HW Declaration

GX0301 HW v2.0 to v2.1

September 21, 2007

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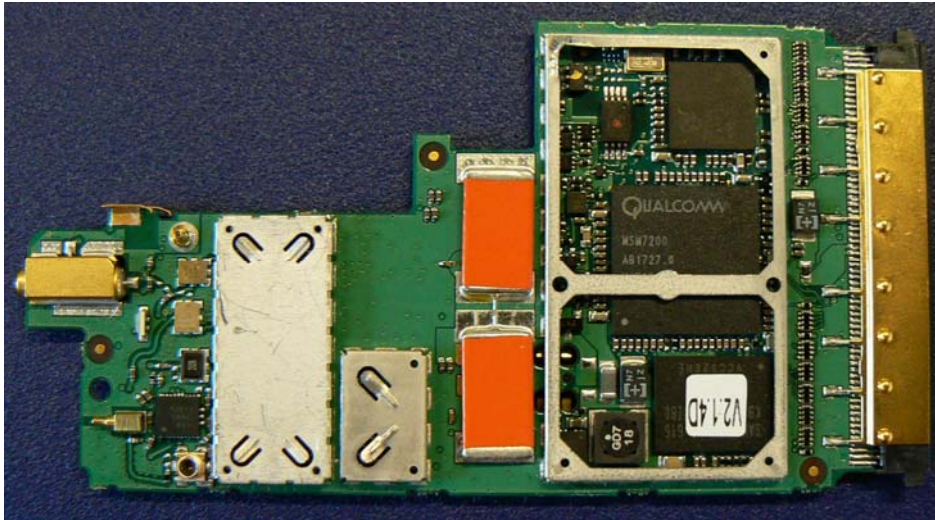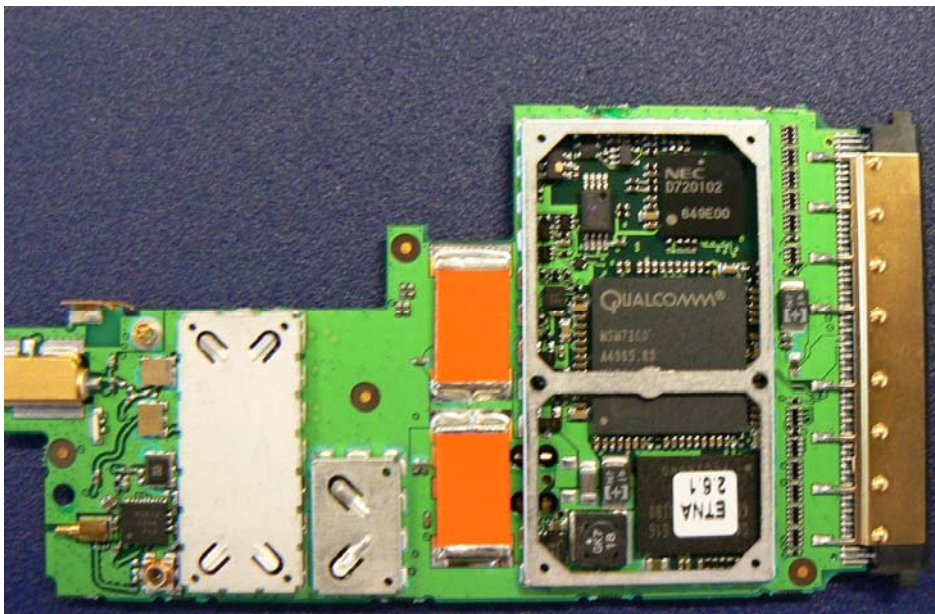**Tel +32 16 317 411**

