Shenzhen Jolly Technology Co., LTD

Cable Harness Assembly Inspection Standard

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Referenced standard: IPC/WHMA-A-620 E version"Requirements and Acceptance of Cables and Wire Harnesses"

Acceptance Level: Class 2

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1. General Provisions

1.1 Purpose

This specification strictly adheres to the Class 2 requirements of the IPC/WHMA-A-620 E version standard, clearly defining the inspection standards, defect classification, sampling rules, and judgment criteria for the entire process of cable harness assemblies, unifying inspection standards, and ensuring that products meet the Class 2 operational requirements of the standard.

1.2 Scope of Application

It is applicable to incoming material inspection, process inspection and final inspection of all cables and wire harnesses in our company. The acceptance level strictly complies with the IPC/WHMA-A-620 E version Class 2 requirements, covering all types of wire-to-wire terminal crimping, wire-to-wire crimping connection and soldering termination.

1.3 Judgment Rules (Class 2)

Determination type	definition	Disposal methods
Qualification items	It fully complies with this specification and IPC Class 2 acceptable standards, with no functional/reliability risks .	Release directly and proceed to the next process .
Process warning items	was not met , but it does not affect the electrical function, mechanical strength and long-term reliability .	Do not refuse to accept, and incorporate it into process control and optimization .
Non-conforming items	Violating Class 2 requirements may result in functional failure, safety hazards, or reduced lifespan .	Immediately isolate the affected areas, rework/scrap them, and prohibit their transfer .

1.4 Priority Rules

Customer drawings/technical agreement requirements > this specification;

Terminal manufacturer crimping specifications supported by customer documentation > IPC Table 19-12 General Values;

For items not explicitly stated in this specification, the corresponding clauses of IPC/WHMA-A-620 E version Class 2 shall apply.

2. Terms and Definitions

the term	Precise definition
Class 2	The IPC-defined High Reliability Class for Commercial Electronic Devices requires products to operate continuously and for a long lifespan, allows for limited-time warnings, and does not accept defects that affect functionality .
Wetting angle	The contact angle between the solder and the surface of the metal being soldered must be ≤90° for Class 2 qualified welding .
Bell-shaped crimp	The crimp terminal/flared structure at the conductor inlet end prevents the conductor strands from being cut during crimping. Class 2 requires clear identification .
Conductor brush	For conductor strands extending beyond the end of the conductor crimping area after crimping, Class 2 requires that the opening range does not exceed the outer perimeter of the crimping cylinder .
Insulation gap	The distance between the end of the conductor insulation and the solder/conductor crimping area, Class 2 requires ≤2 times the diameter of the insulated wire or 1.5mm (whichever is greater) .
Crimp Splice	Wire-to-wire crimping is used for wire extension and branching connections .
Stamping and forming terminal crimping	Crimping of wires and connector stamped terminals (wire-to-terminal crimping) is a common termination type in the wire harness industry .
Dielectric withstand voltage (DWV)	Verify the insulation layer's resistance to electrical breakdown; the standard requirement for Class 2 is 1000V AC (RMS)/1min .
Full-cycle crimping tool	Tools with the ability to force the completion of a full crimping cycle are required for Class 2 crimping/joining .
Residual materials	The metal protrusions remaining after the terminals are stamped off the strip should not affect terminal mating, as Class 2 requirements stipulate .
Sampling inspection	The inspection method involves randomly selecting samples from a batch according to a prescribed sampling plan for testing to determine whether the batch is qualified .
AQL (Receive Quality Limit)	When a series of batches are submitted for acceptance, the worst-case process average quality level is allowed. Class 2 is defined by different AQL values

	corresponding to defect classification .

3. Referenced Documents and Testing Environment

3.1 Referenced Documents

a. IPC/WHMA-A-620 E version "Requirements and Acceptance of Cables and Wire Harnesses"

b. IPC J-STD-001 Requirements for Welded Electrical and Electronic Components

c. GB/T 2828.1-2012 Inspection Procedures by Attributes – Part 1: Sampling Schemes Retrieved by Acceptable Quality Limit (AQL) for Lot-by-Lot Inspection

d. Nonconforming Product Control Procedure , Equipment Calibration Management Standard

3.2 Testing Environment Requirements

Project	Requirement
Temperature	18~28℃
Relative humidity	30%~70%
Illumination	The surface to be inspected should be ≥500 lux, with no direct or strong light or reflection .
Magnification	Routine inspection: 1 to 10 times (according to wire gauge); defect dispute judgment: ≤20 times .
Personnel Qualifications	Those who have passed the IPC-AN-620 standard training and are certified to work are allowed to do so .
Equipment Requirements	All instruments and equipment used for testing were within their calibration validity period .

