# Pine Labs

# Seamless EMI Integration v2.1

# CONTENTS

# 1   Overview

This document explains how to integrate the multiple product EMI solution in seamless mode.

# 2   Implementation Details

Following apis are required to be integrated :

1.  EMI Calculator
2.  Scheme Validation
3.  Initiate Payment
4.  Process Payment
5.  Browser redirect response

# 3   API Contracts

## 3.1  EMI Calculator

Api details can be found in EMI Calculator v2.0.pdf

## 3.2  Scheme Validation

It checks the validity of selected offer on a card number

### 3.2.1.1   Content Type & URL's

| Content Type | application/json |
|---|---|

| UAT | https://uat.pinepg.in/api/v2/scheme/validation |
|---|---|
| Production | https://pinepg.in/api/v2/scheme/validation |

## 3.2.2 Request

### 3.2.2.1 Body Params

| Parameter Name | Type | Description |
|---|---|---|
| merchant_data | Object | It contains information about merchant. |
| payment_data | Object | It contains information about payment |
| card_data | Object | It contains information about card data |
| emi_data | Object | It contains information about emi data |

**merchant_data**

| Parameter Name | Type | Description | Mandatory(M)/Optional |
|---|---|---|---|
| merchant_id | int | Merchant id provided by pine labs | M |
| merchant_access_code | string | Merchant access code provided by pine labs | M |

**payment_data**

| Parameter Name | Type | Description | Mandatory(M)/Optional |
|---|---|---|---|
| amount_in_paisa | long | Total sum of products amount present in cart. | M |

**card_data**

| Parameter Name | Type | Description |
|---|---|---|
| card_number | String | Card number |
| card_expiry_year | String | Card expiry year having format YYYY |
| card_expiry_month | String | Card expiry month having format MM |
| card_holder_name | String | Card holder name |

**tokenize_card_data**

| Parameter Name | Type | Description |
|---|---|---|
| token | String | Card token received from token requestor |
| expiration_month | String | Card expiry month having format MM |
| expiration_year | String | Card expiry year having format YYYY |
| last4Digit | String | Last 4 Digit of Card |

**emi_data**

| Parameter Name | Type | Description |
|---|---|---|
| offer_scheme | Object | It contains information about offer applicable on each product |
| tenure_id | Int | Tenure Id specified at pine labs end |
| tenure_in_month | String | Tenure name specified at pine labs end |
| monthly_installment | Long | Emi amount in paise |
| bank_interest_rate | Long | Interest rate for which bank emi is calculated. Its value is percentage multiplied by 10000 |
| interest_pay_to_bank | Long | Interest pay to bank in paise |
| total_offerred_discount_cashback_amount | Long | Total sum of discount applicable on cart. It is in paise. |
| loan_amount | Long | Amount in paise on which loan will be booked |
| auth_amount | Long | Bank authorization amount in paise. |

**offer_scheme**

| Parameter Name | Type | Description |
|---|---|---|
| product_details | Array of objects | It contains information about product. |
| emi_scheme | Object | It contains information about bank EMI scheme. |

**product_details**

| Parameter Name | Type | Description |
|---|---|---|
| product_code | String | Product code |
| product_amount | Long | Product amount in paise |
| subvention_cashback_discount | Long | Subvention discount cashback amount in paise. Only applicable when subvention is present. |
| subvention_cashback_discount_percentage | Long | Subvention discount cashback percentage. Its value is percentage multiplied by 10000. |
| product_discount_percentage | Long | Product discount cashback percentage. Its value is percentage multiplied by 10000. |
| subvention_type | Int | It tells offer type. 1-No cost EMI 2-Low cost EMI 3-Standard EMI |
| additional_cashback | String | Additional cashback text |
| bank_interest_rate | Long | Amount in paise |
| bank_interest_rate_percentage | Long | Percentage multiplied by 10000 |
| schemes | Array of objects | It contains list of program applicable on product. |

**emi_scheme**

| Parameter Name | Type | Description |
|---|---|---|
| scheme_id | Long | It tells scheme id applicable on product |
| program_type | Int | It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount |
| is_scheme_valid | Bool | Is scheme is valid |

**Schemes**

| Parameter Name | Type | Description |
|---|---|---|
| scheme_id | Long | It tells scheme id applicable on product |
| program_type | Int | It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount |
| is_scheme_valid | Bool | Is scheme is valid |

