
iChip CO2128 with EBI Flash and Wavecom Q24 GSM Modem

Revision History

Version	Date	Description
1.0	April 2008	Initial version
2.0	September 2008	Changed from 1Mb Flash to 2Mb Flash

Introduction

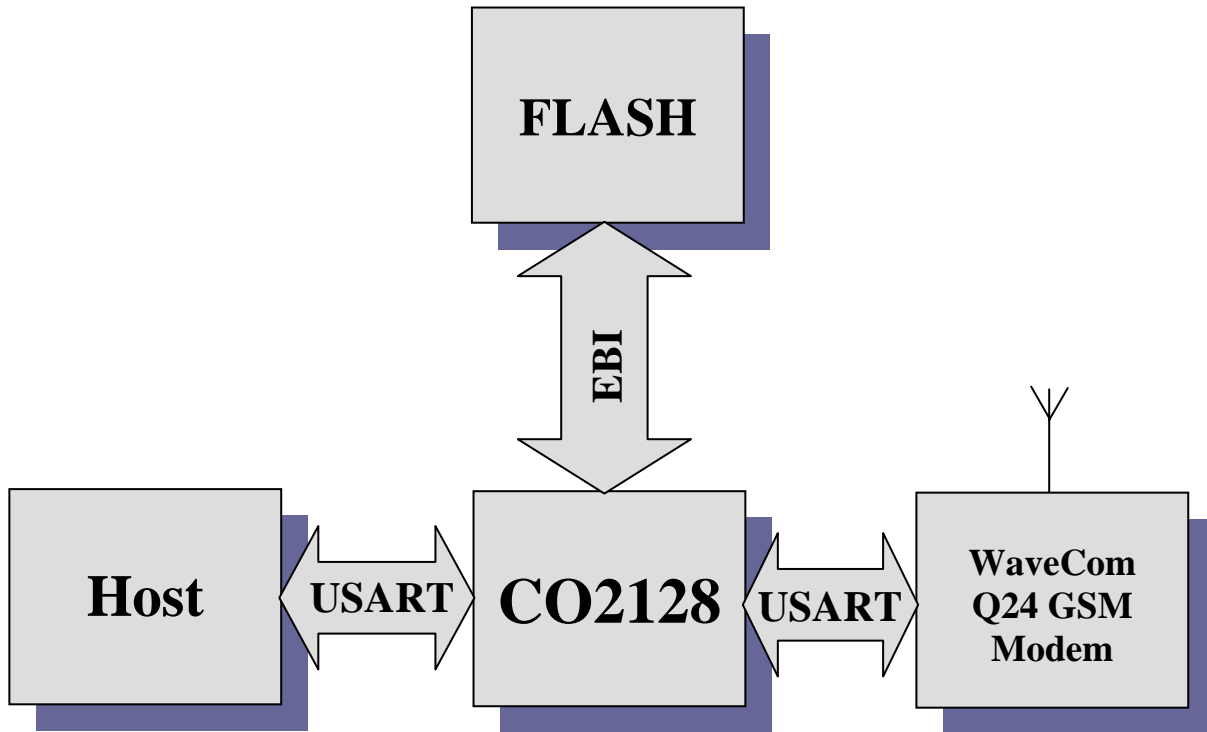
This Reference Design demonstrates the iChip™ CO2128 IP Controller™ connected to a host processor via USART, to a flash memory chip via EBI interface, and to Wavecom Q24 GSM modem via USART.

Connect One's AT+i™ commands are accepted at baud rates of up to 3Mbps.