4. Defect Classification and Sampling Inspection Plan

4.1 Defect Classification (corresponding to IPC Class 2 requirements)

Defect Classification	Code name	Definition	Typical example
Critical defects	CR	Defects that may lead to personal injury, safety accidents, complete product	1. Dielectric withstand voltage test breakdown/arc; 2. Crimped/welded ends falling off or having poor welds; 3. Miswiring or open circuits in the wiring harness

		failure, or violation of laws and regulations .	cause complete functional failure. 4. Damaged insulation exposes the conductor, posing a short circuit safety hazard .
Major defects	MA	This defect leads to product malfunction, a significant decrease in reliability, and an inability to meet expected usage requirements .	1. The conductor strand breakage exceeds the Class 2 limit; 2. The crimping height does not meet specifications, and there is no bell-shaped crimping joint; 3. Inadequate solder wetting and insufficient filler; 4. Insulation gap exceeds tolerance; insulation layer enters the crimping/soldering area; 5. Dimensional deviations affect assembly .
Minor defects	MI	The defects do not affect the product's functionality, assembly, or long-term reliability; they are only minor defects in appearance and labeling .	1. The signage is slightly blurred, but the content is still legible. 2. The cable ties for the wire harness are spaced unevenly but are securely fastened. 3. Minor scratches on non-critical surfaces and flux residue that does not affect functionality .

4.2 General Sampling Rules

This sampling plan strictly follows GB/T 2828.1-2012, adopts a single sampling plan for normal inspection, and the inspection level is II.

Batch definition: Products of the same model, specifications, batch of raw materials, process, and shift produced continuously constitute one inspection batch;

Defect level corresponding to AQL value:

Defect Classification	AQL value	Inspection requirements
Critical Defect (CR)	0	100% inspection, no defects allowed.
Major Defect (MA)	0.65	Implement according to the sampling plan.
Minor defect (MI)	2.5	Implement according to the sampling plan.

Sampling transfer rules:

If five consecutive batches pass inspection, the inspection can be relaxed.

If two consecutive batches are rejected during inspection, the inspection will be immediately upgraded to stricter standards.

If five batches pass the stricter inspection, normal inspection will resume; if five batches are rejected after stricter inspection, inspection will be suspended and will resume only after rectification of the process and control system.

Judgment rules: If the number of fatal defects is ≥1, the number of serious defects exceeds the acceptable number, or the number of minor defects exceeds the acceptable number, the batch is deemed unqualified.

4.3 Sampling Plan by Stage

Inspection process	Test type	Sampling/Inspection Rules
Incoming material inspection	Incoming batch inspection	1. 100% inspection of critical defects; 2. For major/minor defects, the single sampling plan for normal inspection shall be followed as described in 4.2 . 3. At least one sample shall be taken from each batch of raw materials for specification compliance verification .
Process inspection	First article inspection	1. A first-piece inspection must be performed after each shift starts, line change, material change, mold change, and machine adjustment; 2. The first piece must undergo full inspection, and mass production can only begin after it passes inspection . The first-piece sample must be retained until the end of the batch production.
Process inspection	Inspection	1. Every 2 hours / every 500 pieces produced (whichever comes first), 5 pieces are sampled for full inspection; 2. If any defects are found during the inspection, the machine should be stopped immediately for rectification. After rectification, the first piece confirmation should be redone .
Process inspection	Last item inspection	After each batch of production is completed, the last piece is randomly selected for full inspection, compared with the first piece,

		and the results are recorded and archived .
Final inspection of finished products	Electrical performance testing	All electrical performance items are 100% inspected; sampling is not allowed .
Final inspection of finished products	Appearance and dimensional inspection	Follow the single sampling plan for normal inspection as described in 4.2 .
Special verification	Crimping tensile test	1. For each shift/each machine adjustment, at least 5 pieces of samples should be randomly selected for destructive tensile testing; 2. Test samples must not be used in delivered products; 3. If the tensile test fails, all products manufactured during that period will be reworked and inspected .