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1. Introduction

This document describes the HW changes from the product GX0301 (Etna GT NAR – HW version 2.0) to the GX0301 (Etna GT NAR – HW version 2.1).
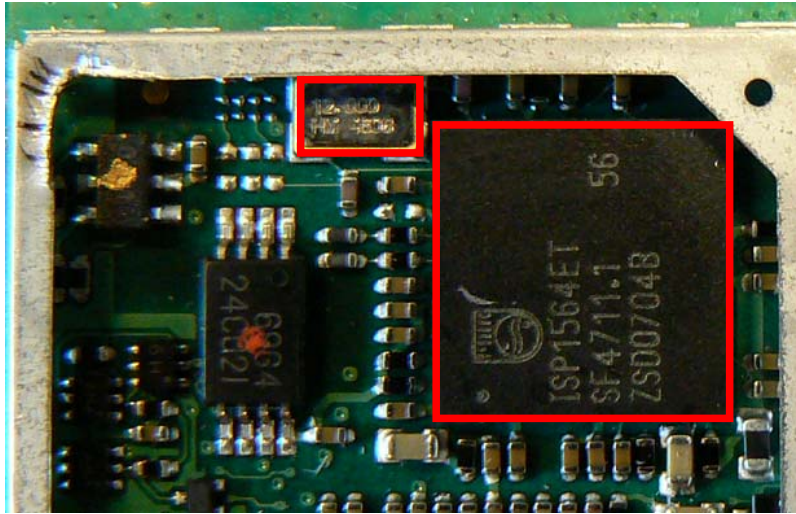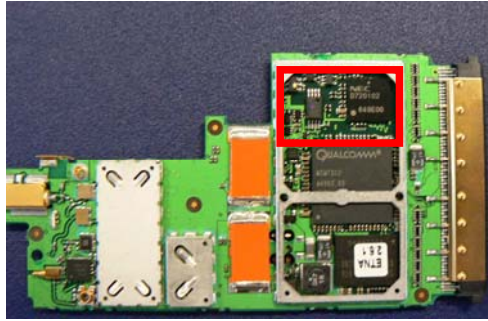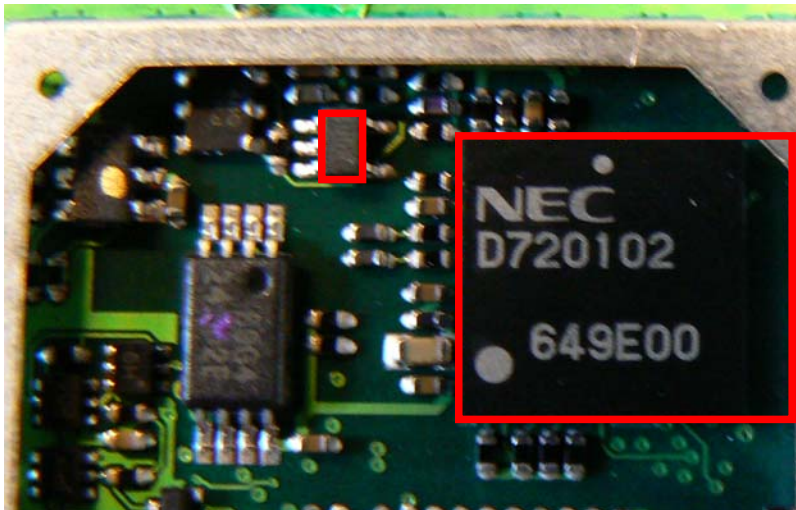
2. Physical difference

Hardware version 2.0

Hardware version 2.1

Hardware 2.0

Hardware 2.1

Components needed for the USB host controller (eg: crystal oscillator) needed to be changed in order to have maximum efficiency of the USB host controllers. Changes are described in following paragraphs.

