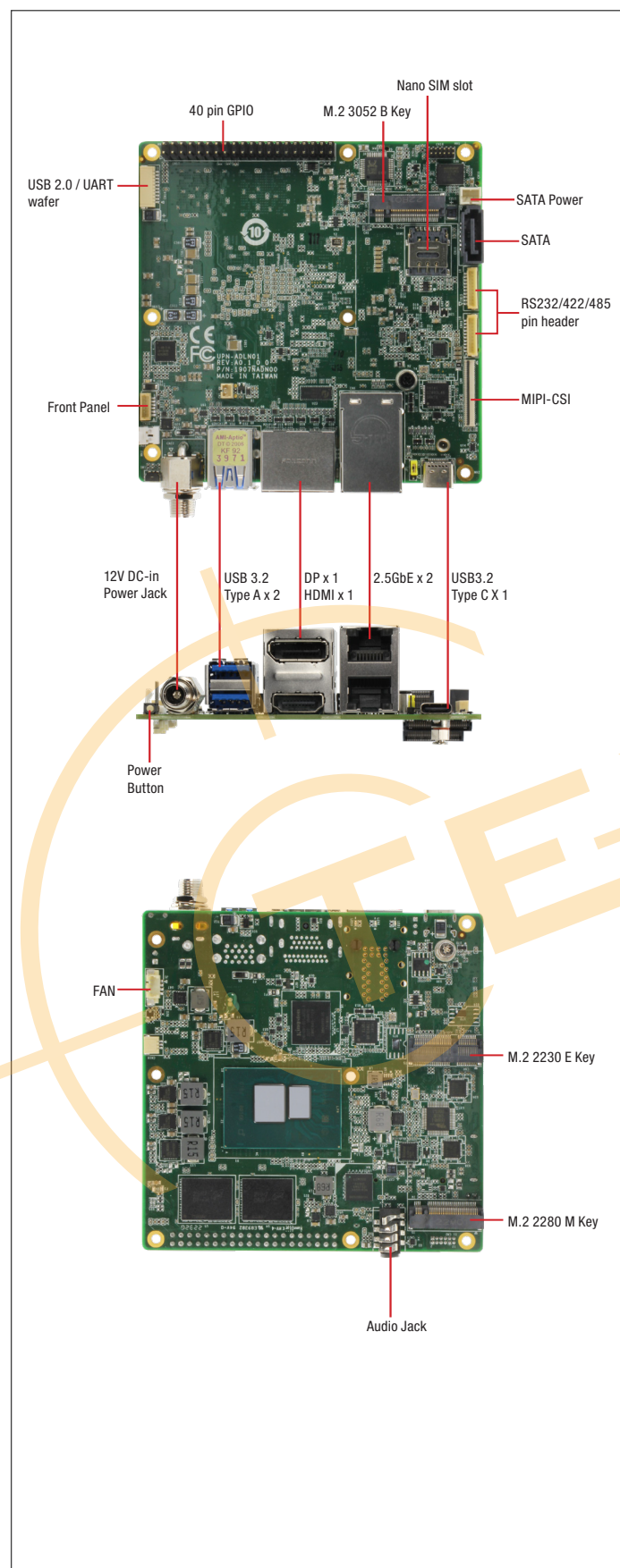




UP Squared Pro TWL

UP Squared Pro TWL developer board with Intel Processor N-series (products formerly Twin Lake)



Features

- Intel Processor N-series (formerly Twin Lake)
- Onboard LPDDR5 Memory up to 16GB
- Onboard eMMC Storage up to 64GB
- 2.5GbE x 2 (Intel® I226-IT)
- USB 3.2 x 3 (Type A x 2, Type C x 1)
- 40 Pin GPIO x 1
- DP 1.2 x 1/DP 1.4a x 1/HDMI 2.0b x 1
- RS232/422/485 Wafer x 2
- M.2 2230 E-Key/M.2 2280 M-Key/M.2 3052 B-Key x 1
- SATA 6Gb/s x 1
- TPM 2.0
- 12V DC-in, 6A



Distributed by:



