

# Pine Labs Payment Gateway

## Merchant Integration Document V1.1

---

## DOCUMENT VERSION HISTORY

Version	Description	Author	Approved by	Remark
0.1	First draft	Jaya Kiran K	Rakesh Shukla	
0.2	Added transaction flows	Vishal Mishra	Rakesh Shukla	
1.1	Added API specs	Vishal Mishra	Rakesh Shukla	

## CONTENTS

<b>1</b>	<b>About This Guide .....</b>	<b>4</b>
1.1	Objectives and Target Audience .....	4
1.2	Related Documentation .....	4
<b>2</b>	<b>Introduction .....</b>	<b>4</b>
2.1	Requesting a test setup .....	4
2.2	Prerequisites.....	5
2.3	Who to contact for queries.....	5
2.4	Connecting to the Payment Gateway .....	5
2.5	The Payment Process.....	5
2.6	Steps in the Payment Process.....	7
<b>3</b>	<b>Overview of Payment Models .....</b>	<b>8</b>
3.1	Payment Modes .....	10
<b>4</b>	<b>Overview of Transaction Types .....</b>	<b>10</b>
4.1	Purchase .....	10
4.2	Auth & Capture.....	10
4.3	Supporting Transactions .....	11
4.3.1	Refund and Inquiry Transactions .....	11
<b>5</b>	<b>Overview of the Integration Modes.....</b>	<b>11</b>
5.1	Redirect Mode .....	12
5.2	Seamless.....	12
<b>6</b>	<b>Merchant Integration Process .....</b>	<b>12</b>
6.1	Integration Steps .....	12
6.2	Key Tasks in Payment Gateway Integration .....	13
6.2.1	Merchant Setup and Registration .....	13
6.2.2	Development .....	13
6.3	Sale Request .....	14
6.3.1	Overview .....	14

## 1 About This Guide

### 1.1 Objectives and Target Audience

This guide provides the details on how to connect merchant's website with Pine Labs payment gateway and use its services. It is intended for users who want to carry out integration with payment gateway.

It also covers the steps in the payment process and the information that needs to be passed from merchant's web server to Pine Labs payment gateway, thus enabling Pine Labs payment gateway to process payments.

### 1.2 Related Documentation

This guide should be used together with the additional documents as described below.

Document	Description
<i>HashGeneration</i>	Describes about hash generation algorithm
<i>ResponseCodeList</i>	Listing of transaction response codes

## 2 Introduction

Pine Labs payment gateway hosts a collection of secure services, to process customer payments. It offers multiple payment modes like cards ( with multi acquiring ) , brand EMI, net banking, UPI, BharatQR, Pay by Points and others.

Post payment completion, the customer is returned to merchant website and merchant will receive a real-time notification of the payment, which includes details of the transaction.

### 2.1 Requesting a test setup

Merchant will need a test setup to integrate with Pine Labs payment gateway. Test setup works as a live environment, however funds cannot be sent from a test account to a live account.

## 2.2 Prerequisites

Duly filled merchant enrollment form.

## 2.3 Who to contact for queries

For all support queries, contact the Merchant Services department: -

Email: [PGIntegration@pinelabs.com](mailto:PGIntegration@pinelabs.com)

## 2.4 Connecting to the Payment Gateway

Connecting to Pine Labs payment gateway requires integration with merchant website. When customer selects **Make Payment**, page redirects to Pine Labs payment gateway. At the same time merchant page needs to submit information about the payment, such as MID, amount to be paid and several other hidden text fields.

## 2.5 The Payment Process

**Figure 1** below provides a more detailed view of the interaction between customer, merchant and Pine Labs payment gateway in a typical transaction.

