



Migration Guide from AirPrime MC879x to AirPrime MC8090/MC8092

AirPrime MC8090/MC8092



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Document History

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	October 13, 2011	Updated product naming convention
	October 25, 2011	Updated pin configuration for MC8090/MC8092
		Updated Table 1 Comparison Table Between the MC879x and MC8090/MC8092
	Added section 3.2 RF Connectors	



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1. Introduction

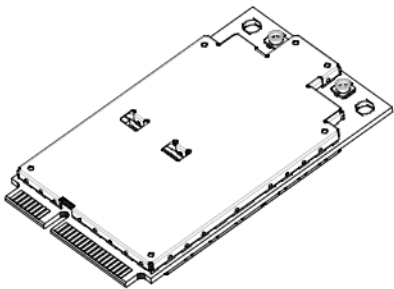
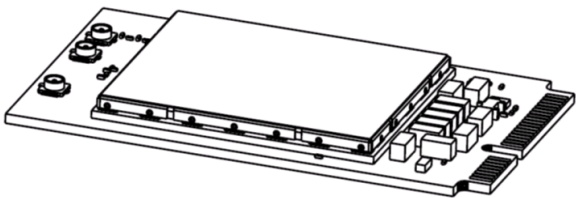
This document aims to provide guidance with migrating applications from using the AirPrime MC879x mini card to using the AirPrime MC8090/MC8092 mini card. It sums up the differences between the AirPrime MC879x and AirPrime MC8090/MC8092 mini cards; and provides recommendations to maximize the compatibility between the two mini card families when used for the same application.

2. General Description

2.1. General Information

The table below defines the MC879x and MC8090/MC8092 mini cards.

Table 1. Comparison Table Between the MC879x and MC8090/MC8092

MC879x	MC8090/MC8092
	
Quad band GSM EDGE Quad band UMTS HSDPA and HSUPA Stand-alone GPS	Quad band GSM EDGE Tri band UMTS HSDPA and HSUPA GPS-one support ⁽¹⁾
HSDPA 7.2Mbps HSUPA 5.76Mbps	HSDPA 14.4Mbps HSUPA 5.76Mbps
Regular use: -25°C / +60°C Reduced RF performance: +60°C / +75°C	-30°C / +70°C Class A -40°C / +85°C Class B -40°C / +85°C Storage
1 x UART interface 1 x USB 2.0 High speed 1 x PCM 1 x Analog Audio 4 x GPIO 1 x Flash LED Output 1 x ADC	1 x UART or PCM interface ⁽²⁾ 1 x USB 2.0 High speed 4 x GPIO 1 x Flash LED Output
51mm x 30mm x 4.5mm (typical)	50.85mm x 29.85mm x 4.30mm (typical) ⁽³⁾

(1) GPS-one support is only available on voice versions (MC8090 and MC8092).

(2) The MC8090/MC8092 can either have PCM or UART support.

(3) The specified module thickness includes the thickness of the module's label.

2.2. Product Name

The following table enumerates the corresponding product name for each variant of the AirPrime MC879x and MC8090/MC8092 mini cards.

Table 2. MC Mini Card Variant with Product Name

MC Series	Frequency Band	Product Name
MC8790	Quad band GSM EDGE, UMTS 800 / 850 / 1900 / 2100 MHz, GPS, Data only	MC8790
MC8790V	Quad band GSM EDGE, UMTS 800 / 850 / 1900 / 2100 MHz, GPS, Voice or Data	MC8790V
MC8792V	Quad band GSM EDGE, UMTS 900 / 1900 / 2100 MHz, GPS, Voice or Data	MC8792V
MC8795V	Quad band GSM EDGE, UMTS 800 / 850 / 900 / 1900 / 2100 MHz, GPS, Voice or Data	MC8795V
MC8090 with PCM	Quad band GSM EDGE, UMTS 850 / 1900 / 2100MHz, Diversity (850, 1900MHz), Digital Voice and Data	MC8090 with PCM
MC8090 with UART	Quad band GSM EDGE, UMTS 850 / 1900 / 2100MHz, Diversity (850, 1900MHz), Data Only	MC8090 with UART
MC8092 with PCM	Quad band GSM EDGE, UMTS 900 / 2100MHz, Diversity (900, 2100MHz), Digital Voice and Data	MC8092 with PCM
MC8092 with UART	Quad band GSM EDGE, UMTS 900 / 2100MHz, Diversity (900, 2100MHz), Data Only	MC8092 with UART

