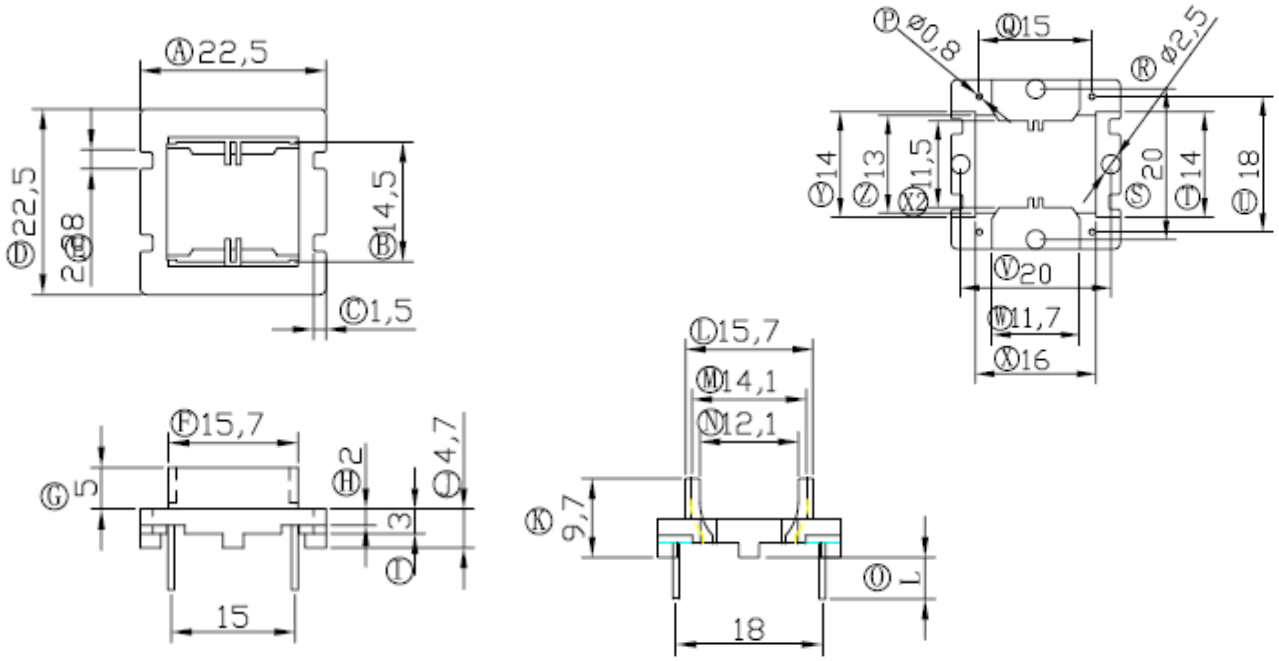
CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	17 OF 30
		DATE	2013. 01. 15.
PART NAME	LINE FILTER	MODEL NAME	L32,46SF_DPN
PART NO.	1420603	TYPE	SQE2020

20. BOBBIN DIMENSIONS (UNIT : mm)



〈DONG YUAN〉

P	Q	R	S	T	U	V	W	X	Y	Z
0.80 ±0.10	15.00 ±0.20	2.50 ±0.10	20.00 ±0.30	14.00 ±0.20	18.00 ±0.30	20.00 ±0.10	11.70 ±0.20	16.00 ±0.20	14.00 ±0.20	13.00 ±0.20
0.81	15.01	2.52	20.00	14.01	18.00	20.00	11.71	16.01	14.00	13.01
0.80	15.00	2.55	20.01	14.05	18.01	20.01	11.70	16.02	14.02	13.02
0.80	15.00	2.52	20.00	14.00	18.00	20.00	11.71	16.01	14.01	13.01
0.85	15.05	2.51	20.00	14.02	18.00	20.00	11.72	16.03	14.02	13.03
0.82	15.02	2.51	20.02	14.01	18.03	20.00	11.71	16.03	14.03	13.00

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Spec	22.50 ±0.30	14.50 ±0.20	1.50 ±0.10	22.50 ±0.30	2.28 ±0.10	15.70 ±0.20	5.00 ±0.20	2.00 ±0.10	3.00 ±0.10	4.70 ±0.20	9.70 ±0.20	15.70 ±0.20	14.10 ±0.20	12.10 ±0.20	3.70 ±0.10
1	22.51	14.01	1.51	22.51	2.32	15.72	5.02	2.01	3.01	4.72	9.71	15.71	14.11	12.11	3.71
2	22.50	14.02	1.53	22.51	2.30	15.71	5.01	2.00	3.00	4.70	9.72	15.70	14.12	12.12	3.72
3	22.53	14.05	1.53	22.52	2.31	15.72	5.04	2.02	3.00	4.71	9.70	15.72	14.11	12.11	3.71
4	22.51	14.02	1.52	22.50	2.29	15.73	5.00	2.02	3.01	4.71	9.71	15.72	14.13	12.13	3.73
5	22.52	14.03	1.51	22.52	2.29	15.69	5.02	2.00	3.02	4.73	9.72	15.70	14.13	12.13	3.73

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DESIGN	CHECK	APPROVAL
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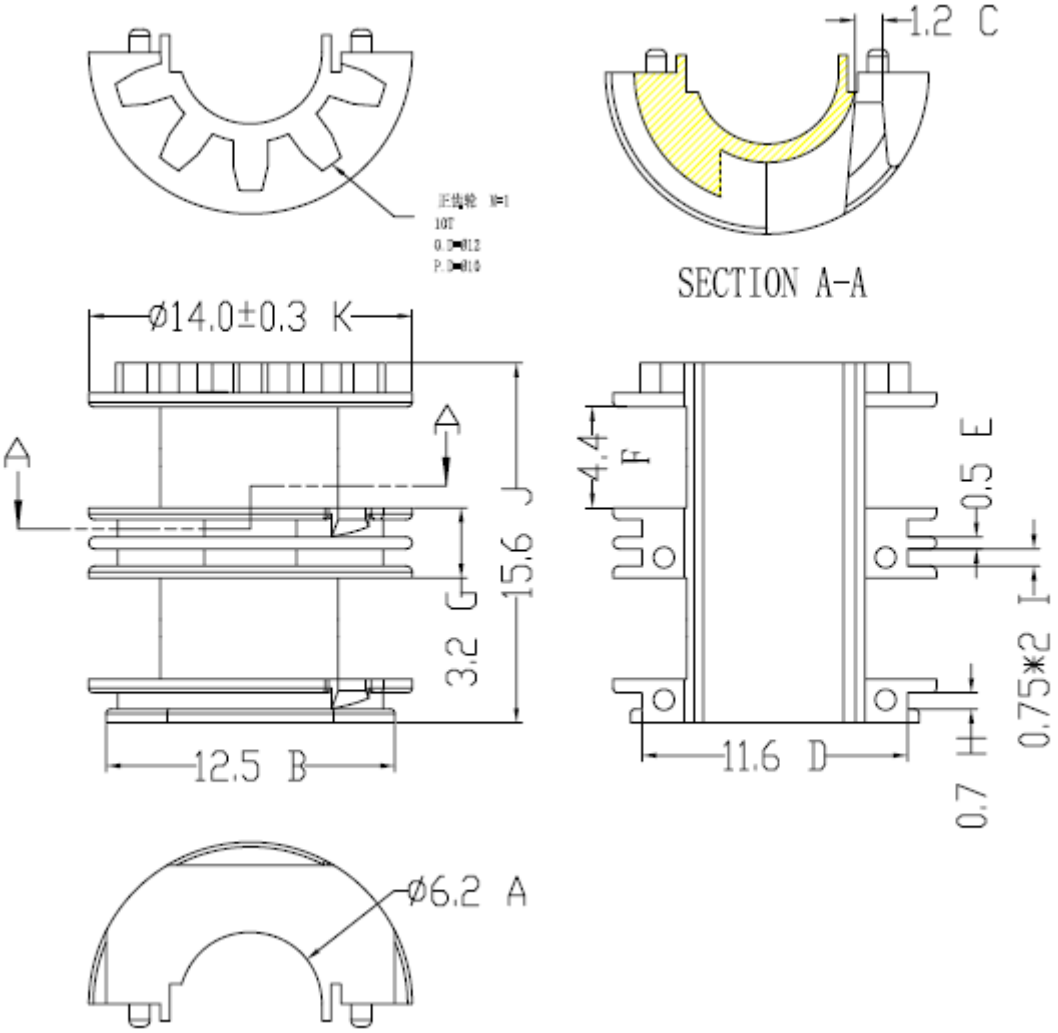
FILE NO.	YS19320028	

CUSTOMER : POWERNET TECHNOLOGIES.