### 3.2.2.2 *Sample Request for All Credit cards*

{"merchant_data":{"merchant_id":3473,"merchant_access_code":"57e39383-b053-4db9-a708-26d8971886e7"},"payment_data":{"amount_in_paisa":1100000},"card_data":{"card_number":"4012001037141112","card_expiry_year":"2020","card_expiry_month":"09","card_holder_name":"harsh"},"emi_data":{"offer_scheme":{"product_details":[{"schemes":[{"scheme_id":1682,"program_type":112,"is_scheme_valid":true}],"product_code":"SM-G975FCWG","product_amount":550000,"subvention_cashback_discount":11705,"product_discount":0,"subvention_cashback_discount_percentage":21500,"product_discount_percentage":0,"subvention_type":1},{"schemes":[],"product_code":"40","product_amount":550000,"subvention_cashback_discount":0,"product_discount":0,"subvention_cashback_discount_percentage":0,"product_discount_percentage":0}],"emi_scheme":{"scheme_id":1683,"program_type":105,"is_scheme_valid":true}},"tenure_id":"3","tenure_in_month":"3","monthly_installment":370652,"bank_interest_rate":130000,"interest_pay_to_bank":23661,"total_offerred_discount_cashback_amount":11705,"loan_amount":1088295,"auth_amount":1088295}}

## 3.2.3 Response

### 3.2.3.1 *Params*

| Parameter Name | Type | Description |
|---|---|---|
| response_code | int | It notifies the result of api processing. Value 1 denotes success. |
| response_message | string | It denotes the message corresponding to above code |
| offer_scheme | Object | It contains information about offer applicable on each product. *This tag will come in response only in case of failure.* |

**offer_scheme**

| Parameter Name | Type | Description |
|---|---|---|
| product_details | Array of objects | It contains information about product. |
| emi_scheme | Object | It contains information about bank EMI scheme. |

**product_details**

| Parameter Name | Type | Description |
|---|---|---|
| product_code | String | Product code |
| product_amount | Long | Product amount in paise |
| subvention_cashback_discount | Long | Subvention discount cashback amount in paise. Only applicable when subvention is present. |
| product_discount | Long | Product discount amount in paise. Only applicable if product discount is present |
| subvention_cashback_discount_percentage | Long | Subvention discount cashback percentage. Its value is percentage multiplied by 10000. |
| product_discount_percentage | Long | Product discount cashback percentage. Its value is percentage multiplied by 10000. |
| subvention_type | Int | It tells offer type. 1-No cost EMI 2-Low cost EMI 3-Standard EMI |
| additional_cashback | String | Additional cashback text |
| bank_interest_rate | Long | Amount in paise |
| bank_interest_rate_percentage | Long | Percentage multiplied by 10000 |
| schemes | Array of objects | It contains list of program applicable on product. |

**emi_scheme**

| Parameter Name | Type | Description |
|---|---|---|
| scheme_id | Long | It tells scheme id applicable on product |
| program_type | Int | It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount |

| | | |
|---|---|---|
| is_scheme_valid | Bool | Is scheme is valid |

## Schemes

| Parameter Name | Type | Description |
|---|---|---|
| scheme_id | Long | It tells scheme id applicable on product |
| program_type | Int | It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount |
| is_scheme_valid | Bool | Is scheme is valid |
| reasons | Array of object | Description for failure of schemes |

Reasons

| Parameter Name | Type | Description |
|---|---|---|
| reason_code | int | It denotes the reason code |
| reason_message | String | It denotes the reason message again the code |

### 3.2.3.2    Sample Response

**Success response**

```
{
  "response_code": 1,
  "response_message": "SUCCESS",
}
```

**Failure response**

{ "offer_scheme": { "product_details": [ { "schemes": [ { "scheme_id": 8055, "program_type": 112, "is_scheme_valid": true }, { "scheme_id": 8042, "program_type": 108, "is_scheme_valid": false, "reasons": [ { "reason_code": -298, "reason_message": "OUTDATED_SCHEME_PRESENT" } ] } ], "product_code": "SM-G950FZKDINS", "product_amount": 550000, "subvention_cashback_discount": 9675, "product_discount": 100000, "subvention_cashback_discount_percentage": 21500, "product_discount_percentage": 100000, "subvention_type": 1 }, { "schemes": [], "product_code": "6504", "product_amount": 4500000, "subvention_cashback_discount": 0, "product_discount": 0, "subvention_cashback_discount_percentage": 0, "product_discount_percentage": 0 } ], "emi_scheme": { "scheme_id": 8056, "program_type": 105, "is_scheme_valid": true } }, "response_code": -289,

"response_message": "SCHEME VALIDATION FAILED" }

## 3.3  Initiate Payment

It initiates the transaction. Merchant has to pass unique merchant txn reference number ,amount and other parameters.

