

## Intel Atom x6425RE processor 1.9 GHz 1.5 MB L2

Brand: Intel Product family: Atom Product code: FH8070304289558

**Product name :** Intel Atom® x6425RE Processor (1.5M Cache, 1.90 GHz)

Intel Atom x6425RE Processor 1.5M Cache 1.90 GHz

Intel Atom x6425RE. Processor family: Intel Atom®, Processor socket: BGA 1493, Processor lithography: 10 nm. Memory channels: Quad-channel, Memory bandwidth (max): 68.2 GB/s. On-board graphics card model: Intel® UHD Graphics, On-board graphics card outputs supported: Embedded DisplayPort (eDP), DisplayPort, HDMI, MIPI-DSI, On-board graphics card base frequency: 400 MHz. Market segment: Embedded, Use conditions: Industrial Extended Temp, Export Control Classification Number (ECCN): 5A992CN3. Processor package size: 35 x 24 mm





Processor manufacturer*         Intel         Commodity Classification         G179048           Processor manufacturer*         x6425RE         Commodity Classification         G179048           Processor base frequency*         1.9 GHz         Configuration         UC configuration           Processor cores*         4         USB ports quantity         4           Processor socket*         BGA 1493         Total number of SATA connectors         2           Processor special features         Processor threads         4         Processor special features           Processor cache         64-bit         Intel® Pryper Threading Technology         X           Processor cache type         12         Intel® SAS New Instructions (Intel® Processor promation prodes)         X           Processor cache type         12         Intel® SAS New Instructions (Intel® Processor Cache type         X           Processor fread prover (TDP)         12 W         Intel® SAS New Instructions (Intel® Processor Promation Processor (Intel® Processor Factor)         X           Box*         ACSANI)         Intel® Secure Recount Technology         X           Memory bandwidth supported by processor (Intel® Proces				
Processor model *         K642SRE         Automated Tracking System (CCATS)         G179048           Processor base frequency *         1.9 GHz         CCATS)         CCATS         CCA	Processor		Features	
Processor family*         Intel Atom®         VO configuration           Processor cores*         4         USB ports quantity         4           Processor socket*         BGA 1493         Total number of SATA connectors         2           Processor socket*         BGA 1493         Total number of SATA connectors         2           Processor pacial processor pacity         64-bit         Intel® Hyper Threading Technology         X           Processor cache         1.5 MB         Intel® Hyper Threading Technology         X           Processor cache type         1.2 V         Intel® Quick Sync Video Technology         X           Hormal Design Power (TDP)         1.2 V         Intel® AES New Instructions (Intel® Value Technology         X           Box**         X         AES-NI)         X           Cooler included *         X         Intel® AES New Instructions (Intel® Value Technology Value	Processor model *	x6425RE	Automated Tracking System	G179048
Processor cores*         4         USB ports quantity         4           Processor sicket*         BGA 1493         Total number of SATA connectors         2           Processor spreading modes*         4         Processor special features           Processor operating modes*         64-bit         Intel® Hyper Threading Technology (Intel® HTT echnology)         X           Processor cache         1.5 MB         Intel® Hyper Threading Technology (Intel® HTT echnology)         X           Processor cache type         1.2         Intel® Quick Syre Video Technology (Intel® AES) (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES (Intel® AES) (Intel® AES (Intel® AES (Intel® AES))         AES (Intel® AES (Intel® AES (Intel® AES (Intel® AES)))         AES (Intel® AES (In	· •		I/O configuration	