SPECIFICATIONS		SHEET NO.	18 OF 30
		DATE	2013. 01. 15.
PART NAME	LINE FILTER	MODEL NAME	L32,46SF_DPN
PART NO.	1420603	TYPE	SQE2020

21. GEAR DIMENSIONS (UNIT : mm)



〈DONG YUAN〉

	A	B	C	D	E	F	G	H	I	J	K
Spec	6.20 ±0.20	12.50 ±0.20	1.20 ±0.10	11.60 ±0.20	0.50 ±0.10	4.40 ±0.20	3.20 ±0.10	0.70 ±0.10	0.75 ±0.10	15.60 ±0.20	14.00 ±0.20
1	6.21	12.51	1.21	11.62	0.52	4.42	3.22	0.71	0.75	15.62	14.01
2	6.20	12.52	1.23	11.66	0.53	4.41	3.21	0.70	0.78	15.60	14.02
3	6.22	12.55	1.23	11.66	0.51	4.42	3.24	0.72	0.77	15.61	14.00
4	6.21	12.52	1.22	11.65	0.52	4.43	3.23	0.72	0.76	15.61	14.01
5	6.22	12.53	1.21	11.65	0.52	4.43	3.22	0.70	0.79	15.63	14.02

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DESIGN	CHECK	APPROVAL
H.S HONG	S.J KIM	M.D KIM
FILE NO.	YS19320028	

The following Page(s) are related to Miscellaneous-07. The next supplement, if applicable, will be identified with a new Supplement Page Heading.

Compliance Review Conducted by: _____ Date _____

Printed Name Signature

Standard: SCC Requirements and Guidance - Product Certification Body Accreditation Program

Edition/Revision Date: 2016-04-06

Clause/Par. Reference and Construction Requirement	Comply			Comments/Measurements	Inst. ID No.
	Yes	No	N/A		
9.2.3 CBs shall include dual language safety labeling within their product certification requirements, if so required by the standard or by the authority having jurisdiction.					
The manufacturer has confirmed they have the ability to include English and French safety labeling exactly as specified in the product standard; or, if NOT specified in the product standard, the ability to include English and French safety labelling consisting of markings associated with the signal words DANGER, WARNING, and CAUTION when required.	X			The ability of the manufacturer to include these markings was verified by either (1) visual inspection of the markings on the actual product or (2) draft of labels that will be applied to the product or (3) written confirmation from the customer of the markings that will appear on the product. If the product standard provides the exact translation, the evidence must match the exact translation. If the product standard does NOT provide the exact translation, the evidence must simply include both the English and French text (no verification of translation is required).	N/A

Compliance Review Conducted by: _____ Date _____

Printed Name Signature

Clause/Par. Reference and Construction Requirement	Comply			Comments/Measurements	Inst. ID No.
	Yes	No	N/A		
Manufacturer has a method to manage distribution of products, IF all products with the Canadian certification mark are NOT going to include the dual language.	X			Evaluation staff are to only verify that the manufacturer has a method to control distribution. Evaluation staff do not have to record the method of control nor are the evaluation staff expected to verify the effectiveness of the method of control. This requirement to verify that a method exists will be noted in the FUS Procedure. The UL Field Engineer will verify the method during surveillance. If the manufacturer is going to include the dual language on all products with the Canadian certification mark, then this item is N/A; no further action required.	N/A