Api details can be found in Payment API v2.0.pdf

## 3.4  Process Payment

For Card transaction payment data against transaction will be passed in this call

Payment Token received in previous call needs to be part of this call
api/v2/process/payment?token=eWat4peytZfFi5h586HKpA%3d%3d"

API details can be found in Payment API v2.0.pdf

For TPAN transaction, merchants need to process the payment data against the transaction through this API for tokenized card (TPAN) credential only.

Payment Token received from the accept payment API response must be sent across in the process payment API request

api/v2/process/payment/card/tokenize?token=
ubrjAgbVaJVrGz67y%2fZCjCveYWNymE7ULAlOO7FCbz4%3d

API details can be found in Tokenization Payment Processing API v1.1pdf

**NOTE**: **Currently Debit EMI transaction is not supportable through the TPAN**

## 3.5  Browser Redirect Response

Details can be found in Payment API v2.0.pdf

## 4  HDFC Debit EMI

## 4.1  Implementation Details

Following apis are required to be integrated

1. EMI Calculator
2. Scheme Validation
3. Initiate Payment
4. Process Payment
5. Validate OTP
6. Order confirmation

## 4.2  Api Contracts

### 4.2.1  EMI Calculator

Refer section 3.1

### 4.2.2  Scheme validation

Refer section 3.2.

#### 4.2.2.1  Sample Request

{"merchant_data":{"merchant_id":3413,"merchant_access_code":"1c295f88-4477-4cd3-b5ac-e76148545a3e"},"payment_data":{"amount_in_paisa":1000000},"card_data":{"card_number":"40120 0103778404"},"emi_data":{"offer_scheme":{"product_details":[{"schemes":[],"product_code":"40"," product_amount":1000000,"subvention_cashback_discount":0,"product_discount":0,"subvention_cash back_discount_percentage":0,"product_discount_percentage":0,"subvention_type":3,"bank_interest_ra te_percentage":160000,"bank_interest_rate":47180}],"emi_scheme":{"scheme_id":3449,"program_typ e":105,"is_scheme_valid":true}},"tenure_id":"6","tenure_in_month":"6","monthly_installment":17453 0,"bank_interest_rate":160000,"interest_pay_to_bank":47180,"total_offerred_discount_cashback_amo unt":0,"loan_amount":1000000,"auth_amount":1000000}}

### 4.2.3  Accept Payment

Refer section 3.3

### 4.2.4  Process Payment

Refer section 3.4

#### 4.2.4.1  Sample Request

{"card_data":{"card_number":"401200103778404"},"additional_data":{"mobile_no":"9553441115"}, "emi_data":{"offer_scheme":{"product_details":[{"schemes":[],"product_code":"40","product_amount

":1000000,"subvention_cashback_discount":0,"product_discount":0,"subvention_cashback_discount_
percentage":0,"product_discount_percentage":0,"subvention_type":3,"bank_interest_rate_percentage":
160000,"bank_interest_rate":47180}],"emi_scheme":{"scheme_id":3449,"program_type":105,"is_sche
me_valid":true}},"tenure_id":"6","tenure_in_month":"6","monthly_installment":174530,"bank_interes
t_rate":160000,"interest_pay_to_bank":47180,"total_offerred_discount_cashback_amount":0,"loan_a
mount":1000000,"auth_amount":1000000}}

### 4.2.4.2    Sample Response

{"api_url":"https://environment/api/v2/validate/otp?token=ARmxNsSVcACtsLan00dljumLJJX5ST8ea
l3nLZD8iHM%3d","response_code":1,"response_message":"SUCCESS"}

*Application needs to use the url for calling the validate OTP api*

## 4.2.5   Validate OTP

### 4.2.5.1    Request

#### 4.2.5.1.1    Content Type & URL's

| Content Type | application/json |
|---|---|

**Url**: use the url received in previous api response.

#### 4.2.5.1.2    Body Params

| Parameter Name | Type | Description | Mandatory/Optional/Conditional |
|---|---|---|---|
| Otp | string | OTP | M |

#### 4.2.5.1.3    Sample Request

*{"otp":"123456"}*

### 4.2.5.2    Response

#### 4.2.5.2.1    Params

| Parameter Name | Type | Description |
|---|---|---|
| response_code | int | It notifies the result of api processing. Value 1 denotes success. |
| response_message | string | It denotes the message corresponding to above code |
| validate_otp_response | Object | It contains response received from Bank. |
| api_url | String | Url on which you need to make subsequent api calls |

**validate_otp_response**

| Parameter Name | Type | Description |
|---|---|---|
| customer_name | String | Customer name |
| interest_rate | Long | Interest rate |
| merchant_name | String | Merchant name at bank end |
| total_amount_in_paise | Long | Total amount in paise |
| emi_amount_in_paise | Long | Emi amount in paise |
| Address | String | Customer address at bank's end |
| tenure_in_months | int | Tenure |
| last6digitaccountnumber | String | Last 6 digit of account number |