3. Hardware Compatibility

3.1. RF Band

The MC879x and MC8090/MC8092 mini cards are currently available in footprint compatible EDGE, HSPA. The following table shows the RF capabilities of each mini card variant.

Table 3. RF Band Supported by the MC879x and MC8090/MC8092

Mini Card Variant	RF Band	Bandwidth
MC8790	Quad band GSM EDGE, UMTS 800 / 850 / 1900 / 2100 MHz, GPS, Data only	EDGE Class 12, HSDPA 7.2Mbps
MC8790V	Quad band GSM EDGE, UMTS 800 / 850 / 1900 / 2100 MHz, GPS, Voice or Data	EDGE Class 12, HSDPA 7.2Mbps, HSUPA 4.5Mbps
MC8792V	Quad band GSM EDGE, UMTS 900 / 1900 / 2100 MHz, GPS, Voice or Data	EDGE Class 12, HSDPA 7.2Mbps, HSUPA 5.76Mbps
MC8795V	Quad band GSM EDGE, UMTS 800 / 850 / 900 / 1900 / 2100 MHz, GPS, Voice or Data	EDGE Class 12, HSDPA 7.2Mbps, HSUPA 5.76Mbps
MC8090 with PCM	Quad band GSM EDGE, UMTS 850 / 1900 / 2100MHz, Diversity (850, 1900MHz), Voice or Data	EDGE Class 12, HSDPA 14.4Mbps, HSUPA 5.76Mbps
MC8090 with UART	Quad band GSM EDGE, UMTS 850 / 1900 / 2100MHz Diversity (850, 1900MHz), Data only	EDGE Class 12, HSDPA 14.4Mbps, HSUPA 5.76Mbps
MC8092 with PCM	Quad band GSM EDGE, UMTS 900 / 2100MHz, Diversity (900, 2100MHz), Digital Voice or Data	EDGE Class 12, HSDPA 14.4Mbps, HSUPA 5.76Mbps
MC8092 with UART	Quad band GSM EDGE, UMTS 900 / 2100MHz, Diversity (900, 2100MHz), Data only	EDGE Class 12, HSDPA 14.4Mbps, HSUPA 5.76Mbps

3.2. RF Connectors

The MC879x mini cards only have two RF connectors – a main RF connector and another connector shared for Diversity and GPS.

The MC8090/MC8092 mini cards on the other hand, have three RF connectors – one main RF connector, a Diversity connector and a GPS connector.

Refer to the following diagrams for the different RF connectors available on both the MC879x and MC8090/MC8092 mini cards.

