

# DA1459x DevKit Pro Mainboard

Design Name	da1459x-mb-pro
Ref. Number	469-16-D
Version	D
Date	June 26, 2023
Designer	PR

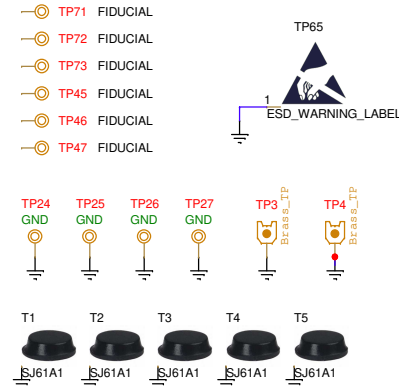
Configuration note

NOTE box

Modifications in this release

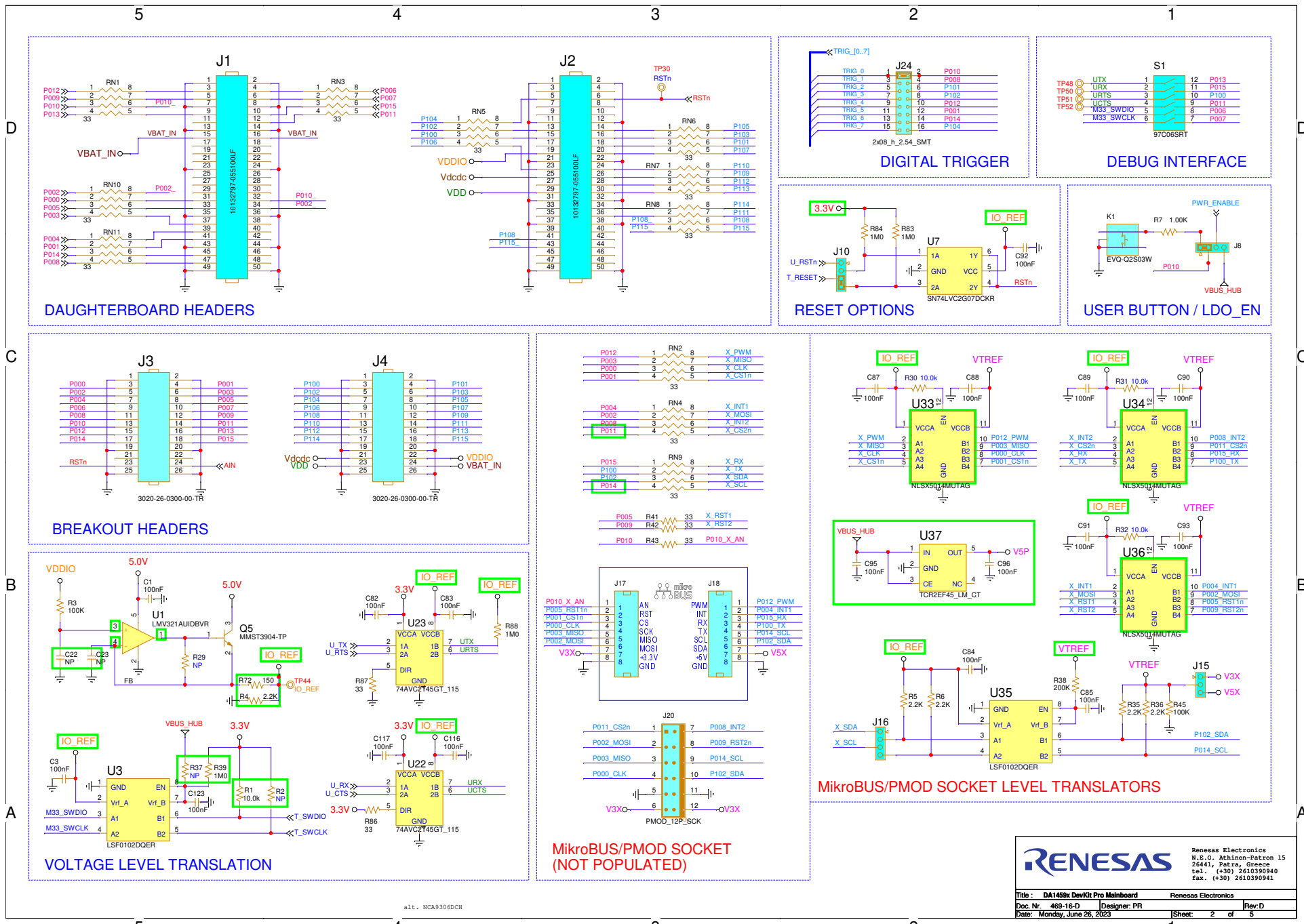
## History Table

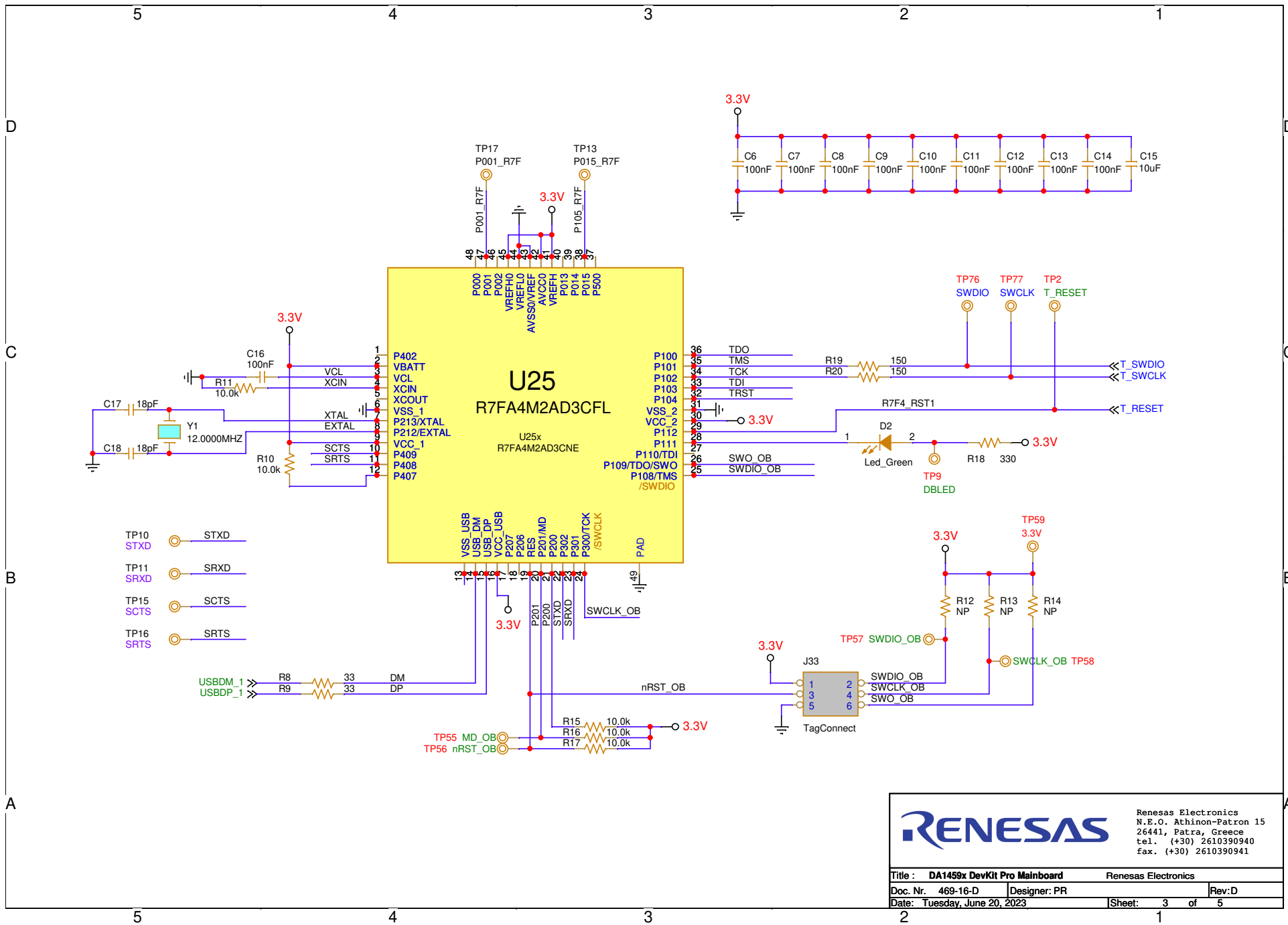
Version	Date	Comments
	11 / Dec / 2020	Based on d2522-mb-pro_vc (331-07-C) <ul style="list-style-type: none"> <li>Adjusted GPIO names according to DA1459x assignments</li> <li>Trimpot R127 (VDDO adj. option) set as NP</li> <li>Updated current measurement circuit</li> </ul>
A	22 / Dec / 2020	Released for manufacturing
	24 / Feb / 2021	Updated circuit around U3 ((SWDIO Level translator) <ul style="list-style-type: none"> <li>C3 changed to 100nF</li> <li>R1 changed to 2.49 kOhm</li> <li>Changed R37 to 200k, R38 to 0, C123 to 100nF</li> </ul> Released for manufacturing
B	24 / Feb / 2021	Released for manufacturing
	20 / Mar / 2023	Modifications for complete adaptation to DA1459x family: <ul style="list-style-type: none"> <li>removed all signals pertaining to DA1469x</li> <li>renamed all remaining signals as defined in DA1459x pinout</li> <li>removed MikroBUS (1) and Arduino connectors</li> <li>removed QSPI-RAM option (U2)</li> <li>changed breakout headers J3, J4 to 26-pin</li> </ul> Modifications related to part shortages: <ul style="list-style-type: none"> <li>replaced J-link OB