3. USB Host controller

References:
etna_gt_v2.0 EMEA.pdf   -   Page 3
ETNA_GT_EA_EMEA_2100d_1900_850_V2.1.pdf   -   Page 3

12MHz SMD 4 pin crystal

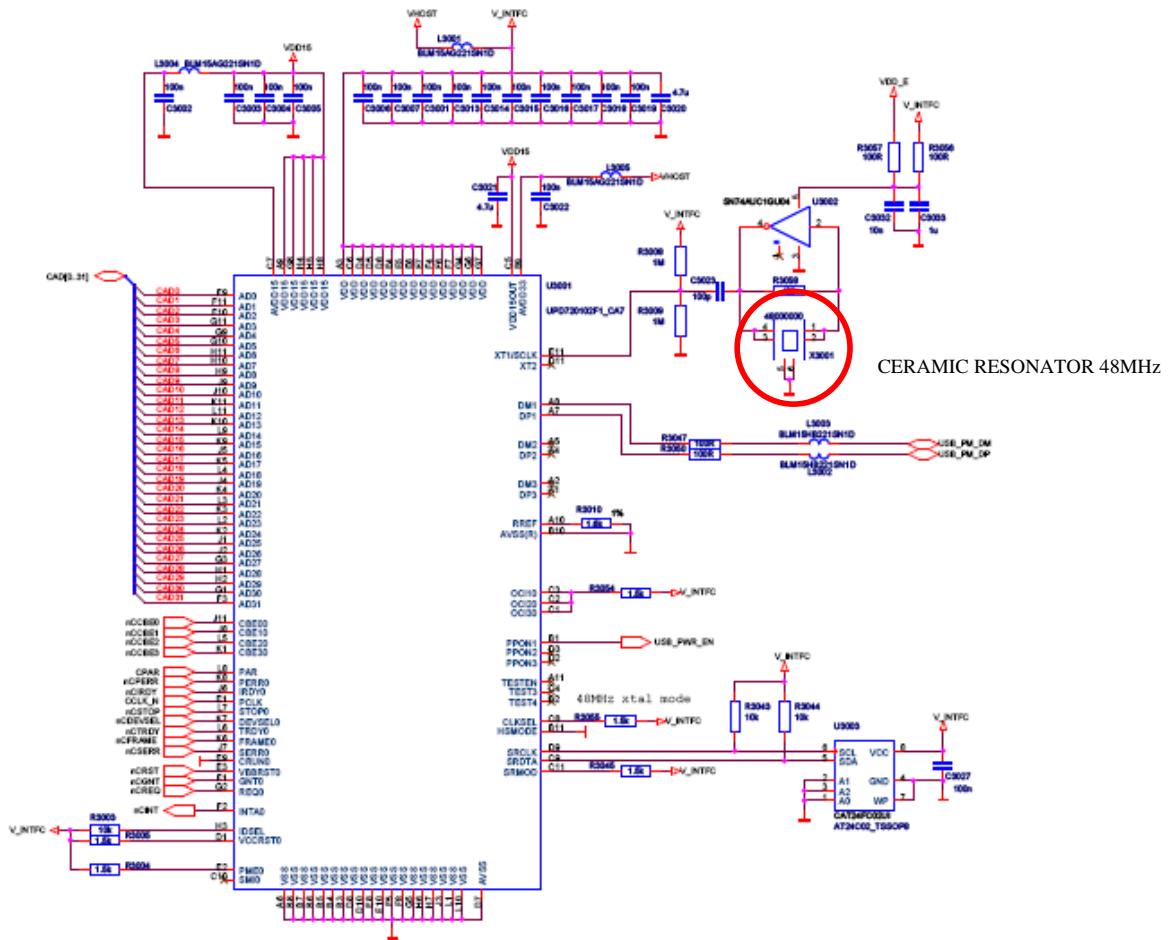**Figure 1: GX0301 HW v2.0 USB host controller**

Figure 2: GX0301 HW v2.1 USB host controller

The main difference between the GX0301 HW v2.0 and the GX0301 HW v2.1 is that the USB host controller (NXP ISP1564) used in HW v2.0 has been replaced by the NEC UPD720102 in HW v2.1. This component is used to convert the cardbus protocol into USB bus. No effect on the performance of the card is foreseen.

