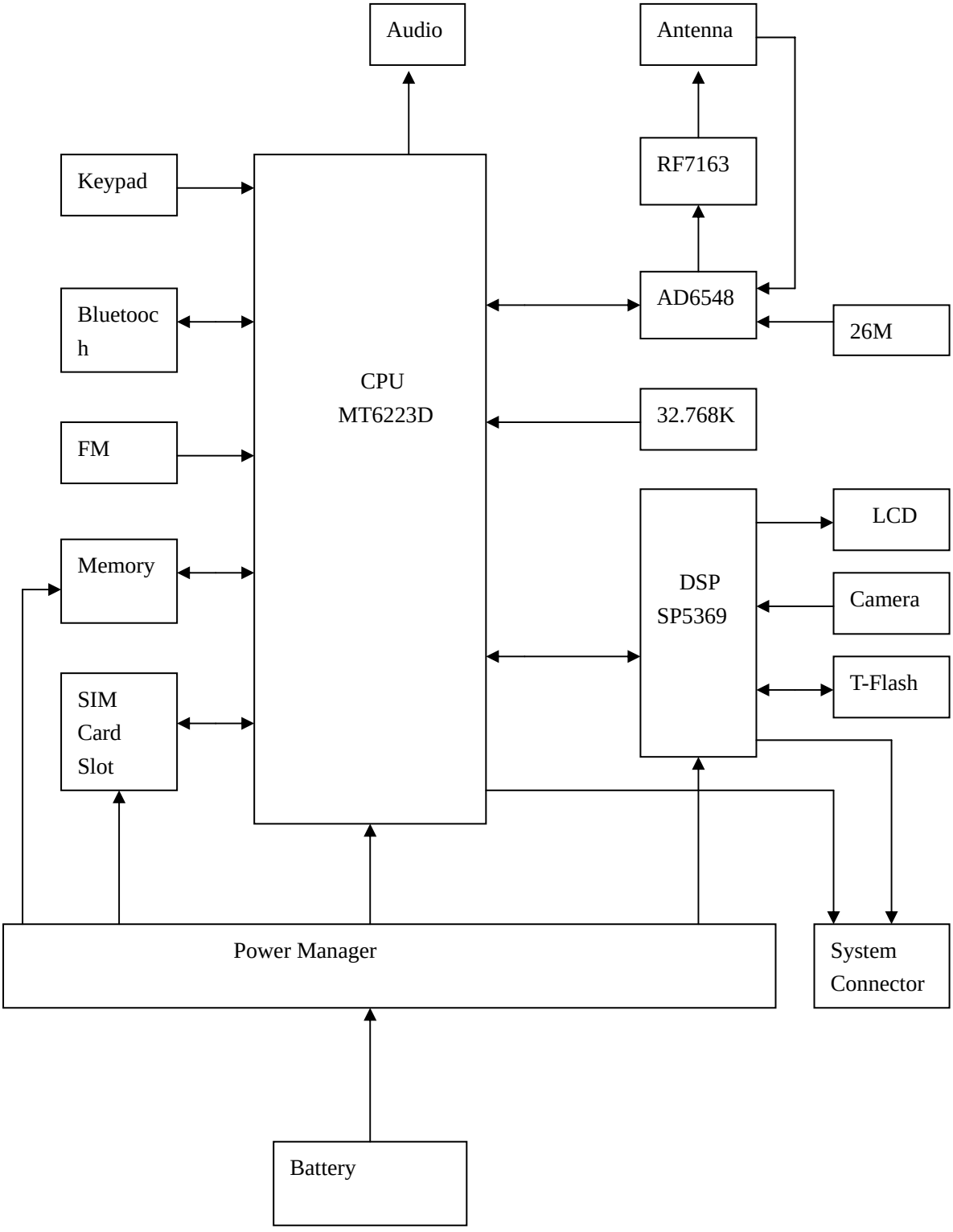
