

IT Development Division

Trading Systems Development Department



**ATHEX**

Athens Stock Exchange



# MARKET DATA FEED

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## OASIS MDFS Message Reference

Version: 0.15

## Revision History

<b>Version</b>	<b>Date</b>	<b>Description</b>
0.12	2024/03/11	UAT release.
0.13	2024/04/16	<ul style="list-style-type: none"> <li>1. Updated the values for tag “625 = TradingSessionSubID” in all messages throughout the document.</li> <li>2. Updated the note for tag “625 = LastMsgSeqNumProcessed” in section “2.1 Header” to reflect its use in heartbeat messages.</li> <li>3. Removed unused values “3 = Delete Thru”, “4 = Delete From” and “5 = Overlay” from tag “279 = MDUpdateAction” throughout the document.</li> </ul>
0.14	2024/05/24	<ul style="list-style-type: none"> <li>1. Added custom tag “20011 = ATHEXSecurityCategory” to “f = SecurityStatus”, “W = MarketDataSnapshotFullRefresh, “X = MarketDataIncrementalRefresh” and all related sections.</li> <li>2. Updated values for tag “167 = SecurityType” in “f = SecurityStatus”, “W = MarketDataSnapshotFullRefresh, “X = MarketDataIncrementalRefresh” and all related sections.</li> <li>3. Added tag “264 = MarketDepth” to “W = MarketDataSnapshotFullRefresh, “X = MarketDataIncrementalRefresh” and all related sections.</li> <li>4. Added tag “1023 = MDPriceLevel” to sections “3.3.2 Top of Book Update” and “4.3.2 Top of Book Update”</li> <li>5. Updated value descriptions and notes for tag “625 = TradingSessionSubID” in “h = TradingSessionStatus” and “f = SecurityStatus” messages.</li> <li>6. Added value “2 = Filled” to tag “39 = OrdStatus” to “W = MarketDataSnapshotFullRefresh, “X = MarketDataIncrementalRefresh” and sections related to Order Depth Update messages.</li> </ul>
0.15	2024/07/24	<ul style="list-style-type: none"> <li>1. Updated sections “3.2. Order Depth” and “4.2. Order Depth” to clarify that they do not apply to Standard Combination instruments.</li> <li>2. Changed value “e = Previous Closing Price (Start of Day Price)” to “t = Start of Day Price” for tag “269 = MDEntryType”.</li> <li>3. Updated section “5. TCP/IP Retransmission Service Messages”.</li> <li>4. Changed the FIX Data Type of tag “20005 = ATHEXOrderEntryDate” to “LocalMktDate”</li> <li>5. Added sections “3.9. MSCI Delayed (Special Group)” &amp; “4.9. MSCI Delayed (Special Group)”</li> <li>6. Updated naming and descriptions all MSCI/MXGRR related sections.</li> </ul>

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# 1. Introduction

This document describes the format of FIX messages disseminated through the MDFS. The data format follows the [FIX 5.0 SP2](#) specification. Some messages, tags and tag values from [FIX Extension Packs](#) the [FIX 5.0 SP2](#) specification are utilized in MDFS messages. If a message, tag or value is not marked as custom and is not included in the [FIX 5.0 SP2](#) specification, then details about it can be found at the [latest version of the FIX Specification](#).

**Note:** Values in the Data Type column correspond to the FIX Datatypes available [here](#).

**Note:** Cells with a **Yellow Background** indicate custom tags.

Cells with an **Orange Background** indicate custom values.

Cells with a **Green Background** indicate tags that are not included in that message type in the standard FIX specification.

# 2. FIX Message Specification

## 2.1. Header

**Note:** Included at the beginning of all messages. Only the tag 35=MsgType is included in subsequent tables.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 8	BeginString	Y	String	FIXT.1.1
→ 9	BodyLength	Y	Length	
→ 35	MsgType	Y	String	3 = Reject 5 = Logout A = Logon B = News BW = ApplicationMessageRequest BX = ApplicationMessageRequestAck BY = ApplicationMessageReport f = SecurityStatus h = TradingSessionStatus W = MarketDataSnapshotFullRefresh X = MarketDataIncrementalRefresh  <b>Custom Values:</b> UMDR = MulticastDataRetransmission
→ 49	SenderCompID	Y	String	
→ 56	TargetCompID	Y	String	
→ 34	MsgSeqNum	Y	SeqNum	
→ 52	SendingTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→ 369	LastMsgSeqNumProcessed		SeqNum	Contains the value of tag “34 = MsgSeqNum” of the last message processed before the generation of this message. <b>Note:</b> Used for Snapshot synchronization and Heartbeats.
→ 20009	ATHEXSnapshotIndicator		Int	0 = Start of cycle 1 = End of cycle 2 = Start and end of cycle (applies when the cycle is comprised of a single message)
→ 20010	ATHEXFragmentIndicator		Int	0 = Start of fragmented message 1 = Middle of fragmented message 2 = End of fragmented message
<b>Component End</b>				

## 2.2. Trailer

**Note:** Included at the end of all messages. It is omitted in subsequent tables.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardTrailer</b>	Y		
→ 10	CheckSum	Y	String	
<b>Component End</b>				

## 2.3. 0 = Heartbeat

This message is transmitted when no other messages have been transmitted in the past 30 seconds. Heartbeat messages always have tag “34=MsgSeqNum” with value set to “0” and are omitted in TCP Retransmission.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	0 = Heartbeat
→ 34	MsgSeqNum	Y	SeqNum	0
<b>Component End</b>				

## 2.4. f = SecurityStatus

These messages are transmitted to notify of changes in an instrument's phase and/or status.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	f = SecurityStatus
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type

					OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
625	TradingSessionSubID		String		<p>2 = Opening (Auction Price is calculated)      3 = (Continuous) Trading      4 = Closing</p> <p><b>Custom Values:</b>      101 = Start      102 = Pre-Call (Auction)      104 = ATC Orders Are Released in Order Book      105 = End      106 = Stop (conclusion of a Call-Auction)</p> <p><b>Note:</b> Corresponds to the Instrument's Phase.</p>
326	SecurityTradingStatus		Int		<p>2 = Trading Halt      3 = Resume</p> <p><b>Custom Values:</b>      101 = Active      102 = Suspend</p> <p><b>Note:</b> The value “3 = Resume” is sent for an instrument when its Halt period concludes and another “f = SecurityStatus” message is sent with tag “625 = TradingSessionSubID” having the value “102 = Pre-Call (Auction)”.</p> <p>The value “101 = Active” will be sent for the instrument after the end of either “102 = Suspend” or “2 = Trading Halt”.</p> <p>When an instrument has the status of “2 = Trading Halt” or “102 = Suspend” no orders can be entered.</p>
327	HaltReason		Int		<b>Custom Values:</b> 101 = Exchange 102 = Volatility Interrupter
60	TransactTime	Y	UTCTimestamp		<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.

## 2.5. h = TradingSessionStatus

These messages are transmitted to signify changes to a market's status.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	h = TradingSessionStatus
<b>Component End</b>				
207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
20001	ATHEXMarketID	Y	Char	
20002	ATHEXBoardID	Y	Char	B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)
336	TradingSessionID	Y	String	1 = Day
625	TradingSessionSubID	Y	String	<p><b>For board “M = Main”:</b>          3 = (Continuous) Trading          4 = Closing</p> <p><b>Custom Values:</b>          102 = Pre-Call (Auction)          103 = Projected Price Calculation (Auction)          105 = End          106 = Stop (conclusion of a Call-Auction. Used in Auction-Type markets only)          107 = Run Off (conclusion of all trading activity)          108 = Halt</p> <p><b>For boards other than “M = Main”:</b>          2 = Opening</p> <p><b>Custom Values:</b>          105 = End          108 = Halt</p>
340	TradSesStatus	Y	Int	1 = Halted 2 = Open 3 = Closed 4 = Pre-Open 5 = Pre-Close
60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.

## 2.6. B = News

These messages contain news/announcements from the exchange.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	B = News
<b>Component End</b>				
1474	LanguageCode	Y	Language	en = English el = Greek <b>Note:</b> ISO 639-1 Language Code
148	Headline	Y	String	
<b>Component</b>	<b>LinesOfTextGrp</b>	Y		
→ RG Start 33	NoLinesOfText	Y	NumInGroup	<b>Note:</b> Integer.
→ → 58	Text	Y	String	
→ RG End				
<b>Component End</b>				
60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.