Processor lithography *         10 nm         General Purpose IO         Yes           Processor chareds         4         Processor special features           Processor cache         1.5 MB         Intel® Hyper Threading Technology         X           Processor cache type         L2         Intel® Quick Sync Video Technology         X           Intermal Design Power (TDP)         12 W         Intel® AES New Instructions (Intel®         X           Cooler included *         X         Intel® Seped Shift Technology         X           Memory bandwidth supported by processor (max)         68.2 GB/s         Intel® Time Coordinated Computing (Intel® TECO)         X           Memory Channels *         Quad-channel         Hintel® Secure Key         ✓           Memory bandwidth (max)         68.2 GB/s         Intel® High Definition Audio (Intel® Technology (VT-V)         ✓           ECC         X         Intel® OS Guard         ✓           Memory bandwidth (max)         68.2 GB/s         Intel® Virtualization Technology (VT-V)         ✓           ECC         X         Intel® UHD Graphics Card Sepadary (PT-V)         ✓           Forsplics Card *         V         Intel® UHD Graphics Card Sepadary (PT-V)         ✓           On-board graphics card model *         Monthly MIP-DSI         Intel® Virtualization Tech	,		USB ports quantity	4
Processor threads         4         Processor operating modes*         64-bit           Processor cache         1.5 MB         Intel® Hyper Threading Technology         X           Processor cache type         1.2         Intel® Quick Sync Video Technology         ✓           Thermal Design Power (TDP)         12 W         Intel® AES New Instructions (Intel® Year Cooler included*         X           Cooler included *         X         Intel® Speed Shift Technology         X           Memory bandwidth supported by processor (max)         207899         Intel® Speed Shift Technology         X           Processor ARK ID         207899         Intel® Secure Key         ✓           Memory channels *         Quad-channel         Hntel® High Definition Audio (Intel® Processor ARK ID         Y           Memory bandwidth (max)         68.2 GB/s         Intel® OS Guard         ✓           Memory bandwidth (max)         68.2 GB/s         Intel® OS Guard         ✓           Memory bandwidth (max)         68.2 GB/s         Intel® OS Guard         ✓           On-board graphics card *         X         Intel® OS Guard         ✓           On-board graphics card model *         Intel® UHD Graphics         Intel® OS Guard         ✓           On-board graphics card base frequency         400 MHz         Operating	Processor socket *	BGA 1493	Total number of SATA connectors	2
Processor operating modes * 64-bit   Intel® Hyper Threading Technology   Processor cache   1.5 MB   Intel® Hyper Threading Technology   Yercessor cache type   1.2 V   Intel® Quick Sync Video Technology   Yercessor cache type   1.2 V   Intel® Age New Instructions (Intel® AGE New Intel® AGE New Instructions (Intel® AGE New Instructions	Processor lithography *	10 nm	General Purpose IO	Yes
Processor cache type L2 Intel® Quick Sync Video Technology ✓ Intel® AES New Instructions (Intel® ✓ AES-NI)  Box *  X Intel® AES New Instructions (Intel® ✓ AES-NI)  Intel® Trusted Execution Technology ✓ Intel® Time Coordinated Computing ✓ Intel® Intel® OS Guard ✓ Intel® Intel® UIT Unitel® Time Coordinated Computing ✓ Intel® OS Guard ✓ Intel® OS Guard ✓ Intel® OS Guard ✓ Intel® OS Guard ✓ Intel® Intel® UIT Unitel® Time Coordinated Computing ✓ Intel® OS Guard ✓ Intel® OS Gu	Processor threads	4	Processor special features	
Processor cache type    12	Processor operating modes *	64-bit	latel® II. man Three din a Taraha alam.	
Thermal Design Power (TDP) Box	Processor cache	1.5 MB		×
Box *	• •	L2	Intel® Quick Sync Video Technology	✓
Cooler included *	=		·	1
Memory bandwidth supported by processor (max)   Intel® Speed Shift Technology   Intel® Time Coordinated Computing   (Intel® Time Coordinated Computing   (Intel® Time Coordinated Computing   (Intel® Time Coordinated Computing   (Intel® TCC)   Intel® Secure Key   Intel® High Definition Audio (Intel®   High Definition Audio (Intel® High Pe			·	
Processor (Max) Processor ARK ID  207899    Intel® Time Coordinated Computing (Intel® TCC)   Intel® Secure Key   Intel® Time Coordinated Computing (Intel® TCC)   Intel® Secure Key   Intel® High Definition Audio (Intel® CC)   Memory channels *		×		
Processor ARK ID  Memory  Memory  Memory channels * Quad-channel HD Audio)  ECC		68.2 GB/s	,	
Memory channels * Quad-channel Intel® High Definition Audio (Intel® HD Audio)   ECC X Intel® OS Guard ✓   Memory bandwidth (max) 68.2 GB/s Intel Secure Boot ✓   Graphics Intel Of Hubel (Intel Wirtualization Technology (VT-x)) ✓   Discrete graphics card * X Intel Virtualization Technology for Directed I/O (VT-d) ✓   On-board graphics card added DisplayPort (eDP), supported Intel® UHD Graphics Intel® Boot Guard ✓   On-board graphics card base frequency 400 MHz Operational conditions   On-board graphics card 4K support ✓ Minimum operating temperature -40 °C   On-board graphics card refresh rate at maximum resolution (DisplayPort) A00 Hz Operating temperature (T-T) -40 - 85 °C   On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) A00 Hz Logistics data   Discrete graphics card model * Not available Harmonized System (HS) code 8542310001   Number of execution units 32 Technical details   Features Launch date Q1'21   Execute Disable Bit ✓ Weight & dimensions   Idle States ✓	•	207899		✓