ITE
US LISTED
9T96 E158873

NETWORK CAMERA
MODEL: QNP-6320

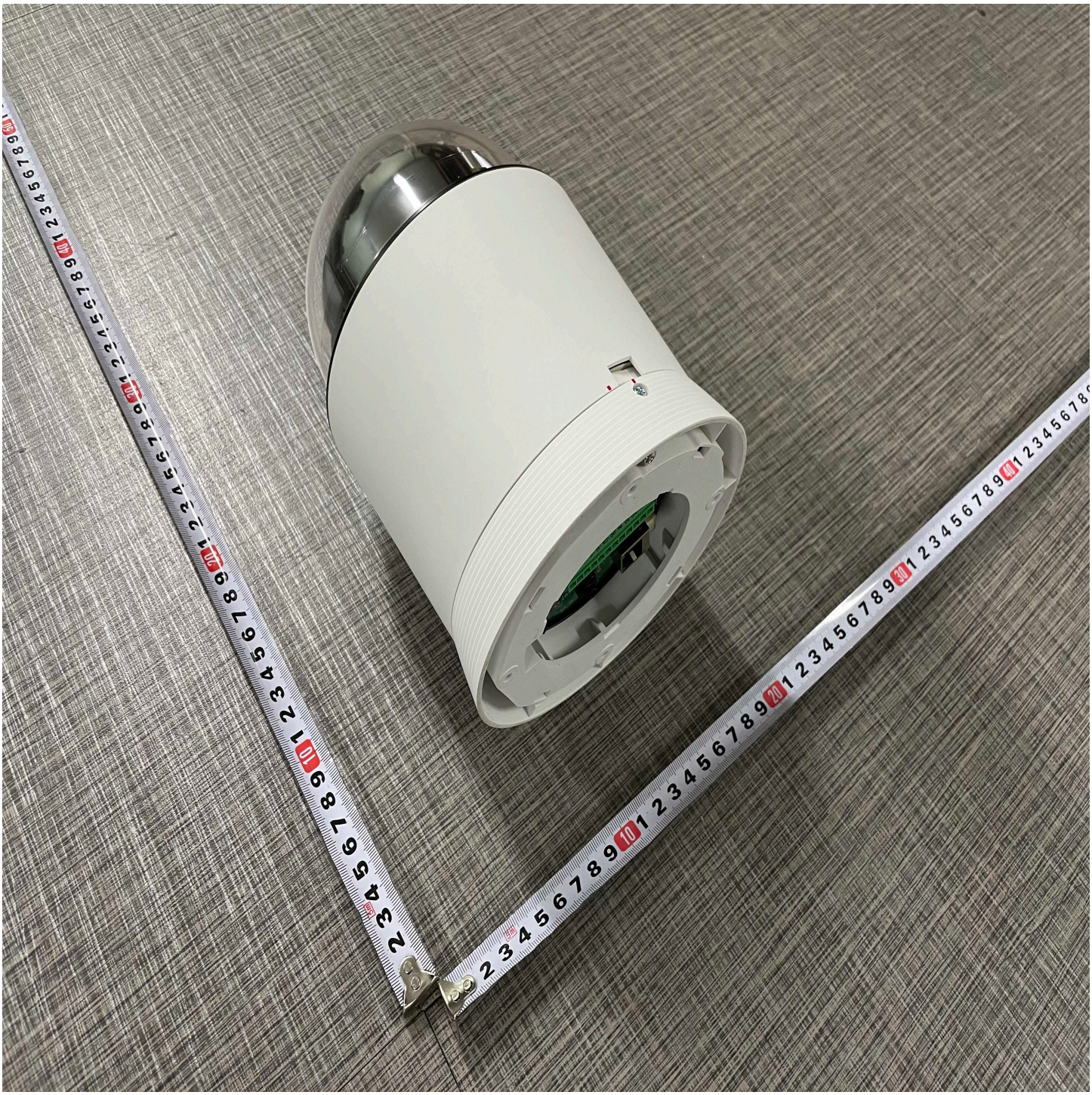
PoE (53V ⎓) 0.28A

M/C: QNP-6320/KUS Fac. ID: D

DATE S/N: Serial No.
MAC ADDRESS: XX-XX-XX-XX-XX-XX
CAN ICES-3(A)/NMB-3(A)
HANWHA TECHWIN CO.,LTD.
MADE IN KOREA

Photographs-01 Page-1

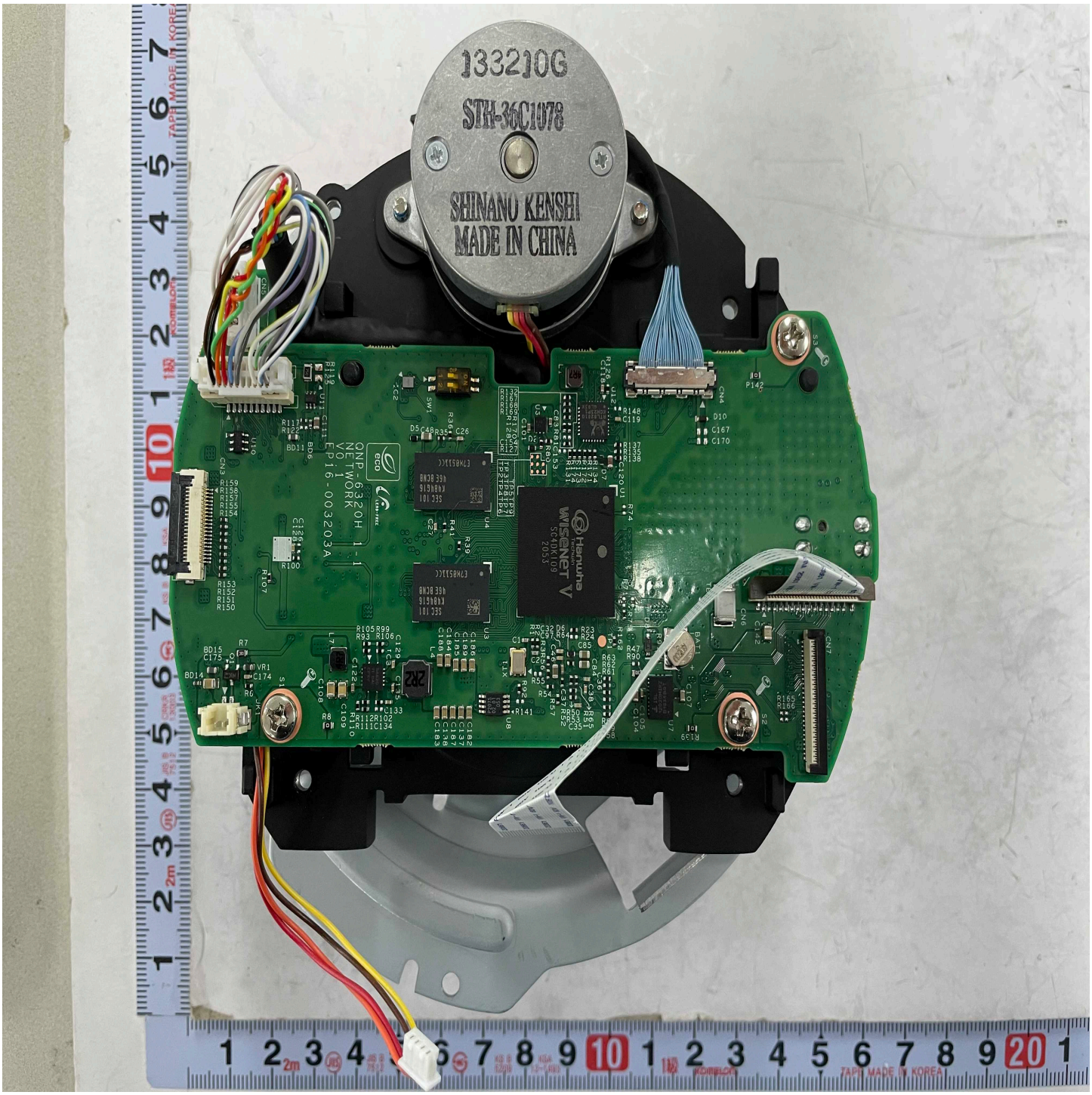
Photographs-02 Page-1



Photographs-03 Page-1

