

. Technical Description

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1 Introduction

SIM800C is a complete Quad-band GSM/GPRS solution in a SMT type, which can be embedded in the customer applications.

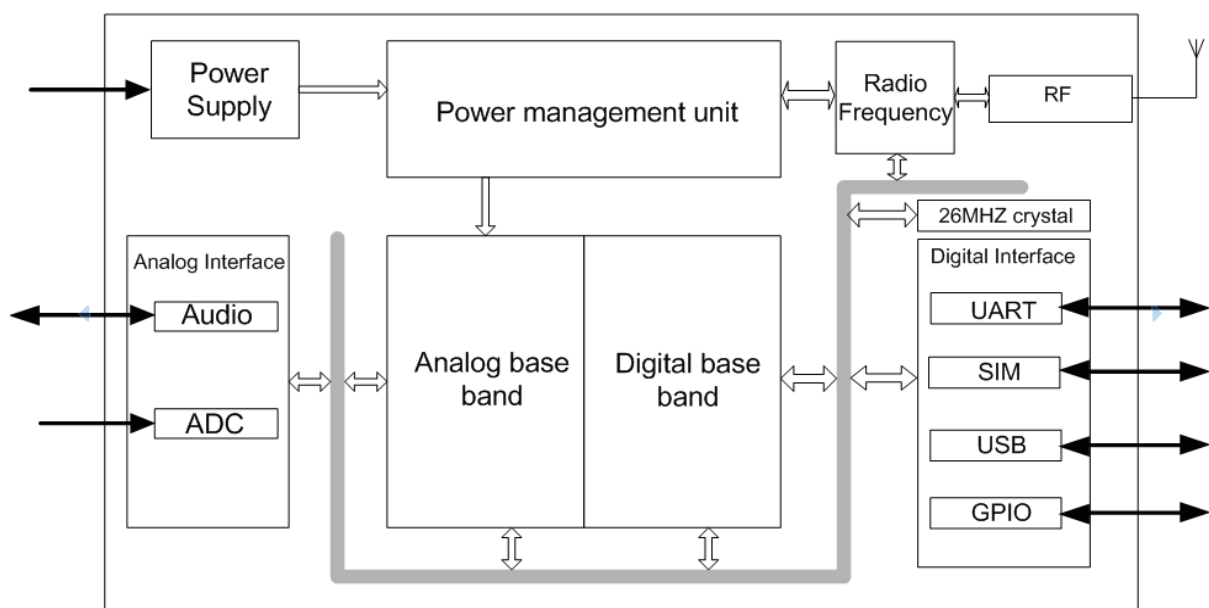
This article describes the interfaces of SIM800C, the electrical properties of the key components and structure.

2 Functional performance

- Quad-band 850/900/1800/1900MHz
- GPRS multi-slot class 12/10
- GPRS mobile station class B
- Compliant to GSM phase 2/2+
 - Class 4 (2 W @ 850/900MHz)
 - Class 1 (1 W @ 1800/1900MHz)
- Dimensions: 17.6*15.7*2.3mm
- Weight: 1.3g
- Control via AT commands (3GPP TS 27.007, 27.005 and SIMComenhanced AT Commands)
- Supply voltage range 3.6 ~ 4.2V
- Low power consumption
- Operation temperature:-30℃~80℃

3 Main devices and interfaces

The following figure shows a functional diagram of SIM800C:



Main devices of SIM800C

Unite	Placement	Description	Part Number
BB	U101	BB GSM 8.1*7.6MM TFBGA-145 SIP(24+32) RO	MT6261MA/A
RF	U301	RF PA MODULE QUAD-BAND? 5.25*5.3 RO	RF7198TR13
CRYSTAL	X301	CRY XO 26MHZ +/-10PPM 7.4PF CH3225 RO	X1E000021043400

The detailed description of some RF devices:

The RF7198 is a complete high-power, high-efficiency transmit module for low-cost quad-band GSM/GPRS mobile handsets. Power Amplifier, Power Controller and Switch functionality have been implemented on a single standard CMOS die.

Parameter	Rating	Unit
Supply Voltage, Non-operating	-0.5 to +5.5	V
Ramp Voltage (VRAMP)	-0.5 to +3.0	V
Control Voltage	-0.3 to +3.0	V
RF Input Power	+10	dBm
Max Duty Cycle	50	%
Output Load VSWR	20:01	
Operating Case Temperature	-30 to +85	° C
Storage Temperature	-55 to +150	° C
ESD All Pins, HBM, JESD22-A114	2,000	V

3.1 SMT PACKAGE WITH 42-PIN PADS

42 - pin PADS with SMT package for module and user interface, including power supply, ground, MIC, SPK, serial port, SIM card , module network status indication, ADC, etc.