5. Incoming Material Inspection Standards

Inspection items	Class 2 Acceptance Standards	Inspection method	Corresponding defect Classification
Wire	1. The insulation is free from damage, cracks, discoloration, and bulging, and its thickness is uniform. 2. The conductor strands are free from oxidation, blackening, and breakage, and the wire diameter and cross-sectional area meet the specifications. 3. The certification mark is clear, and the specifications and model are consistent with the procurement requirements .	Random inspection	The exposed conductor of the damaged part is CR, and the rest are MA.

Crimp terminals/connectors	1. No deformation, cracking, coating peeling, or oxidation; 2. The specifications and models match the corresponding wire diameter, and the manufacturer's crimping specifications are complete. 3. The bell-shaped crimp and the insulating support wings are undamaged and undeformed .	Random inspection	Cracking and coating peeling affect functionality (MA); other non-compliance is (MI).
Welding terminals	1. The solder cup/pad is free from oxidation and deformation, and the plating is intact; 2. If the gold plating thickness is greater than 2.54μm, a description of the gold removal process must be provided; 3. The specifications and model are consistent with the drawings .	Random inspection	Deformation and oxidation of the welding cup affecting welding are classified as MA; other non-compliance is classified as MI.
Accessories (heat shrink tubing/cable ties/solder/flux)	1. Within the validity period, without damage, deterioration, or clumping; 2. The heat shrink tubing shrinkage rate and flame retardant rating meet the requirements, and the solder conforms to IPC J-STD-006 standard; 3. The cable ties are not brittle and their size matches the wire harness specifications .	Random inspection	Expired or failing to meet flame retardant rating standards are classified as MA; otherwise, they are classified as MI.

6. Process Inspection Specifications

6.1 Conductor pretreatment inspection

Inspection items	Acceptance Criteria	Process Alert	Reject Criteria	Inspection method	Defect Classification

Insulation stripping	The cut is clean and free from carbonization, melting, or cuts; the insulation thickness is reduced by ≤20%.	N/A	The insulation is charred, melted through, or cut, with a thickness reduction of >20%.	First-piece full inspection + routine inspection and spot check	The exposed conductor is CR, and the rest is MA.
conductor strand damage	AWG26 and below: no broken wires/marks; AWG24~16: 1 broken wire allowed; AWG14 and above: 2 broken wires allowed.	N/A	Exceeding the above limits, the strands become tangled and spread out in a birdcage-like pattern.	First-piece full inspection + routine inspection and spot check	MA
Tinning (pre-plating) of wires	The solder completely wets the strands, the strand outlines are discernible, there are no pinholes or	The outline of the strands is indistinguishable, but it does not affect subsequent assembly.	Non-wetting/dewetting area > 5%, solder spikes affect assembly, solder core is drawn to flexible areas.	First piece full inspection + routine inspection and spot check	MA

	voids, and the solder is not wicked into the flexible area of the conductor.				
Insulation gap	≤2 times the diameter of the insulated wire or 1.5mm (whichever is greater), without violating the minimum electrical clearance.	>1 times and <2 times the wire diameter	>2 times the wire diameter, insulation layer enters the solder/conductor crimping area	First-piece full inspection + routine inspection and spot check	MA

6.2 Inspection of welded terminals (Class 2 only)

6.2.1 General Welding Requirements

Inspection items	Acceptance Criteria	Process Alert	Reject Criteria	Inspection method	Defect Classification
Solder wetting	The wetting angle is ≤90°, with obvious wetting characteristics. The solder forms a good metallurgical bond with the soldered	N/A	Non-wetting, dewetting, cold soldering / rosin soldering (no metallurgical bond)	First piece full inspection + routine inspection and spot check	MA

	surface, and there are no sharp edges or corners.				
Solder filler	When the wire is wound ≥180°, the solder wets ≥75% of the contact interface; when the winding is <180°, the solder wets 100% of the contact interface.	Pinholes/voids that meet minimum filling requirements	The filler did not meet the above requirements, and the solder depression exceeded the conductor radius by 50%.	First-piece full inspection + routine inspection and spot check	MA
Welding abnormality	N/A	N/A	Solder bridging, loose solder balls, and sticky flux residue that has not been cleaned.	First-piece full inspection + routine inspection and spot check	Bridged as CR, the rest as MA
Insulation after welding	No charring, melting, or breakage	N/A	The insulation is charred, its thickness is reduced by more than 20%, and the conductor is exposed due to damage.	First-piece full inspection + routine inspection and spot check	The exposed conductor is CR, and the rest are MA.