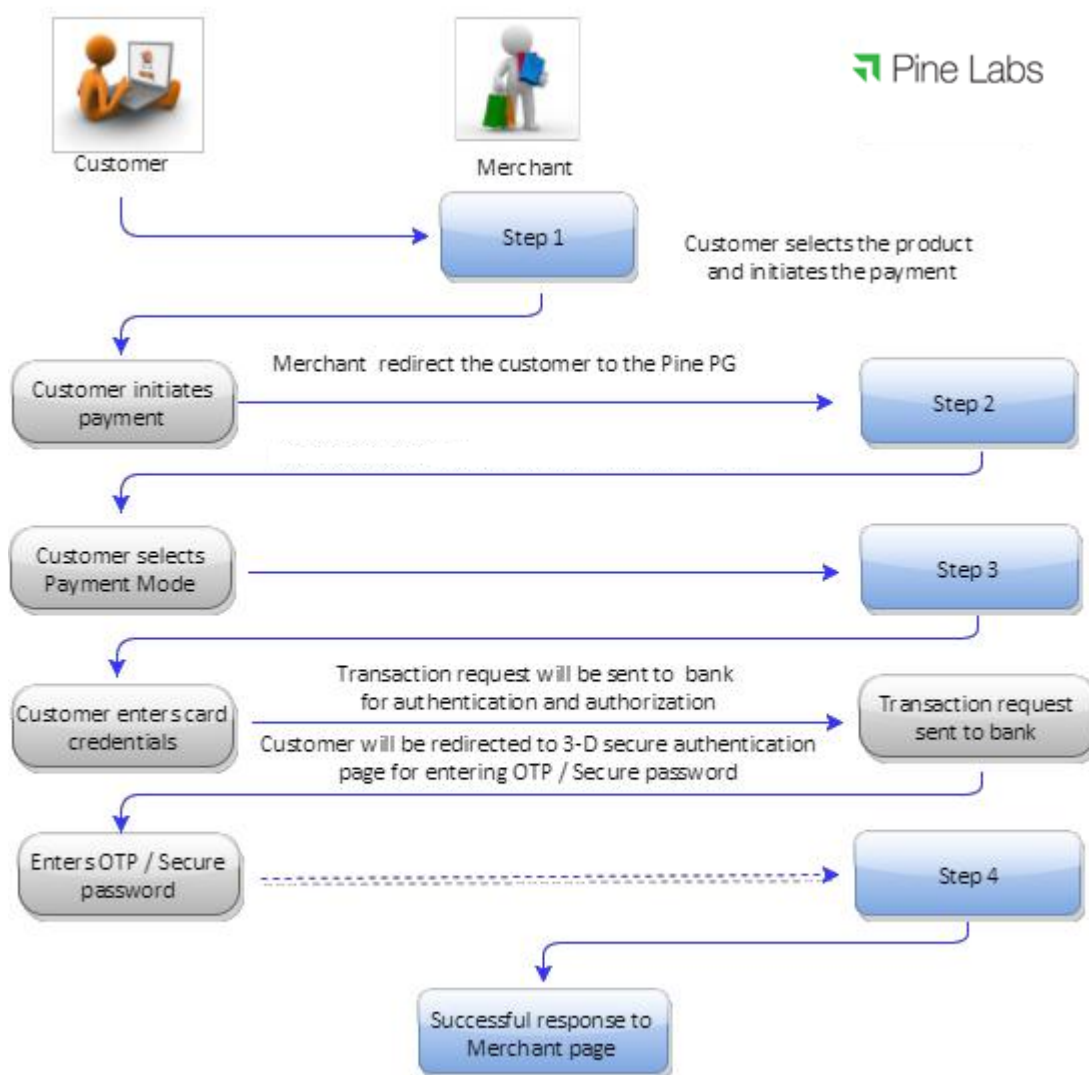


Figure 1

## 2.6 Steps in the Payment Process

Payment details are collected from the customer and merchant is notified of the results in the following steps: -

- **Step 1:** Customer selects the product and initiates payment, merchant redirects the customer to the Pine Labs payment gateway.
- **Step 2:** Customer selects the payment mode.
- **Step 3:** Customer enters his card details / payment credentials and confirms payment.
- **Step 4:** Customer will be redirected to 3DES authentication page for Verified by Visa / MasterCard SecureCode / Amex Safe key. On successful authentication, Pine Labs payment gateway seeks authorization of the payment.

