



Chi-X Japan Market Guide

(Chi-X PTS <Chi-Alpha> and Chi-Select)

V4.3

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Chi-X matches equity orders from participants who are registered broker-dealers in Japan, so the information provided here on trading methods/products are intended for Professional Investors. Chi-X does not provide direct trading services for Non-Professional Investors.

Introduction

This document is designed to share information to help prepare prospective participants to better understand the services and functionality that Chi-X Japan provides. In addition, high level technical specifications are outlined.

Further detailed information, such as connectivity or technical specifications/requirements will be provided once the participant has initiated the on-boarding process. For any questions regarding the material presented in this document please contact anyone listed in the Contact section.

Chi-X Japan operates 2 types of matching venues: Limit Order Matching and Market Price Matching. The Market Price Matching venue, called “Chi-Match”, is described in the separate document “Chi-X Japan Market Guide (Chi-Match)”. This document is meant to share information about the following 2 Limit Order Matching venues.

- Chi-X PTS (called “Chi-Alpha”)
- Chi-Select

Eligibility

Chi-Alpha is operated for registered broker-dealer participants in Japan who are either members of, or have clearing arrangements for settling through, the Japan Securities Clearing Corporation (JSCC).

Chi-Select is limited to Chi-Alpha participants who fulfill certain eligibility criteria to participate as Designated Market Maker or who are retail focused broker-dealers to participate as Designated Taker. Entry criteria is set out in a separate document. Please contact Chi-X Japan for details.

Market Features

Market Coverage

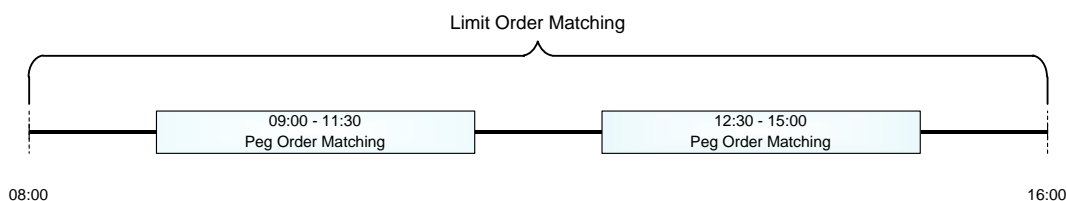
Eligible stocks are selected by Chi-X Japan from listed cash equities (including investment trusts such as ETFs) in Japan. The stock list will be made available on the Chi-X Japan website and our SFTP servers. Participants may access their SFTP accounts around 20:00 to pick up the file.

Stocks with 1 share trading unit and a price below 7,060 Yen can potentially have settlement amount by sub-Yen digit. Stocks of such condition, including ones in which Chi-X Japan determines to be close to that level, will have their trading unit changed to 10 shares.

Market Hours

Open 8:00 – 16:00 on business days

Pegged Order Matching 09:00 – 11:30 and 12:30 – 15:00 (Chi-Alpha only. Pegged order is not available on Chi-Select)



Trading Schedule

ITEM	TIME	ACTION
Participant Connectivity	07:00	Allow participants to connect. No order entry, modification or cancellation is permitted
Open CXJ	08:00	Continual trading of eligible stocks (limit orders only)
AM Open TSE	09:00	Continual trading of eligible stocks (all order types)
AM Close TSE	11:30	TSE closed. Limit Orders on Chi-X Japan can continue matching during lunch break. Existing Pegged Orders can be modified/cancelled and new orders can be placed
PM Open TSE	12:30	TSE reopens. Pegged orders are resumed
PM Close TSE	15:00	TSE closed and all outstanding Pegged orders are expired. Limit order matching continues
Close CXJ	16:00	All open orders are expired. Trading message sent to participants that orders are expired
Daily Reports	18:00	Daily report generation for participants (trade list, etc.)
Participants Disconnect	18:00	Disconnect all participants' sessions

Note: All times are Japan Standard time

Risk Controls

Native Risk Controls in Chi-X Japan include the following:

1. Pre-Trade Price Range Check: (see parameters below)
2. Capital Limit Check: Limit on maximum value per order. Hard limit per session at Participant level by notional value per order set to effectively enforce our surveillance function¹
3. Size Limit Check: Limit on maximum number of lots per order. Hard limit per session at Participant level by number of lots per order
4. Short Sell Check: Uptick/downtick check (further details can be found in Short Sell section)

