

UC864/CC864 Interface Board User Guide

1vv0300771 Rev. 4 18/06/2010



APPLICABILITY TABLE

PRODUCT
UC864-E
UC864-G
UC864-WD
UC864-E-DUAL
UC864-E-AUTO
CC864-DUAL
CC864-SINGLE
CC864-SR



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1 Module Interface Boards

1.1 UC864/CC864 Interface Board

This interface board allows easy interfacing between the UC864/CC864 module and the EVK2 motherboard and testing of its functions.

WARNING Certain UC864/CC864 pins are not electrically compatible GC864 pins, so make sure to set the jumpers correctly according to the corresponding before using the interface board.

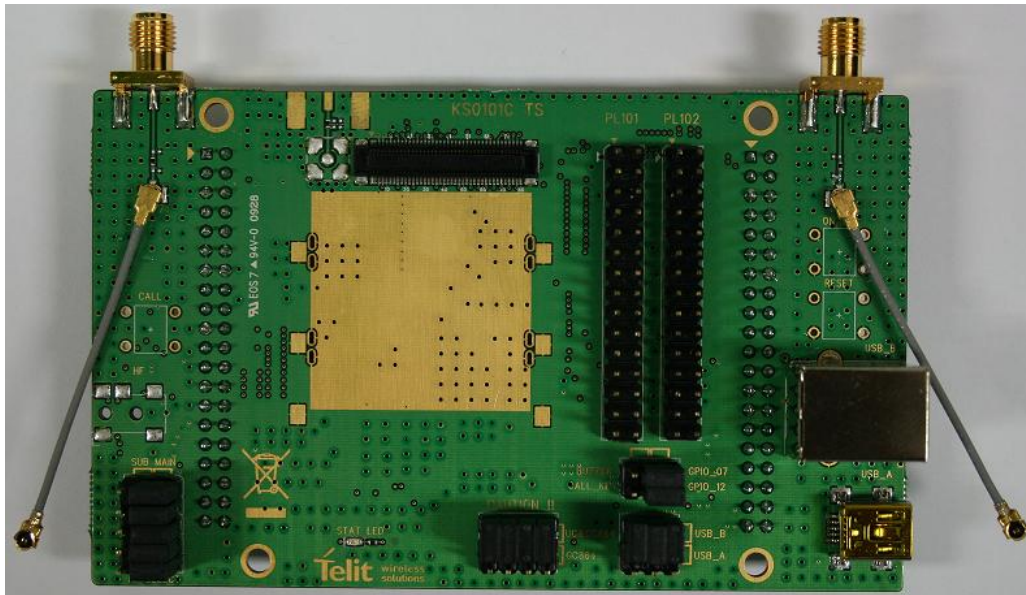
1.2 Interface Connectors

The following connectors are available for UC864/CC864:

- Antenna connectors
J105, J106, J107 and J108 are used for the standard configuration of UC864/CC864 family.
J109 and J110 are used only for UC864-E-AUTO
- Two female connectors (40 pins each: CON102, CON103) to connect the interface to the EVK2 motherboard circuits
- Two male connectors (30 pins each: PL101, PL102), via which it is possible to connect external devices, including user applications, Telit extension boards, and measuring equipment
- One USB mini AB-type receptacle connector(J101) and one USB B-type receptacle connector (J102) for connection to a PC.