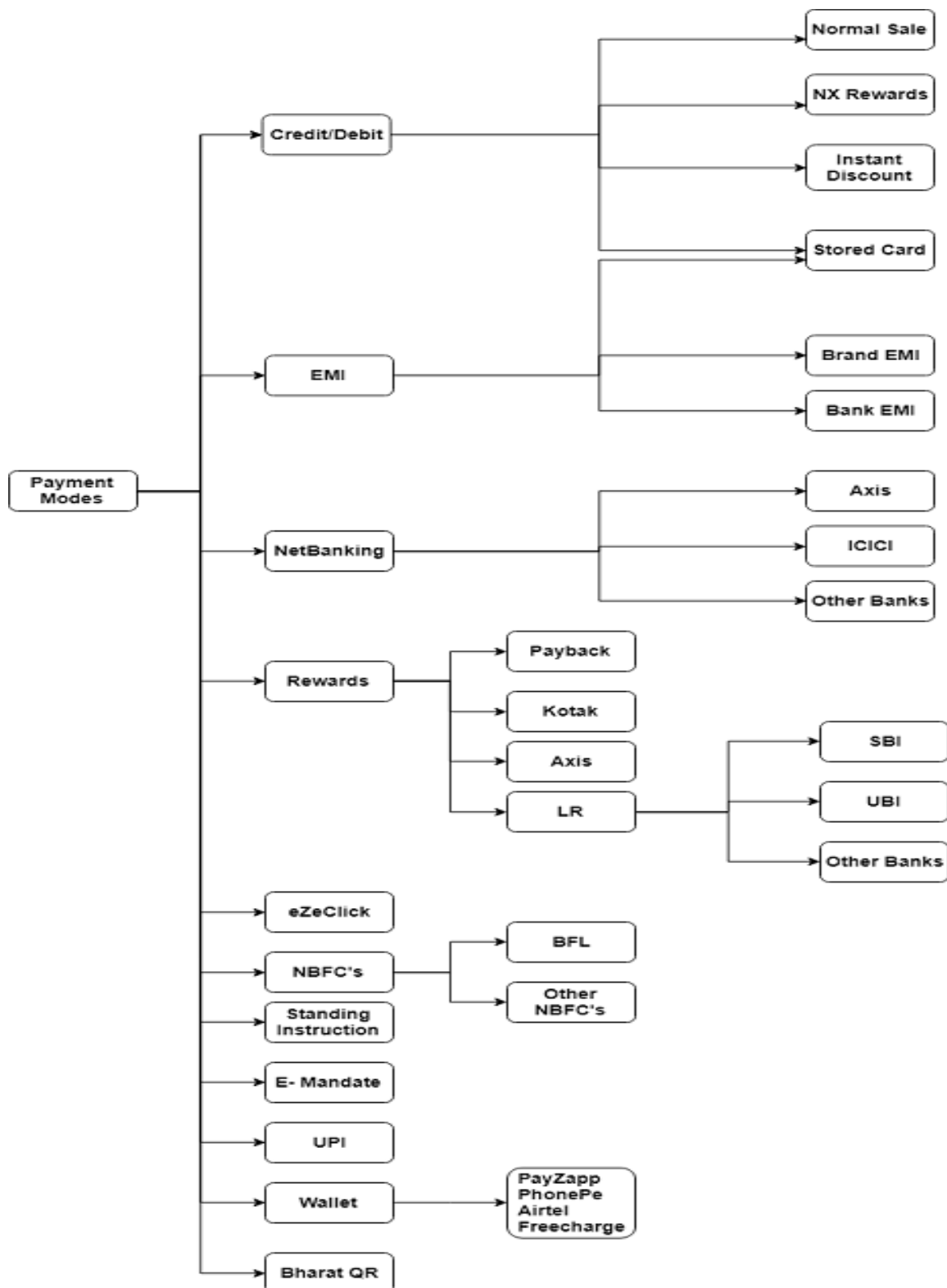
The customer receives a payment confirmation and merchant receives notification on status of the payment.