Memory channels * Quad-channel HD Audio)  ECC	Memory		Intel® Secure Key	✓
Memory bandwidth (max)  68.2 GB/s  Intel Secure Boot  Intel 64  On-board graphics card * On-board graphics card * On-board graphics card odel * On-board graphics card odel * On-board graphics card base frequency  On-board graphics card base frequency  On-board graphics card base frequency  On-board graphics card K support  On-board graphics card base frequency  On-board graphics card Fefresh rate at maximum resolution (DisplayPort)  On-board graphics card refresh rate at maximum resolution (DisplayPort)  On-board graphics card refresh rate at maximum resolution (DisplayPort)  Not available  Not available  Not available  Features  Intel Virtualization Technology (VT- X) Intel® Boot Guard Intel® boot Guard  Operational conditions  Operational conditions  Minimum operating temperature  -40 °C Operational conditions  Operational grapherature (T-T)  -40 - 85 °C  Maximum operating temperature  85 °C  On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)  Discrete graphics card model *  Not available  Not available  Technical details  Features  Launch date  Weight & dimensions	•	•		✓
Graphics  Intel 64  On-board graphics card *  Discrete graphics card *  On-board graphics card wodel *  On-board graphics card outputs supported  On-board graphics card base frequency  On-board graphics card dx support  On-board graphics card base frequency  On-board graphics card feresh rate at maximum resolution (DisplayPort)  On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)  Discrete graphics card model *  Not available  Features  Intel 64  / Intel 64  / Intel Virtualization Technology (VT - X)  Intel ® Boot Guard  / Intel ® vPro ** Platform Eligibility  X  Operational conditions  Operating temperature  Operating temperature (T-T)  A0 · 85 °C  Operating temperature (T-T)  A32  Technical details  Features  Launch date  Opical sequence  Opical sequence  Assimum operating temperature  B5 °C  Opical data  Harmonized System (HS) code  Assignation  B542310001  Technical details  Features  Launch date  Opical sequence  Opical sequence  Assimum operating temperature  B5 °C  Opical sequence  Assimum operating temperature  Assimum operating temperature  B5 °C  Assim			Intel® OS Guard	✓
On-board graphics card * Discrete graphics card * Discrete graphics card * Discrete graphics card model * On-board graphics card outputs Supported On-board graphics card outputs Supported On-board graphics card base frequency On-board graphics card base frequency On-board graphics card 4K support On-board graphics card 4K support On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) Discrete graphics card model * Number of execution units  One was a supported  Intel Virtualization Technology (VT- x) Intel Surd	Memory bandwidth (max)	68.2 GB/s	Intel Secure Boot	✓
Discrete graphics card *  On-board graphics card model *  On-board graphics card outputs supported  On-board graphics card outputs supported  On-board graphics card base frequency  On-board graphics card 4K support  On-board graphics card refresh rate at maximum resolution (DisplayPort)  On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)  Discrete graphics card model *  Not available  Features  Intel® UHD Graphics  Intel® UHD Graphics  Intel® Boot Guard  Intel® Boot Guard  Intel® Platform Eligibility  X  Operational conditions  Operating temperature  -40 °C  Operating temperature (T-T)  -40 - 85 °C  40 - 85 °C  Tjunction  110 °C  Logistics data  Harmonized System (HS) code  8542310001  Technical details  Features  Launch date  Q1'21  Execute Disable Bit  ✓  Weight & dimensions	Graphics			✓
Discrete graphics card *	On-board graphics card *	✓		✓
On-board graphics card model * On-board graphics card outputs supported On-board graphics card outputs supported On-board graphics card base frequency On-board graphics card base frequency On-board graphics card 4K support On-board graphics card 4K support On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) Discrete graphics card model * Number of execution units  Not available  Features  Embedded DisplayPort (eDP), Intel® Boot Guard Intel® Hair onditions  Minimum operating temperature -40 °C Operating temperature (T-T) -40 - 85 °C Tjunction 110 °C  Logistics data Harmonized System (HS) code 8542310001  Fechnical details  Features  Eaunch date Q1'21  Execute Disable Bit  Meight & dimensions  Velight & dimensions	• .	×	·	