¹ Calculation of notional value limit(s):

For Pegged orders: Quantity X Corporate Action-adjusted previous day's closing price, where Quantity = Lot Size of a stock X No. of Lots

For Limit orders: Quantity X Order Limit Price, where Quantity = Lot Size of a stock X No. of Lots

5. Cancel on Disconnect: All open orders for a given FIX session when the FIX session becomes disconnected will be cancelled. (Upon request option to disable will be allowed)

Price Range Check Parameters

10% above (for buy orders) or below (for sell orders) the most recent price from the primary exchange as listed below. The price limit is inclusive and follows the subsequent rounding methodology: Buy orders are rounded down and sell orders are rounded up, to the applicable tick of the price.

- Base Price/Previous Close² for first trade
- Executed Price/Last Price³ for all other trades
- Special or sequential quote if applicable

Market Model

Fully anonymous continuous price/time matching of orders: When a participant's limit order matches the limit order on the opposite side, and executed in accordance with the price priority (higher limit orders take precedence for buy orders, lower limit orders take precedence for sell orders) and time priority (earlier bid/offer shall take precedence for the same limit price orders) principle.

As Chi-X Japan market model is continuous matching of limit orders, "itayose" or "special quote" shall not be applied.

Chi-X Japan is a non-attributed, anonymous market. Order volumes are aggregated at each price level (market by price) and a participant's identity is not disclosed on the pre-trade book feed.⁴

Example – Price Priority

Priority	Size	Bid	Offer	Size
P1	300	500.9	501.0	500
P2	100	499.9	501.1	600
P3	100	499.8	501.2	100

Example – Time Priority

Priority	Size	Arrival Time	Bid
P1	100	9:30:00	500.0
P2	100	9:31:00	500.0
P3	100	9:35:00	500.0

Surveillance Function

Chi-X Japan will perform market surveillance activities to ensure an orderly market and be alerted of any suspicious trading patterns.

² Base Price/Previous Close is Corporate Action Adjusted Price

³ Executed Price/Last Price is price from exchange

⁴ Participant identity will be reported to JSCC for settlement

Hard limit per session (Participant level by Lot size/Notional value) is set to effectively enforce our surveillance function (See Risk Controls).

Trade Suspension/Halt

Chi-X Japan may suspend or halt trades in case of the following:

Symbol Suspension/Halt

- JSDA has suspended off-exchange trading of the same security traded on our PTS in accordance with its regulations
- Transactions whose price movements are abnormal or otherwise may suggest price manipulation
- Other cases in which Chi-X Japan deems necessary

Participant Suspension/Halt

- JSCC clearing membership of a participant and/or a clearing member who acts as an agent for said participant are revoked, or their assumption of the whole or a part of their obligations are suspended pursuant to the provisions of the Business Rules of Japan Securities Clearing Corporation
- Other cases where Chi-X Japan deems necessary

Handling of orders

- We will not accept new orders during trade suspension
- Existing orders not matched but cancellations of orders are permitted
- Executions of orders just prior to the trade suspension shall only be matched when approved by JSDA

Suspension Type	Orders	Trade Execution
Trade Suspension	×(new) ✓(existing)	× N/A
Trade Suspension from the Primary Exchange but no suspension from JSDA	Limit Orders Only Peg Orders Suspended	✓

Order Cancellation

Cancellation of open orders must be placed through the Participant's trading system as per Trading Interface Specification. Should the Participant be unable to do so due to system issues, cancellation may be requested by an authorized person as identified on the Supplemental Questionnaire placing a phone call to Chi-X Japan. Chi-X Japan accepts cancellation of all open orders only. Individual order cancellation is not accepted.

Trade Cancellation

Chi-X Japan will not cancel any trades except in the case as described in the Rulebook.

Price Tick

Below is Chi-X Japan's Tick Size Chart

Stock Price (JPY)	Chi-Alpha	Chi-Select	
	All Symbols (JPY)	TOPIX100 Symbols (JPY)	Other Symbols (JPY)
~1,000	0.1	0.1	0.2
~3,000		0.5	0.2
~5,000		1	1
~10,000	1	1	2
~30,000		5	2
~50,000		10	10
~100,000		10	20
~300,000		50	20
~500,000	10	100	100
~1,000,000		100	200
~3,000,000		500	200
~5,000,000		1,000	1,000
~10,000,000		1,000	2,000
~30,000,000		5,000	2,000
~50,000,000		10,000	10,000
50,000,000~		10,000	20,000

Pricing Model

Chi-X Japan will employ the Maker/Taker pricing model. The details of the Maker and Taker at the trade level will be reported in the Daily Execution Report and trading messages.

