Future Electronics API

Version 7.0 - 12/18/2020 (ADA)

Overview

The Future Electronics API is a REST API providing part and pricing data in a JSON object representation. This API can be accessed by sending HTTP requests to the following API endpoints using any software with HTTP support.
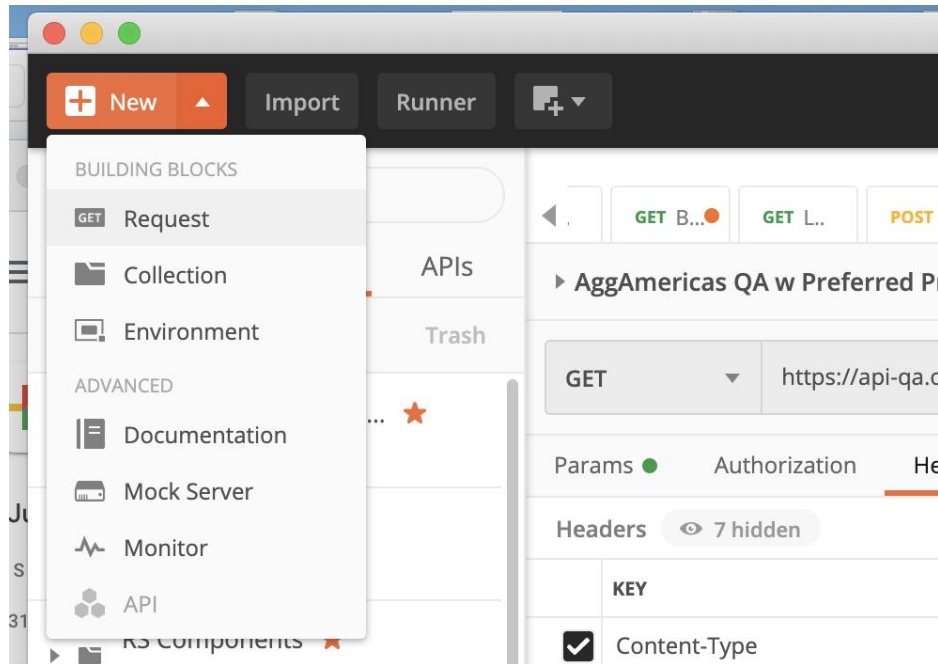
Required Headers

All API requests to *api.futureelectronics.com require the following headers:

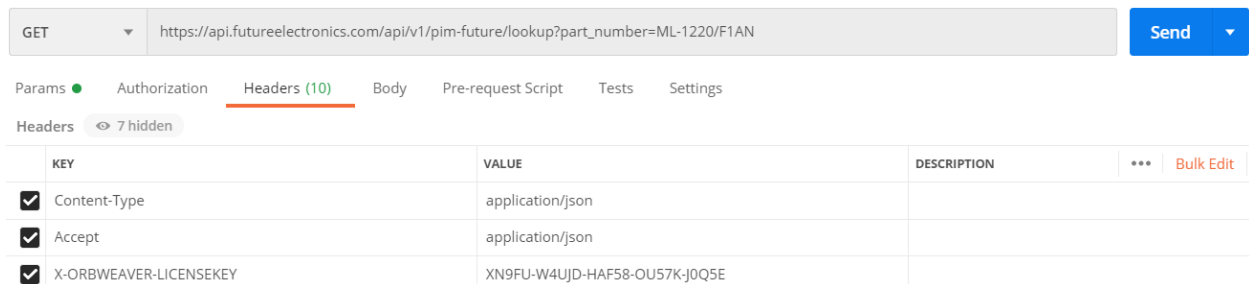*Note: The base API URL is https://api.futureelectronics.com/api/v1/pim-future/lookup? in production.