circuit with the R7FA4M2 version</li> <li>removed the power measurement block and added a pmm socket</li> <li>changed U1 from LMV321AS5X to LMV321AUDBVR</li> <li>changed U22, U23 from NC7NZ34R0X to 74AVC2T45GT_115</li> </ul> Other modifications: <ul style="list-style-type: none"> <li>removed number (2) from the MikroBUS socket (J17/J18-NP) and added a PMOD connector as alternative (J20-NP)</li> <li>added level translation for MikroBUS/PMOD signals</li> <li>added option to issue a reset from UART</li> <li>changed U3 from LSF0101DRYR to LSF0102DCUR and added SWCLK as the second channel</li> <li>replaced TP28, TP29 with TP3, TP4</li> <li>removed power LED (D5)</li> <li>replaced J6 with jumper position J8.3-4</li> <li>changed J5 to 3-pin header</li> <li>added option for using the Segger UART (RN12/NP)</li> <li>changed K1 button part type to EVQ-Q2503W</li> </ul> Released for internal review
	27 / Mar / 2023	Modifications after schematic/layout review: <ul style="list-style-type: none"> <li>added PD resistors (R83, R84) in U7 inputs</li> <li>Changed part# of U3,U35 to LSF0102DQER</li> <li>Changed USB connector part# to 51387-0578</li> <li>Removed RN12 and added testpoints for Segger UART</li> <li>Changed M.2 socket (J7) and nut to 1mm higher options</li> </ul> Released to manufacturing
C	27 / Mar / 2023	Released to manufacturing