6.2.2 Specific Requirements for Typical Terminals

Terminal type	Acceptance Criteria	Process Alert	Reject Criteria	Inspection method	Defect Classification

Tower-type/Straight pin type terminals	The wire is wound around the post at a angle of ≥180° without overlap and close to the terminal base.	Wrap 90°~180°	Wrapping angle <90°, with the conductor itself overlapping.	First-piece full inspection + routine inspection and spot check	MA
Solder cup type terminal	Solder vertically fills ≥75% of the cup height, the cup wall circumference is 100% wetted, and the wire is fully inserted into the bottom of the cup.	N/A	Fill depth <75% of cup depth, solder not visible inside inspection hole, wire not fully inserted.	First-piece full inspection + routine inspection and spot check	MA
Double-fork terminal	The wire is wound around the column trunk at an angle of ≥90° and passes through the middle of the slot.	Wires of 20AWG and above were not reinforced with wrapping	<20AWG wire winding <90°, wire not threaded through slot	First-piece full inspection + routine inspection and spot check	MA

6.3 Inspection of crimped terminals and connections (Class 2 specific)

6.3.1 General Mandatory Requirements

a. Cutting/modifying conductor strands to reduce the cross-sectional area for fitting terminals/connectors is prohibited; modifying terminals to fit excessively large conductors is also prohibited.

b. Soldering is prohibited before crimping conductors (unless otherwise specified in the engineering

documents), and single-strand wires are prohibited from being used for crimping/connection;

c. The terminal/connector manufacturer's specified full-cycle crimping tool must be used; secondary crimping/repeated crimping is prohibited.

d. For each shift/each machine adjustment, the first piece must be tested for pressing height and tensile strength. The tensile strength value must strictly follow the corresponding standard in the appendix.

6.3.2 Inspection of crimped terminals formed by stamping (wire-pair terminals, general type for wire harnesses)

Inspection items	Acceptance Criteria	Process Alert	Reject Criteria	Inspection method	Defect Classification
Insulation support crimping	The crimped flanges encircle the insulation by ≥180°, with a top opening of ≤45°, and there are no punctures or cuts to the insulation.	N/A	The wraparound angle is less than 180°, the top opening angle is greater than 45°, the crimped area contains a conductor, and the insulation is punctured.	First-piece full inspection + routine inspection and spot check	The exposed conductor is CR, and the rest is MA.
Conductor crimping area	All strands are completely enclosed within the crimping area, with no loose or exposed strands, and the crimping height conforms to the terminal specifications.	Uneven crimp marks do not affect functionality or reliability.	Insulation layer enters the conductor crimping area; terminal deformation/cracking; loose strands outside the crimping area.	First-piece full inspection + routine inspection and spot check	Terminal cracking is MA, and insulation entering the crimping area is MA.

Bell-shaped crimp	The bell-shaped crimp at the conductor inlet is clearly identifiable, and its height is less than twice the thickness of the terminal material.	N/A	No bell-shaped pressure port at the inlet end	First-piece full inspection + routine inspection and spot check	MA
Conductor brush	The conductor ends are flush with the crimping area ends, and the strands are spread out without exceeding the outer perimeter of the crimping tube.	Conductor protrusion from the crimping area ≤ 2 times the wire diameter	The conductor does not extend beyond the crimping area; the strand exceeds the outer diameter of the crimping sleeve and extends into the terminal mating area.	First-piece full inspection + routine inspection and spot check	The part extending into the mating area is MA, and the rest is MI.
Residual material	The length of the residual ear is ≤2 times the thickness of the terminal material, which does not affect the terminal	The length of the residual ear is greater than twice the thickness, but it does not affect the mating.	Damaged terminals, obstructing mating, or exposed after insertion into the connector.	First-piece full inspection + routine inspection and spot check	The affected mating is MA, the rest are MI.

	mating.				
Tensile test	The breakage occurred on the conductor itself, the tensile force met the requirements of the appendix, and there was no loosening or cracking in the crimped area.	N/A	The crimp joint is loose and the tensile strength is lower than the standard requirement.	Every shift/machine setup requires inspection, 5 pieces/time	Crimping loose is CR, and insufficient tensile strength is MA.