1.3 Interface Board Image



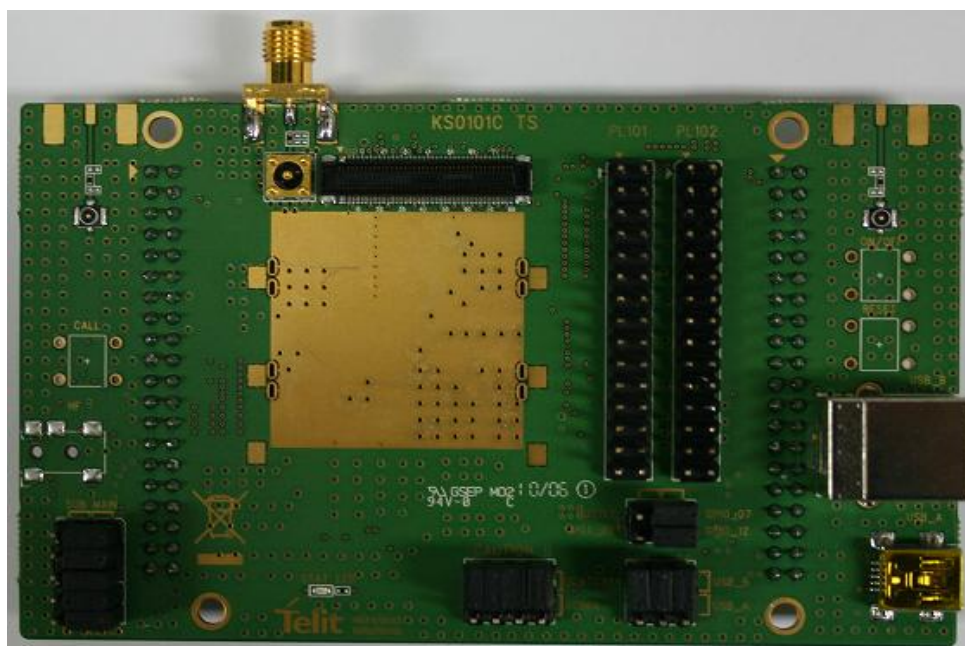
TOP View



BOTTOM View

Figure1-1. Standard UC864/CC864 Interface Board (P/N 4990150470)