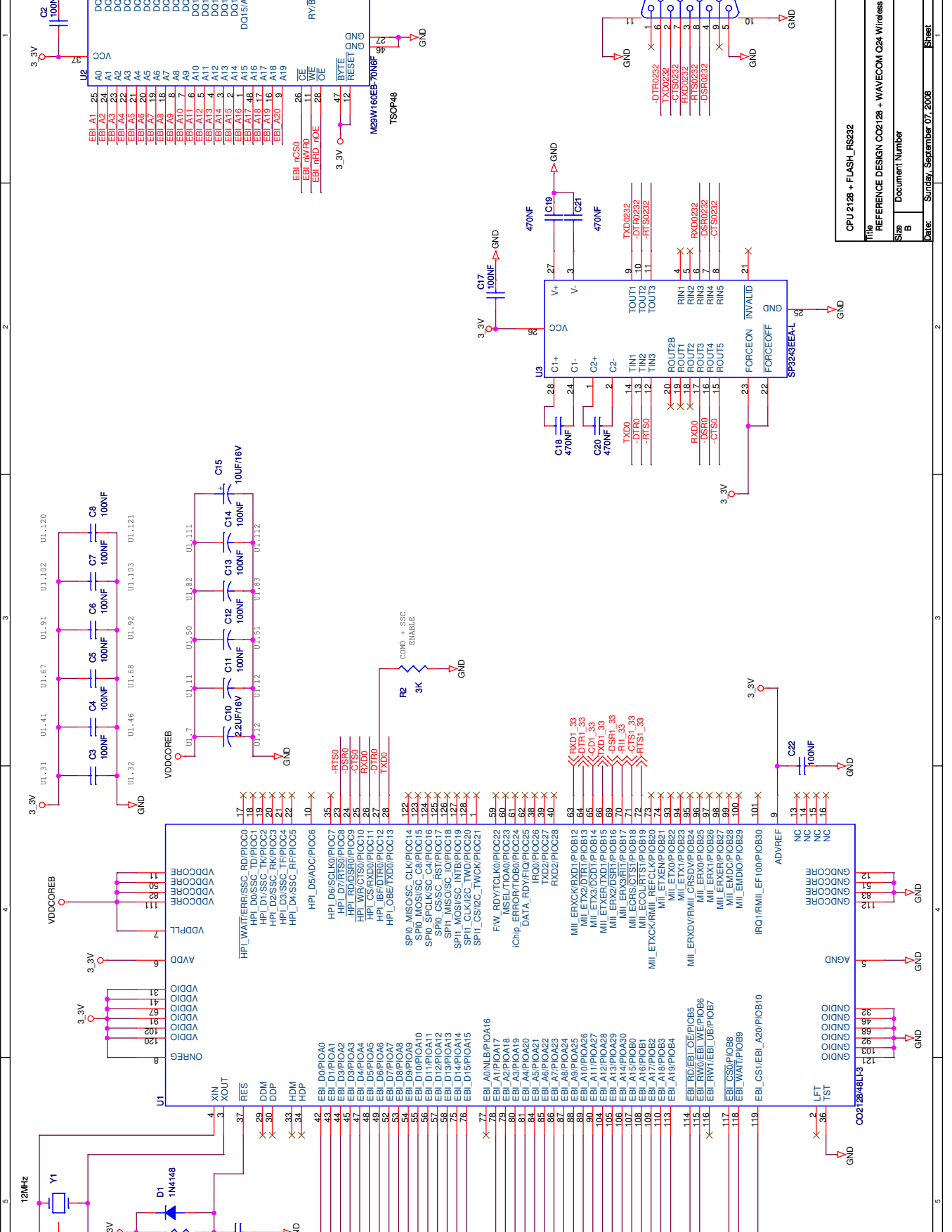
Features

- Supports serial host interface speeds of up to 3Mbps (250K, 1M, 1.5M, 3M)
- SSL3/TLS1 security implemented in hardware provides better performance
- Data and Internet connection through the Wavecom Q24 GSM modem
- Operates at the industrial temperature range
- RoHS-compliant