## 2.7. W = MarketDataSnapshotFullRefresh

These messages are transmitted through the snapshot multicast groups and contain all the pertinent information needed to get the current state of an instrument and its order books.

If a multicast group has no data to send (e.g. when no trades have occurred in a snapshot group for trades) an empty message with the tag “20009 = ATHEXSnapshotIndicator” with a value of “2 = Start and end of cycle” will be sent to indicate the empty cycle.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
1021	MDBookType		Int	1 = Top of Book 2 = Price Depth 3 = Order Depth
<b>Component</b>	<b>Instrument</b>			
→ 55	Symbol		String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory		Int	0 = Stock / Rights 1 = ETF 2 = Warrant 3 = Stock Index 4 = ETF Indicative Net Asset Value (INAV) 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType		String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note

					TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	207	SecurityExchange	Exchange		<b>Note:</b> Venue ID (ISO 10383 MIC).
→	231	ContractMultiplier	Float		<b>Note:</b> Nominal Value for bonds.
→	159	AccruedInterestAmt	Amt		<b>Note:</b> For Bonds.
→	20001	ATHEXMarketID	Char		
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→ 269	MDEntryType	Char		<p>0 = Bid      1 = Offer      2 = Trade      3 = Index Value      4 = Opening Price      5 = Closing Price      7 = Trading Session High Price      8 = Trading Session Low Price      g = Threshold Limits and Price Banding      J = Empty Book</p> <p><b>Custom Values:</b>      t = Start of Day Price      u = Projected Closing Price      v = Projected Auction Price      w = Auction Price      x = Trading Session Last Price (The last price with which the given Instrument was traded, during the trading day)      y = Total Volume (The sum of the volumes of all Instrument trades occurred, during the trading day)      z = Total Value (The total value traded in the given Market for the given Instrument, during the trading day)</p>
→	→ 20002	ATHEXBoardID	Char		<p>B = Pre-Agreed      F = Forced Sales (with the Hit and Take method)      M = Main      O = Odd Lot      S = Special Terms (with the Hit and Take method)</p>
→	→ 270	MDEntryPx	Price		
→	→ 271	MDEntrySize	Qty		<b>Note:</b> Used to Represent Total Volume for MDEntryType = y (Total Volume).
→	→ 264	MarketDepth	Int		<p>1 = Top of Book      5 = 5 Levels      10 = 10 Levels</p>
→	→ 1023	MDPriceLevel	Int		
→	→ 346	NumberOfOrders	Int		

→	→	290		MDEntryPositionNo	Int	
→	→	37		OrderID	String	<b>Note:</b> 8 Numeric Characters. Unique for the day.
→	→	39		OrdStatus	Char	2 = Filled 4 = Cancelled C = Expired  <b>Custom Values:</b> I = Inactive N = Not Released O = Open
→	→	14		CumQty	Qty	<b>Note:</b> Matched Volume.
→	→	59		TimeInForce	Char	0 = Day (or Session) 1 = Good Till Cancel (GTC) 2 = At the Opening (OPG) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date (GTD) 7 = At the Close
→	→	40		OrdType	Char	1 = Market 3 = Stop 4 = Stop Limit 7 = Limit or Better
→	→	20003		ATHEXSpecialCondition	Char	A = All or None I = Stop Index M = Minimum Fill O = Multiple of S = Stop Instrument
→	→	20004		ATHEXConditionVolume	Qty	<b>Note:</b> Used to represent volume when ATHEXSpecialCondition = M or ATHEXSpecialCondition = O.
→	→	20005		ATHEXOrderEntryDate	LocalMktDate	<b>Note:</b> YYYYMMDD format.
→	→	277		TradeCondition	String	0 = Cancel
→	→	1003		TradeID	String	<b>Note:</b> 6 Numeric Characters. Unique for the day.
→	→	1024		MDOriginType	Int	0 = Book 1 = Off-Book 3 = Quote Driven Market 5 = Auction Driven Market
→	→	625		TradingSessionSubID	String	2 = Opening 3 = (Continuous) Trading 4 = Closing 5 = Post-Trading
→	→	1115		OrderCategory	Char	3 = Privately Negotiated Trade
→	→	<b>Component</b>		TrdRegPublicationGrp		
→	→	→	RG 2668	NoTrdRegPublications	NumInGroup	
→	→	→	→	2669	TrdRegPublicationType	Int 0 = Pre-Trade Transparency Waiver
→	→	→	→	2670	TrdRegPublicationReason	Int 0 = No Preceding Order in Book as Transaction Price Set Within Average Spread of a Liquid Instrument (NLIQ) 1 = No Preceding Order in Book as Transaction Price Depends on System-Set Reference Price for an Illiquid Instrument (OILQ)

						2 = No Preceding Order in Book as Transaction Price Is Subject to Conditions Other Than Current Market Price (PRIC) 3 = No Public Price for Preceding Order as Public Reference Price Was Used for Matching Orders (RFPT) 4 = No Public Price Quoted as Instrument Is Illiquid (ILQD) 5 = No Public Price Quoted Due to Size (SIZE)
→	→	→	<b>RG End</b>			
→	→	<b>Component End</b>				
→	→	<b>Component</b>	<b>TradePriceConditionGrp</b>			
→	→	→	<b>RG 1838</b>	<b>NoTradePriceConditions</b>	NumInGroup	
→	→	→	1839	TradePriceCondition	Int	13 = Special Dividend
→	→	→	<b>RG End</b>			
→	→	<b>Component End</b>				
→	→	2667	AlgorithmicTradeIndicator	Int	0 = Non-Algorithmic Trade 1 = Algorithmic Trade	
→	→	1390	TradePublishIndicator	Int	1 = Publish Trade	
→	→	570	PreviouslyReported	Boolean	N = Not Reported to Counterparty or Market Y = Previously Reported to Counterparty or Market	
→	→	20006	ATHEXTotalVolume	Qty	<b>Note:</b> The total number of stocks/contracts traded up to that point.	
→	→	20007	ATHEXTradeValue	Qty	<b>Note:</b> Notional Amount.	
→	→	20008	ATHEXIndexType	Char	B = Base C = Closing O = Opening T = Trading	
→	→	<b>Component</b>	<b>PriceLimits</b>			
→	→	→	1148	LowLimitPrice	Price	<b>Note:</b> Floor Price.
→	→	→	1149	HighLimitPrice	Price	<b>Note:</b> Ceiling Price.
→	→	<b>Component End</b>				
→	→	60	TransactTime	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.aaaaaaaaa format.	
→	<b>RG End</b>					
<b>Component End</b>						

## 2.8. X = MarketDataIncrementalRefresh

These messages are transmitted via the incremental multicast groups throughout the trading session to signify trades, orders, price levels, index values, start of day prices, high/low limits, closing prices, instrument summaries and auction prices .

Tag		Name	R	Data Type	Value		
<b>Component</b>		<b>StandardHeader</b>	Y				
→	35	MsgType	Y	String	X = MarketDataIncrementalRefresh		
<b>Component End</b>							
1021		MDBookType		Int	1 = Top of Book 2 = Price Depth 3 = Order Depth		
<b>Component</b>		<b>MDIncGrp</b>	Y				
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.		
→	→	279	MDUpdateAction	Y	Char 0 = New 1 = Change 2 = Delete		
→	→	<b>Component</b>	Instrument	Y			
→	→	→	55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→	→	→	20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 3 = Stock Index 4 = ETF Indicative Net Asset Value (INAV) 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→	→	→	167	SecurityType		String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note

						TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked	
→	→	→	207	SecurityExchange	Y	Exchange <b>Note:</b> Venue ID (ISO 10383 MIC).	
→	→	→	231	ContractMultiplier		Float <b>Note:</b> Nominal Value for Bonds.	
→	→	→	159	AccruedInterestAmt	Amt	<b>Note:</b> For Bonds.	
→	→	→	20001	ATHEXMarketID	Char		
→	→	<b>Component End</b>					
→	→	269		MDEntryType	Y	Char 0 = Bid 1 = Offer 2 = Trade 3 = Index Value 4 = Opening Price 5 = Closing Price 7 = Trading Session High Price 8 = Trading Session Low Price g = Threshold Limits and Price Banding J = Empty Book  <b>Custom Values:</b> t = Start of Day Price u = Projected Closing Price v = Projected Auction Price w = Auction Price x = Trading Session Last Price (The last price with which the given Instrument was traded, during the trading day) y = Total Volume (The sum of the volumes of all Instrument trades occurred, during the trading day) z = Total Value (The total value traded in the given Market for the given Instrument, during the trading day)	
→	→	20002		ATHEXBoardID	Char	Char B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)	
→	→	270		MDEntryPx	Price		
→	→	271		MDEntrySize	Qty	<b>Note:</b> Used to Represent Total Volume for MDEntryType = y (Total Volume).	
→	→	264		MarketDepth	Int	1 = Top of Book 5 = 5 Levels 10 = 10 Levels	
→	→	1023		MDPriceLevel	Int		