TOP View

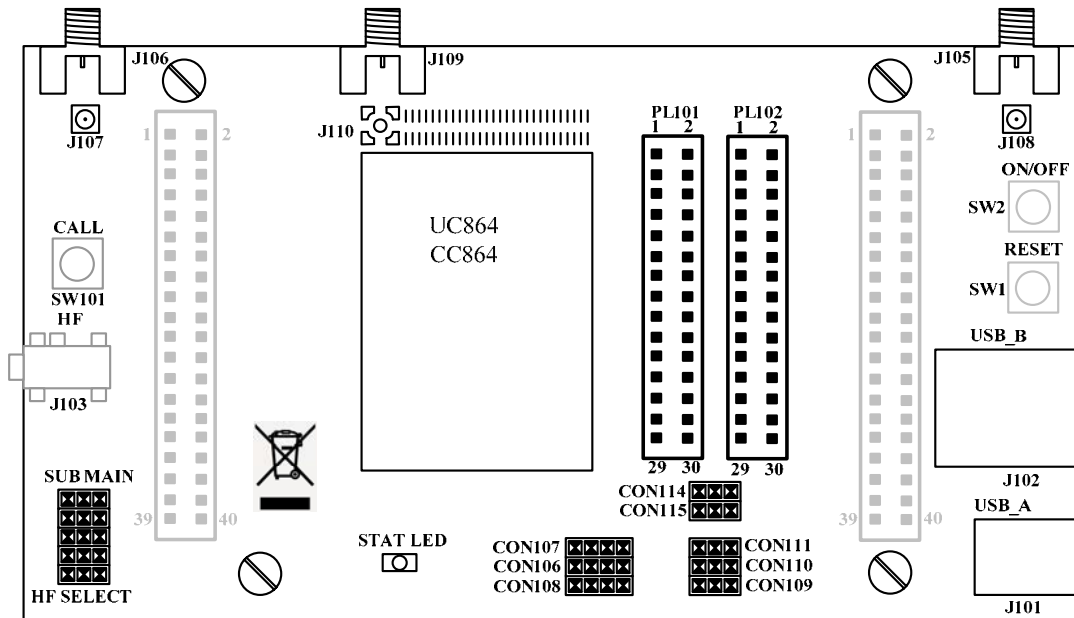


BOTTOM View

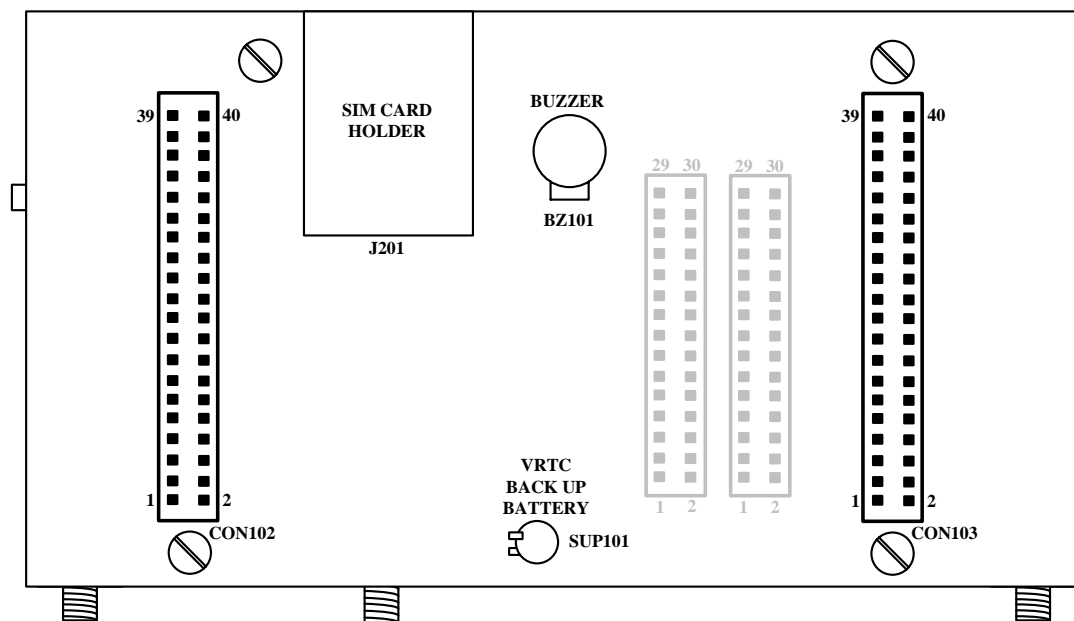
Figure1-2. UC864-E-AUTO Interface Board (P/N 4990250037)