### 3 Overview of Payment Models

Pine Labs payment gateway supports the following payment models:

- Purchase
  - Auth & Capture
- 
- A merchant can be enrolled in auth & capture **or** purchase payment model.
  - A merchant cannot have both the payment models on a single MID.





### 3.1 Payment Modes

Payment Mode ID	Payment Modes
1	Credit/Debit Cards
3	Net Banking
4	EMI
5	Rewards
6	eZeClick
7	NBFC (Third Party Emi)
8	Standing Instruction
9	E-Mandate
10	UPI
11	Wallets
12	BharatQR

## 4 Overview of Transaction Types

Pine Labs payment gateway supports the following transaction types: -

- Purchase
- Pre-Authorization
- Capture
- Refund
- Inquiry

### 4.1 Purchase

Purchase transaction, where the merchant transaction is authorized by the issuing bank and the customer card account is debited in a single transaction

### 4.2 Auth & Capture

Auth (commonly referred to as Authorization) transaction, wherein the transaction value of the goods or services is sent to the issuing bank to verify the availability of funds in the customer card account. And to block the (Open To Buy –OTB) funds until the capture transaction is initiated by the merchant.

The auth transaction blocks the funds in the card account for a predetermined period of time as determined by the issuing bank.

The auth transaction should be followed by capture transaction independently.

The capture transaction refers to the initial auth transactions and confirms to the issuing bank. Issuing bank transfer the funds from customer card account through the acquiring bank to the merchant's bank account.

### 4.3 Supporting Transactions

For every authorized transaction, there should be a number of associated supporting financial transactions.

- Inquiry to know the status of the transaction.
- Refund for purchase transaction.
- Refund for auth/capture transactions.

#### 4.3.1 Refund and Inquiry Transactions

The refund API gives the convenience of automating customer refunds. Alternatively, there is an option to refund a payment transaction manually using the Merchant Console.

If for some reason you didn't receive a response from Pine Labs payment gateway for a sale or refund transaction (maybe the user abandoned the transaction midway or there was a network/timeout issue when Pine Labs payment gateway sent the response to callback URL). Merchant can use the inquiry API to confirm the final status of the transaction. This transaction can be initiated using Pine Labs payment gateway API or through merchant console.

## 5 Overview of the Integration Modes

Following are the integration modes supported:

- Redirect
- Seamless

Merchant redirects a customer to Pine Labs payment gateway landing page. This is called redirect mode.

Capturing customer card details at merchant page is called seamless mode. In this case, merchant needs to be PCI DSS certified.

## 5.1 Redirect Mode

Merchant redirects customer to Pine Labs payment gateway landing page along with merchant MID and other specific details.

Customer enters card details on Pine Labs payment gateway page.

Pine Labs payment gateway processes transactions by communicating with acquirer in turn scheme and then issuer banks.

After transaction completion, Pine Labs payment gateway maps transaction with merchant and order specific details and redirects customer to merchant page along with the response of the transaction.

In this scenario Pine Labs payment gateway also provides landing page customization details to merchant. These customization details will include CSS.

In this CSS, merchant can define fonts, color scheme of Pine Labs payment gateway landing page. So that when customer gets redirected from merchant site to Pine Labs payment gateway page, seamless experience is offered in terms of look and feel of the website.

## 5.2 Seamless

In this integration mode, merchant captures card details of the customer at its page and calls Pine Labs payment gateway api's passing encrypted card details along with merchant MID and other specific fields.

Pine Labs payment gateway processes this transaction, maps transaction with merchant and order specific details and sends response back on merchant return url.

# 6 Merchant Integration Process

## 6.1 Integration Steps

- Project initiation kick off call
- Merchant setup and registration
- Pine Labs issues test MID, URL and credentials

- Pre development
- Merchant builds code and is ready for testing
- System tests with full functionality in QA environment
- Security testing with Pine Labs
- Security testing with acquirer banks
- Sign off confirmation from Pine Labs & Acquirer banks
- Pine Labs issues live MID, URL and credentials
- Launch – Go Live

## 6.2 Key Tasks in Payment Gateway Integration

### 6.2.1 Merchant Setup and Registration

Merchant needs to share dully filled merchant enrollment form to Pine Labs.