Name	Value
Accept	application/json, text/javascript
Content-Type	application/json
x-orbweaver-licensekey	You are assigned a License Key by Future/Orbweaver. Example: RS2MF-DFCLP-KD7S5-VY0RP-PX7EE

Postman Setup

1.) Create a new Request

2.) Setup the "GET" URL and three request headers (Content-Type, Host, and X-ORBWEAVER-LICENSEKEY)

3.) Start searching.   If the license key is not valid, you will see a result as follows:

```
1  {
2    "lookup_value": "NCP1070SOTGEVB",
3    "lookup_type": "exact",
4    "lookup_filter": "available: false, authorized: false",
5    "lookup_error": "Invalid license key (RS2MF–DFCLP–KD7S5–VY0RP–PX7EE)"
6  }
```

Part Lookup API Endpoint

Request Parameters

Sample Request: `https://api.futureelectronics.com/api/v1/pim-future/lookup?part_number={string}&lookup_type={optional_string}`

Endpoint DEV: https://api-qa.orbweaver.com/api/v1/pim-future/lookup?
Endpoint PROD: https://api.futureelectronics.com/api/v1/pim-future/lookup?

Allowed Methods: GET

Parameter Definitions:

Parameter	Description	Example	Required?
part_number	The manufacturer part number upon which to perform the lookup. (NOTE: Customers of Future with contract based pricing may also search on their own customer part numbers in this field)	"BAT54STA"	Required
lookup_type	This value will filter the parts returned in the response. *Possible values: default, exact, contains, starts_with* <table><tr><td>Value</td><td>Description</td></tr><tr><td>default</td><td>If no value is passed for lookup_type, the default exact match is used. Strip all special characters from the lookup_value and the response mpn. If the stripped response mpn matches exactly the stripped lookup_value, include it in the PartLookupResponse.</td></tr></table>	"default"	Optional

	exact	Strip all special characters from the lookup_value and the response mpn. If the stripped response mpn matches exactly the stripped lookup_value, include it in the PartLookupResponse.
	starts_with	Strip all special characters from the lookup_value and the response mpn. If the response mpn starts with the stripped lookup_value, include it in the PartLookupResponse. If "starts_with" is selected, a max. of 50 results will be provided.
	contains	Strip all special characters from the lookup_value and the response mpn. If the stripped lookup_value is contained within the stripped response mpn, include it in the PartLookupResponse. If "contains" is selected, a max. of 50 results will be provided.