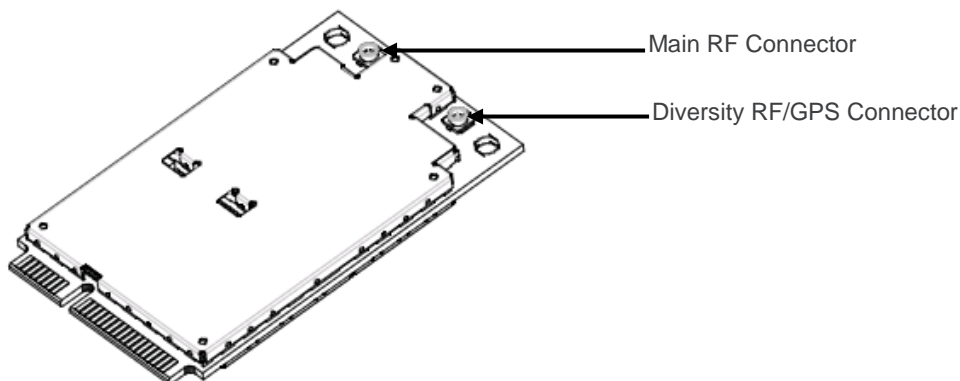


Figure 1. AirPrime MC879x Mini Card RF Connectors

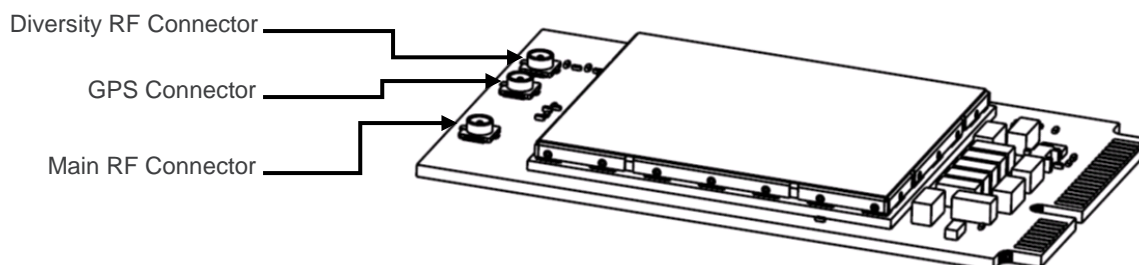


Figure 2. AirPrime MC8090/MC8092 Mini Card RF Connectors

3.3. Temperature Range

Refer to the following table for the temperature range comparison depending on product reference.

Table 4. Operating Temperature Range of the MC879x and MC8090/MC8092 Mini Cards

Product Reference	Operating Temperature Range
MC8790/MC8790V/MC8792V/MC8795V	Regular use: -25°C / +60°C Reduced RF performance: +60°C / +75°C
MC8090/MC8092	-30°C to +70°C Class A -40°C to +85°C Class B -40°C to +85°C Storage

3.4. Power Supply

The MC879x and MC8090/MC8092 mini cards have varying operating voltages. The nominal voltage for the MC879x mini cards is 3.3V; while the nominal voltage for the MC8090/MC8092 mini cards is 3.6V. Refer to the following table for more information.

Table 5. Operating Voltages of the MC879x and MC8090/MC8092 Mini Cards

V _{in}	MC879x	MC8090/MC8092
V _{in} Max.	3.6 volt	4.3 volt
V _{in} Nominal	3.3 volt	3.6 volt
V _{in} Min.	3.0 volt	3.3 volt

3.5. Application Design Limitation

3.5.1. Analog Audio Interface

Analog audio is only available on the MC8790V, MC8792V, and MC8795V. The MC8790 and MC8090/MC8092 variants do not support analog audio.

Table 6. Analog Audio Interface Pin Out of MC879x and MC8090/MC8092

Pin #	MC8790			MC8790V MC8792V MC8795V			MC8090/MC8092		
	Signal Name	Function	DC Bias	Signal Name	Function	DC Bias	Signal Name	Function	DC Bias
1	NC	--	--	MIC_P	Mic +ve with internal bias	2.1V	NC	--	--
3	NC	--	--	MIC_N	Mic -ve	--	NC	--	--
5	NC	--	--	SPK_P	Speaker +ve output	--	NC	--	--
7	NC	--	--	SPK_N	Speaker -ve output	--	NC	--	--

Note: Since the MC8790 and MC8090/MC8092 do not provide an analog audio interface, the above mentioned pins will be NC (not connected) instead.

3.5.1.1. Speaker Output Power

The MC8790V, MC8792V, and MC8795V mini cards use the same audio amplifiers. Refer to the following table for the speaker output values of the MC8790V, MC8792V, and MC8795V mini cards.