Based on the options selected by merchant; relevant test setup, test codes, test URL and credentials will be shared to merchant.

Pine Labs payment gateway will share integration guide, sample request and response messages with the merchant.

An overview will be provided, if requested by the merchant.

### 6.2.2 Development

Merchant develops his application to integrate with Pine Labs payment gateway.

Merchant to first integrate using the test MID which will be provided by Pine Labs.

Merchant can use test MID to check complete functionality of authentication, authorization, capture and refund. UAT testing will be initiated post to this.

## 6.3 Sale Request

### 6.3.1 Overview

It is a Http form post request where merchant will redirect user to Pine Labs payment gateway page along with request parameters.

#### 6.3.1.1 Request API & URL

API	URL	Calling mode
Pre-Authorization, Purchase	<a href="https://uat.pinepg.in/PinePGRedirect">https://uat.pinepg.in/PinePGRedirect</a>	Browser redirect/form post

#### 6.3.1.2 Authentication of Request

Each request is authenticated based on the following :-

Merchant access code, parameter name ppc\_MerchantAccessCode. Received value of this parameter will be validated at Pine Labs payment gateway.

Hash of request parameters using Secret key (provided to merchant during merchant registration). Please refer to HashGeneration document for hash generation algorithm.

Parameters for passing hash and hash type are:

- ppc\_DIA\_SECRET
- ppc\_DIA\_SECRET\_TYPE

Merchant must create the ppc\_DIA\_SECRET using Secret key, ppc\_DIA\_SECRET\_TYPE and request parameters list.

#### 6.3.1.3 Request parameters Key-Value pair Table

Contains a collection of key-value pairs of all parameters which are required to be sent

in sale request.

Key	Value	Details	Mandatory/Optional
ppc_MerchantID	Integer	You can find it in your (merchant) registration data. It is the merchant Id issued by Pine Labs	M
ppc_Amount	Long	It is the amount for which payment transaction is required. Greater than zero, in the least currency denominator (e.g. for INR amount is in Paise )	M
ppc_DIA_SECRET_TYPE	String	Use 'SHA256' or 'MD5' as its Value	M
ppc_DIA_SECRET	String	Hash of request parameters. Please refer to HashGeneration document for hash generation algorithm.	M
ppc_MerchantAccessCode	String	You can find it in your (merchant) Registration data.	M

ppc_MerchantReturnURL	String	Browser call back URL. This URL will be used by Pine Labs payment gateway to post and redirect Sale/Pre Auth transaction response.	M
ppc_NavigationMode	Integer	Integration mode 2 for Redirect 7 for Seamless	M
ppc_UniqueMerchantTxnID	String. Max Length 99	It is the transaction Id generated at merchant side, for merchant transaction tracking. It is required only for 'PreAuth' and 'Purchase' transactions.	M
ppc_TransactionType	Integer	Use- 1 for 'Purchase', 8 for 'PreAuth', 3 for 'Inquiry', 9 for 'Capture', 10 for 'Refund'	M
ppc_PayModeOnLandingPage	String	It will contain csv of valid payment mode ids.	M



ppc_CurrencyCode	String	It is the currency code which is required for handling the amount provided. Use '356' for Indian rupees.	M
ppc_Product_Code	String	It is merchant product code. It is required for brand EMI transaction.	O
ppc_PayCredentials	String	Encrypted card data is send in this attribute. Applicable only for seamless mode.	O
ppc_KeyID	Integer	Key Id used to encrypt card data. Applicable only for seamless mode	O
ppc_TenureID	Integer	Tenure ID applicable for seamless EMI transaction	O
ppc_Scheme	Json string	Scheme selected by user. Applicable only in seamless EMI mode	O

ppc_CustomerId	String. Max Length can be 49	In case of Saved Card/Express Checkout, this is used for getting saved cards.	O
ppc_CustomerEmail	String	Email address of customer.	O
ppc_CustomerMobile	String	Mobile number of customer.	O
ppc_CustomerAddress1	String	Address1 of customer	O
ppc_CustomerAddress2	String	Address2 of customer	O
ppc_CustomerAddress3	String	Address2 of customer	O
ppc_CustomerCity	String	City of customer	O
ppc_CustomerState	String	State of customer address	O
ppc_CustomerCountry	String	Country of customer address	O
ppc_MultiCartProductDetails	Base64String	Base64 of JSON String of product details array. It is required for brand EMI transaction.	O

