Black Oak Engineering

BlueJay Signal Table

blackoakeng.com

New York USA

BlueJay PIC32MZ MultiBoard

ver 1.3 '_n' means asserted low.

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MISO = Micro In, Serial Device Out MOSI = Micro Out, Serial Device In



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PIC32MZ pin #	BlueJay name, primary functionality	Complete functionality	5 V tolerant	Ethernet name	Ethernet function	Polarity	RMII	Arduino	Pin #		MikroBus	Pin #	Pi Hat	J8#		JTAG & Trace	JTAG H5 Pin #	EBI	PMP
pin#	junctionality	Complete Junctionality	tolerant	nume	Ethernet junction	Folunty	KIVIII	Ardumo	riii #		IVIIKIUBUS	riii#				Huce	riii#		•
										Н			Raspberry	Pi B+				Parallel Ir	terfaces
1	LED_n	AN23/AERXERR/RG15								Н					\vdash				
2	GioA5	EBIAS/AN34/PMAS/RAS																EBIA5	PMA5
3	GioE5	EBIDS/AN17/RPES/ PMD5/RE5																EBID5	PMD5
4	GioE6	EBID6/AN16/PMD6/RE6																EBID6	PMD6
5	GioE7	EBID7/AN15/PMD7/RE7																EBID7	PMD7
		EBIA6/AN22/RPC1/PMA6/																	
6	GioC1	RC1 EBIA12/AN21/RPC2/																EBIA6	PMA6
7	GioC2	PMA12/RC2 EBIWE/AN20/RPC3/								H								EBIA12	PMA12
8	GioC3	PMWR/RC3 EBIOE/AN19/RPC4/PMRD/																EBIWE	PMWR
9	GioC4	RC4								Ш								EBIOE	PMRD
10	GioG6	AN14/C1IND/ECOL/RPG6/ SCK2/RG6		ECOL	Collision Detect	i	No												
		EBIA4/AN13/C1INC/ ECRS/RPG7/SDA4/																	
11	GioG7	PMA4/RG7 EBIA3/AN12/C2IND/		ECRS	Carrier Sense	i	No											EBIA4	PMA4
		ERXDV/AERXDV/																	
12	GioG8	AECRSDV/RPG8/SCL4/ PMA3/RG8		ERXDV	Receive Data Valid	i	No											EBIA3	PMA3
15	MCLR_n															1CLR_n	10		
		EBIA2/AN11/C2INC/								П									
		ERXCLK/EREFCLK/AERXCLK/ AEREFCLK/RPG9/PMA2/																	
16	GioG9	RG9		ERXCLK	Receive Clock	i	No		+	Н								EBIA2	PMA2
17	GioA0	TMS/EBIA16/AN24/RA0													TL	TAG_TMS	2	EBIA16	-
18	GioE8	AN25/AERXD0/RPE8/RE8						PD7	7										
19	BattHalfV	AN26/AERXD1/RPE9/RE9								Ш									
20	GioB5	AN45/C1INA/RPB5/RB5																	
	Low Noise Analog																		
21	Gan4	AN4/C1INB/RB4								,	AN	1			\forall				+
22	Gan3	AN3/C2INA/RPB3/RB3						PC3/A3	17	Н									+
23	Gan2	AN2/C2INB/RPB2/RB2						PC2/A2	16	Н									
24	Gan1	PGEC1/AN1/RPB1/RB1						PC1/A1	15	Ш					Ш				
25	Gan0	PGED1/AN0/RPB0/RB0						PCO/AO	14										
26	PGEC2	PGEC2/AN46/RPB6/RB6																	
27	PGED2	PGED2/AN47/RPB7/RB7													П				
28	AGnd Vref+ =	VREF-/CVREF-/AN27/AERXD2/RA9								Н					H				+
29	3.0 Vref	VREF+/CVREF+/AN28/AERXD3/RA10							-						H				-
32	GioB8	EBIA10/AN48/RPB8/PMA10/RB8								Н			1		H			EBIA10	PMA10
33	GioB9	EBIA7/AN49/RPB9/PMA7/RB9								Ш								EBIA7	PMA7
34	GioB10	EBIA13/CVREFOUT/AN5/ RPB10/PMA13/RB10													Ц			EBIA13	PMA13
35	GioB11	AN6/ERXERR/AETXERR/ RB11		ERXERR	Receive Error	i	Yes												
38	GioA1	TCK/EBIA19/AN29/RA1													p.	TAG_TCK	4	EBIA19	
		TDI/EBIA18/AN30/RPF13/								\forall									
39	GioF13	SCK5/RF13 TDO/EBIA17/AN31/RPF12/								\forall				-		TAG_TDI	8	EBIA18	+
40	GioF12	RF12						PD2/Int0	2	\vdash			-		ΤL	TAG_TDO	6	EBIA17	
41	GioB12	EBIA11/AN7/ERXD0/AECRS/PMA11/RB12		ERXD0	Receive Data 0	i	Yes	PD3/Int1	3	Ш					\sqcup			EBIA11	PMA11
42	GioB13	AN8/ERXD1/AECOL/RB13		ERXD1	Receive Data 1	i	Yes	PD4	4	Ш					Ш				
43	GioB14	EBIA1/AN9/ERXD2/AETXD3/RPB14/SCK3/PMA1/R B14		ERXD2	Receive Data 2	i .	No	PD5	5									EBIA1	PMA1
		EBIAO/AN10/ERXD3/													\dagger				
44	GioB15	AETXD2/RPB15/OCFB/ PMA0/RB15		ERXD3	Receive Data 3	i	No	PD6	6									EBIA0	PMA0
47	GioD14	AN32/AETXD0/RPD14/RD14						PD7	7						П				
										П					$\dagger \dagger$				
48	GioD15	AN33/AETXD1/RPD15/SCK6/RD15						PB0	8	H					+				+
49	24MHz Osc				1										Ш				Ь

