

EXHIBIT B

[FCC Ref. 2.1033(b)(4)]

"Description of Circuit Functions"

2-6700A Circuit Description :

The following circuit description for THOMSON model 2-6700A is base on the circuit diagram and block diagram of 2-6700A.

2-6700A Handset :

1. Receiving Path

The receiving path is established by below sections.

- **Low Noise Amplifier (LNA)**
FM signal filtering by the duplexer, then input to the Q1 and pick up by tank circuit C29 and L2 , before output to 1st mixer.
- **1st Mixer**
1st mixer is included in U1 (TB31224), which 1st local oscillator (LO) is controlled by the internal PLL of U1 & VCO coil (L3). The 1st IF (10.7MHz) is filtering by a ceramic filter CF1, the filtered IF will input to 2nd mixer.
- **2nd Mixer**
2nd mixer is also built in U1 (TB31224), which 2nd local oscillator (LO) is controlled by the crystal oscillator of U1. The 2nd IF (455KHz) is filtering by a ceramic filter CF2, the filtered 2nd IF will input to FM demodulator.
- **FM demodulator and expander**
The 2nd IF is demodulate by quadrature coil T3, then the recovered audio is input to the expander for de-emphasis, before output to the handset speaker though audio amplifier.

2. Transmitting Path

The transmitting path is established by below sections.

- **Mic amplifier and compressor**
Audio pick up by handset microphone is amplified by internal mic amplifier of U1, then input to compressor for pre-emphasis, before input to the modulator (Tx VCO).

- Modulator and Tx VCO

The transmit VCO is constructed by Q6, VD1 and T4, which is controlled by internal PLL of U1. Both audio and data signal input to the transmit VCO will cause a frequency modulation progress.

- RF power amplifier

FM signal is amplified by Q7 and filtering by T5, then fit to the antenna through duplexer.

2-6700A Base Unit :

1. Receiving Path

The receiving path is established by below sections.

- Low Noise Amplifier (LNA)

FM signal filtering by the duplexer, then input to the Q1 and pick up by tank circuit of C50 & L4, before output to 1st mixer.

- 1st Mixer

1st mixer is included in U1 (TB31224), which 1st local oscillator (LO) is controlled by the internal PLL of U1 & VCO coil (L11). The 1st IF (10.7MHz) is filtering by a ceramic filter CF1, the filtered IF will input to 2nd mixer.

- 2nd Mixer

2nd mixer is also built in U1 (TB31224), which 2nd local oscillator (LO) is controlled by the crystal oscillator of U1. The 2nd IF (455KHz) is filtering by a ceramic filter CF2, the filtered 2nd IF will input to FM demodulator.

- FM demodulator and expander

The 2nd IF is demodulate by quadrature coil T3, then the recovered audio is input to the expander for de-emphasis, before output to the line interface through audio amplifier.

2. Transmitting Path

The transmitting path is established by below sections.

- **Mic amplifier and compressor**
Audio input from line interface is amplified by internal mic amplifier of U1, then input to compressor for pre-emphasis, before input to the modulator (Tx VCO).
- **Modulator and Tx VCO**
The transmit VCO is constructed by Q6, VD1 and T6, which is controlled by internal PLL of U1. Both audio and data signal input to the transmit VCO will cause a frequency modulation progress.
- **RF power amplifier**
FM signal is amplified by Q4 and filtering by L3, then fit to the antenna though duplexer.

3. Telephone line interface

The telephone line interface circuit is established by below sections.

- **Audio power amplifier**
IC2 A&B are formed a power amplifier, according to high current output requirement for line interface.
- **Line relay & isolation transformer**
T4 is the line isolation transformer, both audio input and output is though this transformer. RL1 is the reed relay for line seize, which is controlled Q3.
- **Ring detect circuit**
IC2 is used as a differential amplifier for pick up the ring signal, which is input though two 20M ohm resistor (R44 and R45) as an isolation from the line.

 THOMSON CONSUMER ELECTRONICS AUDIO & COMMUNICATIONS		
BGP No:	TITLE: PRODUCT SPECIFICATION	Drawing No:
Model No: 26700A		Revision No: 0
Base Model:		Revision Date:

9.2. Security code

- This set has a protection system in order to avoid any other handset to use the base.
- The H/S battery must be charged. Then, the security code can be exchanged as follows : 16-bit code (random) generated in base when ~~power up~~ *each charge*.