4. PCB Layout

References:
EtnaGTV20 assembly top EMEA.pdf
EtnaGTV21 assembly top EMEA.pdf
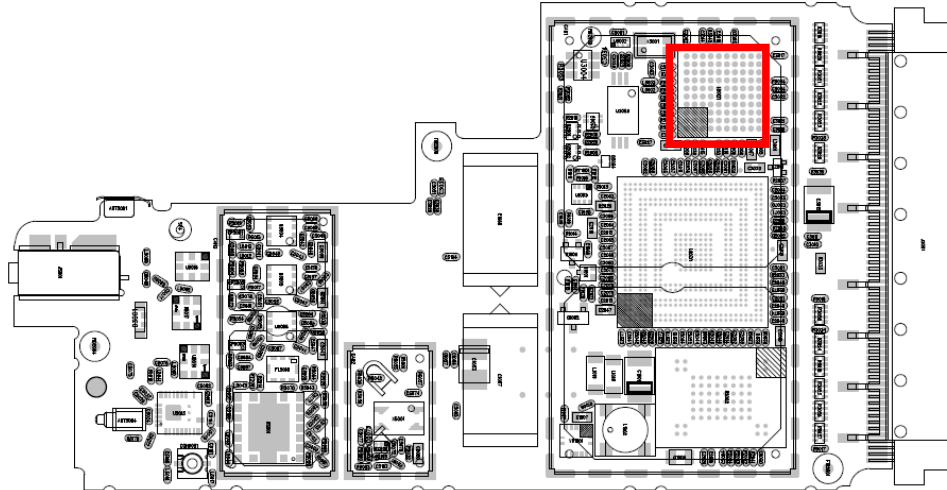Both USB host controllers are indicated in the PCB layout.
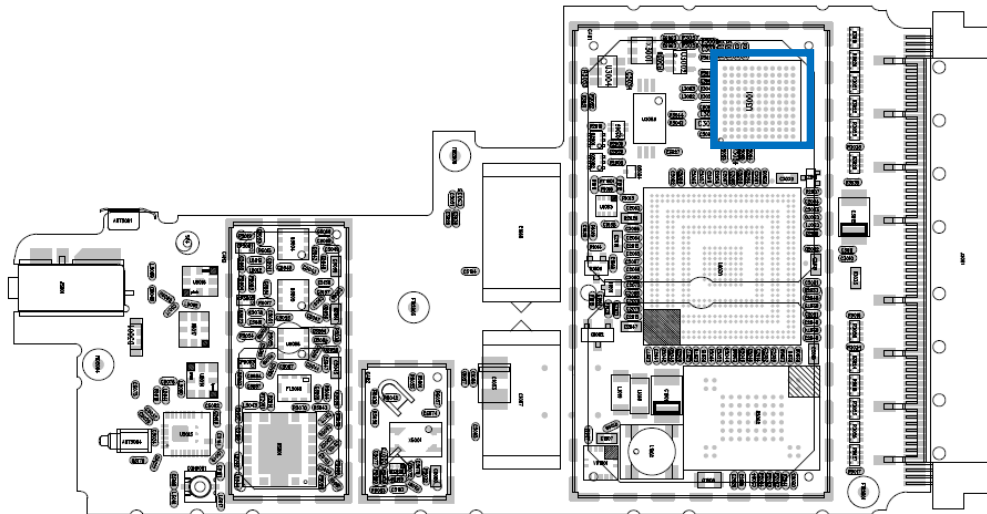
Figure 3: GX0301 HW v2.0 PCB layout top

Figure 4: GX0301 HW v2.1 PCB layout top

5. Suggestions

This change has no effect on the performance of the card. The changed component is only used for conversion of the cardbus protocol (used by the notebook) into a USB bus (used by the datacard). Because of no baseband and no RF change we would only like to do some protocol spotchecks where communication between the notebook and the datacard is needed.