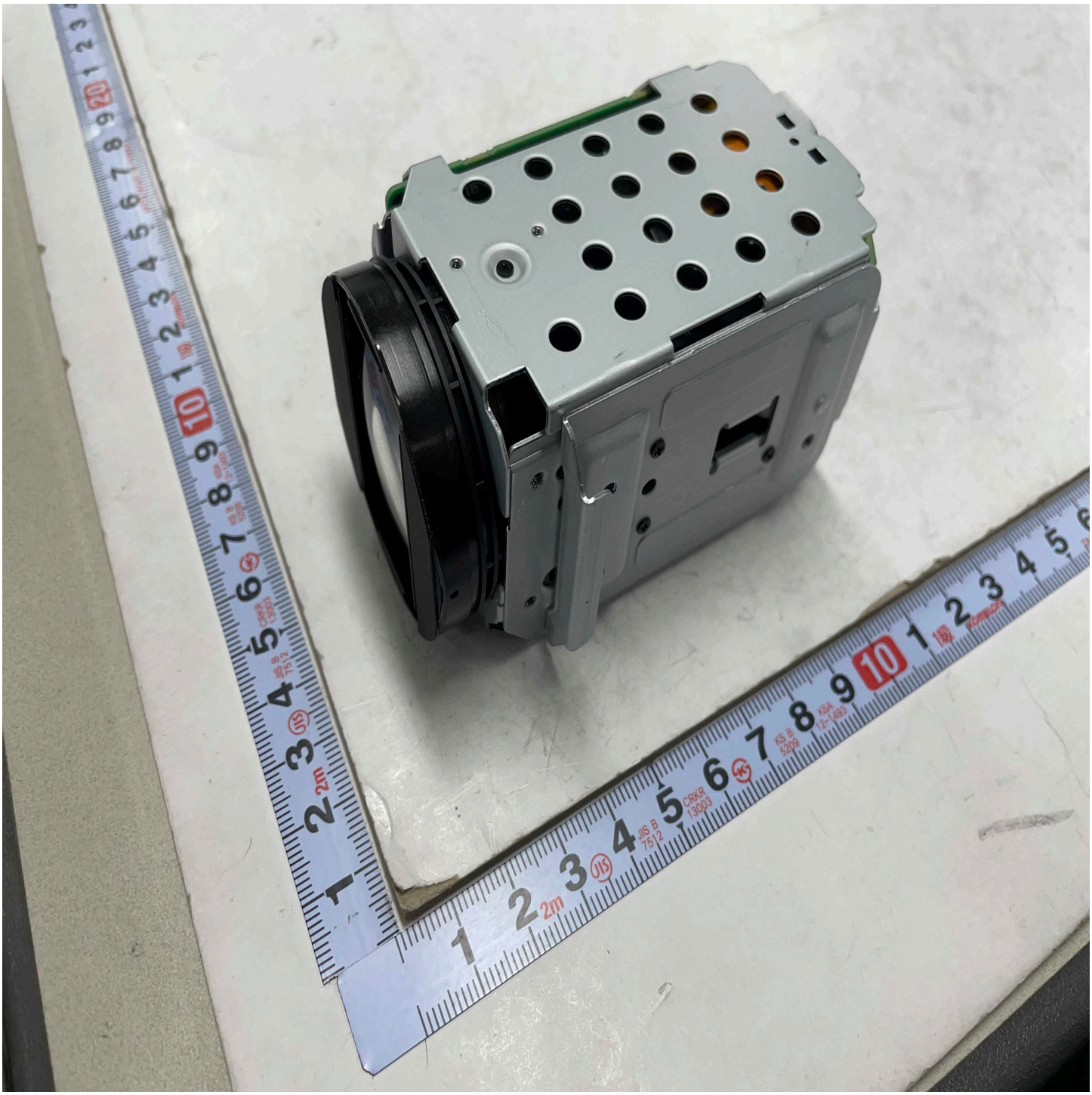
Photographs-04 Page-1

Photographs-05 Page-1



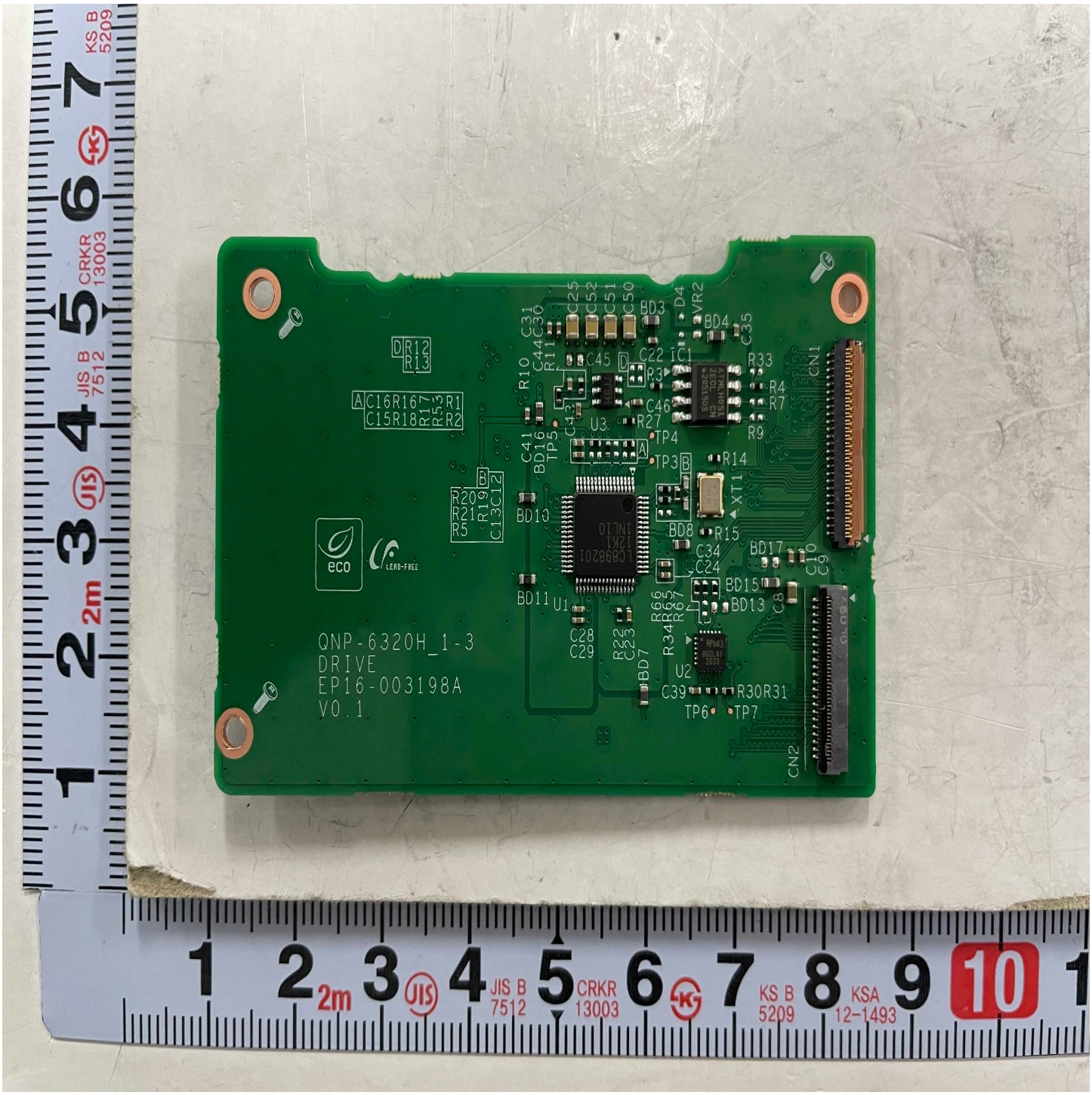
Photographs-06 Page-1

Photographs-07 Page-1

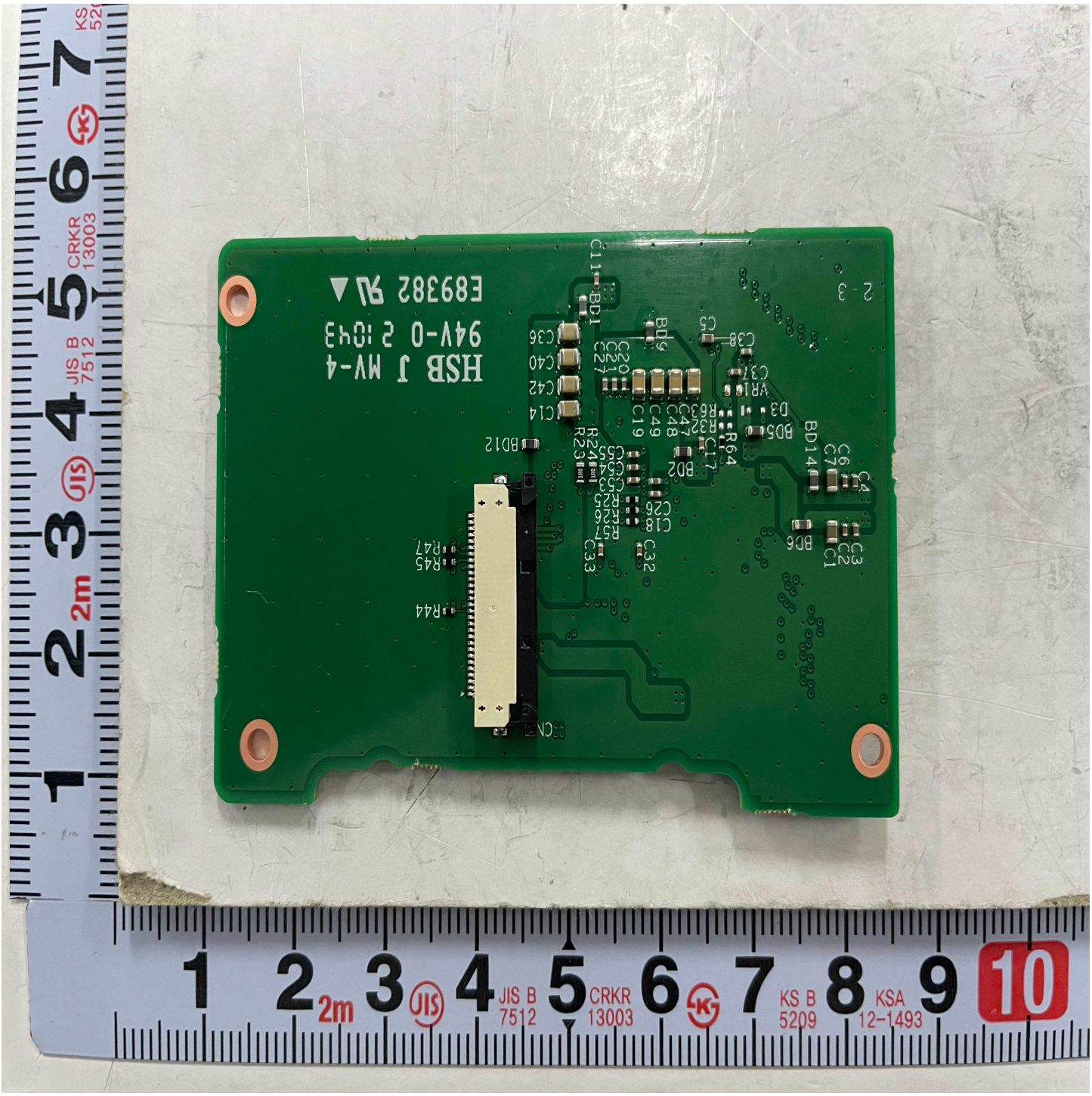


Photographs-08 Page-1

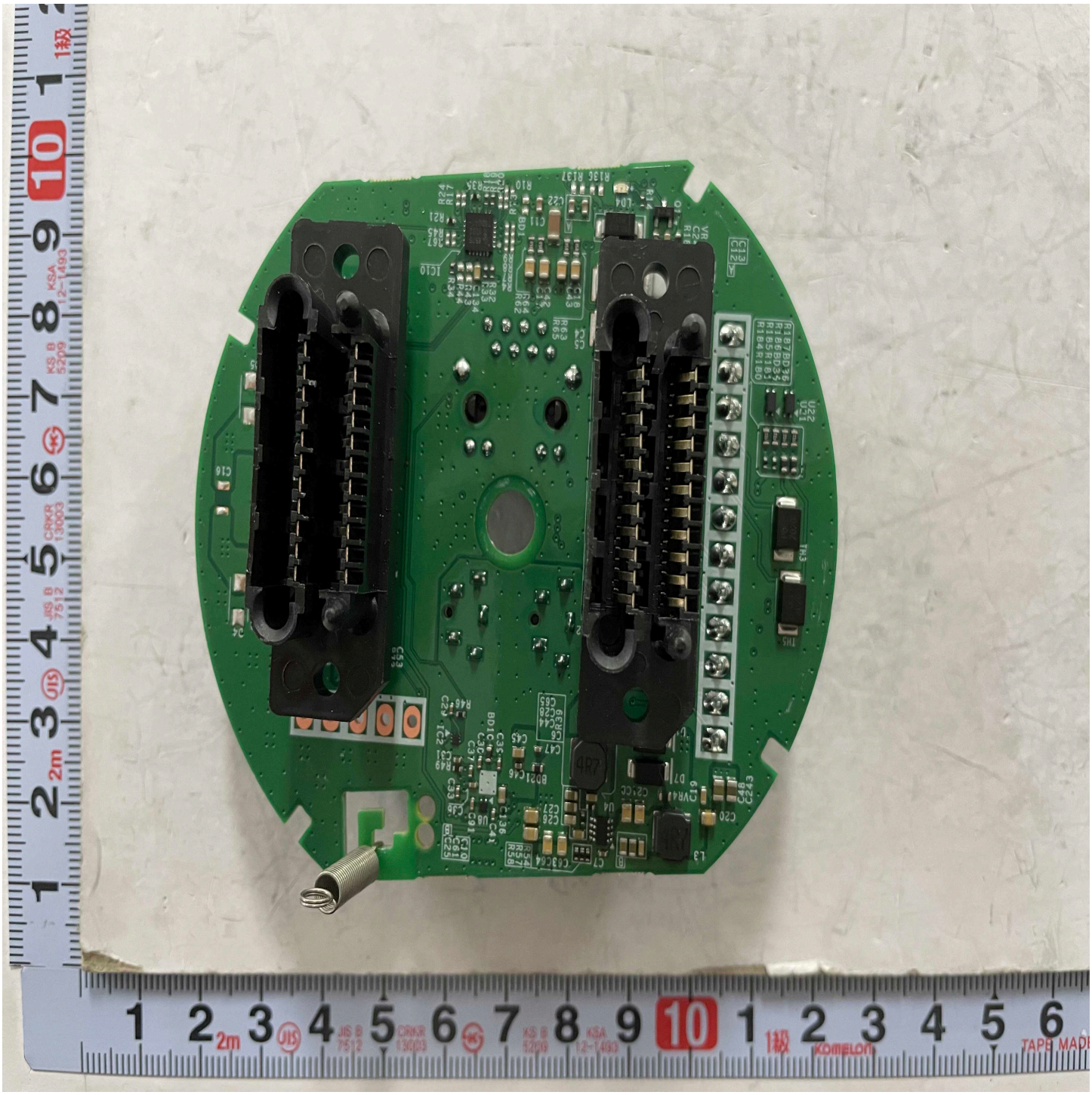
Photographs-09 Page-1



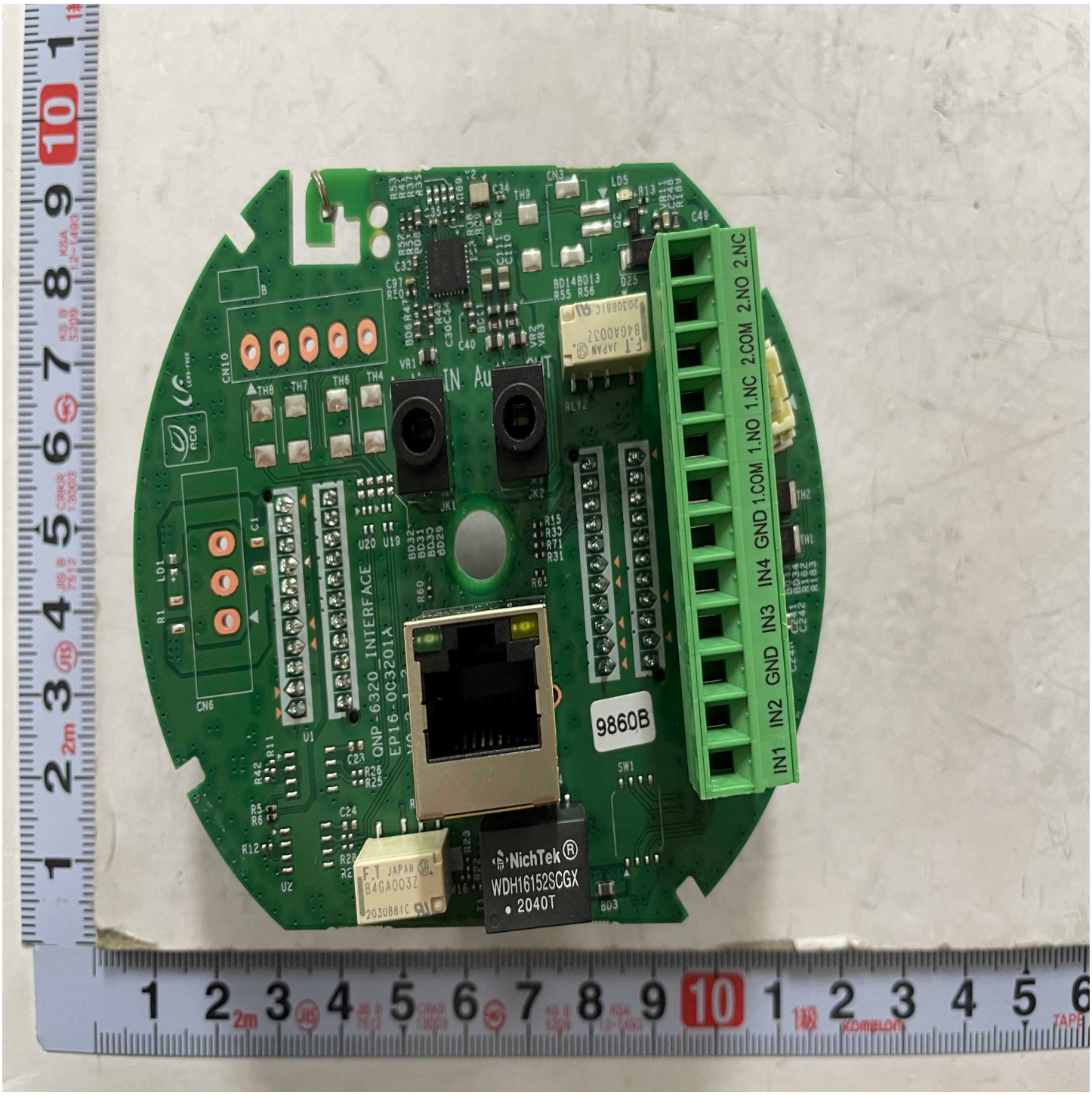