→	→	346	NumberOfOrders	Int			
→	→	290	MDEntryPositionNo	Int			
→	→	37	OrderID	String	<b>Note:</b> 8 Numeric Characters. Unique for the day.		
→	→	39	OrdStatus	Char	2 = Filled 4 = Cancelled C = Expired  <b>Custom Values:</b> I = Inactive N = Not Released O = Open		
→	→	14	CumQty	Qty	<b>Note:</b> Matched Volume.		
→	→	59	TimeInForce	Char	0 = Day (or Session) 1 = Good Till Cancel (GTC) 2 = At the Opening (OPG) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date (GTD) 7 = At the Close		
→	→	40	OrdType	Char	1 = Market 3 = Stop 4 = Stop Limit 7 = Limit or Better		
→	→	20003	ATHEXSpecialCondition	Char	A = All or None I = Stop Index M = Minimum Fill O = Multiple of S = Stop Instrument		
→	→	20004	ATHEXConditionVolume	Qty	<b>Note:</b> Used to represent volume when ATHEXSpecialCondition = M or ATHEXSpecialCondition = O.		
→	→	20005	ATHEXOrderEntryDate	LocalMktDate	<b>Note:</b> YYYYMMDD format.		
→	→	277	TradeCondition	String	0 = Cancel		
→	→	1003	TradeID	String	<b>Note:</b> 6 Numeric Characters. Unique for the day		
→	→	1024	MDOriginType	Int	0 = Book 1 = Off-Book 3 = Quote Driven Market 5 = Auction Driven Market		
→	→	625	TradingSessionSubID	String	2 = Opening 3 = (Continuous) Trading 4 = Closing 5 = Post-Trading		
→	→	1115	OrderCategory	Char	3 = Privately Negotiated Trade		
→	→	<b>Component</b>		TrdRegPublicationGrp			
→	→	→	RG 2668	NoTrdRegPublications	NumInGroup		
→	→	→	→	2669	TrdRegPublicationType	Int	0 = Pre-Trade Transparency Waiver
→	→	→	→	2670	TrdRegPublicationReason	Int	0 = No Preceding Order in Book as Transaction Price Set Within Average Spread of a Liquid Instrument (NLIQ) 1 = No Preceding Order in Book as Transaction Price Depends on

							System-Set Reference Price for an Illiquid Instrument (OILQ) 2 = No Preceding Order in Book as Transaction Price Is Subject to Conditions Other Than Current Market Price (PRIC) 3 = No Public Price for Preceding Order as Public Reference Price Was Used for Matching Orders (RFPT) 4 = No Public Price Quoted as Instrument Is Illiquid (ILQD) 5 = No Public Price Quoted Due to Size (SIZE)		
→	→	→	RG End						
→	→	Component End							
→	→	Component		TradePriceConditionGrp					
→	→	→	RG 1838	NoTradePriceConditions	NumInGroup				
→	→	→	→	1839	TradePriceCondition	Int	13 = Special Dividend		
→	→	→	RG End						
→	→	Component End							
→	→	2667		AlgorithmicTradeIndicator	Int	0 = Non-Algorithmic Trade 1 = Algorithmic Trade			
→	→	1390		TradePublishIndicator	Int	1 = Publish Trade			
→	→	570		PreviouslyReported	Boolean	N = Not Reported to Counterparty or Market Y = Previously Reported to Counterparty or Market			
→	→	20006		ATHEXTotalVolume	Qty	<b>Note:</b> The total number of stocks/contracts traded up to that point.			
→	→	20007		ATHEXTradeValue	Qty	<b>Note:</b> Notional Amount.			
→	→	20008		ATHEXIndexType	Char	B = Base Index C = Closing Index O = Opening Index T = Trading Index			
→	→	Component		PriceLimits					
→	→	→	1148	LowLimitPrice	Price	<b>Note:</b> Floor Price.			
→	→	→	1149	HighLimitPrice	Price	<b>Note:</b> Ceiling Price.			
→	→	Component End							
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.		
→	RG End								
Component End									

### 3. Incremental Messages by Group Type

This section contains the layout of various incremental messages sent by the MDFS according to the multicast group type.

#### 3.1. General

This group will send messages that relate to the trading session status, security status, index values, start of day prices, high/low limits, closing prices, instrument summaries, auction prices and news.

##### 3.1.1. Trading Session Status

A message will be transmitted to signify changes to a market's status. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	h = TradingSessionStatus
<b>Component End</b>				
207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
20001	ATHEXMarketID	Y	Char	
20002	ATHEXBoardID	Y	Char	B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)
336	TradingSessionID	Y	String	1 = Day
625	TradingSessionSubID	Y	String	<b>For board “M = Main”:</b> 3 = (Continuous) Trading 4 = Closing  <b>Custom Values:</b> 102 = Pre-Call (Auction) 103 = Projected Price Calculation (Auction) 105 = End 106 = Stop (conclusion of a Call-Auction. Used in Auction-Type markets only) 107 = Run Off (conclusion of all trading activity) 108 = Halt  <b>For boards other than “M = Main”:</b> 2 = Opening  <b>Custom Values:</b> 105 = End 108 = Halt
340	TradSesStatus	Y	Int	1 = Halted 2 = Open 3 = Closed 4 = Pre-Open 5 = Pre-Close
60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.

### 3.1.2. Security Status

A message will be transmitted to notify of changes in an instrument's phase or status. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	f = SecurityStatus
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→ 207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→ 20001	ATHEXMarketID	Y	Char	
<b>Component End</b>				
625	TradingSessionSubID		String	2 = Opening (Auction Price is calculated) 3 = (Continuous) Trading 4 = Closing

				<p><b>Custom Values:</b></p> <p>101 = Start 102 = Pre-Call (Auction) 104 = ATC Orders Are Released in Order Book 105 = End 106 = Stop (conclusion of a Call-Auction)</p> <p><b>Note:</b> Corresponds to the Instrument's Phase.</p>
326	SecurityTradingStatus	Int		<p>2 = Trading Halt 3 = Resume</p> <p><b>Custom Values:</b></p> <p>101 = Active 102 = Suspend</p> <p><b>Note:</b> The value “3 = Resume” is sent for an instrument when its Halt period concludes and another “f = SecurityStatus” message is sent with tag “625 = TradingSessionSubID” having the value “102 = Pre-Call (Auction)”.</p> <p>The value “101 = Active” will be sent for the instrument after the end of either “102 = Suspend” or “2 = Trading Halt”.</p> <p>When an instrument has the status of “2 = Trading Halt” or “102 = Suspend” no orders can be entered.</p>
327	HaltReason	Int		<p><b>Custom Values:</b></p> <p>101 = Exchange 102 = Volatility Interrupter</p>
60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.aaaaaa format.

