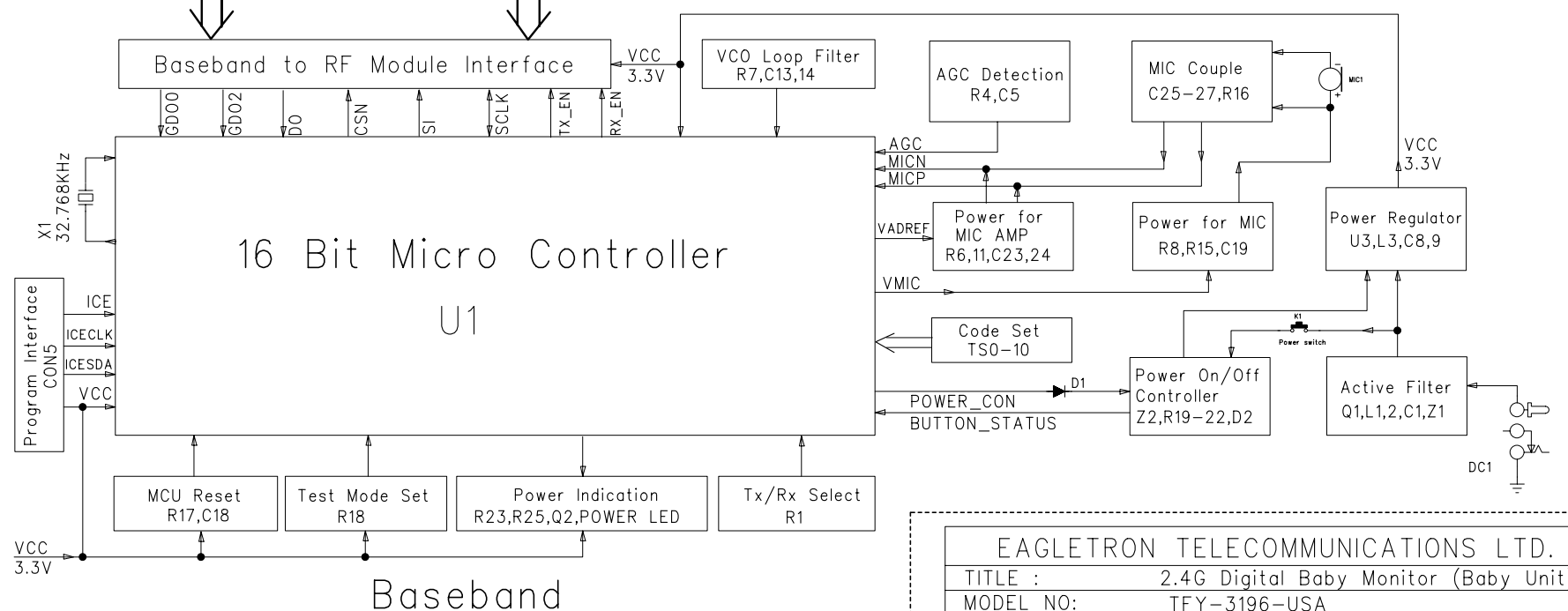
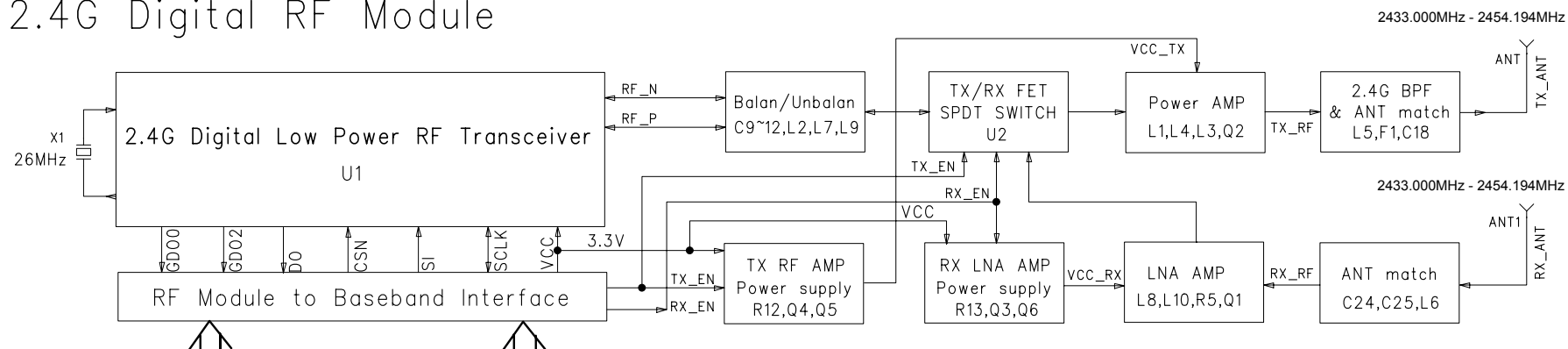


2.4G Digital RF Module



TFY-3196-USA Baby Unit Block Diagram

EAGLETRON TELECOMMUNICATIONS LTD.			
TITLE :	2.4G Digital Baby Monitor (Baby Unit)		
MODEL NO:	TFY-3196-USA		
DRAWING NO:	BLOCK-TFY-3196T-USA-00		
DRAWN BY :	Zhu Hai	REV :	00
CHECKED BY :	Shek kaiping	PAGE :	1 OF 1
APPROVED BY :	KAMWA	DATE:	20 Sep 2005