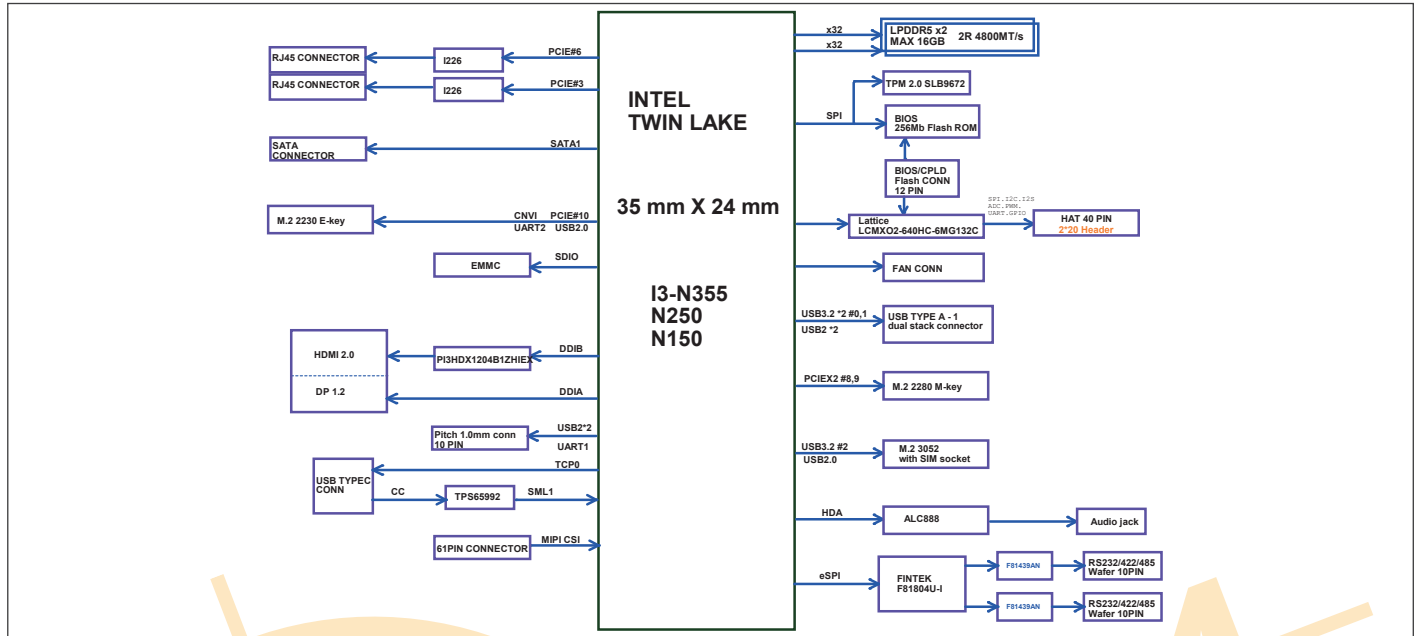
Specifications

System	
Processor	Intel® Core3 N355 Intel® Processor N150
Graphics	Intel® Graphics up to 32EU w/ INT8 extension
Memory	Up to 16GB onboard LPDDR5
Storage	Up to 64GB onboard eMMC
I/O	HDMI 2.0b x 1 DP 1.2 x 1 DP 1.4a via USB Type C
	Audio Jack x 1 (Mic-in+Line-out)
	RS-232/422/485 via 10 Pin header x 2
Camera	MIPI-CSI via 61-Pin FPC Connector x 1
USB	USB 2.0 x 2 (via 10 Pin Header x 1)
	USB 3.2 Gen 2 (Type-A) x 2
	USB 3.2 Gen 2 (Type-C) x 1
Expansion	40 Pin GPIO x 1
	M.2 2230 E-Key x 1 (CNV1, PCIe Gen 3 [x1], USB 2.0)
	M.2 2280 M-Key x 1 (PCIe Gen 3 [x2])
	M.2 3052 B-Key x 1 (USB 3.2 Gen 2 only) with Nano SIM slot (USB 3.0)
Display Interface	SATA 6Gb/s x 1
	HDMI 2.0b x 1
	DP 1.2 x 1 DP 1.4a via USB Type C
Ethernet	2.5GbE x 2 (Intel® I226-IT)
Security	Onboard TPM 2.0
RTC	Yes
OS Support	Windows 11 LTSC
	Ubuntu 22.04/kernel 6.11+, ubuntu 24.04/kernel 6.11+, Yocto 5+
	Yocto 5+
Power Requirement	
Power	12V DC-in
Power Supply Type	AT/ATX (ATX as default)
Power Consumption (Typical)	26W~35W
Mechanical	
Dimension	4" x 4" (101.6mm x 101.6mm)
Net Weight	0.44 lbs (0.20kg)
Gross Weight	0.77 lbs (0.35kg)
Environment	
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Operation Humidity	0% ~ 90% relative humidity, non-condensing
MTBF	857,310
Certification	CE/FCC Class A, RoHS Compliant, REACH

