UT32M0R500 Unused Pin Termination

PRODUCT NAME	MANUFACTURER PART NUMBER	SMD #	DEVICE TYPE
Arm Cortex M0+	UT32M0R500	5962-17212	01

Table 1: Cross Reference of Applicable Products

1 OVERVIEW

The following is a pin list for termination connection for unused pins. The pin state is assumed to be immediately after a power-on or reset of the UT32M0R500.

PIN NO.	NAME	RESET STATE	RECOMMENDED TERMINATION WHEN UNUSED
E12	A IN0	-	Pulldown Resistor to 0V or VSSA
F 12	A IN1	-	Pulldown Resistor to 0V or VSSA
G 12	A IN2	-	Pulldown Resistor to 0V or VSSA
H 12	A IN3	-	Pulldown Resistor to 0V or VSSA
F 11	A IN4	-	Pulldown Resistor to 0V or VSSA
G 11	A IN5	-	Pulldown Resistor to 0V or VSSA
H 11	A IN6	-	Pulldown Resistor to 0V or VSSA
J11	A IN7	-	Pulldown Resistor to 0V or VSSA
J12	A IN8	-	Pulldown Resistor to 0V or VSSA
K12	A IN9	-	Pulldown Resistor to 0V or VSSA
L12	A IN10	-	Pulldown Resistor to 0V or VSSA
M12	A IN11	-	Pulldown Resistor to 0V or VSSA
K11	A IN12	-	Pulldown Resistor to 0V or VSSA
L11	A IN13	-	Pulldown Resistor to 0V or VSSA
M11	A IN14	-	Pulldown Resistor to 0V or VSSA
M10	A IN15	-	Pulldown Resistor to 0V or VSSA
D10	LDO 15_BYP	-	Connect to VSSA
C 10	LDO 28_BYP	-	Connect to VSSA
D12	DAC0	-	Float
C 12	DAC1	-	Float
B12	C MP0A	-	Pulldown Resistor to 0V or VSSA
A 12	C MP0B	-	Pulldown Resistor to 0V or VSSA
D11	C MP1A	-	Pulldown Resistor to 0V or VSSA
C 11	C MP1B	-	Pulldown Resistor to 0V or VSSA
M4	CAN0_RXD	I	Pulldown Resistor to 0V or VSS
M5	CAN0_TXD	O	Float
M6	UART0_TXD	O	Float
M7	UART0_RXD	I	Pulldown Resistor to 0V or VSS
A2	CAN1_RXD/GPIO32	I	Pulldown Resistor to 0V or VSS
B1	CAN1_TXD/GPIO33	O	Float
C1	UART1_TXD/GPIO34	O	Float