#### 6.3.1.3.1 ppc\_PayModeOnLandingPage

Payment modes send in request must be subset of payment modes enabled on merchant. If this validation fails, transaction will fail.

If this validation succeeds, Pine Labs payment gateway landing page will show only those options of payment that are sent in ppc\_PayModeOnLandingPage

#### 6.3.1.3.2 ppc\_CustomerId

If incoming request from merchant includes ppc\_CustomerId, and payment modes to be rendered are credit/debit card or EMI; Pine Labs payment gateway will check for saved cards. Key for this search will be customer id and merchant id. If saved cards are found, all the saved cards will be shown. User can select any saved card, enter CVV/4DBC and do transactions.

In case of EMI, if customer is having any saved card against selected issuer, saved cards will be shown after EMI table and user can do transaction by entering CVV/4DBC only.

#### 6.3.1.3.3 ppc\_MerchantReturnURL

This URL will be used by Pine Labs payment gateway to post transaction response. It is mandatory for purchase and preauth transaction types. Also, Pine Labs payment gateway should be having access to this URL. This might need whitelisting of Pine Labs payment gateway URL at merchant set up.

Please note that ppc\_MerchantReturnURL sent in transaction request has to be same as the one provided during merchant registration. Multiple return urls can be configured in the system.

**If ppc\_MerchantReturnURL sent in transaction request and merchant return URL configured for merchant are different, transaction will be rejected.**

#### 6.3.1.3.4 ppc\_MultiCartProductDetails

This field will be used to pass the product details in case of brand emi transaction. Value of field is Base64 of JSON String of product details array.

#### Base64 String

W3sicHJvZHVjdF9jb2RlljoiNzgwMyIsInByb2R1Y3RfYW1vdW50IjoyNTAwMDAsInN1YnZlbnRpb25fZGZlY291bnQiOjAsInByb2R1Y3RfZGZlY291bnQiOjAsInN1YnZlbnRpb25fZGZlY291bnRfcGVyY2VudGFnZSI6MCwicHJvZHVjdF9kaXNjb3VudF9wZXJjZW50YWdlIjowfSx7InByb2

R1Y3RfY29kZSI6InhpYW9taV9wcm8iLCJwcm9kdWN0X2Ftb3VudCI6MjUwMDAwLCJzdWJ2ZW50aW9uX2Rpc2NvdW50IjowLCJwcm9kdWN0X2Rpc2NvdW50IjowLCJzdWJ2ZW50aW9uX2Rpc2NvdW50X3BlcmNlbnRhZ2UiOjAsInByb2R1Y3RfZGlzY291bnRfcGVyY2VudGFnZSI6MH1d

### Decoded Base64 string

```
[
  {
    "product_code": "7803",
    "product_amount": 250000
  },
  {
    "product_code": "xiaomi_pro",
    "product_amount": 250000
  }
]
```

#### 6.3.1.4 Response parameters Key-Value pair Table

Key	Value	Details	Mandatory/Optional
ppc_MerchantID	Integer	In response you can see the merchant id which you have sent as one of the parameter in Pine Labs payment gateway API request parameters.	M
ppc_MerchantAccessCode	String	In response you can find the merchant access code which you have sent as one of the parameter.	M
ppc_UniqueMerchantTxnID	String. Max length 99	In response you can find the merchant unique transaction Id which you have sent as one of the parameter.	M

ppc_PinePGTxnStatus	Integer	Transaction status	M
ppc_TransactionCompletion DateTime	DateTime	The date-time of the transaction completion at Pine Labs payment gateway server.	O
ppc_Amount	Long	It is the amount for which payment transaction is being done.	M
ppc_TxnResponseCode	Integer	Represent the response of the API request and response code is returned based on the transaction result.	M
ppc_TxnResponseMessage	String	Transaction response	M
ppc_AcquirerName	String	Acquirer Bank	O
ppc_PinePGTransactionID	Long	Unique transaction id generated by Pine Labs	O
ppc_PaymentMode	Integer	Payment mode chosen at landing page.	O
ppc_DIA_SECRET	String	Hash of response parameters. Please refer to	M