6.3.3 Inspection of crimped connections (wire-to-wire butt joints)

Inspection items	Acceptance Criteria	Process Alert	Reject Criteria	Inspection method	Defect Classification
Insulation support crimping	Both ends of the insulation are crimped with flanges at a angle of ≥180° without punctures or cuts to the insulation .	N/A	The wrap-around angle is less than 180°, the crimped area contains a conductor, and the insulation is punctured .	First-piece full inspection + routine inspection and spot check	The exposed conductor is CR, and the rest is MA.
conductor crimping area	Both ends of the conductor strands are completely wrapped, with no loose or exposed strands, and the crimping height meets the	Uneven crimp marks do not affect functionality .	Insulation sheath enters the crimping area, connector is deformed/cracked, and there are loose strands outside the	First-piece full inspection + routine inspection and spot check	MA

	specifications .		crimping area .		
Bell-shaped crimp	Both conductor entry ends have identifiable bell-shaped indentations, with a height less than twice the thickness of the connector material .	N/A	There is no bell-shaped pressure port at either end .	First-piece full inspection + routine inspection and spot check	MA
Conductor brush	The ends of the conductors at both ends are flush with the ends of the crimping area, and the strands are spread out but do not extend beyond the outer perimeter of the crimping tube .	Extend ≤ 2 times wire diameter	It did not extend beyond the outer diameter of the overpressure sleeve .	First-piece full inspection + routine inspection and spot check	MA
Tensile test	The breakage occurred on the conductor itself, the tensile force value met the requirements of the appendix, and there was no loosening in the crimped area .	N/A	The crimped joint is loose, and the tensile strength is lower than the standard .	Every shift/machine setup requires inspection, 5 pieces/time	Crimping loose is CR, and insufficient tensile strength is MA.

6.4 Inspection of wire harness forming and protection

Inspection items	Acceptance Criteria	Process Alert	Reject Criteria	Inspection method	Defect Classification
Heat shrink tubing protection	The sleeve should fit snugly against the terminal/connector and the wire, covering both ends with insulation ≥ 2 times the wire diameter, and should be free from damage, scorching, and pinholes .	N/A	The insulation covering is less than twice the wire diameter, the bushing is cracked/burnt, and extends into the terminal mating area .	First-piece full inspection + routine inspection and spot check	MA
Cable tie fastening	The wire harness is securely fixed without longitudinal movement, the insulation is compressed by ≤20%, and the tail end is trimmed flat without burrs .	Uneven spacing of fasteners	Insulation skin compression >20%, cable ties not locked, slip knots used for binding .	First-piece full inspection + routine inspection and spot check	The insulation compression tolerance is MA, and the rest are MI.
Harness splitting	There are fasteners before and after each fork, and the distance between the fasteners and the fork point is ≤3 times the diameter of the	There is no risk of stress if the distance between the fastening	There are no tensioning elements at the fork, and the conductor is subjected to continuous tensile stress .	First-piece full inspection + routine inspection and spot check	The conductor experiences tensile stress MA, and the rest are MI.

	wire harness .	element and the bifurcation point is greater than 3 times the diameter.			
Wire bending radius	Unshielded cables: ≥3 times the wire diameter for AWG10 and below, ≥5 times the wire diameter for AWG10 and above; Shielded cables/coaxial cables: ≥5 times the wire diameter .	N/A	The bending radius is less than required, the wires are kinked, and the insulation is damaged .	First-piece full inspection + routine inspection and spot check	Damaged insulation is CR, the rest is MA
Wire harness wiring	The wiring avoids hot surfaces, areas of mechanical movement, and sharp edges, and is free from continuous stress .	N/A	The wires are in direct contact with sharp edges and heating elements, and the wiring is subjected to continuous tensile stress .	First-piece full inspection + routine inspection and spot check	MA

