Test Report -Products



Report No.: 244429622b 001 Page 1 of 6

Client: SHANGHAI HUAYUAN ELECTRONIC CO., LT

Contact Information: 517 Room Building B | 399 Hengnan Rd | Rongjin Pujiang Science Park |

201112 Shanghai

P.R. China

Identification/ RFID PVC Tag

Model No(s): PDT25

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2022-06-30

Testing Period: 2022-06-30 to 2022-07-05

Place of testing: Chemical laboratory Shanghai

Test Specification: Test result:

Customer's requirement:

According to RoHS (recast): Restriction of the Use of Certain Hazardous
 Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment

For and on behalf of

2022-07-06

TÜV Rheinland (Shanghai) Co., Ltd.

Ryan Chen / Assistant Manager

Date Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.

This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

'Decision Rule" document announced in our website (https://www.tuv.com/landingpage/en/qm-gcn/) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.



Page 2 of 6

Material List:

RFID PVC Tag Item:

PDT25

Material No.	Material	Color	Location
M002	Plastic + printing	white+black	refer to photo



Page 3 of 6

1.Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)

Test Method: Total Cadmium, Lead, Mercury, Chromium

- Ref. to IEC 62321-4:2013+AMD1:2017 and IEC 62321-5:2013

Chromium (VI)

- For Metal material - Ref. to IEC 62321-7-1:2015

- For Plastic or Electronic material - Ref. to IEC 62321-7-2:2017

- For Leather material - Ref. to EN ISO 17075-1:2017

PBBs, PBDEs - Ref. to IEC 62321-6:2015

Test Result:

	Cd	Cr(VI)	Pb	Hg	PBBs (*)	PBDEs (*)
Maximum Permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

Material No.			(%)		
	Cd	Cr^	Pb	Hg	PBBs (*)	PBDEs (*)
	RL (%)					
	0.001	0.001	0.001	0.001	0.01	0.01
M002	< RL	< RL	< RL	< RL	< RL	< RL

Material No.	Hexavalent Chromium Content (%) (*2) RL: 0.01%	
M002	< RL	

Abbreviation: Pb = Lead

 $\begin{array}{lll} \text{Cd} & = & \text{Cadmium} \\ \text{Hg} & = & \text{Mercury} \\ \text{Cr} & = & \text{Chromium} \\ \text{Cr}\left(\text{VI}\right) & = & \text{Chromium}\left(\text{VI}\right) \end{array}$

PBBs = Total Polybrominated Biphenyls PBDEs = Total Polybrominated Diphenyl Ethers

< = Less than RL = Reporting Limit n.a. = Not Applicable

^ = The total Chromium have been determined

% = Percentage



Page 4 of 6

Remark:

(*) The reporting limit for each individual PBBs and individual PBDEs are:

Reporting Limit (%)				
	Bromobiphenyl	0.01		
	Dibromobiphenyl	0.01		
	Tribromobiphenyl	0.01		
	Tetrabromobiphenyl	0.01		
PBBs	Pentabromobiphenyl	0.01		
	Hexabromobiphenyl	0.01		
	Heptabromobiphenly	0.01		
	Octabromobiphenyl	0.01		
	Nonabromobiphenyl	0.01		
	Decabromobiphenyl	0.01		
	Bromodiphenylether	0.01		
	Dibromodiphenyl ether	0.01		
	Tribromodiphenyl ether	0.01		
	Tetrabromodiphenyl ether	0.01		
PBDEs	Pentabromodiphenyl ether	0.01		
	Hexabromodiphenyl ether	0.01		
	Heptabromodiphenyl ether	0.01		
	Octabromodiphenyl ether	0.01		
	Nonabromodiphenyl ether	0.01		
	Decabromodiphenyl ether	0.01		

(*1) The total chromium content in Metal sample was found to be exceeded the maximum permissible limit (0.1%). Thus, the Chromium (VI) content in surface layer have been confirmed with reference to IEC 62321-7-1:2015 Annex.