Photographs-10 Page-1



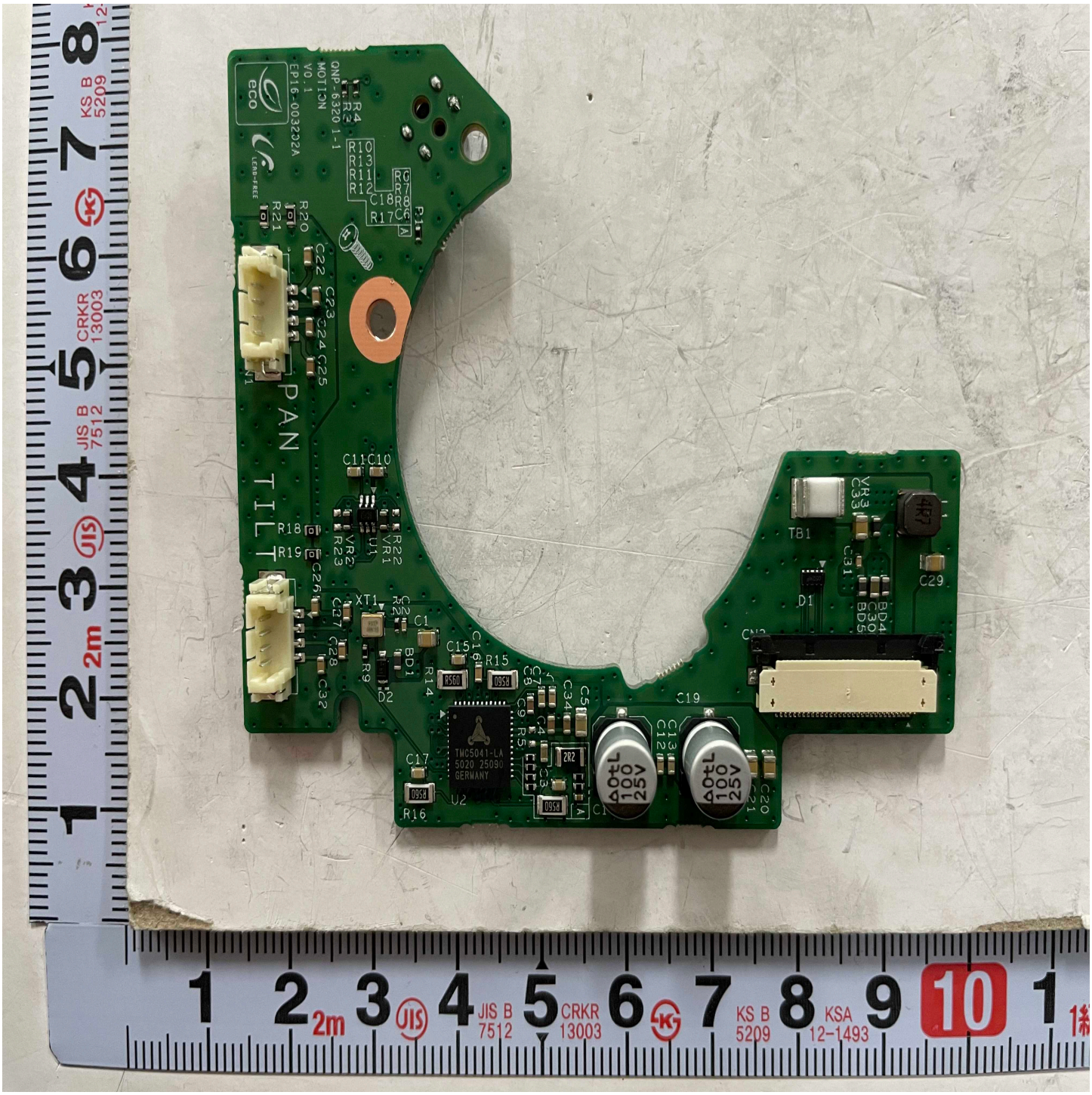
Photographs-11 Page-1



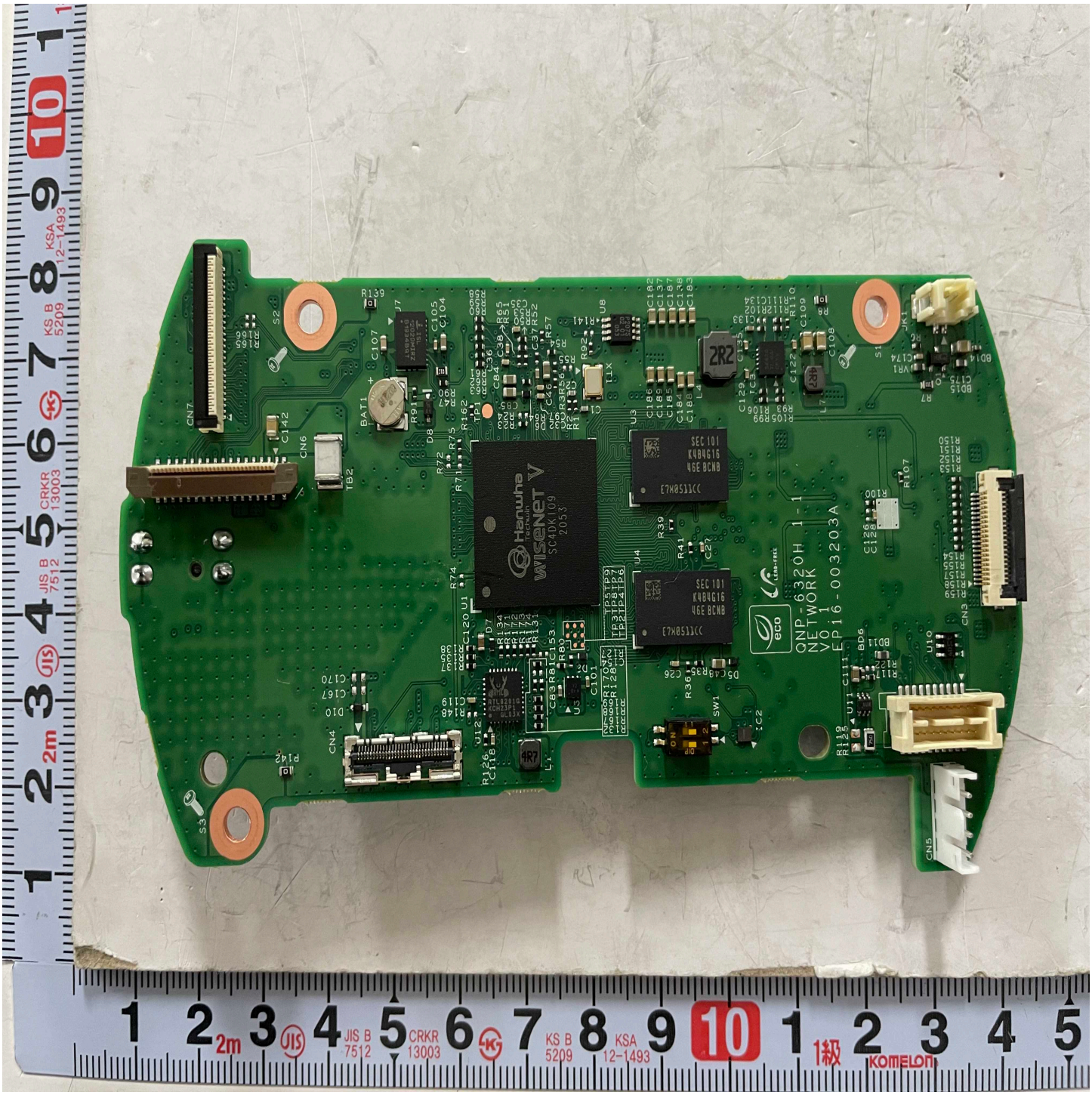
Photographs-12 Page-1



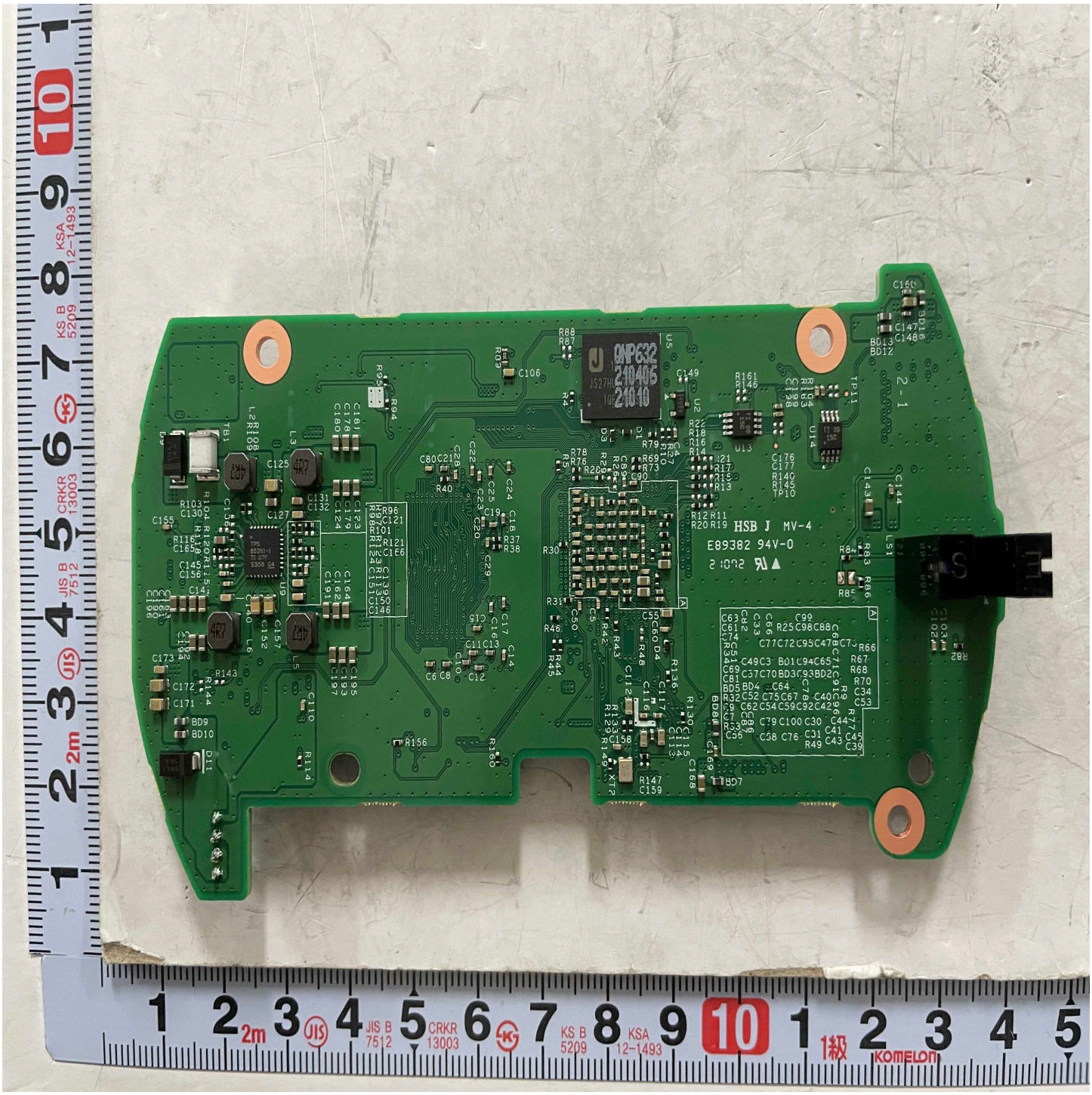
Photographs-13 Page-1



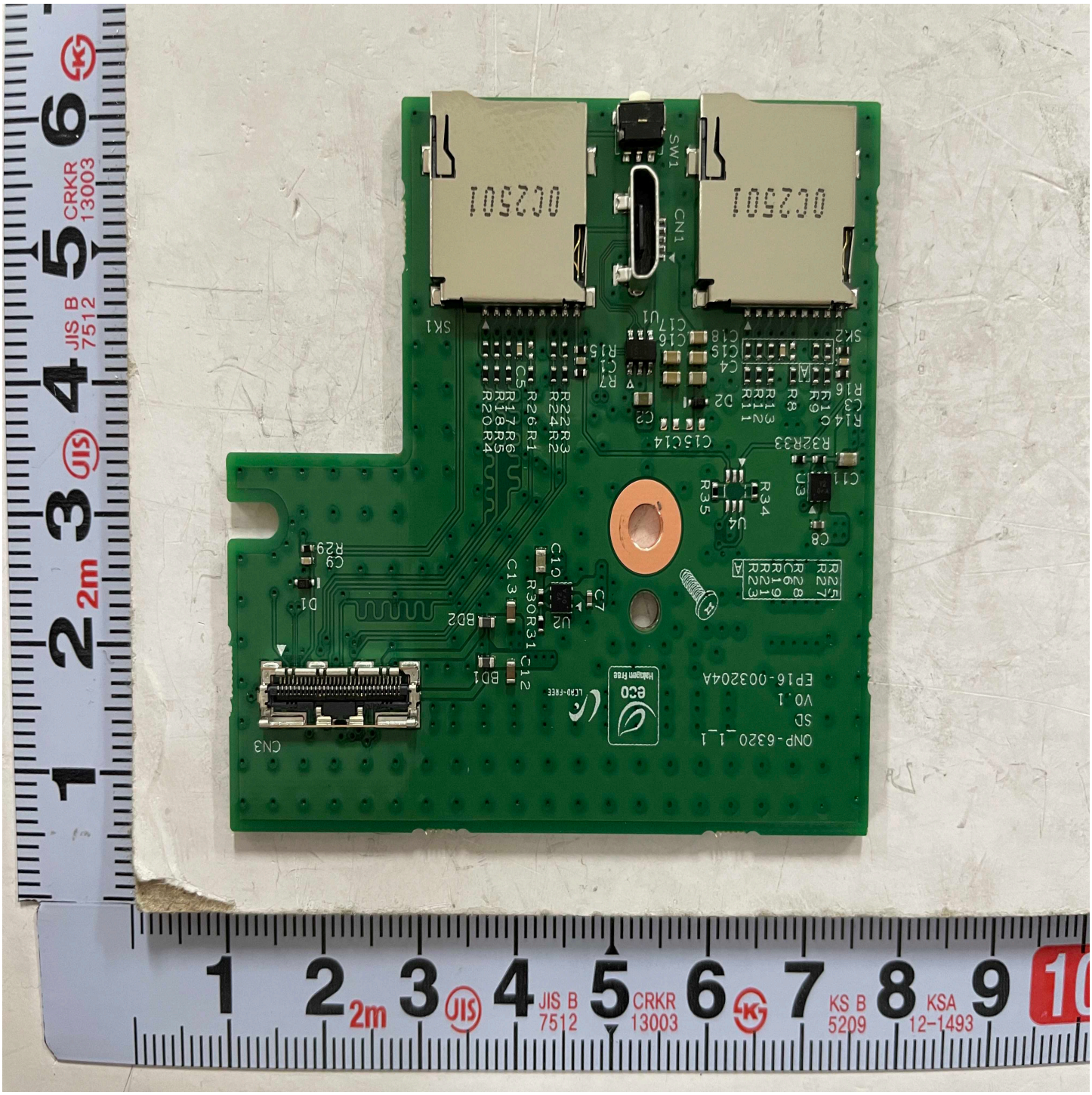
Photographs-14 Page-1



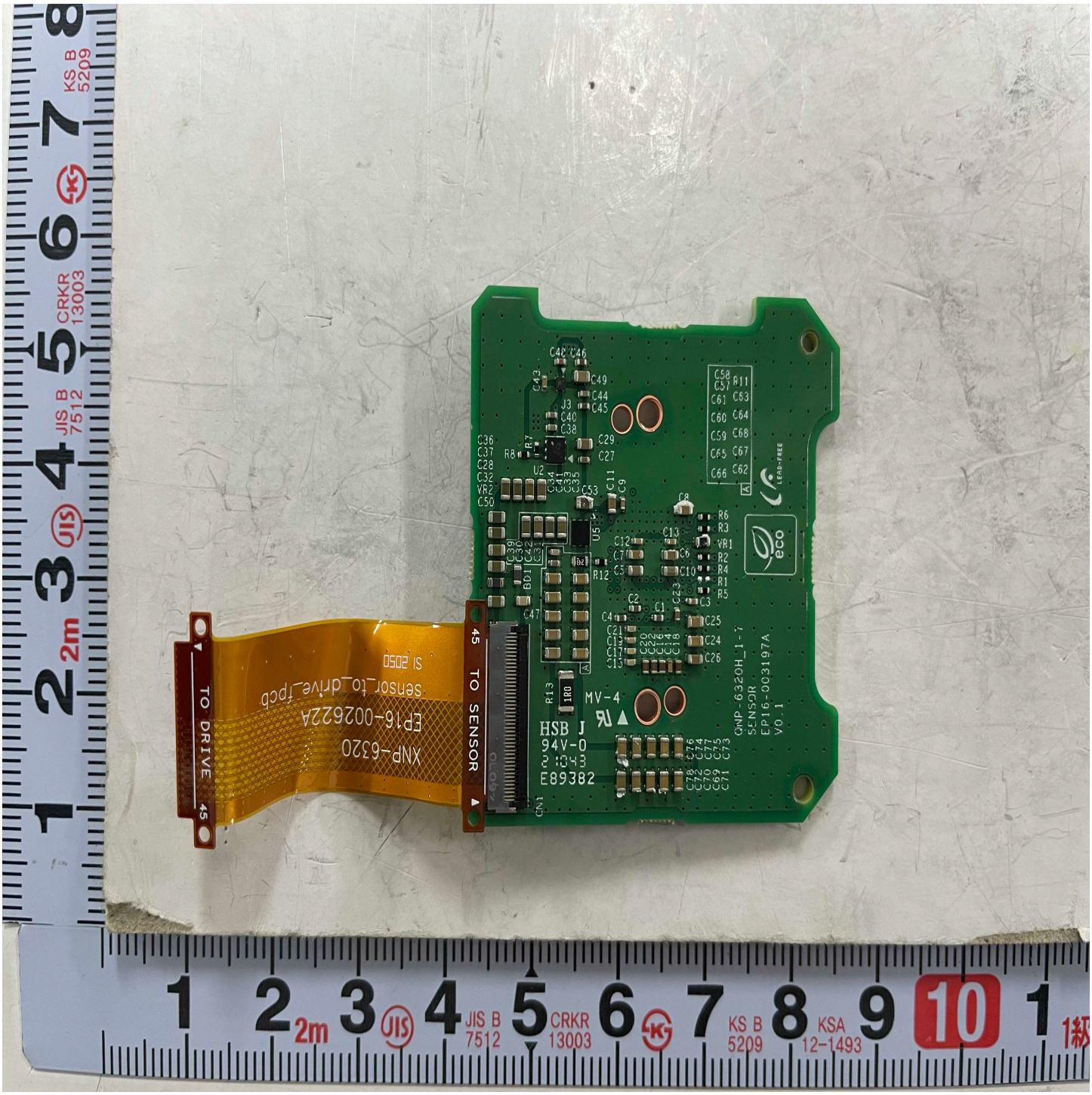
Photographs-15 Page-1