2 Component Diagram



TOP View



BOTTOM View

Figure 2-1 Component Diagram



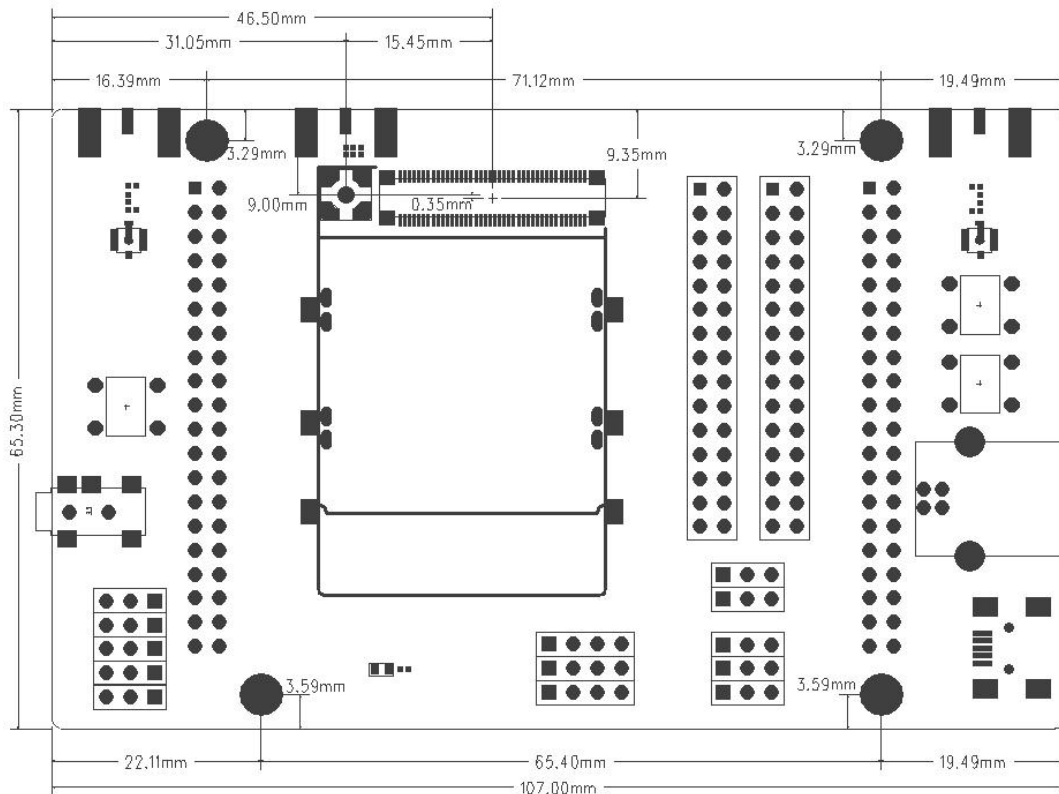


Figure 2-2 UC864/CC864 Interface Board dimension

2.1 Jumper Settings

2.1.1 Jumper Settings When Using the UC864/CC864 (Default)

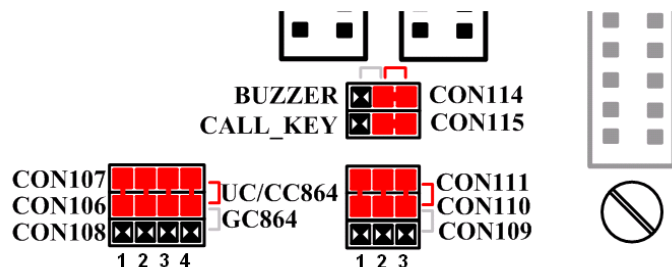


Figure 2-3 Jumper Settings for the UC864/CC864



CON106, CON107, CON108

When using the UC864/CC864 module, connect CON106 and CON107 to facilitate connection of USB_D+, USB_D-, USB_VBUS, and USB_ID signals.

When using the GC864 module, connect CON106 and CON108 via jumpers. If you neglect to do so pin35, pin48, pin79, and pin80 of the GC864 module can be damaged

CON109, CON110, CON111

To use the USB B-type receptacle connector (J102) for serial communication with a PC, connect CON110 and CON111 via jumpers. (USB peripheral mode: default)

To use the USB mini AB-type receptacle connector (J101) for serial communication with a USB peripheral device, connect CON109 and CON110 via jumpers. (USB host mode ; not supported at the moment)

CON114

To configure correctly GPIO_7 connect the pin 2 and 3

CON115

To configure correctly GPIO_12 connect the pin 2 and 3

2.2 Antenna Connectors (J105, J106, J109)

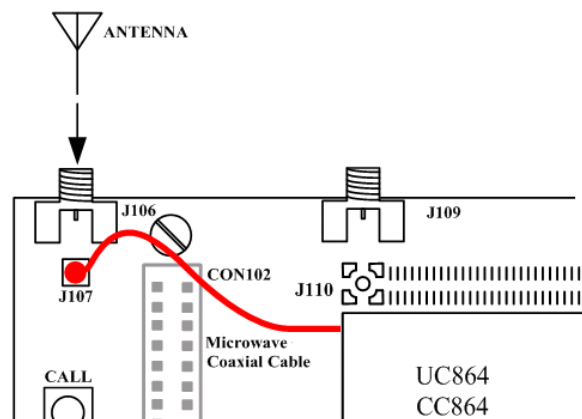
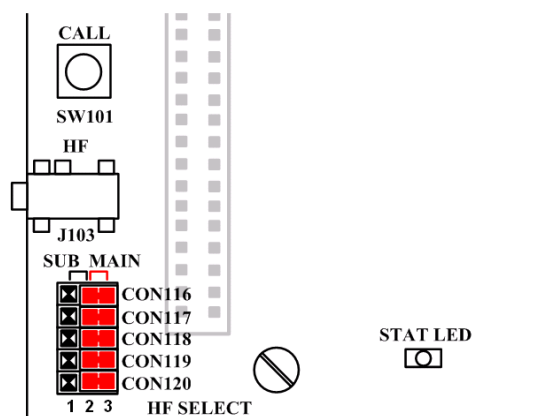


Figure 2-4 Antenna Connection

There are three SMA-type antenna connectors on the UC864/CC864 interface board. J105 and J106 are used for the standard UC864, CC864 and GC864 in common. Via a microwave coaxial cable, connect J107 or J108(MOLEX, P/N:MM9329-2700) to the module. You can use one antenna for WCDMA/CDMA/GSM and the other one for GPS, if needed.