	Chromium (VI) concentration	Qualitative result
Negative	<0.1µg/cm²	The sample is negative (-ve) for Cr(VI). The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating
Inconclusive ≥0.1μg/cm² and ≤0.13 μg/cm²		The result is considered to be inconclusive. Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination.
Positive	>0.13 μg/cm²	The sample is positive (+ve) for Cr(VI). Concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

^(*2) The total chromium content in plastic sample or electronic sample was found to be exceeded the maximum permissible limit (0.1%). Thus, the Chromium (VI) content have been confirmed with reference to IEC 62321-7-2:2017



Page 5 of 6

BBP, DBP, DEHP, DIBP content
Test Method: IEC 62321-8:2017

Test Result:

	BBP	DBP	DEHP	DIBP
Maximum permissible Limit (%)	0.1	0.1	0.1	0.1

	Material No.	(%)			
Test No.		BBP	DBP	DEHP	DIBP
		RL (%)			
		0.005	0.005	0.005	0.005
T001	M002	< RL	< RL	0.079	< RL

Abbreviation: BBP= Benzylbutyl phthalate

DBP= Dibutyl phthalate

DEHP= Bis(2-ethylhexyl) phthalate

DIBP= Diisobutyl phthalate

< = less than

RL = Reporting Limit N.A. = Not Applicable %= percentage



Page 6 of 6

Sample Photo



- END -



General Terms and Conditions of Business of TÜV Rheinland in Greater China

These General Terms and Condisions of Business of TÜV Rheinland in Greater China ("CTCE") is made between the client and one or more member entitles of TÜV Rheinland in Terter State ("CTCE") is made between the client and one or more member entitles of TÜV Rheinland in Terter State ("China hered") and the client state ("China hered") and create ("China hered") and create ("China hered") and an advantage person capable to form legally binding contracts under the applicable laws who concludes the contract not for the purpose of a daily user. The client of the contract of the client of the contract of

coagainors provided within the scope of contract performance.

Any standard terms and conditions of the client of any nature shall not apply and shall hereby be expressly excluded. No standard contractual terms and conditions of the client shall form part of the contract even if TU Rheinland does not explicitly object to them. A shall slot apply to future contracts with the client without TUV Rheinland having to refer to them separately in each individual care.

Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.

The contract shall come into effect for the apreed terms upon the quotation letter of TDV. Rheinland or a separate contractable document being signed by both contracting parties, or upon the works requested by the client being carried out by TDV. Rheinland. If the client instructs TDV. Rheinland without receiving a quotation from TDV. Rheinland, quotation, TDV. Rheinland is, in its sole discretion, entitled to accept the order by giving written notice of such acceptance (including notice sent with electronic means) or by performing the requested productions of the contract of t

services.
The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term agreed in the contract.
If the contract provides for an extension of the contract term, the contract term will be extended by the term provided for in the contract unless terminated in writing by either party with a three-month notice prior to the end of the contractual term.

Scope of services

The scope and type of the services to be provided by TÜV Rheinland shall be specified in the contractually agreed service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland of shall be decisive for the service to be provided. Unless otherwise agreed, services beyond the scope of the service description (e.g. checking the correctness and functionality of parts, products, processes, installations, organizations not listed in the service description, as well as the intended use and application of such jar are on even the particular, or responsibility is assumed for the design, electrion of materials, construction or intended use of an examined The agreed services of the contract of the contract is entered into the contract is entered into.

TÜV Rheinland is entitled to determine, in its soed descreten, the method and nature of the assessment unless otherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.

TOV Rheinland is entitled to determine, in it is now assessment unless otherwise agreed in writing of it mandatory provisions require a specific procedure to be followed.

The provision of the provision of the provision of the provision of any gusrantee of the Correctness (proving hard working order of elimine treated or examine parts nor of the installation as a whole and its upstream and/or downstream processes, organisations, use and application in accordance with regulations, nor of the systems on which the installation is based. In particular, TOV Rheinland shall assume no responsibility for the construction, selection of materials and assembly distallations examined, nor for their use and application in accordance with regulations, unless these qualistics are expressly converted by the contract.

in accordance with regulations, unless these questions are expressly covered by the contract. In the case of impection work. TVV Rehelland shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.