Table 7. Speaker Output values of the MC8790V, MC8792V, and MC8795V Mini Cards

Parameter	MC8790V/MC8792V/MC8795V
Output power*	70mW (max)
Supported mode	Differential / Single Ended
Load resistance	32Ω

* The output power specified is achieved while using a differential output with 32Ω load resistances.

3.5.2. Digital Audio Interface

The MC8790V/MC8792V/MC8795V and MC8090/MC8092 with PCM mini cards have compatible pin outs for the digital audio interface.

The MC8790, MC8090/MC8092 with UART do not support PCM function.

The following table describes the PCM signals of the MC8790V/MC8792V/MC8795V and MC8090/MC8092 with PCM mini cards.

Table 8. Digital Audio Interface Pin Out of the MC8790V/MC8792V/MC8795V and MC8090/MC8092 with PCM Mini Cards

Pin #	MC8790V/MC8792V/MC8795V			MC8090/MC8092 with PCM		
	Signal Name	Function	Value	Signal Name	Function	Value
45	PMC_CLK	Bit Clock	2V6 output	PMC_CLK	Bit Clock	1V8 output
47	PCM_DIN	Data input	2V6 input	PCM_DIN	Data input	1V8 input

Pin #	MC8790V/MC8792V/MC8795V			MC8090/MC8092 with PCM		
	Signal Name	Function	Value	Signal Name	Function	Value
49	PCM_DOUT	Data output	2V6 output	PCM_DOUT	Data output	1V8 output
51	PCM_SYNC	Frame Sync	2V6 output	PCM_SYNC	Frame Sync	1V8 output

The MC8790V/MC8792V/MC8795V and MC8090/MC8092 with PCM mini card's digital audio interface works in master mode. To make the application compatible with various mini cards, the external device which connects to the modules' digital audio interface must be compatible with the modules' operating clock rates. The following table shows the operating mode details between the MC8790V/MC8792V/MC8795V and MC8090/MC8092 with PCM mini cards.

Table 9. Digital Audio Interface Features of the MC8790V/MC8792V/MC8795V and MC8090/MC8092 with PCM Mini Cards

Parameter	MC8790V/MC8792V/MC8795V	MC8090/MC8092 with PCM
Operating Mode	Master	Master
Bit rate	2.048MHz	2.048MHz
Sample rate	8kHz	8kHz
Frame format	Linear(16 bit)/A-Law(8 bit)/μ-Law(8 bit)	16 bits MSB first
Frame Sync type	2.048MHz Short Frame Sync and 128 kHz Long Frame Sync	Long Frame Sync only

3.5.3. UART1 Interface

The MC8790V/MC8792V/MC8795V mini cards support full UART. The MC8090/MC8092 with UART mini card variants have the ability to support full UART by configuring GPIO pins as additional UART pins.

The MC8790, MC8090 and MC8092 with PCM do not support UART function.

The following table describes the UART signals of the MC8790V/MC8792V/MC8795V and MC8090/MC8092 with UART mini cards.

Table 10. UART1 Pin Out of the MC8790V/MC8792V/MC8795V and MC8090/MC8092 with UART Mini Cards

Pin #	MC8790V/MC8792V/MC8795V			MC8090/MC8092 with UART		
	Signal Name	Function	Value	Signal Name	Function	Value
32	UART RI	Ring Indicator	2V6 output	RI	Ring Indicator	1V8 output
44	DCD	Data Carrier Detect	2V6 output	DCD	Data Carrier Detect	1V8 output
45	CTS	Clear to Send	2V6 output	UART1_CTS_N	Clear to Send	1V8 output
46	DSR	Data Set Ready	2V6 output	DSR	Data Set Ready	1V8 output
47	RTS	Request to Send	2V6 input	UART1_RTS_N	Request to Send	1V8 input
48	DTR	Data Terminal	2V6 input	DTR	Data Terminal	1V8 input

Pin #	MC8790V/MC8792V/MC8795V			MC8090/MC8092 with UART		
	Signal Name	Function	Value	Signal Name	Function	Value
		Ready			Ready	
49	RD	Receive Serial Data	2V6 output	UART1_RXD	Receive Serial Data	1V8 output
51	TD	Transmit Serial Data	2V6 input	UART1_TXD	Transmit Serial Data	1V8 input

The baud rate limitation for the UART port is as listed below.