Response

Sample JSON Response (contains an offer with preferred pricing):

```json
{
    "lookup_value": "ML-1220/F1AN",
    "lookup_type": "exact",
    "lookup_results": "1 Offer found",
    "offers": [
        {
            "_orbweaver_data": {
                "datasource_name": "Future Electronics"
            },
            "part_id": {
                "seller_part_number": "8055526",
                "unit_weight": 1.239819,
                "web_url": "https://www.futureelectronics.com/p/8055526",
                "mpn": "ML-1220/F1AN"
            },
            "part_attributes": [
                {
                    "name": "web_view",
                    "value": true
                },
                {
                    "name": "packageType",
                    "value": "TRAY"
                },
                {
                    "name": "CustomReelAvailable",
                    "value": "0"
                },
                {
                    "name": "dateCode",
                    "value": "2015"
                },
                {
                    "name": "USATariff",
                    "value": "0"
                },
                {
                    "name": "rohs",
                    "value": "Y"
                },
                {
                    "name": "leadFree",
                    "value": "Y"
                },
                {
                    "name": "ncnrFlag",
                    "value": "N"
                },
                {
                    "name": "availableRegion",
                    "value": "NA:EU:Asia:China"
                },
                {
                    "name": "shippingRestriction",
                    "value": "GroundOnly"
                },
                {
```

```json
            "name": "countryRestriction",
            "value": null
        },
        {
            "name": "productLifeCycle",
            "value": "ACTIVE"
        },
        {
            "name": "eccn",
            "value": "EAR99"
        },
        {
            "name": "description (en)",
            "value": "ML Series Ø 12.5 mm 17 mAH 3 V Manganese Lithium Rechargeable Coin
Battery"
        },
        {
            "name": "ATS_ASIA",
            "value": 0
        },
        {
            "name": "ATS_NA",
            "value": 30000
        },
        {
            "name": "ATS_EU",
            "value": 0
        },
        {
            "name": "PBO_ASIA",
            "value": 0
        },
        {
            "name": "PBO_NA",
            "value": 0
        },
        {
            "name": "PBO_EU",
            "value": 0
        },
        {
            "name": "manufacturerName",
            "value": "Panasonic Batteries"
        }
    ],
    "categories": [
        {
            "id": "batteries",
            "name": "batteries",
            "subcategory_name": "batteries"
        }
    ],
    "documents": [
        {
            "type": "Datasheet",
            "subtype": null,
            "title": "Datasheet",
            "file_name": "mlseries_datasheets_merged.pdf",
            "revision": null,
            "format": "PDF",
            "language": "en",
```

```
                    "url":
"http://na.industrial.panasonic.com/sites/default/pidsa/files/mlseries_datasheets_merged.pdf",
                    "publish_date": "2017-03-29",
                    "last_update": "2017-03-29"
                }
            ],
            "images": [
                {
                    "url": "https://media.futureelectronics.com/ELECTROMECHANICAL/BATTERIES/ML-
1220-PAB-FNT-MED.JPG?m=IfLJN5",
                    "type": "JPG"
                },
                {
                    "url": "https://media.futureelectronics.com/ELECTROMECHANICAL/BATTERIES/ML-
1220-PAB-FNT-SML.JPG?m=iFlMQg",
                    "type": "JPG"
                }
            ],
            "quantities": {
                "quantity_available": 30000,
                "quantity_factory": 0,
                "quantity_minimum": 50,
                "quantity_committed": null,
                "quantity_on_order": 0,
                "factory_leadtime": "N/A",
                "factory_leadtime_units": "",
                "order_mult_qty": 50
            },
            "pricing": [
                {
                    "unit_price": 1.27,
                    "quantity_from": 50,
                    "quantity_to": 99
                },
                {
                    "unit_price": 1.27,
                    "quantity_from": 100,
                    "quantity_to": 199
                },
                {
                    "unit_price": 1.27,
                    "quantity_from": 200,
                    "quantity_to": 249
                },
                {
                    "unit_price": 1.27,
                    "quantity_from": 250,
                    "quantity_to": null
                }
            ],
            "people_and_places": {
                "buyer_address_id": null,
                "site": "NA"
            },
            "pricing_type": "Web",
            "currency": {
                "currency_code": "USD"
            },
            "internal1": "FUTC"
        }
    ]
}
```

Part LookupResponse Details

Property	Description	Type	Example
lookup_value	The lookup_value from the request	String	"BAT54STA"
lookup_type	The lookup_type from the request	Enumeration	"exact"
lookup_results	A message to indicate the type of results returned for the lookup_value and lookup_type	String	"1 Offer found"
offers	The list of available offers	Array	offers[ ]

Offers:

Property	Description	Type	Example
_orbweaver_data	This section of response data contains a collection of property names and values internal to Orbweaver	Property names and values	N/A
pricing_type	This is a derived value that denotes the type of pricing being returned with this offer. It can only be "Web", "Preferred" or "Contract"	String	"Preferred"

internal1	This value can only be "FUTA", "FUTI", "FUTE" or "FUTC".	String	"FUTC"
part_id	This element contains a grouping of element properties which define the part for this offer.	Element	part_id { }
quantities	This element contains a grouping of inventory and quantity related properties for this offer.	Element	Quantities { }
people_and_places	This element contains a grouping of data values that define the API user's primary warehouse and/or customer identification (if the API user is a contract customer)	Element	People_and_places { }
categories	The list of categories for this part provided by the datasource	Array	categories[ ]
documents	The list of documents for this part provided by the datasource	Array	documents[]
images	The list of images for this part provided by the datasource	Array	images[]
currency	This element specifies the currency of the pricing data contained in the offer.	Element	currency { }

pricing	The list of price breaks available for this offer.	Array	prices[ ]
part_attributes	The list of detailed attributes for this part provided by the datasource in "type_name" and "value" pairs. This could include spec data or other miscellaneous data about the part.	Array	attributes[ ]