### 3.1.3. Index Value

A message will be transmitted every time the trading platform calculates the value of an index. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHESecurityCategory	Y	Int	3 = Stock Index 4 = ETF Indicative Net Asset Value (INAV)
→ → → 207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→ → <b>Component End</b>				
→ → 269	MDEntryType	Y	Char	3 = Index Value

→	→	270	MDEntryPx	Y	Price	
→	→	20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index O = Opening Index T = Trading Index
→	→	60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>					
<b>Component End</b>						

### 3.1.4. Start of Day Price

A message will be transmitted at the beginning of the trading day. It contains two repeating groups, one containing the start of day price, and one containing the high/low limits. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ <b>RG 268</b>	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US

							TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked		
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).		
→	→	→	231	ContractMultiplier		Float	<b>Note:</b> Nominal Value for bonds.		
→	→	→	159	AccruedInterestAmt		Amt	<b>Note:</b> For Bonds.		
→	→	→	20001	ATHEXMarketID	Y	Char			
→	→	<b>Component End</b>							
→	→	269		MDEntryType	Y	Char	g = Threshold limits and price banding  <b>Custom Values:</b> t = Start of Day Price		
→	→	270		MDEntryPx		Price			
→	→	<b>Component</b>		<b>PriceLimits</b>					
→	→	→	1148	LowLimitPrice		Price	<b>Note:</b> Floor Price.		
→	→	→	1149	HighLimitPrice		Price	<b>Note:</b> Ceiling Price.		
→	→	<b>Component End</b>							
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.		
→	<b>RG End</b>								
<b>Component End</b>									

### 3.1.5. High/Low Limit Modification

A message will be transmitted if the static high and low limits for the given instrument change. The message will only contain the tags “1148= LowLimitPrice” and/or “1149= HighLimitPrice” if their value has changed. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ <b>RG 268</b>	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer
→ → 279	MDUpdateAction	Y	Char	0 = New 1 = Change
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future

							8 = Repo 9 = Standard Combination		
→	→	→	167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked		
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).		
→	→	→	20001	ATHEXMarketID	Y	Char			
→	→	<b>Component End</b>							
→	→	269		MDEntryType	Y	Char	g = Threshold limits and price banding		
→	→	<b>Component</b>		<b>PriceLimits</b>					
→	→	→	1148	LowLimitPrice		Price	<b>Note:</b> Floor Price.		
→	→	→	1149	HighLimitPrice		Price	<b>Note:</b> Ceiling Price.		
→	→	<b>Component End</b>							
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.		
→	<b>RG End</b>								
<b>Component End</b>									

### 3.1.6. Closing Price

A message regarding an instrument's closing price will be transmitted in the following occasions:

- **Closing Price:** The closing price has been calculated by the trading platform. If for any reason the trading platform recalculates the closing price of an instrument, then the MDFS will disseminate a new closing price message for the given instrument with the new price.
- **Projected Closing Price:** This value applies only to markets that have a closing auction phase and only if their listed instruments are set up to follow a given set of closing auction rules. One such message will be transmitted whenever the projected closing price or volume changes. Please note that the trading platform uses a given set of business rules to derive these values and these values can be equal to:
  - The projected auction price and volume
  - The alternative closing price and volume computed by the exchange's algorithm of choice. Although the alternative closing price will always be greater than zero the same does not hold true for its volume. The volume can equal to zero if there is no order matching at the given price.

The message will have the following format:

Tag	Name	R	Data Type	Value
Component	StandardHeader	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
Component End				
Component	MDIncGrp	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New 1 = Change
→ → Component	Instrument	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase

							STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	→	→	20001	ATHEXMarketID	Y	Char	
→	→	<b>Component End</b>					
→	→	269		MDEntryType	Y	Char	5 = Closing price  <b>Custom Values:</b> u = Projected Closing Price
→	→	270		MDEntryPx	Y	Price	
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.sssss format.
→	<b>RG End</b>						
<b>Component End</b>							

### 3.1.7. Instrument Summary

A message will be transmitted for each instrument right after the corresponding market status changes to end of day. It will one contain repeating group of each type specified in the values for field "269 = MDEntryType", excluding any that have been sent before and have not changed

The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ <b>RG 268</b>	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer
→ → 279	MDUpdateAction	Y	Char	0 = New 1 = Change
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond

							CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	→	→	20001	ATHEXMarketID	Y	Char	
→	→	<b>Component End</b>					
→	→	269		MDEntryType	Y	Char	<p>4 = Opening Price 5 = Closing Price 7 = Trading session high price 8 = Trading session low price</p> <p><b>Custom Values:</b> t = Start of Day Price x = Trading Session Last Price (The last price with which the given Instrument was traded, during the trading day) y = Total Volume (The sum of the volumes of all Instrument trades occurred, during the trading day) z = Total Value (The total value traded in the given Market for the given Instrument, during the trading day)</p>
→	→	270		MDEntryPx		Price	<b>Note:</b> Used for all MDEntryTypes Except for Total Volume.
→	→	271		MDEntrySize		Qty	<b>Note:</b> Only used for MDEntryType = y (Total Volume) to Represent Total Volume.
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.##### format.
→	<b>RG End</b>						
<b>Component End</b>							

### 3.1.8. Auction Price

A message regarding an instrument's auction price will be transmitted in the following occasions:

- **Projected Auction Price:** The trading platform allows a market to have a projected auction price calculation phase. During that phase, the trading platform will calculate and send the projected auction price for each instrument participating in this market, whenever the instrument's number of matchable orders changes. Such messages will also be sent for a security during an auction caused by a volatility interrupter or other halt reason.
- **Auction Price:** Whenever a market opens from an auction the trading platform will calculate and send the auction open price for all instruments listed under this market. Only one such message will be sent for each instrument after each auction opening. One such message will also be sent for an instrument if it opens from an auction caused by a volatility interrupter or other halt reason. Please note that such a message will not be sent at the opening of a closing auction if the closing price becomes derived from algorithm and not from the opening of that auction

The message will have the following format:

Tag	Name	R	Data Type	Value
Component	StandardHeader	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
Component End				
Component	MDIncGrp	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer
→ → 279	MDUpdateAction	Y	Char	0 = New 1 = Change 2 = Delete
→ → Component	Instrument	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock

							REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked		
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).		
→	→	→	20001	ATHEXMarketID	Y	Char			
→	→	<b>Component End</b>							
→	→	269		MDEntryType	Y	Char	<b>Custom Values:</b> v = Projected Auction Price w = Auction Price		
→	→	270		MDEntryPx	Y	Price			
→	→	271		MDEntrySize	Y	Qty			
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.		
→	<b>RG End</b>								
<b>Component End</b>									

### 3.1.9. News

A message will be transmitted to disseminate news/announcements from the exchange. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	B = News
<b>Component End</b>				
1474	LanguageCode	Y	Language	en = English el = Greek <b>Note:</b> ISO 639-1 Language Code
148	Headline	Y	String	
<b>Component</b>	<b>LinesOfTextGrp</b>	Y		
→ <b>RG Start 33</b>	NoLinesOfText	Y	NumInGroup	<b>Note:</b> Integer.
→ → 58	Text	Y	String	
→ <b>RG End</b>				
<b>Component End</b>				
60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.

## 3.2. Order Depth

This group will send messages that contain all the necessary instructions needed to maintain each instrument's order depth book. These messages are not sent for Standard Combination instruments.

### 3.2.1. Empty Book

A message instructing the client to empty the order depth book of an instrument. These messages are sent at the start of the trading session for instruments that have no active orders. This message will also be sent after the unlikely event of a MDFS failure, where all order books will need to be emptied to avoid possible corruption.

The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	3 = Order Depth
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note

							TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked		
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).		
→	→	→	20001	ATHEXMarketID	Y	Char			
→	→	<b>Component End</b>							
→	→	269		MDEntryType	Y	Char	J = Empty book		
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.		
→	<b>RG End</b>								
<b>Component End</b>									

### 3.2.2. Order Depth Update

A message signifying an order will be transmitted in the following occasions:

- At the beginning of the trading session if the order's lifetime spans multiples days (where tag "59 = TimeInForce" has a value of "1 = Good Till Cancel (GTC)" or "6 = Good Till Date (GTD)")
- When a new order is entered in the trading platform
- When an already placed order is changed (e.g. order status, volume, price etc.). In this case tags "37 = OrderID" and "20005 = ATHEXOrderEntryDate" fields can be used to relate the reported modification with the original order.

This message type is not transmitted for combinations.

The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	3 = Order Depth
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ <b>RG 268</b>	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New 1 = Change 2 = Delete
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock

						DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	→	→	207	SecurityExchange	Y	Exchange
→	→	→	20001	ATHEXMarketID	Y	Char
→	→	<b>Component End</b>				
→	→	269		MDEntryType	Y	Char 0 = Bid 1 = Offer
→	→	20002		ATHEXBoardID	Y	Char B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)
→	→	270		MDEntryPx		Price
→	→	271		MDEntrySize	Y	Qty
→	→	290		MDEntryPositionNo	Y	Int
→	→	37		OrderID	Y	String <b>Note:</b> 8 Numeric Characters. Unique for the day.
→	→	39		OrdStatus	Y	Char 2 = Filled 4 = Cancelled C = Expired  <b>Custom Values:</b> I = Inactive N = Not Released O = Open
→	→	14		CumQty	Y	Qty <b>Note:</b> Matched Volume.
→	→	59		TimeInForce	Y	Char 0 = Day (or Session) 1 = Good Till Cancel (GTC) 2 = At the Opening (OPG)

						3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date (GTD) 7 = At the Close
→	→	40	OrdType	Char	1 = Market 3 = Stop 4 = Stop Limit 7 = Limit or Better	
→	→	20003	ATHEXSpecialCondition	Char	A = All or None I = Stop Index M = Minimum Fill O = Multiple of S = Stop Instrument	
→	→	20004	ATHEXConditionVolume	Qty	<b>Note:</b> Used to represent volume when ATHEXSpecialCondition = M or ATHEXSpecialCondition = O.	
→	→	20005	ATHEXOrderEntryDate	Y	LocalMktDate	<b>Note:</b> YYYYMMDD format.
→	→	60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>					
<b>Component End</b>						

### 3.3. Top of Book

This group will send messages that contain all the necessary instructions needed to maintain each instrument's top of book.