Table 11. UART Baud Rate Limit of the MC8790V/MC8792V/MC8795V and MC8090/MC8092 with UART Mini Cards

Parameter	MC8790V/MC8792V/MC8795V	MC8090/MC8092 with UART
Baud Rate	Up to 230.4kbits/s	Up to 230.4kbits/s (TBC)

3.5.4. USB Interface

Both the MC879x and MC8090/MC8092 mini cards support USB 2.0 High Speed.

Table 12. Common USB Interface on the MC879x and MC8090/MC8092 Mini Cards

Pin #	MC879x			MC8090/MC8092		
	Signal Name	Function	Value	Signal Name	Function	Value
36	USB_D-	USB Data -ve	--	USB_D-	USB Data -ve	--
38	USB_D+	USB Data +ve	--	USB_D+	USB Data +ve	--

3.5.5. GPIO(s)

The number of GPIO varies depending on the mini card. The MC8790 mini card does support GPIO, the MC8790V and MC8792V provides six GPIOs; while the MC8795V and MC8090/MC8092 provides four GPIOs.

The following table enumerates the available GPIOs on each MC879x and MC8090/MC8092 mini card variant.

Table 13. GPIOs Available on the MC879x and MC8090/MC8092 Mini Cards

Pin #	MC8790 GPIO Name	MC8790V GPIO Name	MC8792V GPIO Name	MC8795V GPIO Name	MC8090/MC8092 GPIO Name
6	-	GPIO_1	GPIO_1	GPIO_1	GPIO_0
16	-	GPIO_2	GPIO_2	GPIO_2	-

Pin #	MC8790 GPIO Name	MC8790V GPIO Name	MC8792V GPIO Name	MC8795V GPIO Name	MC8090/MC8092 GPIO Name
28	-	GPIO_3	GPIO_3	GPIO_3	-
30	-	-	-	GPIO_4	-
44	-	GPIO_4	GPIO_4	-	GPIO_1
46	-	GPIO_5	GPIO_5	-	GPIO_3
48	-	GPIO_6	GPIO_6	-	GPIO_2

Full GPIO compatibility between the MC879x and MC8090/MC8092 is not possible because the MC8790 does not support a GPIO interface.

For the MC8090V, MC8092V, MC8795V, and MC8090/MC8092 mini cards, only common GPIO pins could be used on the application board when compatibility among these mini cards is needed. The following table shows the only common GPIO between these mini cards.

Table 14. Common GPIO between the MC8790V/MC8792V/MC8795V and MC8090/MC8092 Mini Cards

Pin #	MC8790V GPIO Name	MC8792V GPIO Name	MC8795V GPIO Name	MC8090/MC8092GPIO Name
6	GPIO_1	GPIO_1	GPIO_1	GPIO_0

3.5.6. Digital Control Signal

3.5.6.1. Turn ON the Mini Card

The MC8090/MC8092 will automatically turn ON when power supply is present, because the turn ON function is fixed by hardware configuration in the board. The W_DISABLE# signal (pin 20) of the MC879x is used to ask the mini card to shut down. Letting this signal float high allows the mini card to operate normally. Note that in the MC8090/MC8092, this pin (W_DISABLE_N, pin 20) is used to disable (or enable) the mini card's RF connection.

3.5.6.2. Flash LED

The Flash LED output of the MC879x and the MC8090/MC8092 are the same. It provides an open drain output which allows the LED to be directly connected to the mini card.