Block Diagram



Schematics

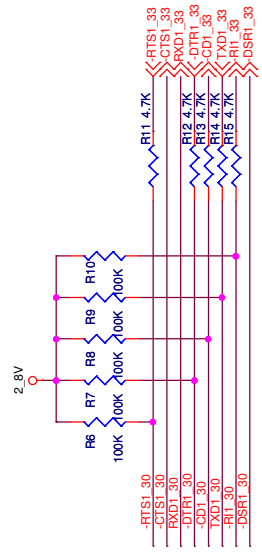
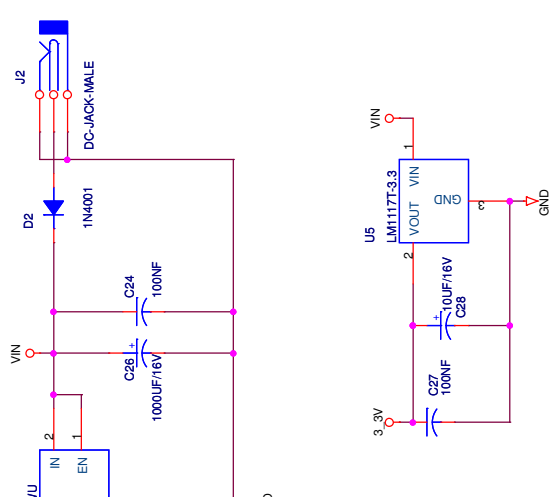
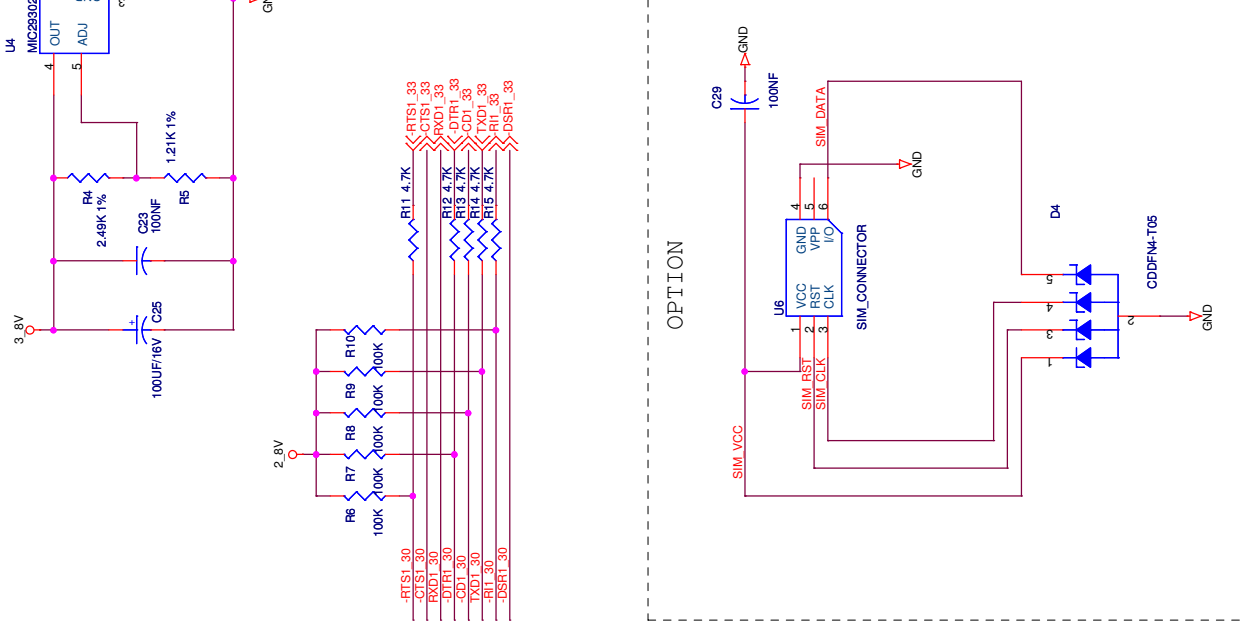
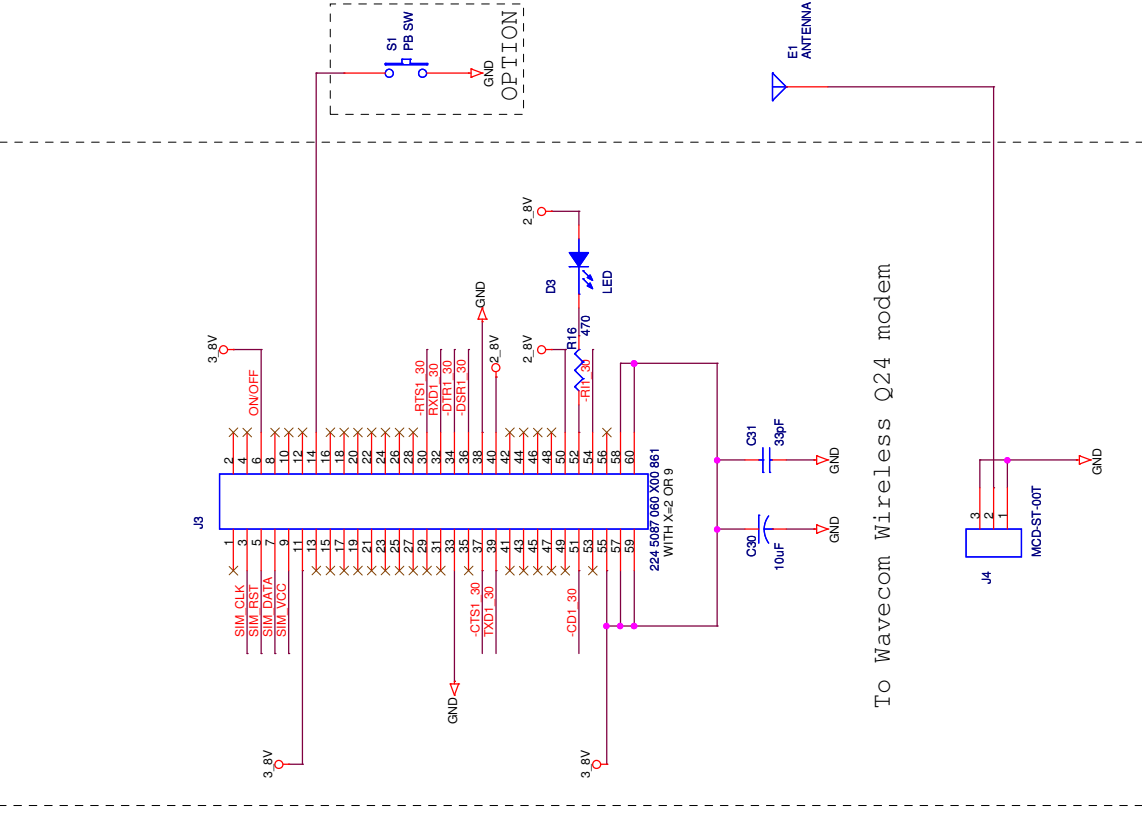


