

4 Pin Configuration and Functions

4.1 Pin Diagrams

**337-Ball Grid Array
GWT BGA Package
Top View**

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	
19	VSS	VSS	TMS	N2HET1 [10]	MIBSPI5 NCS[0]	MIBSPI1 SIMO	MIBSPI1 NENA	MIBSPI5 CLK	MIBSPI5 SIMO[0]	N2HET1 [28]	DMM_ DATA[0]	CAN3RX	AD1EVT	AD1IN[15] / AD2IN[15]	AD1IN[22] / AD2IN[06]	AD1IN [06]	AD1IN[11] / AD2IN[11]	VSSAD	VSSAD	19
18	VSS	TCK	TDO	nTRST	N2HET1 [08]	MIBSPI1 CLK	MIBSPI1 SOMI	MIBSPI5 NENA	MIBSPI5 SOMI[0]	N2HET1 [0]	DMM_ DATA[1]	CAN3TX	NC	AD1IN[08] / AD2IN[08]	AD1IN[14] / AD2IN[14]	AD1IN[13] / AD2IN[13]	AD1IN [04]	AD1IN [02]	VSSAD	18
17	TDI	RST	EMIF_ ADDR[21]	EMIF_ nWE	MIBSPI5 SOMI[1]	DMM_ CLK	MIBSPI5 SIMO[3]	MIBSPI5 SIMO[2]	N2HET1 [31]	EMIF_ nCS[3]	EMIF_ nCS[2]	EMIF_ nCS[4]	EMIF_ nCS[0]	NC	AD1IN [05]	AD1IN [03]	AD1IN[10] / AD2IN[10]	AD1IN [01]	AD1IN[09] / AD2IN[09]	17
16	RTCK	FRAY TXEN1	EMIF_ ADDR[20]	EMIF_ BA[1]	MIBSPI5 SIMO[1]	DMM_ NENA	MIBSPI5 SOMI[3]	MIBSPI5 SOMI[2]	DMM_ SYNC	NC	NC	NC	NC	NC	AD1IN[23] / AD2IN[07]	AD1IN[12] / AD2IN[12]	AD1IN[19] / AD2IN[03]	ADREFLO	VSSAD	16
15	FRAY RX1	FRAY TX1	EMIF_ ADDR[19]	EMIF_ ADDR[18]	ETM_ DATA[06]	ETM_ DATA[05]	ETM_ DATA[04]	ETM_ DATA[03]	ETM_ DATA[02]	ETM_ DATA[18] / EMIF_ DATA[0]	ETM_ DATA[17] / EMIF_ DATA[1]	ETM_ DATA[19] / EMIF_ DATA[2]	ETM_ DATA[19] / EMIF_ DATA[3]	NC	NC	AD1IN[21] / AD2IN[05]	AD1IN[20] / AD2IN[04]	ADREFHI	VCCAD	15
14	N2HET1 [26]	nERROR	EMIF_ ADDR[17]	EMIF_ ADDR[16]	ETM_ DATA[07]	VCCIO	VCCIO	VCCIO	VCC	VCC	VCCIO	VCCIO	VCCIO	VCCIO	NC	NC	AD1IN[18] / AD2IN[02]	AD1IN [07]	AD1IN [0]	14
13	N2HET1 [17]	N2HET1 [19]	EMIF_ ADDR[15]	NC	ETM_ DATA[12] / EMIF_ BA[0]	VCCIO								VCCIO	ETM_ DATA[01]	NC	AD1IN[17] / AD2IN[01]	AD1IN[16] / AD2IN[0]	NC	13
12	ECLK	N2HET1 [04]	EMIF_ ADDR[14]	NC	ETM_ DATA[13] / EMIF_ nOE	VCCIO		VSS	VSS	VCC	VSS	VSS		VCCIO	ETM_ DATA[0]	MIBSPI5 NCS[3]	NC	NC	NC	12
11	N2HET1 [14]	N2HET1 [30]	EMIF_ ADDR[13]	NC	ETM_ DATA[14] / EMIF_ nDQM[1]	VCCIO		VSS	VSS	VSS	VSS	VSS		VCCPLL	ETM_ TRACE CTL	NC	NC	NC	NC	11