If mandatory legal regulations and standards or official requirements for the agreed service scope change after conclusion of the contract, which a written notice to the client, TVV Rehelland shall be entitled to additional remuneration for resulting additional expenses. The services to be provided by TVV Rehelland shall be entitled to additional remuneration for resulting additional expenses. The services to be provided by TVV Rehelland under the contract or agreed exclusively with the client. A contract of third parties with the services of TVV Rehelland, as well as making reports, etc.) is not part of the agreed services. This also applies if the client passes on work results - in full or in extracts - to third parties in accordance with clause 11.4.

5.1

Performance periodicidates
The contractingly agent periodicidates of performance are based on estimates of the work invoked which are prepared in line with the details provided by the client. They shall only be binding if being confirmed as binding by TUV Rheinland in writing.
If binding periodic of performance have been agreed, these periods shall not commence until the client has submitted all required documents to TUV Rheinland.
If binding periodicidates of performance have been agreed, these periodicidates of performance not caused by TUV Rheinland.
If the periodicidates of performance not caused by TUV Rheinland, the client has soft of the periodicidates of performance not caused by TUV Rheinland in the client has not done so in time and, in periodicidates of performance of a delay in performance, in particular if the client has not fulfilled the soft and the client has not done so in time and, in performance of the service as specified in the contract.

If the performance of TUV Rheinland is delayed due to unforeseeable circumstances such as force majeure, strikes, business disruptions, governmental regulations, transport obstacles, etc., TUV Rheinland is entitled to conjunce performance for a reasonable period of time which required to resume performance.

If the client is obliged to comply with legal, officially prescribed and/or by the accreditor prescribed deathles, it is the client's responsibility in this respect urities TUV Rheinland expressly agreed in writing specification of TUV Rheinland expressly agreed in writing specification of TUV Rheinland obligation to cooperate

The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to $T\bar{U}V$ Rheinland.

be provised in good eine and at no cost of 100 Kneinland.

Design documents, supplies, auditing staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client represents and warrants or

The product, service or management system to be certified complies with applicable laws and regulations; and

It doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China.

If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contract/order without prior notice; and ii) withdraw the issued testing report/certificates if any.

The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the cli

If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs actually incurred. If no price is agreed in writing, invoicing shall be made in accordance with the price list of TUV Rheinland valid at the time of performance. Unless otherwise agreed, work shall be invoiced according to the progress of the work. If the execution of an order extends over more than one month and the value of the contract or the agreed fixed price exceeds \$2,500.00 or equivalent value in local currency. TUV Rheinland may demand payments on account or in installments.

All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on receipt of the invoice. No discounts and rebates shall be granted. Payments shall be made to the bank account of TÜV Rheinland as indicated on the invoice, sating the invoice and client numbers and client numbers and client numbers are entitled to client deduction from the state of the payment of the payment of the country where TÜV Rheinland is located. At the same time, TÜV Rheinland shale he right to claim further damages. Should the client of default in payment of the invoice despite being granted a reasonable grace period, TÜV Rheinland shall be entitled to cancel the contract, which was the certificate, claim damages for new-entimance and related to cancel the contract. Which was the certificate, claim damages for new-entimance and related to charge the promises of the contract designs, claim of payment, commencement of insolvency proceedings against the client's assets or cases in which the commencement of insolvency proceedings against the client's assets or cases in which the commencement of insolvency proceedings against the client's assets or cases in which the commencement of insolvency proceedings as been disnisted due to lack of assets.

s. ns to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of

Objections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of receiped of the invoices.

TÜV Rheinland shall be entitled to demand appropriate advance payments.

TÜV Rheinland shall be entitled to fraise its fees at the beginning of a month if overheads and/or purchase costs have increased. In this case, TÜV Rheinland shall notify the client in writing of the rise in fees. This notification shall be issued one month prior to the date on which the rise in fees shall come into effect (period of notice of changes in fees). If the rise in fees remains under 5% per contractual year, the client shall not have the right to terminate the contract. If the rise in fees exceeds 5% per contractual year, the client shall be entitled to terminate the contractual by the vide of the period of notice of changes in fees. If the contract terminate the contractual by the vide of the period of notice of changes in fees. If the contract the period of notice of changes in fees. If the contract of the expiry of the notice period.

