

Table1. LNA MATCHING NETWORK

| Ref. Des. | 315 MHz | 433 MHz | 868 MHz | 915 MHz | Units |
|-----------|---------|---------|---------|---------|-------|
| C7 | 330 | 180 | 39 | 33 | pF |
| C12 | 15 | 8.2 | 2.7 | 1.5 | pF |
| C13 | 15 | 8.2 | 2.7 | 1.8 | pF |
| L4 | 27 | 22 | 15 | 12 | nH |

Table2. PA MATCHING NETWORK

| Ref. Des. | 315 MHz | 433 MHz | 868 MHz | 915 MHz | Units |
|-----------|---------|---------|---------|---------|-------|
| C14 | 390 | 270 | 56 | 47 | pF |
| C22 | 7.5 | 6.8 | 3.0 | 2.7 | pF |
| C21 | 390 | 270 | 43 | 43 | pF |
| C25 | 390 | 270 | 39 | 33 | pF |
| C26 | 390 | 270 | 39 | 33 | pF |
| L10 | 75 | 39 | 15 | 15 | nH |
| L11 | 560 | 470 | 330 | 270 | nH |

Table3. LOOP FILTER COMPONENTS - S&H CAPACITOR
XTAL SWITCH CAPACITORS - POST DETECTION FILTER

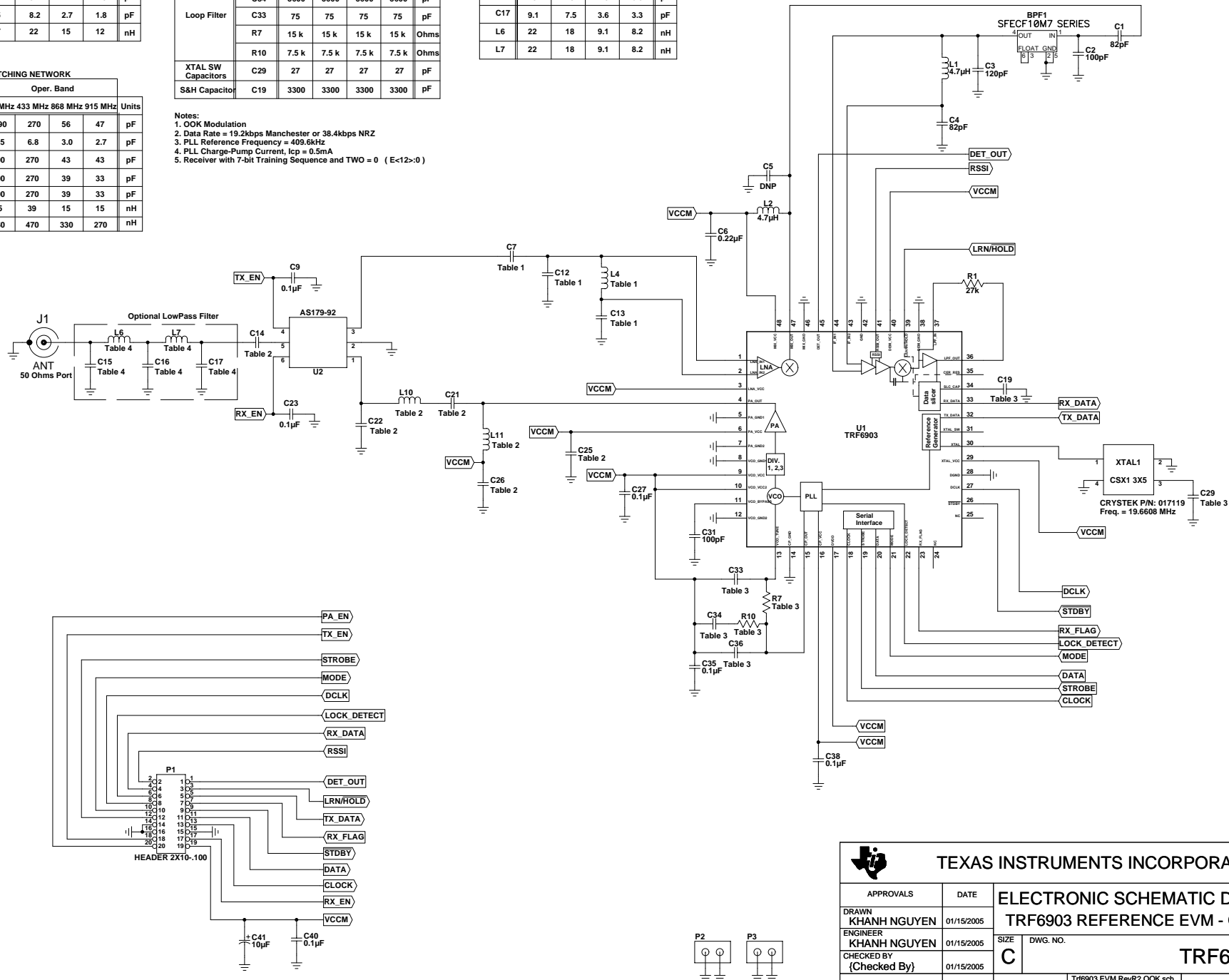
| Function | Ref. Des. | 315 MHz | 433 MHz | 868 MHz | 915 MHz | Units |
|--------------------|-----------|---------|---------|---------|---------|-------|
| Loop Filter | C36 | 120 | 120 | 120 | 120 | pF |
| | C34 | 5600 | 5600 | 5600 | 5600 | pF |
| | C33 | 75 | 75 | 75 | 75 | pF |
| | R7 | 15 k | 15 k | 15 k | 15 k | Ohms |
| | R10 | 7.5 k | 7.5 k | 7.5 k | 7.5 k | Ohms |
| XTAL SW Capacitors | C29 | 27 | 27 | 27 | 27 | pF |
| S&H Capacitor | C19 | 3300 | 3300 | 3300 | 3300 | pF |

Notes:

1. OOK Modulation
2. Data Rate = 19.2kbps Manchester or 38.4kbps NRZ
3. PLL Reference Frequency = 409.6kHz
4. PLL Charge-Pump Current, $I_{cp} = 0.5mA$
5. Receiver with 7-bit Training Sequence and TWO = 0 ($E < 12 > 0$)

Table4. Optional LowPass Filter

| Ref. Des. | 315 MHz | 433 MHz | 868 MHz | 915 MHz | Units |
|-----------|---------|---------|---------|---------|-------|
| C15 | 9.1 | 7.5 | 3.6 | 3.3 | pF |
| C16 | 18 | 15 | 7.5 | 6.8 | pF |
| C17 | 9.1 | 7.5 | 3.6 | 3.3 | pF |
| L6 | 22 | 18 | 9.1 | 8.2 | nH |
| L7 | 22 | 18 | 9.1 | 8.2 | nH |



TEXAS INSTRUMENTS INCORPORATED

| APPROVALS | DATE | ELECTRONIC SCHEMATIC DIAGRAM, TRF6903 REFERENCE EVM - OOK - LP | | |
|----------------------------|------------|---|----------|------------|
| DRAWN KHANH NGUYEN | 01/15/2005 | SIZE C | DWG. NO. | REV. R2 |
| ENGINEER KHANH NGUYEN | 01/15/2005 | TRF6903 | | |
| CHECKED BY (Checked By) | 01/15/2005 | SHEET 1 OF 1 | | |
| SCALE: NONE | | TRF6903 EVM RevR2 OOK.sch Thu Jan 20, 2005 15:04:35 | | |