	Chi-Alpha		Chi-Select	
	(A)	(B)*1	(A)*2	(B)*1*2
Membership Fees (monthly)	JPY400,000	Free	Incl. in Chi-Alpha	Free
Taker (every trade)	0.2 bps	0.5 bps	0.0 bps	0.5 bps
Maker (every trade)	0.1 bps	0.1 bps	0.5 bps	0.3 bps

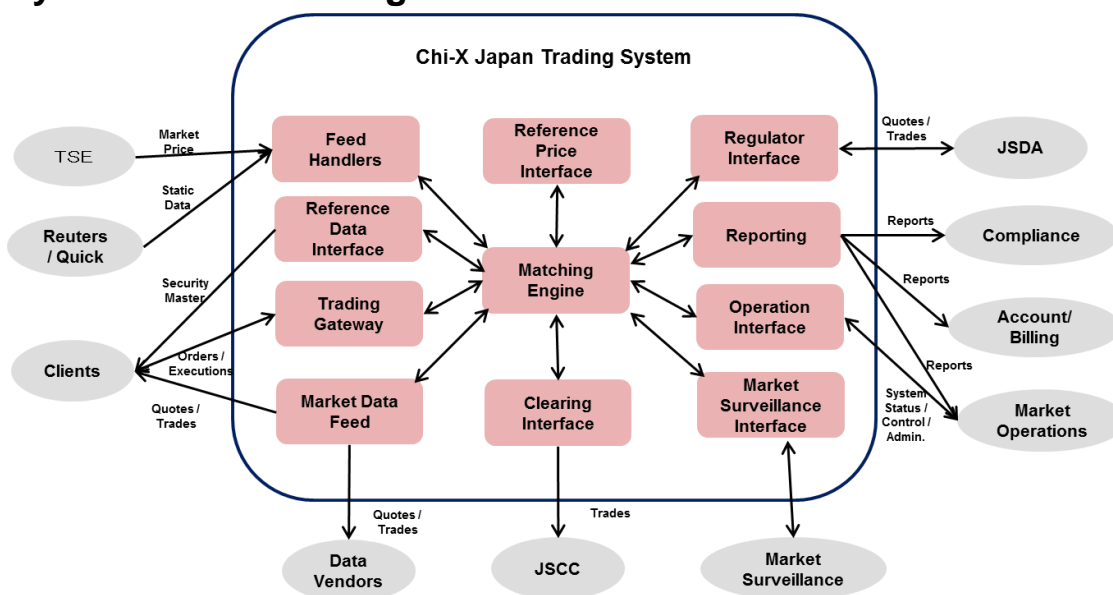
*1. (B) applies to a broker-dealer with its headquarters located outside Tokyo

*2. Chi-Select is limited to Chi-Alpha participants who meet eligibility criteria set out separately

Disclosure of Price Information

Quotes, traded price and other price information are disclosed through JSDA's website "PTS Information Network" (<http://pts.offexchange.jp/>)

System Structure Diagram



NOTE: Market Data is only Chi-X Japan market data

Order Types

We support the following order types. Please note that order types available are different between 2 PTSs.

Order Types	Chi-Alpha	Chi-Select
Pegged Order	✓	-
Iceberg Order	✓	-
Post Only	✓	✓ (Designated Market Maker only)
Day	✓	✓ (Designated Market Maker only)
Good till Time	✓	✓ (Designated Market Maker only)
IOC (Immediate or Cancel)	✓	✓ (Designated Taker only)
FOK (Fill or Kill)	✓	✓ (Designated Taker only)
Short Sell	✓	✓
Self-Trade Prevention	✓	✓ (Designated Market Maker only)
Pullback	✓	-

Pegged Order

Definition

A pegged order is an order to buy or sell the stated quantity of a security at a price set to track a reference price⁵. A pegged order can be re-priced based upon the movement of the BBO. When Special Quote is in effect, pegged orders are removed from the book until the

⁵ Orders peg to the primary exchange price only. For purposes of determining primary exchange, QUICK data is used.

