
iChip CO2128 with EBI Flash and Enfora Enabler III-G GSM Modem

Revision History

Version	Date	Description
1.0	April 2008	Original release
2.0	September 2008	Changed from 1Mb Flash to 2Mb Flash

Introduction

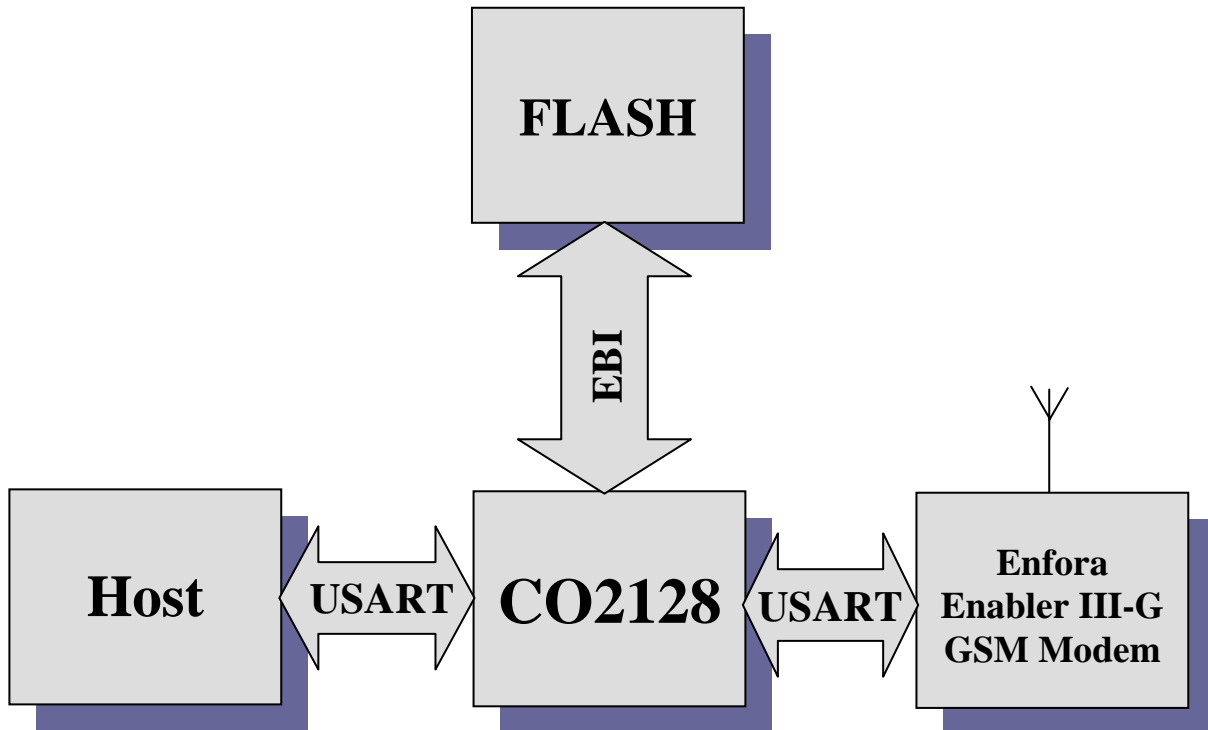
This Reference Design demonstrates the iChip™ CO2128 IP Controller™ connected to a host processor via USART, to a flash memory chip via EBI interface, and to Enfora Enabler III-G GSM modem via USART.

