		DT028ATFT (-TS) to PIC32MX series Pin Connections (ILI9341), 6/27/2016							
Display Connections		PIC32MX Connections							
		MCU Parallel				MCU Serial		RGB Serial	
Pin	Function	8080 I 8-bit Bus	8080 I 9-bit Bus	8080 I 16-bit Bus	8080 I 18-bit Bus	8-bit Serial I (SDA+D/CX)	8-bit Serial II (SDI+SDO+D/CX)	16-bit RGB with 8-bit Serial II	18-bit RGB with 8-bit Serial II
1	LEDA	VLED	VLED	VLED	VLED	VLED	VLED	VLED	VLED
2	LEDK1	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO
3	LEDK2	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO
4	LEDK3	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO
5	LEDK4	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO
6	IM0	VSS (GND)	VSS (GND)	VDD	VDD	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)
7	IM1	VSS (GND)	VDD	VSS (GND)	VDD	VDD	VDD	VDD	VDD
8	IM2	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)	VDD	VDD	VDD	VDD
9	IM3	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)	VDD	VDD	VDD
10	FMARK (TE)	INTx	INTx	INTx	INTx	INTx	INTx	NC	NC
11	VSYNC	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	GPIO	GPIO
12	HSYNC	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	GPIO	GPIO
13	DOTCLK	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	GPIO	GPIO
14	ENABLE (DE)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	GPIO	GPIO
15	DB17	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	GPIO	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD15	GPIO
16	DB16	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	GPIO	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD14	GPIO
17	DB15	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD15	PMD15	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD13	PMD15
18	DB14	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD14	PMD14	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD12	PMD14
19	DB13	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD13	PMD13	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD11	PMD13
20	DB12	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD12	PMD12	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD12
21	DB11	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD11	PMD11	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD10	PMD11
22	DB10	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD10	PMD10	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD9	PMD10
23	DB9	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD9	PMD9	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD8	PMD9
24	DB8	VDD OR VSS (GND)	PMD8	PMD8	PMD8	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD7	PMD8
25	DB7	PMD7	PMD7	PMD7	PMD7	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD6	PMD7
26	DB6	PMD6	PMD6	PMD6	PMD6	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD5	PMD6
27	DB5	PMD5	PMD5	PMD5	PMD5	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD4	PMD5
28	DB4	PMD4	PMD4	PMD4	PMD4	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD3	PMD4
29	DB3	PMD3	PMD3	PMD3	PMD3	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD2	PMD3
30	DB2	PMD2	PMD2	PMD2	PMD2	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD1	PMD2
31	DB1	PMD1	PMD1	PMD1	PMD1	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD0	PMD1
32	DB0	PMD0	PMD0	PMD0	PMD0	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	PMD0
33	CS	GPIO	GPIO	GPIO	GPIO	GPIO (Bit Bang)	GPIO (CS)	GPIO (CS)*	GPIO (CS)*
34	WR (Serial D/CX)	PMWR	PMWR	PMWR	PMWR	GPIO (Bit Bang)	GPIO (Serial D/CX)	GPIO (Serial D/CX)*	GPIO (Serial D/CX)*
35	RS/SCL (Parallel D/CX)	GPIO	GPIO	GPIO	GPIO	GPIO (Bit Bang)	SCKx	SCKx*	SCKx*
36	RD	PMRD	PMRD	PMRD	PMRD	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)
37	RESET	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO
38	SDO	NC	NC	NC	NC	NC	SDIx (MISO)	SDIx (MISO)*	SDIx (MISO)*
39	SDI (SDA)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	VDD OR VSS (GND)	GPIO (Bit Bang)	SDOx (MOSI)	SDOx (MOSI)*	SDOx (MOSI)*
40	VDD	VDD	VDD	VDD	VDD	VDD	VDD	VDD	VDD
41	GND	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)	VSS (GND)
42	NC/YD	ANx	ANx	ANx	ANx	ANx	ANx	ANx	ANx
43	NC/XR	ANx	ANx	ANx	ANx	ANx	ANx	ANx	ANx
44	NC/YU	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO
45	NC/XL	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO	GPIO
		* For RGB, it is recommended that these connections are made to the MCU for configuration through SPI (Hor/Ver vsync, Hor/Ver hsync, blanking interval, etc) otherwise defaults are used.							