Special Quote is cleared. If the limit price of a pegged order is re-priced, it will take lower priority to orders already on the book at the same price. There are three types of price tracking supported:

Primary Pegged Order:

A primary pegged order is an order pegged to the best bid (for buy order) or offer (for sell order) on the Primary Market. The order may be priced or un-priced. If an order is priced, the order is pegged up (for buy order) or down (for sell order) to the specified limit.

Market Pegged Order:

A market pegged order is an order pegged to the opposite side at a price equal to that on the Primary Market. In other words, for a market pegged buy order, it is set to track the best ask price in the Primary Market. For a market pegged sell order, it is set to track the best bid price in the primary market. If an order is priced, the order is pegged up (for buy order) or down (for sell order) to the specified limit.

Mid Pegged Order:

A mid pegged order is an order pegged to the mid price on the Primary Market. If an order is priced, the order is pegged up (for buy order) or down (for sell order) to the specified limit. The rounding methodology followed is: Buy orders are rounded down and sell orders are rounded up, to the applicable tick of the price.

Iceberg Order

The displayed quantity is smaller than that of the order quantity. If the outstanding quantity is less than the displayed quantity, the full outstanding quantity is displayed. An iceberg order after execution of a full displayed quantity is then re-queued back to the order book as if it were a new order entering at the time.

Post Only

The post only order type allows a trading participant to enter an order that will only execute as a maker. Upon arrival, a check will be performed to ensure that the Post Only order will not be removing liquidity from the order book. In a case where it would cross with a resting order, Chi-X Japan will cancel the order back, thus ensuring the order only acts as a maker. This order type guarantees that the order will never remove liquidity (act as a taker). Once the order is placed on the book, its behavior is similar to other order types.

Post only can only be entered as a Limit Order. Pegged orders, Iceberg, IOC and FOK in combination with Post Only are not supported and the FIX message will be rejected. Details on how to submit this order type can be found in the FIX Specification Guide.

Time in Force:

- **Day:** Order which is effective for the day
- **Good till Time (same day):** Order which is set to a certain time of the day as the effective deadline

- **Immediate or Cancel:** Limit orders are executed at one time. If the order is not executed in full at one time, the remaining portion is cancelled before showing on the order book. In the FIX message, it shows as “Cancelled” but the behavior itself would be treated as “Expired”
- **Fill or Kill:** Limit orders are executed fully at one time. If the order is not executed in its entirety, the order is cancelled

Short Sell

Short Selling on Chi-X Japan PTS platform follows the same restrictions as those at Financial Instrument Exchanges prescribed in the Financial Instrument and Exchange Act and any relevant regulations.

Reference price for trigger activation shall be the same price as the primary market’s base price for daily price limits for such date.

Trigger price shall be calculated as “the base price of such date multiplied by (1-10%),” rounded down to the nearest tick.

Trigger activation shall be based on an execution at or below the trigger price. Price restrictions are to be applied immediately following such execution. In case the trigger is activated only on Chi-X Japan, application period for the price restriction is until the end of that trading day. After the trigger activation the Chi-X PTS last price is used as the reference for the uptick rule.

In case the triggers for specific names are activated in primary market, price restriction for those names will be conducted on Chi-X Japan for the following trading day even though trigger was not activated on Chi-X Japan.

From the perspective of preventing price restriction violations, placement of short sale orders (FIX tag=5 [Sell short]) at or below the trigger price is prohibited during periods where price restrictions do not apply (before triggers). However, during period where price restrictions apply (after triggers), short sale orders may be placed at or below the trigger price as long as complying with the price restrictions.

Self-Trade Prevention

This functionality will prevent orders which are sent from the same participant with the same unique identifier from executing against each other. This functionality supports three options to let participants control the behavior between their orders.

- **Cancel Newest** – When this option is selected, the incoming order will be canceled and the resting order will remain on the order book, maintaining its queue position
- **Cancel Oldest** - When this option is selected, the resting orders which may cause a self-trade will be canceled, regardless of quantity. Please note that multiple resting orders may be canceled even if the incoming orders quantity is smaller than the resting orders
- **Decrement and Cancel** – This option will decrement the quantity of the larger order by the size of the smaller order and cancel the smaller order. In the event that both orders have same quantity, both orders will be canceled.