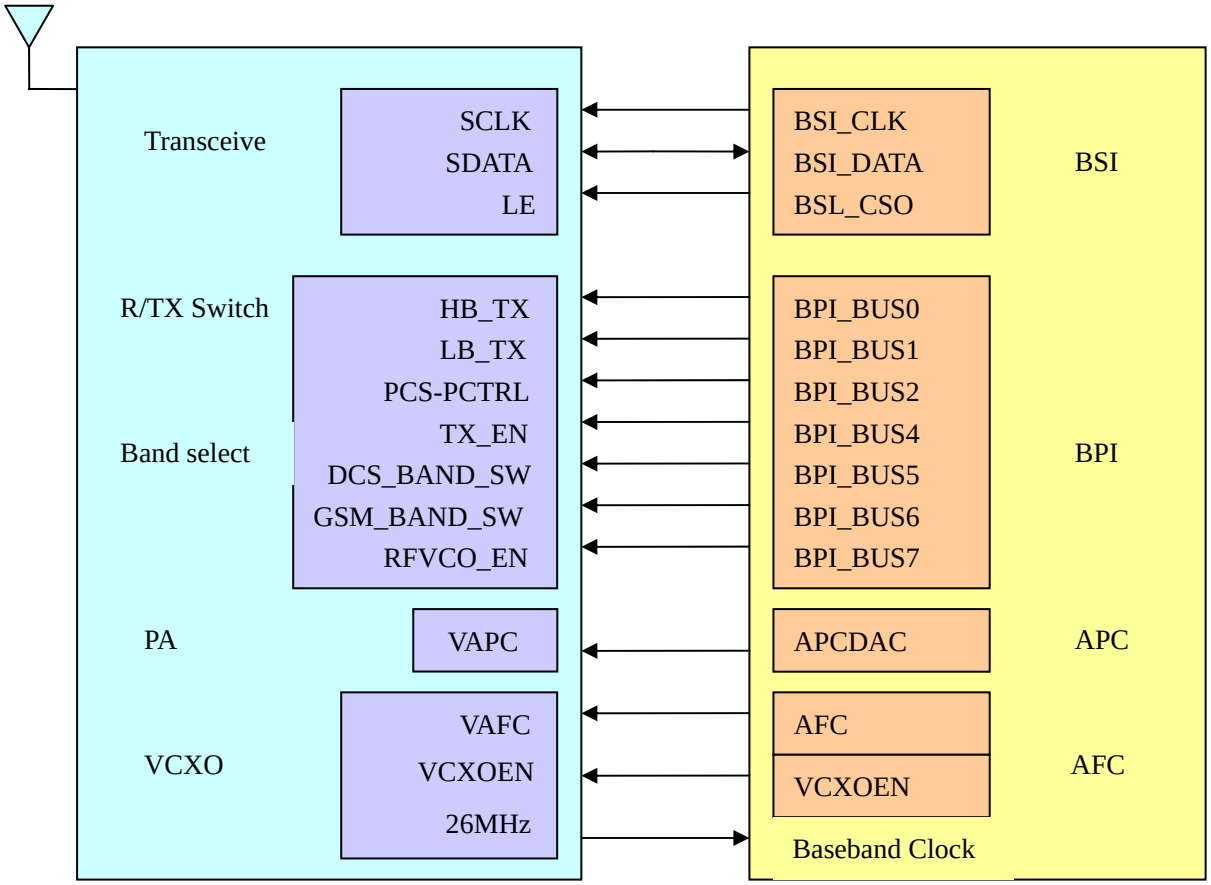
MD110 Circuit Description