#### 3.3.1. Empty Book

A message instructing the client to empty the top of book of an instrument. These messages are sent at the start of the trading session for instruments that have no active orders. This message will also be sent after the unlikely event of a MDFS failure, where all order books will need to be emptied to avoid possible corruption.

The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	1 = Top of Book
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note

							TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked		
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).		
→	→	→	20001	ATHEXMarketID	Y	Char			
→	→	<b>Component End</b>							
→	→	269		MDEntryType	Y	Char	J = Empty book		
→	→	264		MarketDepth	Y	Int	1 = Top of Book		
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.		
→	<b>RG End</b>								
<b>Component End</b>									

### 3.3.2. Top of Book Update

A message will be transmitted whenever there is a change at an instrument's top of book. The message will have the following format:

Tag	Name	R	Data Type	Value
Component	StandardHeader	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
Component End				
1021	MDBookType	Y	Int	1 = Top of Book
Component	MDIncGrp	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New 1 = Change 2 = Delete
→ → Component	Instrument	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future

							MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	→	→	20001	ATHEXMarketID	Y	Char	
→	→	<b>Component End</b>					
→	→	269		MDEntryType	Y	Char	0 = Bid 1 = Offer
→	→	270		MDEntryPx	Y	Price	
→	→	271		MDEntrySize	Y	Qty	
→	→	264		MarketDepth	Y	Int	1 = Top of Book
→	→	1023		MDPriceLevel	Y	Int	1
→	→	346		NumberOfOrders	Y	Int	
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>						
<b>Component End</b>							

### 3.4. Price Depth 5/10

This group will send messages that contain all the necessary instructions needed to maintain each instrument's Price Depth 5/10 book.

#### 3.4.1. Empty Book

A message instructing the client to empty the price depth 5/10 book of an instrument. These messages are sent at the start of the trading session for instruments that have no active orders. This message will also be sent after the unlikely event of a MDFS failure, where all order books will need to be emptied to avoid possible corruption.

The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	2 = Price Depth
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note

							TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked		
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).		
→	→	→	20001	ATHEXMarketID	Y	Char			
→	→	<b>Component End</b>							
→	→	269		MDEntryType	Y	Char	J = Empty book		
→	→	264		MarketDepth	Y	Int	5 = 5 Levels 10 = 10 Levels		
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.		
→	<b>RG End</b>								
<b>Component End</b>									

### 3.4.2. Price Depth Update

A message will be transmitted whenever one or more price levels of an instrument's price depth 5/10 book are changed. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	2 = Price Depth
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ <b>RG 268</b>	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer
→ → 279	MDUpdateAction	Y	Char	0 = New 1 = Change 2 = Delete
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ → → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ → → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns

						FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	→	→	207	SecurityExchange	Y	Exchange
→	→	→	20001	ATHEXMarketID	Y	Char
→	→	<b>Component End</b>				
→	→	269		MDEntryType	Y	Char 0 = Bid 1 = Offer
→	→	270		MDEntryPx	Y	Price
→	→	271		MDEntrySize	Y	Qty
→	→	264		MarketDepth	Y	Int 5 = 5 Levels 10 = 10 Levels
→	→	1023		MDPriceLevel	Y	Int
→	→	346		NumberOfOrders	Y	Int
→	→	60		TransactTime	Y	UTCTimestamp <b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>					
<b>Component End</b>						

### 3.5. Trades

This group will send messages that contain details of trades or trade cancellations for each instrument.

#### 3.5.1. Trade

A message will be transmitted in the event of a trade or trade cancellation. The message will have the following format:

Tag		Name	R	Data Type	Value
<b>Component</b>		<b>StandardHeader</b>	Y		
→	35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>					
<b>Component</b>		<b>MDIncGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→ 279	MDUpdateAction	Y	Char	0 = New 2 = Delete
→	→ <b>Component</b>	<b>Instrument</b>	Y		
→	→ → 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→	→ → 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→	→ → 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security

							TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	→	→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	→	→	20001	ATHEXMarketID	Y	Char	
→	→	<b>Component End</b>					
→	→	269		MDEntryType	Y	Char	2 = Trade
→	→	20002		ATHEXBoardID	Y	Char	B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)
→	→	270		MDEntryPx	Y	Price	
→	→	271		MDEntrySize	Y	Qty	
→	→	277		TradeCondition		String	0 = Cancel
→	→	1003		TradeID	Y	String	<b>Note:</b> 6 Numeric Characters. Unique for the day.
→	→	1024		MDOriinType	Y	Int	0 = Book 1 = Off-Book 3 = Quote Driven Market 5 = Auction Driven Market
→	→	625		TradingSessionSubID	Y	String	2 = Opening 3 = (Continuous) Trading 4 = Closing 5 = Post-Trading
→	→	1115		OrderCategory		Char	3 = Privately Negotiated Trade
→	→	<b>Component</b>		<b>TrdRegPublicationGrp</b>			
→	→	→	RG 2668	<b>NoTrdRegPublications</b>		NumInGroup	
→	→	→	→	2669	TrdRegPublicationType	Int	0 = Pre-Trade Transparency Waiver
→	→	→	→	2670	TrdRegPublicationReason	Int	0 = No Preceding Order in Book as Transaction Price Set Within Average Spread of a Liquid Instrument (NLIQ) 1 = No Preceding Order in Book as Transaction Price Depends on System-Set Reference Price for an Illiquid Instrument (OILQ) 2 = No Preceding Order in Book as Transaction Price Is Subject to Conditions Other Than Current Market Price (PRIC) 3 = No Public Price for Preceding Order as Public Reference Price Was Used for Matching Orders (RFPT) 4 = No Public Price Quoted as Instrument Is Illiquid (ILQD) 5 = No Public Price Quoted Due to Size (SIZE)
→	→	→	<b>RG End</b>				
→	→	<b>Component End</b>					

→	→	<b>Component</b>	<b>TradePriceConditionGrp</b>			
→	→	→	<b>RG 1838</b>	<b>NoTradePriceConditions</b>	NumInGroup	
→	→	→	→	1839	TradePriceCondition	Int 13 = Special Dividend
→	→	→	<b>RG End</b>			
→	→	<b>Component End</b>				
→	→	2667	AlgorithmicTradeIndicator	Y	Int	0 = Non-Algorithmic Trade 1 = Algorithmic Trade
→	→	1390	TradePublishIndicator	Y	Int	1 = Publish Trade
→	→	570	PreviouslyReported	Y	Boolean	N = Not Reported to Counterparty or Market Y = Previously Reported to Counterparty or Market
→	→	20006	ATHEXTotalVolume	Y	Qty	<b>Note:</b> The total number of stocks/contracts traded up to that point.
→	→	20007	ATHEXTradeValue	Y	Qty	<b>Note:</b> Notional Amount.
→	→	60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>					
<b>Component End</b>						

### 3.6. FTSE (Special Group)

This is a special group that disseminates the index value of the FTSE index and is exclusive to the XATH venue.

#### 3.6.1. Index Value

A message will be transmitted every time the trading platform calculates the value of the FTSE index. The message will have the following format:

Tag		Name	R	Data Type	Value
<b>Component</b>		<b>StandardHeader</b>	Y		
→	35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>					
<b>Component</b>		<b>MDIncGrp</b>	Y		
→	<b>RG 268</b>	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→ 279	MDUpdateAction	Y	Char	0 = New
→	→ <b>Component</b>	<b>Instrument</b>	Y		
→	→ → 55	Symbol	Y	String	FTSE
→	→ → 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→	→ → 207	SecurityExchange	Y	Exchange	XATH
→	→ <b>Component End</b>				
→	→ 269	MDEntryType	Y	Char	3 = Index Value
→	→ 270	MDEntryPx	Y	Price	
→	→ 20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index O = Opening Index T = Trading Index
→	→ 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>				
<b>Component End</b>					

### 3.7. MSCI General (Special Group)

This is a special group that disseminates the base & closing index value of the MSCI Greece Rebased index and is exclusive to the XATH venue.