The participant is responsible for all activity under its ID including Self-Trade Prevention orders. It is the sole responsibility of the participant to create, assign and manage unique identifiers (NoSelfTrade tag 8174) used by itself and its clients. The participant is encouraged to take all reasonable measures, technical or otherwise, to mitigate the potential risk of orders being unintentionally cancelled due to unique identifiers not being properly used by its personnel or clients.

Prior to using this order type for the first time participants need to return the Confirmation of Self-Trade Prevention.

For further details on use of Self-Trade Prevention, please refer to the FIX Specification guide.

Pullback

This order type allows the participant's resting order to be cancelled by Chi-X automatically when its limit price becomes marketable on the Primary Market. In other words, a resting order on Chi-X will be cancelled when the Primary Best Ask price becomes the same or lower than the limit price of the resting BUY, or when the Primary Best Bid price becomes the same or higher than the limit price of a resting Sell order. Chi-X will return an unsolicited cancel message to the participants.

Clearing

The clearing interface will report all executions from Chi-X Japan to JSCC. Trades are novated to JSCC and may be netted across trading venues including Chi-X Japan.

Participants should note that enhancements may be required on their support systems for PTS ↔ JSCC clearing. Further discussions should take place with your IT and Operations team along with JSCC and Chi-X Japan as necessary.

Settlement

Settlement of the transactions executed on our PTS will be processed in accordance with JSCC's Business Procedure Manual. Settlement is done between JSCC and our participants who are the members of JSCC or our participants who delegate their settlement to JSCC members.

Participant Connectivity Guide

Participants must comply with the Connectivity Guide which will provide more detail for connectivity analysis design and implementation. However, the following should serve as a high level description of items to consider and information to have ready:

Services and Protocols

The below set of services and protocols will be used for connection to the Chi-X platform.

- Market Data – Available in both CHIXMD (Unicast) Protocol and CHIXMMD (Multicast) Protocol
- Trading – Available in FIX 4.2 Protocol and CHIXOE Protocol

Market Data

The CHIXMD and CHIXMMD feeds contain real-time order and trade information for the Chi-X Japan PTS platform. The feeds are available as a series of sequenced and unsequenced variable length messages, encoded in printable ASCII bytes.

More detailed technical specifications for these feeds are discussed in the Connectivity Guide and the feed specifications.

The terms and conditions for how a Trading Participant may 1) receive data and 2) use data, directly or indirectly, and under what conditions Chi-X Japan may charge a fee for data, are set out in the Chi-X Japan market Data Agreement or the agreement which supersedes it.

FIX Connectivity

In addition to FIX 4.2 standard messages, there will be additional customization needed in the following areas:

- Support for Quick/local symbology for submission of orders
- Handling of reject messages for order types that are not supported by Chi-X Japan
- Support for specific pre-order checking required by the Chi-X Japan

Detailed FIX Connectivity guide will be available as a separate document.

CHIXOE Connectivity

CHIXOE is an OUCH-like interface that provides clients with a connection that is more efficient than the FIX interface. Note that Pegged and Iceberg order types are not supported. See CHIXOE Interface Specification for more details.

CHIXOE is available to all participants on Chi-Alpha, but limited to Designated Market Makers only on Chi-Select.

Testing

Once connectivity is set up testing will be required. Participants can send orders to our test environment and receive messages back. The participant will be responsible for their own test scenarios.

Testing session bundles will be issued by Chi-X Japan support.

Certification

Once testing is successfully completed, certification will be obtained and migration to production can occur. Chi-X Japan will provide the certification script. The certification process will be manual and an appointment will be required.

Documentation

As part of the on-boarding process, there will be a set of documents to be reviewed and completed. A complete set of the below documentation will be delivered once the participant has decided to join.

- Account Opening Form
- Supplemental Questionnaire
- Insider Registration Form
- Personal Information Protection Policy
- Best Execution Policy
- General Terms and Conditions
- Rulebook
- Customer Contract (a set of documents for subscribing products)
- JSCC Related Documents

Post-Trade Reporting

As part of our services, the below list of reports will be available via SFTP. (sample available upon request):

Trade Summary Report

Trade Summary Report is generated every trading day after market close
Format: Read Only PDF

Commission Invoice

Commission Invoices are generated monthly
Format: Read Only PDF

Daily Execution Report

Trade Execution Report is a CSV file generated every trading day after market close. This report is available for participants to download from our FTP site (details to be provided)
Format: CSV file

Contacts

For questions and support, contact details are below:

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