Version:V1.0

MD110 Block diagram
1.1

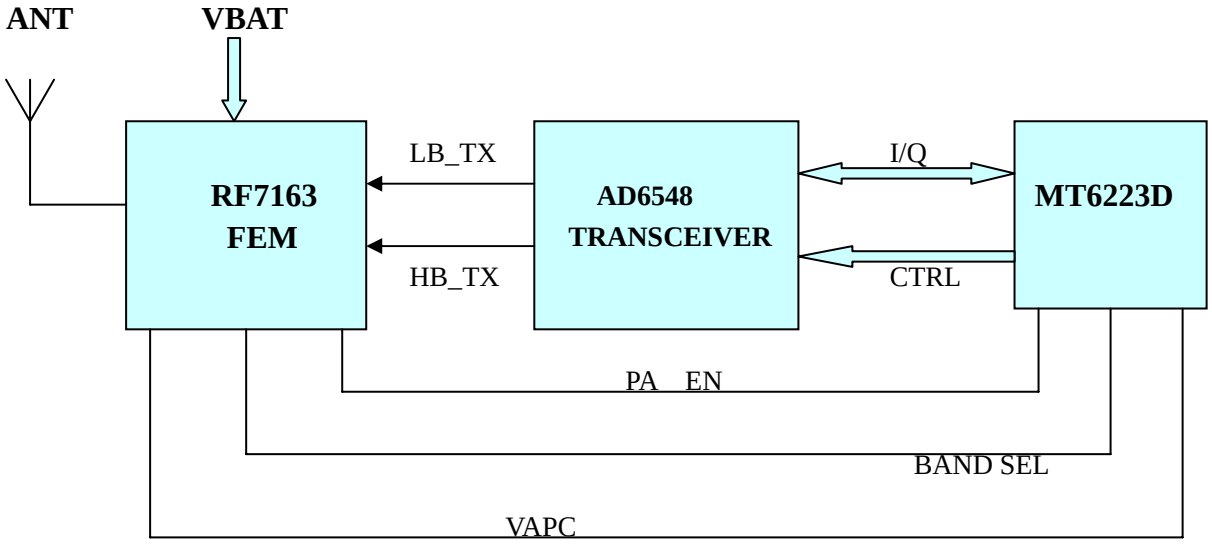


RF Part:
ANTENNA



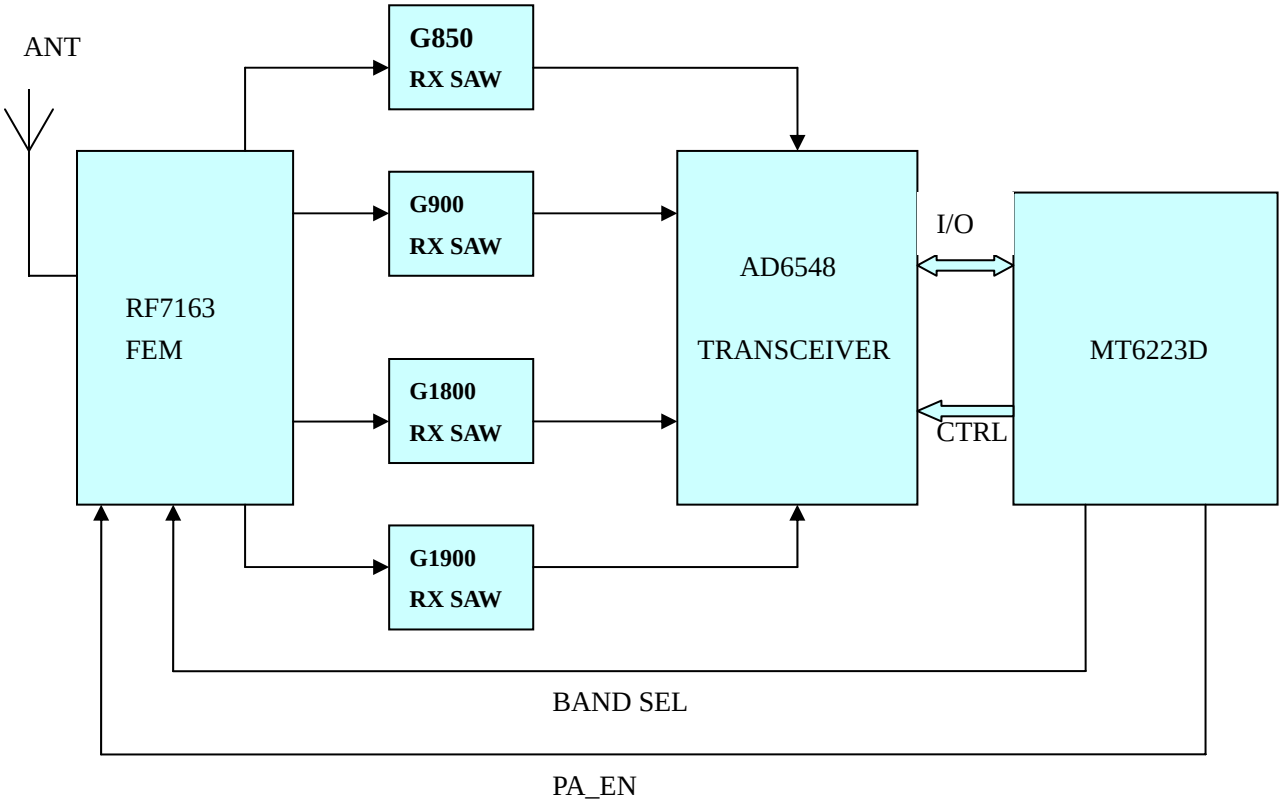
GSM RF and BB interface diagram

2.2 RF TRANSMIT PART



This circuit shows the transmitter path,including the RF7163 and AD6548. The RF7163 is a quad-band(GSM850/EGSM900/DCS1800/PCS1900)GSM/GPRS,Class12 compliant transmit moudle,and is designed for use as the final portion of the transmitter section in a GSM850/EGSM900/DCS1800/PCS1900 handset and eliminates the need for a PA-to-antenna switch moudle matching netwroks. The AD6548 is a fully integrated GSM Transceiver, to support quad-band application without further external active components. The modulated IQ singal from baseband is turned to the RF signal by the AD6548,then the RF signal is amplified by the RF7163 and transmitted to antenna through antenna switch and finally radiated to the air. The PA_EN signal controls the RF7163 on or off. The BANDSW signal controls the RF7163 to select Low band or High band.The VAPC signal is ramping the RF signal.And all control signals are from baseband.

2.3 RF RECEIVE PART



This circuit shows the receiver path,including the RF7163,AD6548 and four SAW Filter.The RF7163 is a quad-band transmit module with TX/RX switching,having four interchangeable RX ports allowing quad-band operation.And when the PA_EN signal is0,the RF7163 is in RX mode.The AD6548 includes four fully intergrated Low Noise Amplifier(LNAS),to suppert Quad-Band application.When receiving,the RF signal from antenna,through the RF7163 and SAW Filter,enters the AD6548,ang then amplified and downconverted by quad-rature mixer and then fed to the baseband.Then the RF signal is demodulated to the IQ signals.Finally the IQ signals are transmitted to the baseband analog processor by the out pins.