3.6. Mechanical Differences

The module thickness between the MC879x and MC8090/MC8092 mini cards vary. The following table enumerates the thickness of both MC879x and MC8090/MC8092 mini cards.

Table 15. Thickness of the MC879x and MC8090/MC8092 Mini Cards

	MC879x	MC8090/MC8092
Thickness	4.5mm (typical)*	4.3mm (typical)*

* The MC8090/MC8092 thickness on the top side is slightly over the MC mini card specification (0.08mm).

For detailed mechanical drawings, refer to the specific Product Technical Specification of each mini card variant as listed in section 5.1 List of References.



4. MC879x and MC8090/MC8092 Mini Card Pin Out

Table 16. MC879x and MC8090/MC8092 Mini Card Pin Assignments

Pin #	MC8790			MC8790V/MC8792V			MC8795V			MC8090/MC8092		
	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O
1	NC	Not connected	--	MIC_P	Microphone positive	I	MIC_P	Microphone positive	I	NC	Not connected	--
2	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC_3V6	3.6V supply	I
3	NC	Not connected	--	MIC_N	Microphone negative	I	MIC_N	Microphone negative	I	NC	Not connected	--
4	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
5	NC	Not connected	--	SPK_P	Speaker positive	O	SPK_P	Speaker positive	O	NC	Not connected	--
6	NC	Not connected	--	GPIO_1	General purpose I/O	I/O	GPIO_1	General purpose I/O	I/O	GPIO_0	General purpose I/O	I/O
7	NC	Not connected	--	SPK_N	Speaker negative	O	SPK_N	Speaker negative	O	NC	Not connected	--
8	USIM_PWR	USIM VCC supply	O	USIM_PWR	USIM VCC supply	O	USIM_PWR	USIM VCC supply	O	EXT_VREG_USIM	USIM VCC supply	O
9	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
10	USIM_DATA	USIM I/O pin	I/O	USIM_DATA	USIM I/O pin	I/O	USIM_DATA	USIM I/O pin	I/O	EXT_USIM_DATA	USIM I/O pin	O
11	NC	Not connected	--	VCC_MSM26_DIG	2.6V voltage reference	O	VCC_MSM26_DIG	2.6V voltage reference	O	VREF_1V8	1.8V LDO	O
12	USIM_CLK	USIM clock	O	USIM_CLK	USIM clock	O	USIM_CLK	USIM clock	O	EXT_USIM_CLK	USIM clock	O
13	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--
14	USIM_RESET	USIM reset	O	USIM_RESET	USIM reset	O	USIM_RESET	USIM reset	O	EXT_USIM_RESET	USIM reset	O

Pin #	MC8790			MC8790V/MC8792V			MC8795V			MC8090/MC8092		
	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O
15	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
16	NC	Not connected	--	GPIO_2	General purpose I/O	I/O	GPIO_2	General purpose I/O	I/O	NC	Not connected	--
17	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--
18	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
19	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--
20	W_DISABLE #	Wireless disable	I	W_DISABLE#	Wireless disable	I	W_DISABLE#	Wireless disable	I	W_DISABLE_N	Wireless Disable	I
21	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
22	NC	Not connected	--	AUXV1	Auxiliary voltage 1	I	AUXV1	Auxiliary Voltage 1	I	NC	Not connected	--
23	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--
24	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC_3V6	3.6V supply	I
25	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--
26	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
27	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
28	NC	Not connected	--	GPIO_3	General purpose I/O	I/O	GPIO_3	General purpose I/O	I/O	NC	Not connected	--
29	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
30	NC	Not connected	--	Reserved	Reserved	--	GPIO_4	General purpose I/O	--	NC	Not connected	--
31	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--	NC	Not connected	--
32	NC	Not connected	--	UART RI	Ring indicator	O	UART RI	Ring indicator	O	WAKE_N	Wake host interface	O
33	NC	Not connected	--	MDL_RESET_N	Reset	I	MDL_RESET_N	Reset	I	SYSTEM_RESET_N	Reset	I
34	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--