UT32M0R500 Unused Pin Termination

PIN NO.	NAME	RESET STATE	RECOMMENDED TERMINATION WHEN UNUSED
D1	UART1_RXD/GPIO35	I	Pulldown Resistor to 0V or VSS
E1	SCL0/GPIO36	I	Pulldown Resistor to 0V or VSS
F1	SDA 0/GPIO37	I	Pulldown Resistor to 0V or VSS
J1	SCL1/GPIO38	I	Pulldown Resistor to 0V or VSS
K1	SDA 1/GPIO39	I	Pulldown Resistor to 0V or VSS
L1	SCLK/GPIO40	I	Pulldown Resistor to 0V or VSS
M1	MOSI/GPIO41	O	Float
M2	MISO/GPIO42	I	Pulldown Resistor to 0V or VSS
M3	SSN0/GPIO43	O	Float
B2	PWM0/GPIO44	O	Float
B3	PWM1/GPIO45	O	Float
C2	PWM2/GPIO46	O	Float
C3	PWM3/GPIO47	O	Float
D2	GPIO0	I	Pulldown Resistor to 0V or VSS
D3	GPIO1	I	Pulldown Resistor to 0V or VSS
E2	GPIO2	I	Pulldown Resistor to 0V or VSS
E3	GPIO3	I	Pulldown Resistor to 0V or VSS
F2	GPIO4	I	Pulldown Resistor to 0V or VSS
F3	GPIO5	I	Pulldown Resistor to 0V or VSS
G2	GPIO6	I	Pulldown Resistor to 0V or VSS
G3	GPIO7	I	Pulldown Resistor to 0V or VSS
H2	GPIO8	I	Pulldown Resistor to 0V or VSS
H3	GPIO9	I	Pulldown Resistor to 0V or VSS
J2	GPIO10	I	Pulldown Resistor to 0V or VSS
J3	GPIO11	I	Pulldown Resistor to 0V or VSS
K2	GPIO12	I	Pulldown Resistor to 0V or VSS
K3	GPIO13	I	Pulldown Resistor to 0V or VSS
L2	GPIO14	I	Pulldown Resistor to 0V or VSS
L3	GPIO15	I	Pulldown Resistor to 0V or VSS
B10	GPIO16/INTR17	I	Pulldown Resistor to 0V or VSS
B9	GPIO17/INTR18	I	Pulldown Resistor to 0V or VSS
B8	GPIO18/INTR19	I	Pulldown Resistor to 0V or VSS
B7	GPIO19/INTR20	I	Pulldown Resistor to 0V or VSS
B6	GPIO20/INTR21	I	Pulldown Resistor to 0V or VSS
B5	GPIO21/INTR22	I	Pulldown Resistor to 0V or VSS
B4	GPIO22/INTR23	I	Pulldown Resistor to 0V or VSS
A3	GPIO23/INTR24	I	Pulldown Resistor to 0V or VSS
A11	GPIO24/CMP0OUT	I	Pulldown Resistor to 0V or VSS
A10	GPIO25/CMP1OUT	I	Pulldown Resistor to 0V or VSS
A9	GPIO26/RTCK	I	Pulldown Resistor to 0V or VSS
A8	GPIO27/SSN1	I	Pulldown Resistor to 0V or VSS

UT32M0R500 Unused Pin Termination

PIN NO.	NAME	RESET STATE	RECOMMENDED TERMINATION WHEN UNUSED
A7	GPIO28/SSN2	I	Pulldown Resistor to 0V or VSS
A6	GPIO29/SSNM	I	Pulldown Resistor to 0V or VSS
A5	GPIO30	I	Pulldown Resistor to 0V or VSS
A4	GPIO31	I	Pulldown Resistor to 0V or VSS
H1	XTA L1	I	Pulldown Resistor to 0V or VSS
G1	XTA L2	0	Float
K4	TRST	-	10KΩ Pulldown to 0V or VSS
L7	TMS	-	Pullup Resistor to V DD
L6	TCK	-	Pullup Resistor to V DD
K5	TDI	-	Pullup Resistor to V DD
L4	TDO	-	Float
K6	*Reserved*, NUIL	-	Pulldown Resistor to 0V or VSS
B11	*Reserved*, NUIL	-	Pulldown Resistor to 0V or VSS
L5	*Reserved*, NUIL	-	Pulldown Resistor to 0V or VSS

UT32M0R500 Unused Pin Termination

REVISION HISTORY

Date	Revision	Author	Change Description
03/06/2018	1.0.0	AW	Initial Release
02/26/2020	1.1.0	OW	Updated TRST, TMS, TCK, and TDI to reflect the information found in the UT32M0R500 datasheet
07/08/2020	1.2.0	OW	Updated template; Added clarification that Pullup/Pulldown meant through a resistor, not a direct connection.
5/7/2021	1.3.0	OW	Added NUIL pins to list to ensure they are configured correctly; Corrected the Comparator termination should be to VSSA, not VSS; Corrected pins A11, A10, A9 reset as Input GPIOs, not output Alternate-Functions

The following United States (U.S.) Department of Commerce statement shall be applicable if these commodities, technology, or software are exported from the U.S.: These commodities, technology, or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.