		<p>HashGeneration document. Pine Labs payment gateway creates the</p> <p>hash of the response parameters and sends this information in response in tag ppc_DIA_SECRET. Merchant should use this</p> <p>hash value returned in response to match with new secret generated at its side using other response</p> <p>Parameters. If these two secrets do not match then data is not authentic.</p>	
ppc_DIA_SECRET_TYPE	String	'SHA256' or 'MD5' and will be the same which is passed in ppc_DIA_SECRET_TYPE parameter of request	M
ppc_Is_BankEMITransaction	Bool	Flag to indicate Bank EMI transaction	O
ppc_Is_BrandEMITransaction	Bool	Flag to indicate Brand EMI transaction	O
ppc_EMITenureMonth	Integer	Tenure month of EMI transaction	O
ppc_EMIPrincipalAmount	Long	Principal EMI amount in Paise	O

ppc_EMIAmountPayableEachMonth	Long	Monthly Installment	O
ppc_EMIIInterestRatePercent	Integer	Interest rate charged by bank multiplied by 10000	O
ppc_EMICashBackType	Integer	Its value will be 0 or 1 0- Pre cash back 1- Post cash back	O
ppc_EMITotalDiscCashBackAmt	Long	Total discount or cashback amount applicable in EMI transaction in paise	O
ppc_EMITotalDiscCashBackPercent	Integer	Total discount or cashback percent applicable in EMI transaction multiplied by 10000	O
ppc_EMIMerchantDiscCashBackPercent	Integer	Merchant discount or cashback percent applicable in EMI transaction multiplied by 10000	O
ppc_EMIMerchantCashBackFixedAmt	Long	Merchant fixed discount or cashback amount applicable in EMI transaction in paise	O

ppc_EMIIssuerDiscCashBackPercent	Integer	Issuer discount or cashback percent applicable in EMI transaction multiplied by 10000	O
ppc_EMIIssuerDiscCashBackFixedAmt	Long	Issuer fixed discount or cashback amount applicable in EMI transaction in paise	O

#### 6.3.1.5 Pine Labs Payment Gateway Transaction Status Table

TXN_STATUS_ID	TXN_STATUS_NAME	DESCRIPTION
-10	Cancelled	when the user cancels the transaction.
-9	Auth Cancelled	Authorisation transaction has cancelled due to some reasons e.g.bank session time out, capture transaction failed.
-8	Velocity Check Failed	Velocity check failed for EMI transactions
-7	Failure	Transaction has failed due to some reasons e.g. bank session time out, insufficient funds. Payer needs to re-initiate the transaction.
-6	Rejected	Transaction has been rejected.



1	Initiated	Pine Labs payment gateway has not received response from Payment Provider/Bank. For all such transactions, We will retry the transaction, post which the transaction status will be updated to 'Captured' or 'AuthReceived' or 'Rejected'.
2	Auth Received	Authorization successful. This transaction will be on hold for 24 hours. After risk analysis this transaction will be marked as 'AuthComplete' in Pine Labs payment gateway system.
3	Auth Complete	Transaction is now eligible for 'Capture'. It can be 'Auto-Captured' by Pine Labs payment gateway. Or Merchant can 'Capture' it using merchant console post-delivery confirmation. Transaction which is not captured within predefined auth expiry days will be cancelled.
4	Captured	'Captured' call is successful. Funds will be transferred to merchant account.
5	Cleared	Funds have been transferred to Merchant account.

6	Refunded	Refund of the transaction is successful.
7	Query Complete	Query of the transaction is successful.