Pin #	MC8790			MC8790V/MC8792V			MC8795V			MC8090/MC8092		
	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O
35	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
36	USB_D-	USB data negative	I/O	USB_D-	USB data negative	I/O	USB_D-	USB data negative	I/O	USB_D-	USB data negative	I/O
37	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
38	USB_D+	USB data positive	I/O	USB_D+	USB data positive	I/O	USB_D+	USB data positive	I/O	USB_D+	USB data positive	I/O
39	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC_3V6	3.6V supply	I
40	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
41	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC_3V6	3.6V supply	--
42	LED_WWAN #	LED driver	O	LED_WWAN #	LED driver	O	LED_WWAN#	LED driver	O	LED_FLASH	LED driver	O
43	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--
44	NC	Not connected	--	DCD/GPIO_4	UART data carrier detect	O	UART DCD	UART data carrier detect	O	GPIO_1	General purpose I/O	I/O
45	NC	Not connected	--	CTS/PCM_CLK	UART clear to send/PCM Clock	O	CTS/PCM_CLK	UART clear to send/PCM clock	O	UART1_CTS_N/PCM_CLK*	UART clear to send/PCM data clock	O
46	NC	Not connected	--	DSR/GPIO_5	UART data set ready	O	DSR	UART data set ready	O	GPIO_3	General purpose I/O	I/O
47	NC	Not connected	--	RTS/PCM_DIN	UART ready to send/PCM data in	I	RTS/PCM_DIN	UART ready to send/PCM data in	I	UART1_RTS_N/PCM_DIN*	UART ready to send/PCM data input	O
48	NC	Not connected	--	DTR/GPIO_6	UART data terminal ready	I	DTR	UART data terminal ready	I	GPIO_2	General purpose I/O	I/O
49	NC	Not connected	--	RD/PCM_DOUT	UART receive data/PCM data out	O	RD/PCM_DOUT	UART receive data/PCM data out	O	UART1_RXD*/PCM_DOUT*	UART receive data/PCM data out	O
50	GND	Ground	--	GND	Ground	--	GND	Ground	--	GND	Ground	--

Pin #	MC8790			MC8790V/MC8792V			MC8795V			MC8090/MC8092		
	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O	Signal Name	Function	I/O
51	NC	Not connected	--	TD/PCM_SY NC	UART transmit data/PCM sync out	I/O	TD/PCM_SY NC	UART transmit data/PCM sync out	I/O	UART1_TXD /PCM_SYNC *	UART transmit data/PCM synchronize	I
52	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC	3.3V supply	I	VCC_3V6	3.6V supply	I

** The MC8090/MC8092 can either have PCM or UART; the function of this pin varies depending on whether the mini card is an MC8090/MC8092 with PCM or with UART.



5. Reference Documents

5.1. List of References

- [1] AirPrime MC8790 PCI Express Mini Card Product Specification
Reference: 2111279
- [2] AirPrime MC8790V with Audio PCI Express Mini Card Product Specification
Reference: 2111280
- [3] AirPrime MC8792V with Audio PCI Express Mini Card Product Specification
Reference: 2131033
- [4] AirPrime MC8795V with Audio PCI Express Mini Card Product Specification
Reference: 2131276
- [5] AirPrime MC8090/MC8092 Product Technical Specification and Customer Design Guidelines
Reference: 4110931
- [6] AirPrime SL809x Product Technical Specification and Customer Design Guidelines
Reference: WA_DEV_SL8090_PTS_001
- [7] AirCard/AirPrime UMTS Devices Supported AT Command
Reference: 2130617

5.2. Glossary

Term	Definition
GND	Ground
NC	Not Connected When a pin is marked as not connected, it means that no connection should be made from the pin to the application board.
Reserved	When a pin is marked as Reserved, it means that no connection should be made from the module pin to the application board; and that there might be a connection to the pin from within the module.



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