Packing List

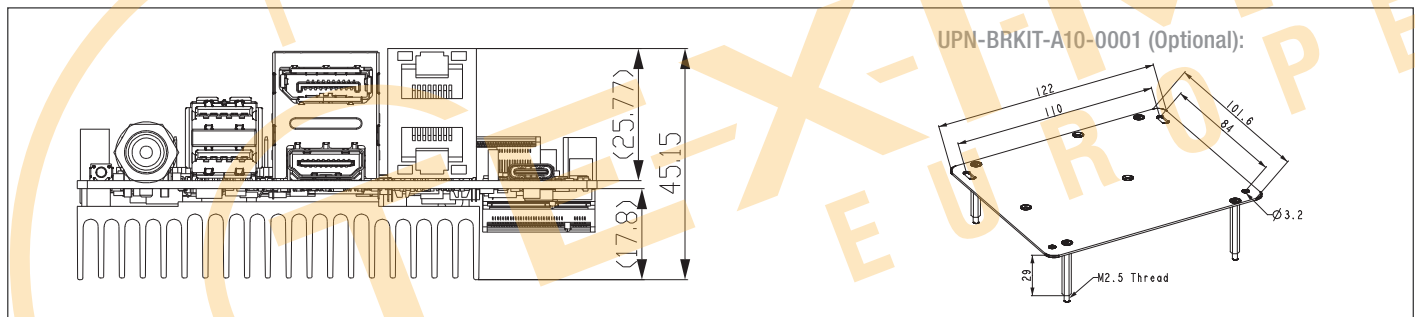
- UP Squared Pro TWL with heatsink

Block Diagram



Dimension

Unit: mm



UPN-BRKIT-A10-0001 (Optional):

Ordering Information

Part number	CPU	Memory	Storage	Operating Temp
UPN-TWLN150-A10-0864	Intel® Processor N150	8GB	64GB	0°C ~ 60°C
UPN-TWL13-A10-0864	Intel® Core™ 3 Processor N355	8GB	64GB	0°C ~ 60°C
UPN-TWL13-A10-1664	Intel® Core™ 3 Processor N355	16GB	64GB	0°C ~ 60°C

Optional Accessories

Part Number	Description
1255X00032	(TF)AC/DC Adapter.Input AC:100~240V.Output DC:12V.MAX 72W 6.0A.180D.W/ LOCK.EDAC. EA10681U(120)
170X000799	(TF)Power Cord. 3P. 125V. 10A. 180D. USA. 1. 8M. I-SHENG. SP305B/IS-14N SVT 18/3 60C CT-12 Black
170X000800	(TF)Power Cord. 3P. 250V. 10A. VDE. 1. 8M. I-SHENG. SP23/IS-14N H05VV-F 3G 0. 75 CT-12 Black
170X000815	(TF)Power Cord. 3P. 250V. 10A. 180D. CHINA. 1. 8M. I-SHENG. SP506A/IS-14N RVV 300/500V 3X0. 75 CT-12 Black
170X000806	(TF)Power Cord. 3P. 125V. 7A. 1. 8M. I-SHENG. U4NCB3T6B1218002. SP305B/IS-14N VCTF. Black. BSMI
170X000803	(TF)Power Cord.3P.125V/7A.PSE Certificate.1.8M.I-SHENG.U4NCB3P6C1218002.SP305B/IS-14N VCTF 0.75/3 Black 1.8M
170X000810	(TF)Power Cord.3P.250V.16A.Korea.1.8M.I-SHENG.SP23/IS-14N H05VV-F 3G 0.75 CT-12 Black
170X000805	(TF)Power Cord.3P.250V.10A.SWISS.1.8M.I-SHENG.SP-027C/IS-14N H05VV-F 3G 0.75mm CT-12 Black
1709070500	SATA cable
1702150155	SATA power cable (15cm)
1702150306	SATA power cable (30cm)
1701100180	COM Cable
UPCR-CAMB-A10-0001	MIPI-CSI Camera RVP Converter Kit for UP Squared Pro 7000/UP Squared i12/UP Xtreme i12
UPCR-HDMI-A10-0001	HDMI IN carrier board for for UP Squared Pro 7000/UP Squared i12/UP Xtreme i12
UPCR-CAN1-A10-0001	UP CAN Bus Carrier Board with USB/UART interface for UP product line
UPN-BRKIT-A10-0001	Bracket KIT of board fixture for all UP series

Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Texim Europe B.V. its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Texim"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Texim makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product.

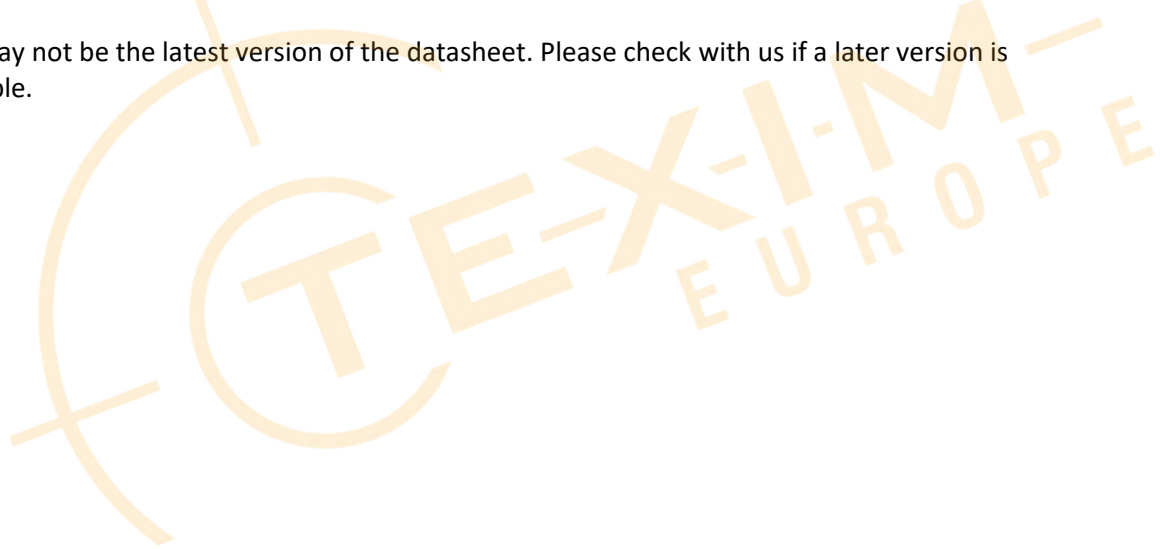
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

Please contact us if you have any questions about the contents of the datasheet.

This may not be the latest version of the datasheet. Please check with us if a later version is available.





Headquarters & Warehouse

Elektrostraat 17
NL-7483 PG Haaksbergen
The Netherlands

T: +31 (0)53 573 33 33
E: info@texim-europe.com
Homepage: www.texim-europe.com



The Netherlands

Elektrostraat 17
NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33
E: nl@texim-europe.com



Belgium

Zuiderlaan 14, box 10
B-1731 Zellik

T: +32 (0)2 462 01 00
E: belgium@texim-europe.com



UK & Ireland

St Mary's House, Church Lane
Carlton Le Moorland
Lincoln LN5 9HS

T: +44 (0)1522 789 555
E: uk@texim-europe.com



Germany

Bahnhofstrasse 92
D-25451 Quickborn

T: +49 (0)4106 627 07-0
E: germany@texim-europe.com



Germany

Martin-Kollar-Strasse 9
D-81829 München

T: +49 (0)89 436 086-0
E: muenchen@texim-europe.com



Austria

Warwitzstrasse 9
A-5020 Salzburg

T: +43 (0)662 216 026
E: austria@texim-europe.com



Nordic

Stockholmsgade 45
2100 Copenhagen

T: +45 88 20 26 30
E: nordic@texim-europe.com



Italy

Martin-Kollar-Strasse 9
D-81829 München

T: +49 (0)89 436 086-0
E: italy@texim-europe.com