10	CAN1TX	CAN1RX	EMIF_ ADDR[12]	NC	ETM_ DATA[15] / EMIF_ nDQM[0]	VCC		VCC	VSS	VSS	VSS	VCC		VCC	ETM_ TRACE CLKOUT	NC	NC	MIBSPI3 NCS[0]	GIOB[3]	10
9	N2HET1 [27]	FRAY TXEN2	EMIF_ ADDR[11]	NC	ETM_ DATA[08] / EMIF_ ADDR[5]	VCC		VSS	VSS	VSS	VSS	VSS		VCCIO	ETM_ TRACE CLKIN	NC	NC	MIBSPI3 CLK	MIBSPI3 NENA	9
8	FRAY RX2	FRAY TX2	EMIF_ ADDR[10]	NC	ETM_ DATA[09] / EMIF_ ADDR[4]	VCCP		VSS	VSS	VCC	VSS	VSS		VCCIO	ETM_ DATA[31] / EMIF_ DATA[15]	NC	NC	MIBSPI3 SOMI	MIBSPI3 SIMO	8
7	LINRX	LINTX	EMIF_ ADDR[9]	NC	ETM_ DATA[10] / EMIF_ ADDR[3]	VCCIO								VCCIO	ETM_ DATA[30] / EMIF_ DATA[14]	NC	NC	N2HET1 [09]	nPORRST	7
6	GIOA[4]	MIBSPI5 NCS[1]	EMIF_ ADDR[8]	NC	ETM_ DATA[11] / EMIF_ ADDR[2]	VCCIO	VCCIO	VCCIO	VCCIO	VCC	VCC	VCCIO	VCCIO	VCCIO	ETM_ DATA[29] / EMIF_ DATA[13]	NC	NC	N2HET1 [05]	MIBSPI5 NCS[2]	6
5	GIOA[0]	GIOA[5]	EMIF_ ADDR[7]	EMIF_ ADDR[1]	ETM_ DATA[20] / EMIF_ DATA[4]	ETM_ DATA[21] / EMIF_ DATA[5]	ETM_ DATA[22] / EMIF_ DATA[6]	FLTP2	FLTP1	ETM_ DATA[23] / EMIF_ DATA[7]	ETM_ DATA[24] / EMIF_ DATA[8]	ETM_ DATA[25] / EMIF_ DATA[9]	ETM_ DATA[26] / EMIF_ DATA[10]	ETM_ DATA[27] / EMIF_ DATA[11]	ETM_ DATA[28] / EMIF_ DATA[12]	NC	NC	MIBSPI3 NCS[1]	N2HET1 [02]	5
4	N2HET1 [16]	N2HET1 [12]	EMIF_ ADDR[6]	EMIF_ ADDR[0]	NC	NC	NC	N2HET1 [21]	N2HET1 [23]	NC	NC	NC	NC	NC	EMIF_ nCAS	NC	NC	NC	NC	4
3	N2HET1 [29]	N2HET1 [22]	MIBSPI3 NCS[3]	SPI2 NENA	N2HET1 [11]	MIBSPI1 NCS[1]	MIBSPI1 NCS[2]	GIOA[6]	MIBSPI1 NCS[3]	EMIF_ CLK	EMIF_ CKE	N2HET1 [25]	SPI2 NCS[0]	EMIF_ nWAIT	EMIF_ nRAS	NC	NC	NC	N2HET1 [06]	3
2	VSS	MIBSPI3 NCS[2]	GIOA[1]	SPI2 SOMI	SPI2 CLK	GIOB[2]	GIOB[5]	CAN2TX	GIOB[6]	GIOB[1]	KELVIN_ GND	GIOB[0]	N2HET1 [13]	N2HET1 [20]	MIBSPI1 NCS[0]	NC	TEST	N2HET1 [01]	VSS	2
1	VSS	VSS	GIOA[2]	SPI2 SIMO	GIOA[3]	GIOB[7]	GIOB[4]	CAN2RX	N2HET1 [18]	OSCIN	OSCOU	GIOA[7]	N2HET1 [15]	N2HET1 [24]	NC	N2HET1 [07]	N2HET1 [03]	VSS	VSS	1
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	

NOTE: Balls can have multiplexed functions. Only the default function is depicted in above diagram, except for the EMIF signals that are multiplexed with ETM signals.