#### 3.7.1. Index Value

A message will be transmitted when the trading platform calculates the base or closing index value of the MSCI Greece Rebased index. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	MXGRR
→ → → 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→ → → 207	SecurityExchange	Y	Exchange	XATH
→ → <b>Component End</b>				
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index
→ → 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→ RG End				
<b>Component End</b>				

### 3.8. MSCI Updates (Special Group)

This is a special group that disseminates the opening & trading index value of the MSCI Greece Rebased index and is exclusive to the XATH venue.

#### 3.8.1. Index Value

A message will be transmitted whenever the trading platform calculates the opening or trading index value of the MSCI Greece Rebased index. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	MXGRR
→ → → 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→ → → 207	SecurityExchange	Y	Exchange	XATH
→ → <b>Component End</b>				
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	O = Opening Index T = Trading Index
→ → 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.aaaaaa format.
→ RG End				
<b>Component End</b>				

### 3.9. MSCI Delayed (Special Group)

This is a special group that disseminates the index value of the MSCI Greece Rebased index with a delay and is exclusive to the XATH venue.

#### 3.9.1. Index Value

A message will be transmitted whenever the trading platform calculates the index value of the MSCI Greece Rebased index. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	X = MarketDataIncrementalRefresh
<b>Component End</b>				
<b>Component</b>	<b>MDIncGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 279	MDUpdateAction	Y	Char	0 = New
→ → <b>Component</b>	<b>Instrument</b>	Y		
→ → → 55	Symbol	Y	String	MXGRRD
→ → → 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→ → → 207	SecurityExchange	Y	Exchange	XATH
→ → <b>Component End</b>				
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index O = Opening Index T = Trading Index
→ → 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
<b>RG End</b>				
<b>Component End</b>				

## 4. Snapshot Messages by Group Type

This section contains the layout of various Snapshot messages sent by the MDFS according to the multicast group type.

### 4.1. General

This group disseminates messages that relate to the current Trading Session Status, Security Status, Index Values, Instrument Info and News.

#### 4.1.1. Trading Session Status

This message contains a market's current status. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	h = TradingSessionStatus
<b>Component End</b>				
207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
20001	ATHEXMarketID	Y	Char	
20002	ATHEXBoardID	Y	Char	B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)
336	TradingSessionID	Y	String	1 = Day
625	TradingSessionSubID	Y	String	<b>For board “M = Main”:</b> 3 = (Continuous) Trading 4 = Closing  <b>Custom Values:</b> 102 = Pre-Call (Auction) 103 = Projected Price Calculation (Auction) 105 = End 106 = Stop (conclusion of a Call-Auction. Used in Auction-Type markets only) 107 = Run Off (conclusion of all trading activity) 108 = Halt  <b>For boards other than “M = Main”:</b> 2 = Opening  <b>Custom Values:</b> 105 = End 108 = Halt
340	TradSesStatus	Y	Int	1 = Halted 2 = Open 3 = Closed 4 = Pre-Open 5 = Pre-Close

60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
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#### 4.1.2. Security Status

This message contains an instrument's current status and/or phase. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	f = SecurityStatus
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→ 207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→ 20001	ATHEXMarketID	Y	Char	
<b>Component End</b>				
625	TradingSessionSubID		String	2 = Opening (Auction Price is calculated) 3 = (Continuous) Trading 4 = Closing  <b>Custom Values:</b> 101 = Start 102 = Pre-Call (Auction)

				104 = ATC Orders Are Released in Order Book 105 = End 106 = Stop (conclusion of a Call-Auction)  <b>Note:</b> Corresponds to the Instrument's Phase.
326	SecurityTradingStatus	Int		<p>2 = Trading Halt 3 = Resume</p> <p><b>Custom Values:</b> 101 = Active 102 = Suspend</p> <p><b>Note:</b> The value “3 = Resume” is sent for an instrument when its Halt period concludes and another “f = SecurityStatus” message is sent with tag “625 = TradingSessionSubID” having the value “102 = Pre-Call (Auction)”.</p> <p>The value “101 = Active” will be sent for the instrument after the end of either “102 = Suspend” or “2 = Trading Halt”.</p> <p>When an instrument has the status of “2 = Trading Halt” or “102 = Suspend” no orders can be entered.</p>
327	HaltReason	Int		<p><b>Custom Values:</b> 101 = Exchange 102 = Volatility Interrupter</p>
60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.aaaaaa format.

#### 4.1.3. Index Value

This message contains all the index value updates for the day for an index. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index 4 = ETF Indicative Net Asset Value (INAV)
→ 207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
<b>Component End</b>				
<b>Component</b>	<b>MDFullGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index O = Opening Index T = Trading Index

→	→	60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	RG End					
Component End						

#### 4.1.4. Instrument Info

This message contains the current high/low limits, start of day price, closing price, summary, and the latest auction price for an instrument. The message will have the following format:

Tag	Name	R	Data Type	Value
Component	StandardHeader	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
Component End				
Component	Instrument	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked

→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	231	ContractMultiplier		Float	<b>Note:</b> Nominal Value for bonds.
→	159	AccruedInterestAmt		Amt	<b>Note:</b> For Bonds.
→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→ 269	MDEntryType	Y	Char	<p>4 = Opening Price        5 = Closing Price        7 = Trading Session High Price        8 = Trading Session Low Price        g = Threshold Limits and Price Banding</p> <p><b>Custom Values:</b>        t = Start of Day Price        u = Projected Closing Price        v = Projected Auction Price        w = Auction Price        x = Trading Session Last Price (The last price with which the given Instrument was traded, during the trading day)        y = Total Volume (The sum of the volumes of all Instrument trades occurred, during the trading day)        z = Total Value (The total value traded in the given Market for the given Instrument, during the trading day)</p>
→	→ 270	MDEntryPx		Price	
→	→ 271	MDEntrySize		Qty	
→	→ Component	<b>PriceLimits</b>			
→	→ → 1148	LowLimitPrice		Price	<b>Note:</b> Floor Price.
→	→ → 1149	HighLimitPrice		Price	<b>Note:</b> Ceiling Price.
→	→ Component End				
→	→ 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
<b>RG End</b>					
<b>Component End</b>					

#### 4.1.5. News

This message contains news/announcements from the exchange. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	B = News
<b>Component End</b>				
1474	LanguageCode	Y	Language	en = English el = Greek <b>Note:</b> ISO 639-1 Language Code
148	Headline	Y	String	
<b>Component</b>	<b>LinesOfTextGrp</b>	Y		
→ RG Start 33	NoLinesOfText	Y	NumInGroup	<b>Note:</b> Integer.
→ → 58	Text	Y	String	
→ RG End				
<b>Component End</b>				
60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.

## 4.2. Order Depth

This group disseminates the instructions needed to construct each instrument's order depth book at its current state. These messages are not sent for Standard Combination instruments.

### 4.2.1. Empty Book

This message is sent whenever the order depth book of an instrument is empty when the snapshot cycle is disseminated. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	3 = Order Depth
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→ 207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→ 20001	ATHEXMarketID	Y	Char	

<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→ 269	MDEntryType	Y	Char	J = Empty book
→	→ 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→ <b>RG End</b>					
<b>Component End</b>					

#### 4.2.2. Order Depth Update

This message contains the necessary instructions needed to construct an instrument's order depth book at its current state. This message type is not transmitted for combinations.