Only legally established and undisputed claims may be offset against claims by TÜV Rheinland. TÜV Rheinland that limes to setoff any amount due or payable by the client, including but not limited to setoff against any fees paid by the client under any contracts, agreement and/or orders/quotations reached with TÜV Phienland.

Acceptance of work

Any part of the work result ordered which is complete in itself may be presented by $T\bar{U}V$ Rheinland for acceptance as an instalment. The client shall be obliged to accept it

immediately. If acceptance is required or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client refuses acceptance within this period stating at least one fundmental breach of contract by TIM Publicians. berinland.

ent is not entitled to refuse acceptance due to insignificant breach of contract by TÜV

The client is not entitled to refuse acceptance due to insignificant breach of contract by TUV remeinland.
The control of the

Confidentiality

For the purpose of these terms and conditions, "confidential information," means all know-how, trade secrets, documents, images, drawings, expertise, information, data, test results, reports, samples, project documents, princing and financial information, customer and supplier information, and marketing techniques and materials, techniques and t

biddle count accreditation bodies or third parties that are involved in the performance of the contract, must be treated by the receiving party with the same level of confidentiality as the receiving party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which is reasonably required.

The protection of the contract is contracted to the confidentiality than that which is reasonably required. The protection of the contract is contracted to the contract that the contract is contracted to the contract. The receiving party undestables to oblige these employees to observe the same level of secretory as set forth in this confidentiality clause. Information for which the receiving party can turnish proof that: It was generably whom at the time of disclosure or has become general knowledge without violation of this confidentiality clause by the receiving party, or which information or confidentiality clause by the receiving party or the receiving party can be confidentially clause by the receiving party or or the receiving party clause.

10.5 a)

b) c)

the receiving party already possessed this information prior to disclosure by the disclosing party or party or the receiving party developed it itself, irrespective of disclosure by the disclosing party, shall not be deemed to constitute "confidential information" as defined in this confidential prior to be deemed to constitute "confidential information" as defined in this confidential prior party. The receiving party hereby agrees to immediately (of termal confidential information party, the disclosing party, to destroy all confidential the disclosing party, and/or (i) on request by the disclosing party, to destroy all confidential the disclosing party in writing, at any time if so requested by the disclosing party but at the disclosing party with reflect the disclosing party but at the disclosing party in writing, at any time if so requested by the disclosing party but at the disclosing party with reflect the disclosing party but at the disclosing party but at the disclosing party but at the disclosing party that the disclosing party to writing at any time if so requested by the disclosing party but at the disclosing party but at

10.7

Copyrights and rights of use, publications

11.1

Copyrights and rights of use, publications
TUV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test
reports/results, results, calculations, presentations etc. prepared by TUV Rheinland, unless
otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TUV
use ("right out great test her right to use the work results for individual or all types of
The client receives a simple, unlimited, non-transferable, non-sublicensable right of use to the
contents of the work results produced within the scope of the contract, unless otherwise
agreed by the parties in a separate agreement. The client may only use such reports, expert
the scope of the contract for the contractally agreed purpose.
The transfer of right of use of the generated work results regulated in dause 11.2. of the GTGB
is subject to full geyment of the remunestion agreed in showed TUV Rheinland basis
on the work results. In this case, the contract care the contraction of the contract or the work results in mediately at his own expense and, as far as possible, to withdraw publi

11.6

Liability of TÜV Rheinland

Liability of TÜV Rheinland
Irrespective of the legal basis, to the fullest exent permitted by applicable law, in the event of a
breach of contractual obligations or tort, the liability of TÜV Rheinland for all damages, losses
and reimbursement of expenses caused by TÜV Rheinland, its legal representatives and/or
employees shall be limited bit; (i) in the case of a contract with a faed overall fee, three times
employees shall be limited bit; (ii) in the case of a contract expressly charged on a
material basis, a maximum of 2000 Euro or equivalent amount in local currency, and (vi) in
the case of a framework agreement that provides for the possibility of placing individual orders,
three times of the fee for the individual order under which the damages or losses have
cocurred. Notwithstanding the above, in the event that the total and accumulated islability
calculated according to the foreigning provisions received. 25 Million Euro or equivalent amount in local currency.
The limitation of lability according to article 121; above shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.
The limitation of lability according to article 121; above shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.
The limitation of lability according to article 121; above shall not apply to damages and
various agents. Such limitation shall not apply to damages for a person's eacht, physical
irigny or times.