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

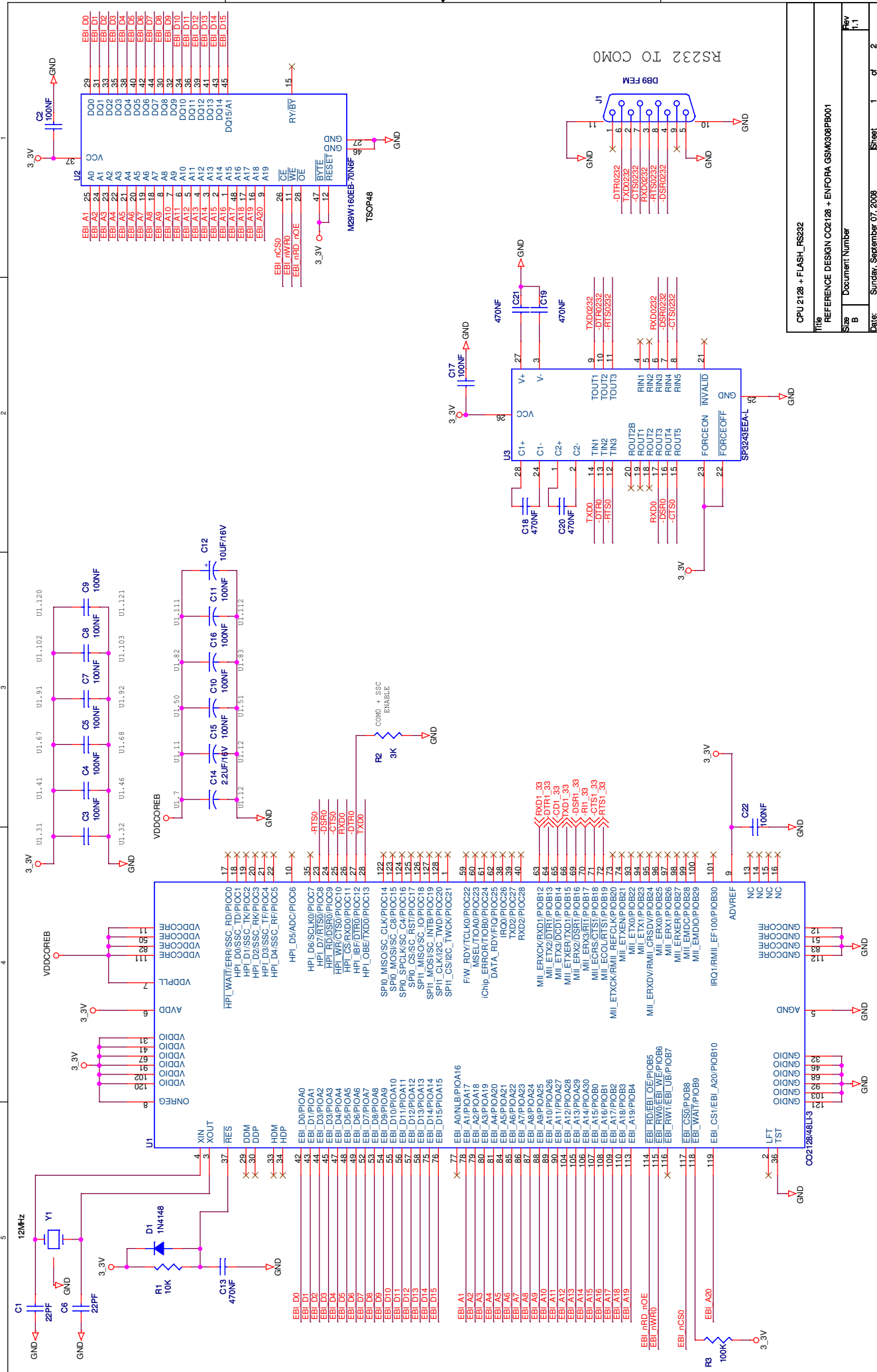
Features

- 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 Enfora Enabler III-G GSM modem
- Operates at the industrial temperature range
- RoHS-compliant

Block Diagram



Schematics



CPU 2128 + FLASH_R5232	
Title REFERENCE DESIGN CO2128 + ENFORA GSM0308P001	
Size B	Document Number
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Rev 1.1	

Bill of Materials

<i>Item</i>	<i>Qty</i>	<i>Reference</i>	<i>Part</i>	<i>Manufacturer</i>
1	2	C1, C6	22pF	Any
2	21	C2, C3, C4, C5, C7, C8, C9, C10, C11, C15, C16, C17, C22, C23, C24, C26, C27, C29, C31, C32, C33	100nF	Any
3	2	C12, C30	10μF/16V	Any
4	5	C13, C18, C19, C20, C21	470nF	Any
5	1	C14	2.2μF/16V	Any
6	1	C25	1000μF/16V	Any
7	1	C28	100μF/16V	Any
8	1	D1	1N4148	Any
9	1	D2	1N4001	Any
10	1	D3	CDDFN4-T05	Bourns
11	1	E1	Antenna	50ohm, VSWR≤2:1, Gain>1.5dbi, input power>2W peak
12	1	J1	DB9 FEM	Any
13	1	J2	51338-1074	Molex
14	1	J3	DC-JACK-MALE	Any
15	1	J4	MCD-ST-00T	Sunridge
16	2	R1, R6	10K	Any
17	1	R2	3K	Any
18	1	R3	100K	Any
19	1	R4	2.49K 1%	Any
20	1	R5	1.21K 1%	Any
21	1	S1	PB SW	Any
22	1	U1	CO2128/48LI-3	ConnectOne
23	1	U2	M29W160EB-70N6F	Numonyx
24	1	U3	SP3243EEA-L	Sipex
25	1	U4	MIC29302WU	Micrell
26	1	U5	ADG3308BRUZ/ TSSOP	Analog Device
27	1	U6	LM1117T-3.3	National Semiconductor
28	1	U7	TPS72218DBVRG4	Texas Instruments
29	1	U8	SIM_CONNECTOR	Any
30	1	Y1	12MHz	Any 50ppm