Part Id:

Property	Description	Type	Example
mpn	The manufacturer's part number as supplied by the given datasource	String	"BAT54STA"
manufacturer_name	The manufacturer's display name	String	"Diodes Incorporated"
seller_part_number	The part number used by the seller (also referred to as sku)	String	"2028337"
buyer_part_number	This will hold the CPN or customer part number if one exists and that customer is the one making the Part Lookup request.	String	"SSM-F24E115"
unit_weight		String	"1 oz"

Property	Description	Type	Example
web_url	This is a direct http link to the part on futureelectronics.com,	String	"https://www.futureelectronics.com/p/2028337"

Quantities:

Property	Description	Type	Example
quantity_available	The number of pieces available.	Integer	5000
quantity_factory	The number of pieces available at the factory.	Integer	0
quantity_minimum	The minimum order quantity	Integer	300
quantity_committed	The number of pieces on bond allocation to the customer (otherwise zero)	Integer	300
quantity_on_order	The number of pieces on order.	Integer	30000
order_mult_qty	The number of items which must be ordered together for this offer.	Integer	0
factory_leadtime		Integer	10
factory_leadtime_units		String	"Weeks"

People and Places:

Property	Description	Type	Example
site	The site region associated with the API user. Values can be "NA", "EU", "Asia" or "China".	String	"NA"
buyer_address_id	In API results which are contract priced items, this value will contain the unique "billTo" number of the customer.	String	"501027"

Categories:

Property	Description	Type	Example
id	The internal id	String	"1"
type_name	The display name of the category	String	"tvs-diodes"
subcategory_name	The display name of the subcategory	String	"tvs-diodes"

Documents:

Property	Description	Type	Required?
type	The type of document	String	Optional
subtype		String	Optional
revision		String	Optional
title		String	Optional
file_name		String	Optional

format		String	Optional
size		String	Optional
language		String	Optional
url	The link to the document	String	Required
publish_date		String	Optional
last_update		String	Optional

Images:

Property	Description	Type	Example
type	The type of image	String	"JPG"
url	The link to the image	String	"http://myimages.com/myimage.png"

Currency:

Property	Description	Type	Example
currency_code	The 3 character currency code.	String	"USD"

Pricing:

Property	Description	Type	Example
quantity_from	The minimum quantity to purchase to receive this price	Integer	100

| quantity_to | The maximum quantity to purchase to receive this price | Integer | 200 |
| unit_price | The price for this price break | Float | 0.218 |

Part Attributes:

Note that the example response contained above is representative of the attributes that can be expected to be returned with each offer.

Property	Description	Type	Example
name	The display name of the attribute	String	"classCode"
value	The value of the attribute	String	"92"

PartLookupErrorResponse schema

Property	Description	Type	Example
lookup_value	The lookup_value from the request	String	"BAT54STA"
lookup_type	The lookup_type from the request	Enumeration	"default"
lookup_error	A message to indicate the issue with the request	String	"Invalid part number, must be 3 characters or more"

Error Responses

Orbweaver will return an error response for the scenarios listed below utilizing the *PartLookupErrorResponse.*

Scenario	HTTP status	lookup_error
The lookup_value in the request is less than 3 alphanumeric characters.	400	Invalid part number, must be at least 3 alphanumeric characters
The lookup_type in the request is invalid	400	Invalid lookup_type, must be default, exact, or contains
The organization does not have access to this API.	403	The organization is not authorized for this API
The license key is not valid for the application.	401	Invalid license key (licensekey)
The license is categorized as a trial and is unauthorized for requests.	402	Purchase required
The license is expired and the user must resubmit payment.	406	License key has expired