Supported DisplayPort, HDMI, MIPI-DSI Intel® vPro™ Platform Eligibility X  On-board graphics card base frequency  On-board graphics card 4K support ✓ Minimum operating temperature -40 °C  On-board graphics card refresh rate at maximum resolution (DisplayPort)  On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)  Discrete graphics card model * Not available  Number of execution units  Peatures  Intel® vPro™ Platform Eligibility X  Operational conditions  Minimum operating temperature -40 °C  Operating temperature (T-T) -40 -85 °C  Maximum operating temperature 85 °C  Tjunction 110 °C  Logistics data  Harmonized System (HS) code 8542310001  Technical details  Features  Launch date Q1'21  Execute Disable Bit ✓ Status Launched  Weight & dimensions	<del>-</del> ·	·		✓
On-board graphics card base frequency On-board graphics card 4K support On-board graphics card 4K support On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) Discrete graphics card model * Not available Number of execution units  Features  Intel® vPro** Platform Eligibility  Coperational conditions  Minimum operating temperature Operating temperature (T-T) -40 - 85 °C Tjunction 110 °C  Logistics data Harmonized System (HS) code 8542310001  Technical details  Features  Launch date Q1'21  Execute Disable Bit  Meight & dimensions			Intel® Boot Guard	✓
On-board graphics card 4K support On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) Discrete graphics card model ★ Not available Number of execution units  Technical details  Features  Launch date  Q1'21  Execute Disable Bit ✓ Weight & dimensions	• •		Intel® vPro™ Platform Eligibility	×
On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) Discrete graphics card model * Not available Number of execution units  Features  Features  Au - 85 °C  Tjunction  Logistics data  Harmonized System (HS) code  8542310001  Technical details  Execute Disable Bit  V Status  Veight & dimensions  Weight & dimensions		400 MHz	Operational conditions	
at maximum resolution (DisplayPort) On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) Discrete graphics card model * Not available Number of execution units  Features  Execute Disable Bit Idle States  60 Hz  Maximum operating temperature Tjunction  110 °C  Logistics data Harmonized System (HS) code 8542310001  Technical details  Launch date Q1'21  Launched  Weight & dimensions	On-board graphics card 4K support	1	Minimum operating temperature	-40 °C
(DisplayPort) On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) Discrete graphics card model * Not available Number of execution units  Features  Execute Disable Bit Idle States  Maximum operating temperature Tjunction Tjunction  110 °C  11			Operating temperature (T-T)	-40 - 85 °C
An maximum resolution (eDP - Integrated Flat Panel)  Discrete graphics card model * Not available  Number of execution units  Features  Launch date  Execute Disable Bit  Idle States  Veight & dimensions  Logistics data  Harmonized System (HS) code  8542310001  Technical details  Launch date  Q1'21  Launched  Weight & dimensions		00 112	Maximum operating temperature	85 °C
Integrated Flat Panel)  Discrete graphics card model * Not available  Number of execution units  32  Technical details  Features  Launch date  Ol'21  Execute Disable Bit  Idle States  Weight & dimensions			Tjunction	110 °C
Number of execution units 32 Technical details  Features Launch date Q1'21  Execute Disable Bit ✓ Status Launched  Idle States ✓ Weight & dimensions	·	60 Hz	Logistics data	
Features  Launch date Q1'21  Execute Disable Bit V Status Launched  Weight & dimensions	Discrete graphics card model *	Not available	Harmonized System (HS) code	8542310001
Execute Disable Bit  Idle States  Weight & dimensions  Launched  Weight & dimensions	Number of execution units	32	Technical details	
Idle States   Weight & dimensions  Med all accounts to the state of th	Features		Launch date	Q1'21
Made to a control of the control of	Execute Disable Bit	1	Status	Launched
Market segment Embedded Processor package size 35 x 24 mm	Idle States	✓	Weight & dimensions	
	Market segment	Embedded	Processor package size	35 x 24 mm

 Features

 Use conditions
 Industrial Extended Temp
 Maximum internal memory
 32 GB

 Maximum number of PCI Express lanes
 8

 PCI Express slots version
 3.0

 CPU configuration (max)
 1

 Export Control Classification Number (ECCN)
 5A992CN3



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