CPU 2128 + FLASH_RS232

This REFERENCE DESIGN CO2128 + WAVECOM Q24 Wireless Modem

Size	Document Number
Rev	1.1

Date: Sunday, September 07, 2008 Sheet 1 of 2



GSM INTERFACE			
Title REFERENCE DESIGN CQ2128 + WAVECOM Q24 Wireless Modem			
Size	B	Document Number	Rev 1.1
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Bill of Materials

<i>Item</i>	<i>Qty</i>	<i>Reference</i>	<i>Part</i>	<i>Manufacturer</i>
1	2	C1, C9	22pF	Any
2	17	C2, C3, C4, C5, C6, C7, C8, C11, C12, C13, C14, C17, C22, C23, C24, C27, C29	100nF	Any
3	1	C10	2.2μF/16V	Any
4	2	C15, C28	10μF/16V	Any
5	5	C16, C18, C19, C20, C21	470nF	Any
6	1	C25	100μF/16V	Any
7	1	C26	1000μF/16V	Any
8	1	C30	10μF	Any
9	1	C31	33pF	Any
10	1	D1	1N4148	Any
11	1	D2	1N4001	Any
12	1	D3	LED	Any
13	1	D4	CDDFN4-T05	Bourns
14	1	E1	Antenna	50ohm, VSWR≤2:1, Gain>1.5dbi, input power>2W peak
15	1	J1	DB9 FEM	Any
16	1	J2	DC-JACK-MALE	Any
17	1	J3	224 5087 060 X00 861	Kyocera/AVX
18	1	J4	MCD-ST-00T	Sunridge
19	1	R1	10K	Any
20	1	R2	3K	Any
21	6	R3, R6, R7, R8, R9, R10	100K	Any
22	1	R4	2.49K 1%	Any
23	1	R5	1.21K 1%	Any
24	5	R11, R12, R13, R14, R15	4.7K	Any
25	1	R16	470	Any
26	1	S1	PB SW	Any
27	1	U1	CO2128/48LI-3	ConnectOne
28	1	U2	M29W160EB-70N6F	Numonyx
29	1	U3	SP3243EEA-L	Sipex
30	1	U4	MIC29302WU	Micrel
31	1	U5	LM1117T-3.3	National Semiconductor

32	1	U6	SIM_CONNECTOR	Any
33	1	Y1	12MHz	Any 50ppm