vicarious agents. Such limitation shall not apply to damages for a person's death, physical injury of illness, and a fundamental breach of context, TVD Rehalend will be liable even where minor negligence is involved. For this purpose, a "fundamental breach" is breach of a material contractual obligation, the performance of which permits the due performance of the contract. Any claim for damages resonably foreseen as a possible consequence of such other of contract at the damages resonably foreseen as a possible consequence of such breach of contract at section of the contract and the contract of the clean.

contract to the client.
The limitation periods for claims for damages shall be based on statutory provisions.
None of the provisions of this article 12 changes the burden of proof to the disadvantage of the

13.1

When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control to the performance of a contract with the client is subject to the proviso that there are no obstacles to performance due to national or international foreign trade legislations or embarges and/or with immediate effect and the client shall compensate for the losses incured thereof by TÜV Rheinland.

The elient understands and agrees that TÜV Rheinland processes personal data (including but not limited to personal information) of the client and its related parties (including but not limited to the supplier of the client) for the purpose of fulfilling in contract. The client confirms that it has obtained the prior consent of the data subject, which entities TÜV Rheinland to access, use, or process the personal data that the client collected or processed by itself and data. TÜV Rheinland will use and process the data is accordance with the relevant legal basis. If any personal data has to be disclosed or transferred to any third party or any overseas party outside of the district in which the personal data was collected, the client also confirms that it has obtained the prior consent of the data subject. TÜV Rheinland will sure any outsides of the district in which the personal data was collected, the client also confirms that it has obtained the prior consent of the data subject. TÜV Rheinland will sure provide the confirmation of the data confirmation of the data subject. TÜV Rheinland will subject the confirmation of the data subject to the following rights; right of information, and the local country. TÜV Rheinland will sale measures to avoid any leakage, alsotte, many peakson, changes or unauthorized access of personal data. The personal data will be deleted immediately as soon as a corresponding reason for deletion arise. Data subjects may excesse the following rights; right of information, and the complete that protection supervisory authority. For further details on the processing of personal data by TÜV Rheinland as she person responsible or contract on the processing of personal data by TÜV Rheinland as she person responsible or contract on the processing of personal data or at any time with felect for the future, as well as the right to file a complaint with the competent data protection supervisory authority. For further details on the processing of personal data by TÜV Rheinland as she person res

Retention of test material and documentation

The test samples submitted by the client to TUV Rheinland for testing will be scrapped following testing or will be returned to the client at the client's expense. The only exceptions are test samples, which are placed in storage on the basis of statutory regulations or of another Charges apply if the test samples are stored at the premises of TUV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation. It reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations must be made available to TUV references, the reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentation are given to the control of the cont 15.4

16.1

Termination of the contract

Notwithstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to terminate the contract in its entirely or, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of the continuation of the remaining services with six (6) mortifier notice to the end of the contractually agreed term. The combined is not to the contract of the contraction of the remaining services with six (6) mortifier notice to the end of the contraction agreed term. The combined is not to the contract of the contrac

17.2

withdrawn (for example during the performance of monitoring audis). Clause 16.3 applies accordingly.

Force Majeure

Torce Majeure

Torce Majeure

**Force Ma

18. 18.1.

Hardship
The Parlies are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the Notwithstanding paragraph 1 of this Clause, where a Party proves that:

The continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the continuation of the contract, and that attacked the control of the control of the contract, and that are also make the control of the control 18.3.

19.3

agreement of the other Party.

Partial invalidity, written form, place of jurisdiction and dispute resolution.

All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 171.

It also applies to amendments and supplements to this clause 171.

Description of the property of the propert