4.2.5.2.2    Sample response

{"api_url":"https://environment/api/v2/order/confirmation?token=LMlBhf7p8dFcu3K0%2fvntrY1UR ugF3sPS0bjPL71RDYE%3d","validate_otp_response":{"customer_name":"Kamal Chowla","interest_rate":160000,"merchant_name":"PINELAB","total_amount_in_paise":1000000,"e mi_amount_in_paise":174530,"address":"INSURANCE REGULATORY ANDDEVELOPMENT AUTXXXXXXXXXXXXXXXXDELHI110001","tenure_in_months":"6","last6digitaccountnumber":"0 77958"},"response_code":1,"response_message":"SUCCESS"}

## 4.2.6   Order confirmation

### 4.2.6.1    Request

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|---|---|---|

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#### 4.2.6.1.1   Content Type & URL's

| Content Type | application/json |
|---|---|

**Url**: use the url received in previous api response.

Sample url:
*http://hostname:port/api/v2/order/confirmation?token=848RFsu%2bRnNcSsaZd zEgkeosvCc2o5lKTV4uKJF%2fcjE%3d*

Application needs to do http post on the above url.

#### *4.2.6.2    Response*

4.2.6.2.1    Params

| Parameter Name | Type | Description |
|---|---|---|
| response_code | int | It notifies the result of api processing. Value 1 denotes success. |
| response_message | string | It denotes the message corresponding to above code |
| order_confirmation_response | Object | It contains transaction response |

**order_confirmation_response**

| Key | Value | Details |
|---|---|---|
| merchant_id | 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. |
| merchant_access_code | String | In response you can find the merchant access code which you have sent as one of the parameter. |
| unique_merchant_txn_id | String. Max length 99 | In response you can find the merchant unique transaction Id which you have sent as one of the parameter. |
| pine_pg_txn_status | Integer | Transaction status |

| txn_completion_date_time | DateTime | The date-time of the transaction completion at Pine Labs payment gateway server. |
|---|---|---|
| amount_in_paisa | Long | It is the amount for which payment transaction is being done. |
| txn_response_code | Integer | Represent the response of the API request and response code is returned based on the transaction result. |
| txn_response_msg | String | Transaction response |
| acquirer_name | String | Acquirer Bank |
| pine_pg_transaction_id | Long | Unique transaction id generated by Pine Labs |
| payment_mode | Integer | Payment mode chosen at landing page. |
| is_bank_emi_txn | Bool | Flag to indicate Bank EMI transaction |
| is_brand_emi_txn | Bool | Flag to indicate Brand EMI transaction |
| emi_tenure_month | Integer | Tenure month of EMI transaction |
| emi_principal_amount_in_p aisa | Long | Principal EMI amount in Paise |
| | | Monthly Installment |

| | | |
|---|---|---|
| emi_amount_payable_each _month_in_paisa | Long | |
| emi_interest_rate_percent | Integer | Interest rate charged by bank multiplied by 10000 |
| emi_cashback_type | Integer | Its value will be 0 or 1<br>    0- Pre cash back 1-<br>    Post cash back |
| emi_total_discount_cashabck_amount_in_paisa | Long | Total discount or cashback amount applicable in EMI transaction in paise |
| emi_total_discount_cashback_percent | Integer | Total discount or cashback percent applicable in EMI transaction multiplied by 10000 |
| emi_merchant_discount_cashabck_perecent | Integer | Merchant discount or cashback percent applicable in EMI tranasction multiplied by 10000 |
| emi_merchant_discount_cashback_fixed_amount_in_paisa | Long | Merchant fixed discount or cashback amount applicable in EMI transaction in paise |
| emi_issuer_discount_cashabck_perecent | Integer | Issuer discount or cashback percent applicable in EMI transaction multiplied by 10000 |
| emi_issuer_discount_cashback_fixed_amount_in_paisa | Long | Issuer fixed discount or cashback amount applicable in EMI transaction in paise |
| txn_additional_info | String | Base64 encoded string |
| merchant_return_url | String | Merchant return url |
| emi_processing_fee | long | Processing fee amount in paise. |
| captured_amount_in_paisa | long | Captured amount for a transaction |

| refund_amount_in_paisa | long | Refund amount for a transasction |
|---|---|---|
| parent_txn_status | Integer | Parent txn status |
| parent_txn_response_code | Integer | Parent txn response code |
| parent_txn_response_mess age | String | Parent txn response message |
| issuer_name | String | Issuing bank name . |