1. Operational Description

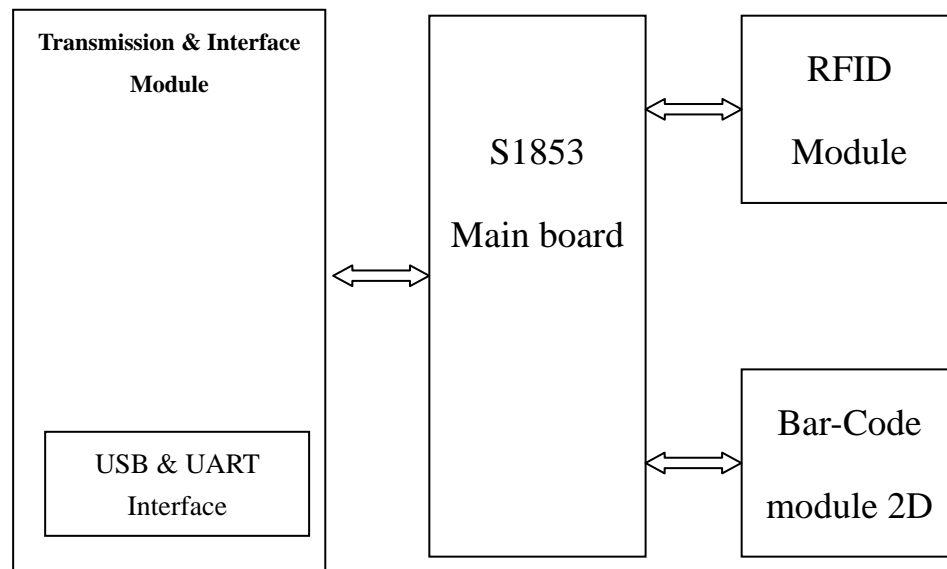## 1.1 Logical Architecture of S1853 handheld reader

Fig 1

1.2 Operational Principle of Each Module

1.2.1 Transmission & Interface Module

These modules are used for data transfer between the S1853 handheld reader and other devices.

1.2.2 S1853 Main Board

The main board is the flat of all other module operation. It processes information come from interface module.

1.2.3 RF Module

In the RF module, the RF signal comes from the RF integrate circuit which one is inside the IC. At first, a digital signal occurs by the waveform generation, and then,

the digital signal is converted to analog signal, and after mixing and modulation, the signal is amplified by PA. In the end, a RF signal is sent out. The way of modulation is ASK. Please refer to Fig 2.
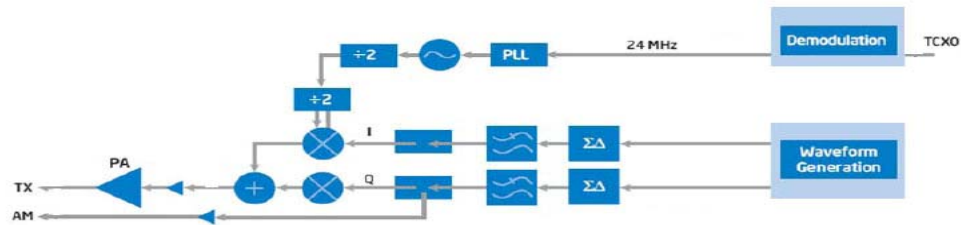

Fig 2

1.2.4 2-dimensional Barcode Module

2-dimensional Barcode Module is equipped with powerful scanning performance, fast and accurate, supporting accuracy of 3mils and all types of 1D and 2D bar codes, such as PDF417, QR Code, DataMatrix, Aztec Code & etc.

2. Technical Overview

Parameter		Min	Typical	Max	Note
RF output		15dBm	-	30dBm	
Icc	Sleep Mode	200mA	260mA	310mA	
	Idle Mode	500mA	550mA	600mA	
	Operation Mode	TBD	1.9A	2.2A	
Power		3.7V 3200mAh			Removable, rechargeable battery pack
Display		3.5 in. QVGA color			
Operation Temperature		-15~+55℃			
Optional module		WiFi, 802.11 a/b/g Bluetooth (Internal)			

	GSM/GPRS (Internal)	
RFID Protocol	EPC C1G2 or ISO18000-6C	