51 Vbus	us E	OSC2/CLKO/RC15 External USB 5V	Yes											\parallel		-
52 Vusb 54 D- 55 D+ 56 GioF3 57 GioF3 58 GioF8	sb3V3	External USB 5V	Yes													
54 D- 55 D+ 56 GioF3 57 GioF3						l								1 1		
54 D- 55 D+ 56 GioF3 57 GioF3																
55 D+ 56 GioF3 57 GioF3 58 GioF8																
56 GioF3 57 GioF2 58 GioF8														\dashv		
57 GioF2 58 GioF8														\dashv		+
58 GioF8	F3 F	RPF3/USBID/RF3						PB1	9					-H		
	F2 E	EBIRDY3/RPF2/SDA3/RF2*	Yes					PB2/SPI_CS_n	10					$-\!$	EBIRDY3	-
59 GioA	F8 E	EBIRDY2/RPF8/SCL3/RF8*	Yes											\perp	EBIRDY2	
	A2 E	EBICSO/SCL2/RA2*	Yes											Ш	EBICS0	
60 GioA		EBIRDY1/SDA2/RA3*	Yes												EBIRDY1	
61 GioA		EBIA14/PMCS1/PMA14/ RA4*	Yes												EBIA14	PMA14
	E	EBIA9/RPF4/SDA5/PMA9/ RF4*	Yes					PD1/TxOut	1	Tv	13	TxD	۰		EBIA9	PMA9
	E	EBIA8/RPF5/SCL5/PMA8/							1	-						
		RF5*	Yes					PD0/RxIn	0	Rx	14	RxD	10	\dashv	EBIA8	PMA8
66 IIC1_	L_SCL /	AETXCLK/RPA14/SCL1/RA14*	Yes					PC5/A5/SCL	19	SCL	12	SCL	5	+		+
67 IIC1_	L_SDA /	AETXEN/RPA15/SDA1/RA15* EBIA15/RPD9/PMCS2/	Yes					PC4/A4/SDA	18	SDA	11	SDA	3	+		
68 GioD	D9 F	PMA15/RD9*	Yes											\perp	EBIA15	PMA15
69 GioD		RPD10/SCK4/RD10* TestLED	Yes											$\perp \! \! \perp \! \! \mid$		↓
	l.	EMDC/AEMDC/RPD11/			Ethernet Management Data											
70 GioD		RD11* EMDIO/AEMDIO/RPD0/	Yes	EMDC	Clock Ethernet	0	No							-H		+-
71 GioD		RTCC/INTO/RDO*	Yes	EMDIO	Management Data	io	Yes							-H		
72 CLK_	_32KHz	SOSCI/RPC13/RC13												\perp		<u> </u>
73 GioC	C14 S	SOSCO/RPC14/T1CK/RC14												\perp		
76 SPI1_	1_SCK	RPD1/SCK1/RD1*	Yes					PB5/ SPI_SCK	13	SCK	4	SCK	23			
77 SPI1		EBID14/ETXEN/RPD2/ PMD14/RD2*	Yes	EMXEN	Transmit Enable	0	Yes	PB4/ SPI_MISO	12	MISO	5	MISO	21		EBID14	PMD14
	E	EBID15/ETXCLK/RPD3/ PMD15/RD3*	Yes	ETXCLK	Transmit Clock	,	No	PB3/ SPI_MOSI	11	MOSI	6	MOSI	19		EBID15	PMD15
		EBID12/ETXD2/RPD12/						SFI_IVIOSI	11			IVIOSI	13			
79 GioD	E	PMD12/RD12* EBID13/ETXD3/PMD13/	Yes	ETXD2	Transmit Data 2	0	No			RST	2				EBID12	PMD12
80 GioD	D13	RD13*	Yes	ETXD3	Transmit Data 3	0	No			CS	3			$^{+}$	EBID13	PMD13
81 SQI_	_CS0_nS	SQICS0/RPD4/RD4*	Yes											-H		+
82 GioD		SQICS1/RPD5/RD5* EBID11/ETXD1/RPF0/	Yes							INT	15			\dashv		
85 GioF	FO F	PMD11/RF0*	Yes	ETXD1	Transmit Data 1	0	Yes							\perp	EBID11	PMD11
86 GioF:	F1 F	EBID10/ETXD0/RPF1/ PMD10/RF1*	Yes	ETXD0	Transmit Data 0	0	Yes							\perp	EBID10	PMD10
87 GioG		EBID9/ETXERR/RPG1/ PMD9/RG1*	Yes												EBID9	PMD9
88 GioG	G0 E	EBID8/RPG0/PMD8/RG0*	Yes												EBID8	PMD8
89 SQI_		TRCLK/SQICLK/RA6*	Yes											$\neg \sqcap$		
														\dashv		
90 SQI_I		TRD3/SQID3/RA7*	Yes											\dashv		
91 GioE		EBIDO/PMDO/REO*	Yes					+		PWM	16				EBID0	PMD0
94 GioE	E1 [EBID1/PMD1/RE1*	Yes					+						\dashv	EBID1	PMD1
95 SQI_I	_D2	TRD2/SQID2/RG14*	Yes											\dashv		+
96 SQI_I	_D1	TRD1/SQID1/RG12*	Yes											$-\Box$		
97 SQI_I	_D0 1	TRD0/SQID0/RG13*	Yes													
98 GioE	E2 E	EBID2/PMD2/RE2*	Yes												EBID2	PMD2
99 GioE		EBID3/RPE3/PMD3/RE3*	Yes												EBID3	PMD3
100 GioE		EBID4/AN18/PMD4/RE4						PC4/Reset	X1						EBID4	PMD4