Especially, for UC864-E-AUTO, use J109 SMA antenna connector, connected directly to the module through J110(Rosenberger, P/N: 99CI106-030).





LED Status	Device Status
Continuously off	Device is off
Fast blinking (period 1s, T on 0,5s)	Search network / Not registered / Turning off
Slow blinking (period 3s, T on 0,3s)	Registered for full service
Continuously on	Call is active



2.5 SIM Card Holder (J201)

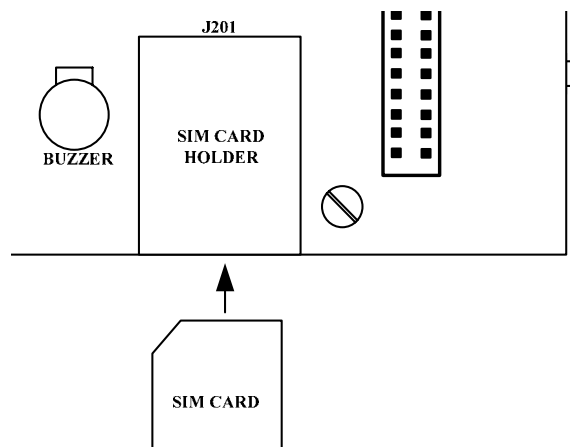


Figure 2-6 SIM Card Holder

There is a SIM card holder on both the interface board and the EVK2 motherboard, and a SIM card can be inserted and used in either one of them.

2.6 USB Connectors (J101, J102)

The interface board supports two USB connectors. One is a USB mini AB-type receptacle connector (J101), and the other is a USB B-type receptacle connector (J102). The UC864/CC864 module uses a USB connector on the interface board to communicate with a PC.



2.7 40-Pin Female Connectors (CON102, CON103)

The connections between the interface board of the UC864/CC864 module and the EVK2 motherboard are made through 2x 40-pin female connectors. All pin positions and functions are listed in the following tables.

CON102			
N.C	1	2	TX_TRACE
RX_TRACE	3	4	I2C_SDA_HW
GND	5	6	I2C_SCL_HW
SSC0_CLK	7	8	SSC0_MTSR
SSC0_MRST	9	10	N.C
GND	11	12	GND
GND	13	14	GND
C109/DCD	15	16	C104/RXD
C103/TXD	17	18	C108/DTR
GND	19	20	C107/DSR
C105/RTS	21	22	C106/CTS
C125/RING	23	24	N.C
GND	25	26	GND
GND	27	28	GND
EAR_HF+	29	30	EAR_MT-
EAR_HF-	31	32	EAR_MT+
AXE	33	34	MIC_HF-
MIC_MT+	35	36	MIC_HF+
MIC_MT-	37	38	GND
GND	39	40	GND

CON103			
VBATT	1	2	VBATT
VBATT	3	4	VBATT
GND	5	6	GND
GND	7	8	GND
CHARGE	9	10	CHARGE
GND	11	12	GND
GND	13	14	GND
ON_OFF*	15	16	N.C
RESET*	17	18	N.C
N.C	19	20	N.C
STAT_LED	21	22	N.C
N.C	23	24	N.C
GND	25	26	GND
GND	27	28	GND
N.C	29	30	N.C
SIMIO	31	32	SIMCLK
SIMRST	33	34	SIMVCC
SIMIN	35	36	N.C
N.C	37	38	GND
GND	39	40	GND

Table 2-2 Positions of 40-Pin Female Connectors on the Interface Board



2.8 30-Pin Male Connectors (PL101, PL102)

There are two 30-pin male connectors on the UC864/CC864 interface board. Via these connectors, it is possible to connect to external devices, such as user applications, Telit extension boards, measuring equipment, and/or other tools.