The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	3 = Order Depth
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note

					WAR = Warrant XLINKD = Indexed Linked
→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→	269	MDEntryType	Y	Char 0 = Bid 1 = Offer
→	→	20002	ATHEXBoardID	Y	Char B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)
→	→	270	MDEntryPx		Price
→	→	271	MDEntrySize	Y	Qty
→	→	290	MDEntryPositionNo	Y	Int
→	→	37	OrderID	Y	String <b>Note:</b> 8 Numeric Characters. Unique for the day.
→	→	39	OrdStatus	Y	Char 2 = Filled 4 = Cancelled C = Expired  <b>Custom Values:</b> I = Inactive N = Not Released O = Open
→	→	14	CumQty	Y	Qty <b>Note:</b> Matched Volume.
→	→	59	TimeInForce	Y	Char 0 = Day (or Session) 1 = Good Till Cancel (GTC) 2 = At the Opening (OPG) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date (GTD) 7 = At the Close
→	→	40	OrdType		Char 1 = Market 3 = Stop 4 = Stop Limit 7 = Limit or Better
→	→	20003	ATHEXSpecialCondition		Char A = All or None I = Stop Index M = Minimum Fill O = Multiple of S = Stop Instrument
→	→	20004	ATHEXConditionVolume		Qty <b>Note:</b> Used to represent volume when ATHEXSpecialCondition = M or ATHEXSpecialCondition = O.
→	→	20005	ATHEXOrderEntryDate	Y	LocalMktDate <b>Note:</b> YYYYMMDD format.
→	→	60	TransactTime	Y	UTCTimestamp <b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>				
<b>Component End</b>					

## 4.3. Top of Book

This group disseminates the instructions needed to construct each instrument's top of book at its current state.

### 4.3.1. Empty Book

This message is sent whenever the top of book of an instrument is empty when the snapshot cycle is disseminated. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	1 = Top of Book
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→ 207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).

→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→ 269	MDEntryType	Y	Char	J = Empty book
→	→ 264	MarketDepth	Y	Int	1 = Top of Book
→	→ 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	RG End				
<b>Component End</b>					

#### 4.3.2. Top of Book Update

This message contains the necessary instructions needed to construct an instrument's top of book at its current state. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	1 = Top of Book
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note

					TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→	269	MDEntryType	Y	Char 0 = Bid 1 = Offer
→	→	270	MDEntryPx	Y	Price
→	→	271	MDEntrySize	Y	Qty
→	→	264	MarketDepth	Y	Int 1 = Top of Book
→	→	1023	MDPriceLevel	Y	Int 1
→	→	346	NumberOfOrders	Y	Int
→	→	60	TransactTime	Y	UTCTimestamp <b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→	<b>RG End</b>				
<b>Component End</b>					

## 4.4. Price Depth 5/10

This group disseminates the instructions needed to construct each instrument's price depth 5/10 book at its current state.

### 4.4.1. Empty Book

This message is sent whenever the price depth 5/10 of an instrument is empty when the snapshot cycle is disseminated. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	2 = Price Depth
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked

→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268		NoMDEntries	Y	NumInGroup
→	→	269	MDEntryType	Y	Char
→	→	264	MarketDepth	Y	Int
→	→	60	TransactTime	Y	UTCTimestamp
→	RG End				<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
<b>Component End</b>					

#### 4.4.2. Price Depth Update

This message contains the necessary instructions needed to construct an instrument's price depth 5/10 book at its current state. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
1021	MDBookType	Y	Int	2 = Price Depth
<b>Component</b>		<b>Instrument</b>	Y	
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US

					TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant XLINKD = Indexed Linked
→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer
→	→	269	MDEntryType	Y	Char 0 = Bid 1 = Offer
→	→	270	MDEntryPx	Y	Price
→	→	271	MDEntrySize	Y	Qty
→	→	264	MarketDepth	Y	Int 5 = 5 Levels 10 = 10 Levels
→	→	1023	MDPriceLevel	Y	Int
→	→	346	NumberOfOrders	Y	Int
→	→	60	TransactTime	Y	UTCTimestamp <b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→ <b>RG End</b>					
<b>Component End</b>					

## 4.5. Trades

This group disseminates all trades and trade cancellations that have happened so far in the current trading session for each instrument.

### 4.5.1. Trade

This message contains the details of a trade or trade cancellation that happened during the current trading session. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	<b>Note:</b> Alphanumeric Characters.
→ 20011	ATHEXSecurityCategory	Y	Int	0 = Stock / Rights 1 = ETF 2 = Warrant 5 = Bond 6 = Option 7 = Future 8 = Repo 9 = Standard Combination
→ 167	SecurityType	Y	String	CB = Convertible Bond CORP = Corporate Bond CPP = Corporate Private Placement CS = Common Stock DUAL = Dual Currency EUCORP = Euro Corporate Bond EUFRN = Euro Corporate Floating Rate Notes EUSOV = Euro Sovereigns FUT = Future MF = Mutual Fund (Exchange-Traded Fund) MLEG = Multileg Instrument NONE = No Security Type OOF = Options on Futures OPT = Option PS = Preferred Stock REPO = Repurchase STRUCT = Structured Notes TB = Treasury Bill - non US TCAL = Principal Strip Of A Callable Bond Or Note TINT = Interest Strip From Any Bond Or Note TIPS = Treasury Inflation Protected Security TPRN = Principal Strip From A Non-Callable Bond Or Note WAR = Warrant

					XLINKD = Indexed Linked
→	207	SecurityExchange	Y	Exchange	<b>Note:</b> Venue ID (ISO 10383 MIC).
→	20001	ATHEXMarketID	Y	Char	
<b>Component End</b>					
<b>Component</b>		<b>MDFullGrp</b>	Y		
→	RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→	→ 269	MDEntryType	Y	Char	2 = Trade
→	→ 20002	ATHEXBoardID	Y	Char	B = Pre-Agreed F = Forced Sales (with the Hit and Take method) M = Main O = Odd Lot S = Special Terms (with the Hit and Take method)
→	→ 270	MDEntryPx	Y	Price	
→	→ 271	MDEntrySize	Y	Qty	
→	→ 277	TradeCondition		String	0 = Cancel
→	→ 1003	TradeID	Y	String	<b>Note:</b> 6 Numeric Characters. Unique for the day.
→	→ 1024	MDOriginType	Y	Int	0 = Book 1 = Off-Book 3 = Quote Driven Market 5 = Auction Driven Market
→	→ 625	TradingSessionSubID	Y	String	2 = Opening 3 = (Continuous) Trading 4 = Closing 5 = Post-Trading
→	→ 1115	OrderCategory		Char	3 = Privately Negotiated Trade
→	→ Component	<b>TrdRegPublicationGrp</b>			
→	→ → RG 2668	<b>NoTrdRegPublications</b>		NumInGroup	
→	→ → → 2669	TrdRegPublicationType		Int	0 = Pre-Trade Transparency Waiver
→	→ → → 2670	TrdRegPublicationReason		Int	0 = No Preceding Order in Book as Transaction Price Set Within Average Spread of a Liquid Instrument (NLIQ) 1 = No Preceding Order in Book as Transaction Price Depends on System-Set Reference Price for an Illiquid Instrument (OILQ) 2 = No Preceding Order in Book as Transaction Price Is Subject to Conditions Other Than Current Market Price (PRIC) 3 = No Public Price for Preceding Order as Public Reference Price Was Used for Matching Orders (RFPT) 4 = No Public Price Quoted as Instrument Is Illiquid (ILQD) 5 = No Public Price Quoted Due to Size (SIZE)
→	→ → RG End				
→	→ Component End				
→	→ Component	<b>TradePriceConditionGrp</b>			
→	→ → RG 1838	<b>NoTradePriceConditions</b>		NumInGroup	

→	→	→	→	1839	TradePriceCondition		Int	13 = Special Dividend
→	→	→	RG End					
→	→	Component End						
→	→	2667		AlgorithmicTradeIndicator	Y	Int	0 = Non-Algorithmic Trade 1 = Algorithmic Trade	
→	→	1390		TradePublishIndicator	Y	Int	1 = Publish Trade	
→	→	570		PreviouslyReported	Y	Boolean	N = Not Reported to Counterparty or Market Y = Previously Reported to Counterparty or Market	
→	→	20006		ATHEXTotalVolume	Y	Qty	<b>Note:</b> The total number of stocks/contracts traded up to that point.	
→	→	20007		ATHEXTradeValue	Y	Qty	<b>Note:</b> Notional Amount.	
→	→	60		TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.	
→	RG End							
Component End								

## 4.6. FTSE (Special Group)

This is a special group that disseminates the index value of the FTSE index for the current session and is exclusive to the XATH venue.

### 4.6.1. Index Value

This message contains the index value for the FTSE index for the current session. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	FTSE
→ 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→ 207	SecurityExchange	Y	Exchange	XATH
<b>Component End</b>				
<b>Component</b>	<b>MDFullGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index O = Opening Index T = Trading Index
→ → 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→ RG End				
<b>Component End</b>				

## 4.7. MSCI General (Special Group)

This is a special group that disseminates the base & closing index value for the MSCI Greece Rebased index for the current session and is exclusive to the XATH venue.