	26 / Jun / 2023	Changed R83,R84 to pull-up Swapped the connections for V3x current sense (J7.32-34) Changed GPIO assignment for CS2n from P0_14 to P0_11 Changed GPIO assignment for I2C_SCL from P1_1 to P0_14 Removed jumper shunt from J15 Added NP resistor (R85) in series with V5X to J7.22 Removed R148, added C22, C23, R4 at U1 input pins Added jumper block (J16) in series with the I2C GPIOs Renamed level translator reference from VDD_IO to IO_REF Changed R1 to 10k, R2 to NP Added R39 pull-up to 3.3V on U3.7, changed R37 to NP Changed V3X default power source to VBAT (R27/R91) Changed V5X default power source 4.5V LDO (R28/U37) Replaced U33/U34 and O6/O7 with 3x NISX5014MUTAC (added U36) Changed level reference connection of U35/R38 to VTREF Added 100k pull-down (R45) to VTREF Added missing ground connection at J4.25 Corrected misaligned pin numbers in the symbol of U1
D	26 / Jun / 2023	Released to manufacturing



**RENESAS** Renesas Electronics  
 N.E.O. Athinon-Patnon 15  
 26441, Patra, Greece  
 tel. (+30) 2610390940  
 fax. (+30) 2610390941

Title :	DA1459x DevKit Pro Mainboard	Renesas Electronics
Doc. Nr.	469-16-D	Designer: PR
Date:	Monday, June 26, 2023	Rev: D
		Sheet: 1 of 5





**RENESAS**

Renesas Electronics  
 N.E.O. Athinon-Patron 15  
 26441, Patra, Greece  
 tel. (+30) 2610390940  
 fax. (+30) 2610390941

Title : DA1459x DevKit Pro Mainboard		Renesas Electronics	
Doc. Nr. 469-16-D	Designer: PR	Rev:D	
Date: Tuesday, June 20, 2023	Sheet: 3	of 5	