PL101				PL102			
N.C	1	2	N.C	TGPIO_05/ RTXMON	1	2	TGPIO_07/ BUZZER
N.C	3	4	N.C	PWRMON	3	4	MON1/ CAM_CLK
N.C	5	6	N.C	TGPIO_08	5	6	TGPIO_09
N.C	7	8	N.C	TGPIO_10/ PCM_TX	7	8	TGPIO_03
N.C	9	10	N.C	TGPIO_16	9	10	TGPIO_13
N.C	11	12	N.C	TGPIO_12	11	12	TGPIO_06/ ALARM
N.C	13	14	N.C	PCM_CLOCK	13	14	USB_ID
N.C	15	16	N.C		15	16	VAUX1
TGPIO_18/ PCM_RX	17	18	N.C	DAC_OUT	17	18	VRTC
TGPIO_17/ PCM_SYNC	19	20	TGPIO_04/	ADC_IN1	19	20	ADC_IN2
TGPIO_15	21	22	TGPIO_14	ADC_IN3	21	22	TGPIO_21
TGPIO_11	23	24	TGPIO_19	TGPIO_02/JDR	23	24	N.C
TGPIO_01	25	26	TGPIO_20	N.C	25	26	N.C
TGPIO_22	27	28	N.C	I2C_SDA	27	28	I2C_SCL
N.C	29	30	N.C	VBATT	29	30	GND

Table 2-3 Positions of GPIO Ports on the Interface Board



3 Power On/Off Sequences

When using the Telit Interface Board to turn UC864/CC864 power on or off, make sure to follow the sequences provided below.

	Power On Sequence	Power Off Sequence
1	Join the interface board and the UC864/CC864 module.	Remove the USB cable from J102.
2	Use the power switch on the EVK2 motherboard to turn power on.	Use the power switch on the EVK2 motherboard to turn power off.
3	Link the USB cable to J102.	Remove the UC864/CC864 module from the interface board.

Table 3-1 Power ON/OFF sequences

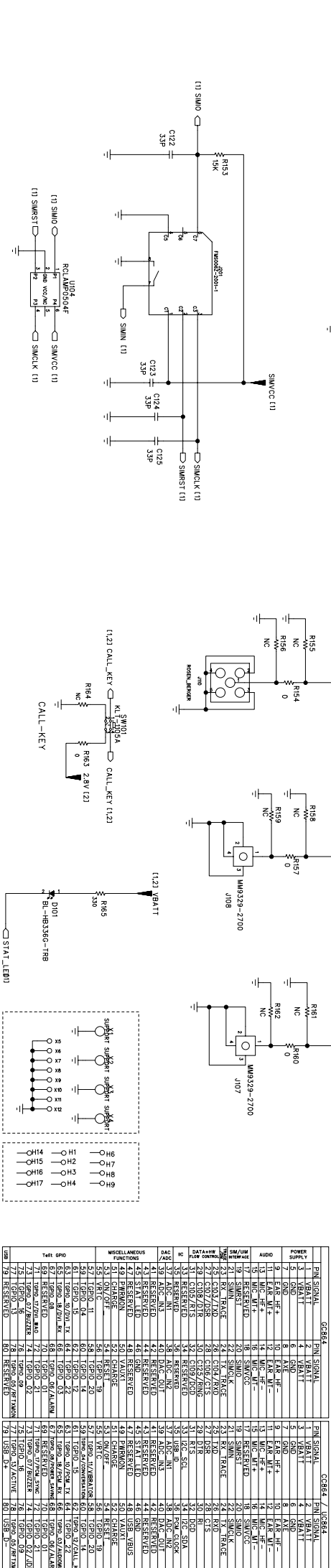


4 Schematics

This section provides schematics for the UC864/CC864 interface board.



2.54_30PIN_CON

[illegible]

5 Document Change Log

Revision	Date	Changes
Rev. 0	10/17/07	Initial Release
Rev. 1	28/01/08	Revised Printed Circuit Board (KS0101) Added WEEE logo on the PCB
Rev. 2	10/06/09	Revised Printed Circuit Board(KS0101C) Added UC864-G solder pad Added SMA connector(J109) and antenna connector pad(J110) for UC864-E-AUTO Modified Figure 1-1 Modified Figure 2-1 Modified Figure 2-3 Modified Figure 2-4
Rev.3	10/05/10	Modified USB_B connector(J102) Modified Figure 2-1 Added Figure 2-2
Rev.4	18/06/10	Split the Figure 1-1 to 1-1 and 1-2 for the standard UC864/CC864 Interface Board and for the UC864-E-AUTO.