7. Finished Product Final Inspection Specifications

7.1 Mandatory electrical performance testing (Class 2, 100% inspection)

Test Project	Class 2 testing requirements (strictly aligned with IPC standards)	Defect Classification
Connectivity test	Without open circuits or miswiring, the maximum	Open circuit/miswiring is

	permissible resistance = 2Ω + the rated maximum resistance of the conductor (take the larger of the two) .	CR, resistance out of tolerance is MA
Low voltage short circuit test	No short circuit, minimum insulation resistance is set according to the default value of the test equipment (exempt if withstand voltage/insulation test has been performed) .	Short circuit is CR
Dielectric withstand voltage test (DWV)	1000V AC (RMS), dwell time 1min, leakage current ≤1mA, no breakdown or arcing .	Breakdown/Flying Arc is CR
Insulation resistance test (IR)	Test voltage = dielectric withstand voltage test voltage, ≤3m component ≥100MΩ, >3m component ≥10MΩ .	Insulation resistance not meeting standard (MA)

7.2 Appearance and dimensional inspection (to be carried out according to the sampling plan)

Inspection items	Acceptance Criteria	Process Alert	Defect Classification
Overall appearance	No damage to insulation, terminal deformation, solder residue, or cable tie burrs .	Any of the above defects exist	The insulation damage is classified as CR, the rest as MA/MI.
Label	The content is clear (including part number, batch number, and line number), the pasting is flat and unobstructed, and the material is environmentally resistant and does not easily fall off .	Blurry, misprinted, or peeling labels	The letter was misprinted as MA, the rest as MI.
Dimensional tolerances	The total length tolerance of the harness is ±2% or ±3mm (whichever is greater), and the branch positions and fixing point positions meet the requirements of the drawings .	Exceeding tolerance limits affects assembly.	MA

8. Rules for the Control of Non-conforming Products

a. If any defective products are found during inspection, immediately affix a "Defective" label, isolate and store them, fill out a "Defective Product Disposal Form" specifying the defect level, batch, quantity, and cause, and prohibit them from flowing into the next process;

b. Rework of welding defects: The same weld point is allowed to be reworked a maximum of 1 time. The original solder and flux residue must be completely removed, and the weld must be re-welded according to the specifications. After rework, a full re-inspection is required.

c. Rework for crimping/connection defects: Secondary crimping is prohibited. Terminals/connectors must be cut off, wires stripped again, and new terminals replaced for crimping. After rework, a full re-inspection (including tensile testing) is required.

d. Batches with fatal defects or batches that fail to meet the standards even after stricter inspections shall be scrapped immediately and rework is prohibited.

e. The disposal of non-conforming products must be reviewed and approved by the quality department, and all disposal records must be archived for ≥3 years to achieve full batch traceability.

f. If a batch of products fails to meet the standards, corrective and preventive measures must be initiated, the root causes analyzed, rectification plans developed, and the effectiveness of the rectification verified to prevent recurrence.

9. Appendix 1 : Class 2 Key Parameter Standard Table

Table 1: Minimum tensile force standard for crimped joints (wire-to-wire crimping) (corresponding to the "Crimped Joints" column of Table 19N/A12 of IPC)

Conductor specifications (AWG)	Conductor cross-sectional area (mm^2)	Minimum tensile force (pounds)	Minimum tensile force (N)
30	0.050	1.5	6.7
28	0.080	2	8.9
26	0.130	3	13.4
twenty four	0.200	5	22.3
twenty two	0.324	8	35.6
20	0.519	13	57.9
18	0.823	20	89.0
16	1.310	30	133.5

14	2.080	50	222.5
12	3.310	70	311.5
10	5.261	80	356.0

Table 2: Minimum tensile force standard for crimping of stamped terminals (wire-to-terminal crimping) (corresponding to IPC Table 19-12 "Stamped Pins and Terminals" column)

Conductor specifications (AWG)	Conductor cross-sectional area (mm^2)	Minimum tensile force (pounds)	Minimum tensile force (N)
30	0.050	1.5	6.7
28	0.080	2	8.9
26	0.130	7	31.2
twenty four	0.200	10	44.5
twenty two	0.324	15	66.8
20	0.519	19	84.6
18	0.823	38	169.1
16	1.310	50	222.5
14	2.080	70	311.5
12	3.310	110	489.5
10	5.261	150	667.5

Table 3: Magnification Compatibility Table

Wire gauge (AWG)	Routine inspection magnification	Controversial determination of magnification
>22	1.5~3 times	4 times
22~28	3~7.5 times	10 times
<28	10 times	20 times

10. Record Form:

Incoming Material Inspection Record Form

Shenzhen Jolly Technology Co., LTD

Process Inspection Record Form

Finished Product Inspection Record Form