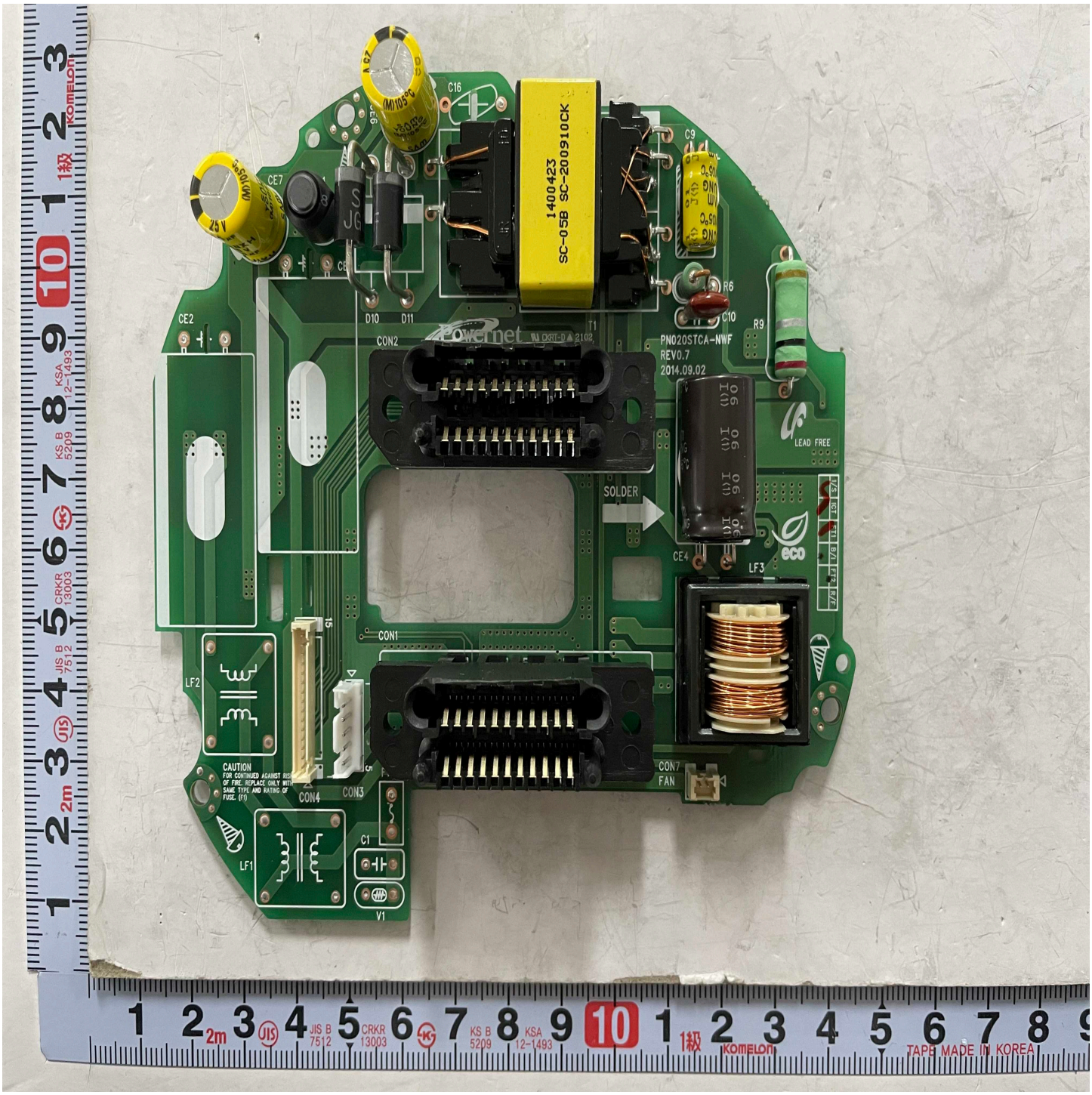
Photographs-16 Page-1



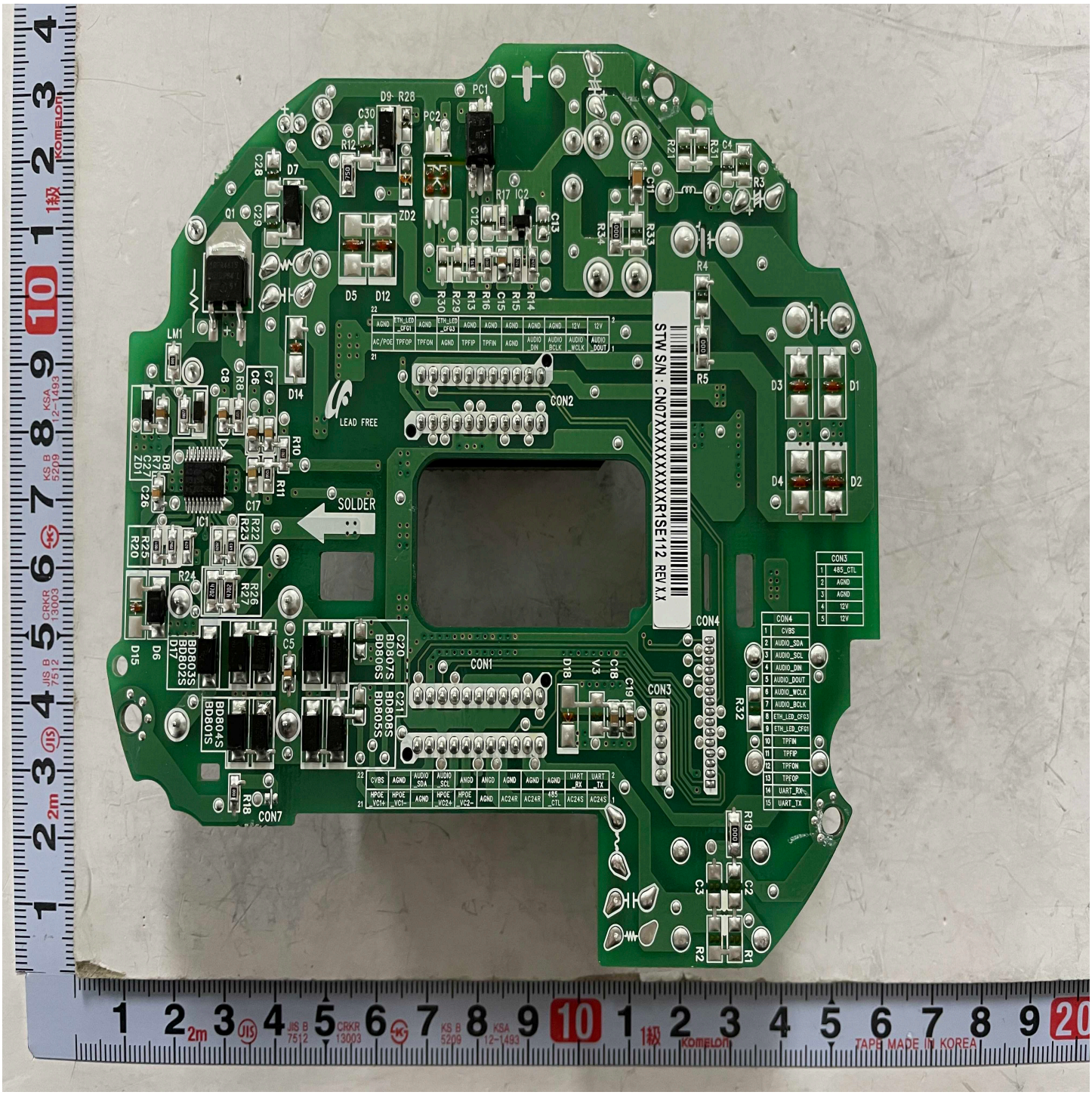
Photographs-17 Page-1



Photographs-18 Page-1



Photographs-19 Page-1



Photographs-20 Page-1

Test Record No. 1

1. Test result relate only to the items tested.
2. The manufacturer submitted representative production samples of NETWORK CAMERA, QNP-6320.
3. Only the test listed were considered necessary.

The following tests were conducted:

Tests performed (name of test and test clause):	**Testing location:** CTK Co., Ltd., 386-1 Ho-dong Yongin-shi, Kyungki-do, 449-100, Korea
MAXIMUM OPERATING TEMPERATURE FOR MATERIALS, COMPONENTS AND SYSTEMS (5.4.1.4, 6.2, 9.2.5 ANNEX B.2)	
DETERMINATION OF WORKING VOLTAGE (5.4.1.8)	
WALL OR CEILING MOUNTING TESTS (8.7)	
INPUT TEST: SINGLE PHASE (B.2.5)	
SIMULATED ABNORMAL OPERATING CONDITIONS (B.3)	
SIMULATED SINGLE FAULT CONDITIONS (B.4)	
PROTECTION CIRCUITS FOR BATTERIES (ANNEX M.3.2)	
The following tests were waived:	**Rationale for Waiving**

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

Type	Supplement Id	Description
Datasheet	02-01	Datasheet