### 4.7.1. Index Value

This message contains the base or closing index value of the MSCI Greece Rebased index for the current session. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	MXGRR
→ 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→ 207	SecurityExchange	Y	Exchange	XATH
<b>Component End</b>				
<b>Component</b>	<b>MDFullGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index
→ → 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
<b>RG End</b>				
<b>Component End</b>				

## 4.8. MSCI Updates (Special Group)

This is a special group that disseminates the opening & trading index value for the MSCI Greece Rebased index for the current session and is exclusive to the XATH venue.

### 4.8.1. Index Value

This message contains the opening or trading index value of the MSCI Greece Rebased index for the current session. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	MXGRR
→ 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→ 207	SecurityExchange	Y	Exchange	XATH
<b>Component End</b>				
<b>Component</b>	<b>MDFullGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	O = Opening Index T = Trading Index
→ → 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
<b>RG End</b>				
<b>Component End</b>				

## 4.9. MSCI Delayed (Special Group)

This is a special group that disseminates the index value for the MSCI Greece Rebased index for the current session and is exclusive to the XATH venue.

### 4.9.1. Index Value

This message contains the index value of the MSCI Greece Rebased index for the current session. The message will have the following format:

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	W = MarketDataSnapshotFullRefresh
<b>Component End</b>				
<b>Component</b>	<b>Instrument</b>	Y		
→ 55	Symbol	Y	String	MXGRRD
→ 20011	ATHEXSecurityCategory	Y	Int	3 = Stock Index
→ 207	SecurityExchange	Y	Exchange	XATH
<b>Component End</b>				
<b>Component</b>	<b>MDFullGrp</b>	Y		
→ RG 268	NoMDEntries	Y	NumInGroup	<b>Note:</b> Integer.
→ → 269	MDEntryType	Y	Char	3 = Index Value
→ → 270	MDEntryPx	Y	Price	
→ → 20008	ATHEXIndexType	Y	Char	B = Base Index C = Closing Index O = Opening Index T = Trading Index
→ → 60	TransactTime	Y	UTCTimestamp	<b>Note:</b> YYYYMMDD-HH:MM:SS.ssssss format.
→ RG End				
<b>Component End</b>				

## 5. TCP/IP Retransmission Service Messages

This section contains the format of FIX messages used exclusively by the TCP/IP Retransmission Service. The “Header” and “Trailer” components of these messages are identical to the ones described in [section 2](#) of this document.

### 5.1. 3 = Reject

The TCP/IP Retransmission Service will send this message as a response to an invalid “BW = ApplicationMessageRequest” message in case of a Session-Level validation error.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	3 = Reject
<b>Component End</b>				
45	RefSeqNum	Y	SeqNum	<b>Note:</b> Reference message sequence number.
58	Text	Y	String	<b>Note:</b> Text explaining the rejection reason.

### 5.2. 5 = Logout

The TCP/IP Retransmission Service will send this message as a response to a failed logon attempt or after the retransmission has been completed.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	5 = Logout
<b>Component End</b>				
58	Text	Y	String	<b>Note:</b> Text explaining the logout reason.

### 5.3. A = Logon

This message is sent by the client as the first message when opening a session with the TCP/IP Retransmission Service. The TCP/IP Retransmission Service will also send this message as a response to a successful logon attempt.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	A = Logon
<b>Component End</b>				
98	EncryptMethod	Y	Int	0 = None
108	HeartBtInt	Y	Int	<b>Note:</b> Value will always be “0”. No heartbeat messages will be sent via the retransmission service.
1137	DefaultApplVerID	Y	String	9 = FIX50SP2
553	Username	Y	String	
554	Password	Y	String	
925	NewPassword		String	<b>Note:</b> This tag must be filled when sending the first logon message in order to change the user’s password from the

				default value. The user may also fill this tag any time they wish to change their password.
				<b>Note:</b> The password must be at least 12 characters long and contain at least one of each: uppercase letters, lowercase letters, numbers, and special characters.

#### 5.4. BW = ApplicationMessageRequest

The client should send this message, following a successful logon attempt, to request the retransmission of a range of messages from a multicast group.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	BW = ApplicationMessageRequest
<b>Component End</b>				
1346	ApplReqID	Y	String	<b>Note:</b> Unique identifier for request. The first request of the day should contain the value “1” and each subsequent request should contain the previous request’s ID incremented by 1.
1347	ApplReqType	Y	Int	0 = Retransmission of application messages for the specified Applications.
<b>Component</b>	<b>ApplIDRequestGrp</b>	Y		
→ RG Start 1351	NoApplIDs	Y		<b>Note:</b> Value must always be “1”.
→ → 1355	RefApplID	Y	String	<b>Note:</b> Identifier for the Multicast Group to request the retransmission of messages for. It can contain either the IP or the ID of the Multicast Group e.g. “XATH_CASH_GENERAL” (this value is present in tag “56 = TargetCompid” of all messages sent via multicast).
→ → 1182	ApplBegSeqNum	Y	SeqNum	<b>Note:</b> Message sequence number of first message in range to be retransmitted.
→ → 1183	ApplEndSeqNum	Y	SeqNum	<b>Note:</b> Message sequence number of last message in range to be retransmitted. If the value is “0”, messages will be retransmitted until either the limit per request is reached, or until there are no more messages left to send for the requested multicast group.
→ RG End				
<b>Component End</b>				

## 5.5. BX = ApplicationMessageRequestAck

The TCP/IP Retransmission Service will send this message as a response to a valid “ApplicationMessageRequest” message.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	BX = ApplicationMessageRequestAck
<b>Component End</b>				
1353	ApplResponseID	Y	String	<b>Note:</b> Unique identifier for the request acknowledgement. The value will be a copy of the associated request’s tag “1346 = ApplReqID” value with the character “A” appended.

## 5.6. BY = ApplicationMessageReport

The TCP/IP Retransmission Service will send this message to the client inform them about the end of a retransmission.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	BY = ApplicationMessageReport
<b>Component End</b>				
1356	ApplReportID	Y	String	<b>Note:</b> Unique identifier for report. The value will be a copy of the associated request’s tag “1346 = ApplReqID” value with the character “R” appended.
1426	ApplReportType	Y	Int	3 = Application message re-send completed.
<b>Component</b>	<b>ApplIDReportGrp</b>	Y		
→ RG Start 1351	<b>NoApplIDs</b>	Y		<b>Note:</b> Value will always be “1”.
→ → 1357	RefApplLastSeqNum	Y	SeqNum	<b>Note:</b> The message sequence number of the last message in the retransmission.
→ RG End				
<b>Component End</b>				

## 5.7. j = BusinessMessageReject

The TCP/IP Retransmission Service will send this message as a response to an invalid “BW = ApplicationMessageRequest” message in case of an Application-Level validation error.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	j = BusinessMessageReject
<b>Component End</b>				
45	RefSeqNum	Y	SeqNum	<b>Note:</b> Reference message sequence number.
58	Text	Y	String	<b>Note:</b> Text explaining the rejection reason.
372	RefMsgType	Y	String	<b>Note:</b> Value will always be “BW”
380	BusinessRejectReason	Y	Int	100 = Incorrect ApplReqID 101 = Invalid Retransmission Range 102 = Invalid Group Access

				103 = Exceeded Multicast Last Sent Message 104 = Ongoing Retransmission
1346	ApplReqID		String	<b>Note:</b> when tag “380 = BusinessRejectReason” has a value of “100 = Incorrect ApplReqID”, this contains the expected value for tag “1346 = ApplReqID” the client needs to send in the next “BW = ApplicationMessageRequest” message.

## 5.8. UMDR = MulticastDataRetransmission

The TCP/IP Retransmission Service will send these messages to retransmit the requested messages.

Tag	Name	R	Data Type	Value
<b>Component</b>	<b>StandardHeader</b>	Y		
→ 35	MsgType	Y	String	<b>Custom Values:</b> UMDR = MulticastDataRetransmission
<b>Component End</b>				
95	RawDataLength	Y	Length	<b>Note:</b> Number of bytes in raw data field. Will always be the first tag after the header.
96	RawData	Y	Data	<b>Note:</b> Contains the FAST message which was broadcasted in the Multicast Group