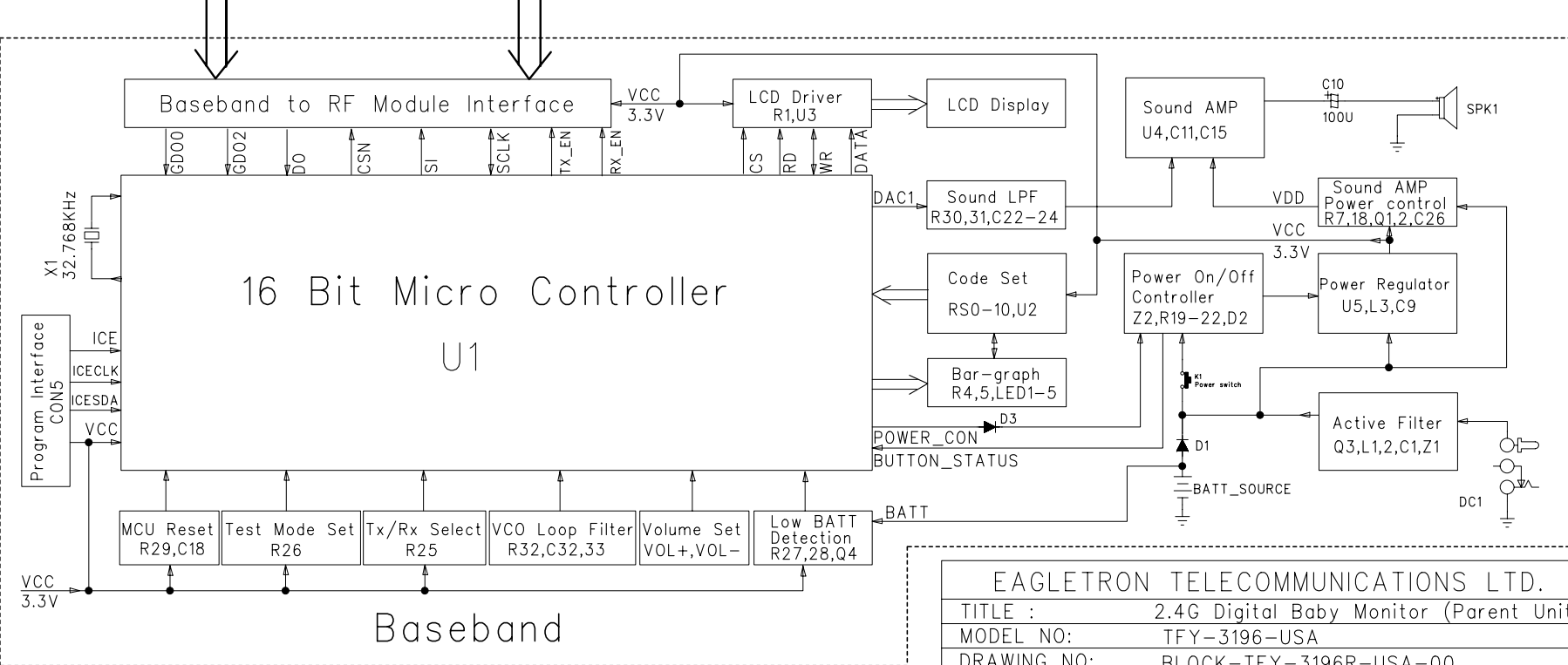
2.4G Digital RF Module

The diagram illustrates the architecture of a 2.4G Digital RF Module. It features a central **2.4G Digital Low Power RF Transceiver (U1)** which interfaces with an **RF Module to Baseband Interface** via signals **GD00**, **GD02**, **D0**, **CSN**, **SI**, **SCLK**, and **VCC**. The transceiver is powered by a **3.3V** supply and has a **26MHz** crystal (**X1**) connected to its **GD00** pin.

For transmission, the transceiver's **RF_N** and **RF_P** outputs pass through a **Balan/Unbalan** stage (components **C9~12, L2, L7, L9**) and a **TX/RX FET SPDT SWITCH (U2)**. The switch is controlled by **TX_EN** and **RX_EN** signals. The transmitted signal then goes through a **Power AMP** (components **L1, L4, L3, Q2**) and a **2.4G BPF & ANT match** stage (components **L5, F1, C18**) before reaching the **ANT** (TX_ANT).

For reception, the signal from the **ANT1** (RX_ANT) passes through an **ANT match** stage (components **C24, C25, L6**) and an **LNA AMP** (components **L8, L10, R5, Q1**). The received signal is then amplified by an **RX LNA AMP** (components **R13, Q3, Q6**) and a **TX RF AMP** (components **R12, Q4, Q5**) before being fed back into the transceiver's **RF_N** and **RF_P** inputs. The **RX LNA AMP** is powered by **VCC_RX**, and the **TX RF AMP** is powered by **VCC_TX**.

The entire module operates in the frequency range of **2433.000MHz - 2454.194MHz**.



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TITLE :		2.4G Digital Baby Monitor (Parent Unit)
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