



HW Declaration

GX0301 HW v2.0 to v2.1

September 19, 2007

**Gaston Geenslaan 14
3001 Leuven
Belgium
Tel +32 16 317 411**

TABLE OF CONTENTS

1.	INTRODUCTION.....	3
2.	USB HOST CONTROLLER	3
3.	PCB LAYOUT	4
4.	SUGGESTIONS.....	5

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. USB Host controller

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

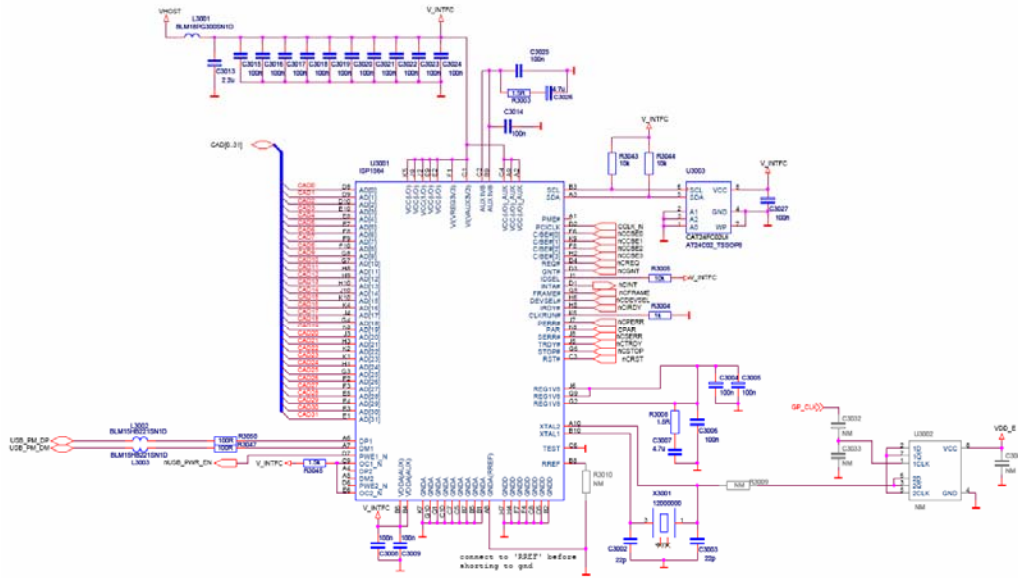


Figure 1: GX0301 HW v2.0 USB host controller

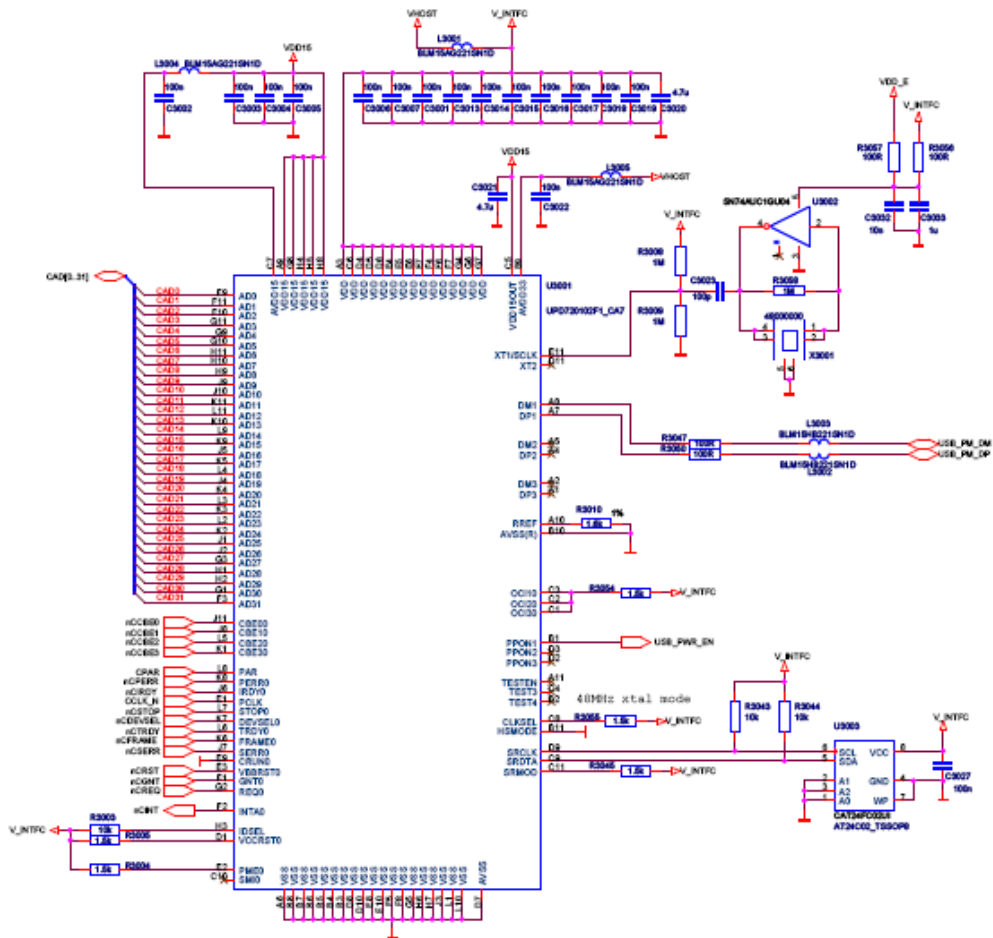


Figure 2: GX0301 HW v2.1 USB host controller

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between the GX0301 HW v2.0 and the GX0301 HW v2.1 is that the USB host controller (NXP ISP1564) used in HW v2.0 has been replaced by the NEC UPD720102 in HW v2.1.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.

3. PCB Layout

References:

EtnaGTV20 assembly top EMEA.pdf

EtnaGTV21 assembly top EMEA.pdf

Both USB host controllers are indicated in the PCB layout.

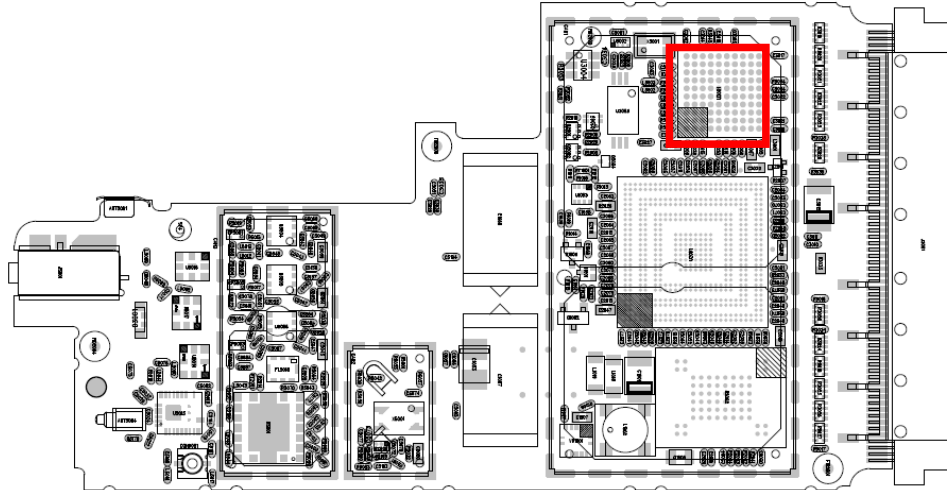


Figure 3: GX0301 HW v2.0 PCB layout top

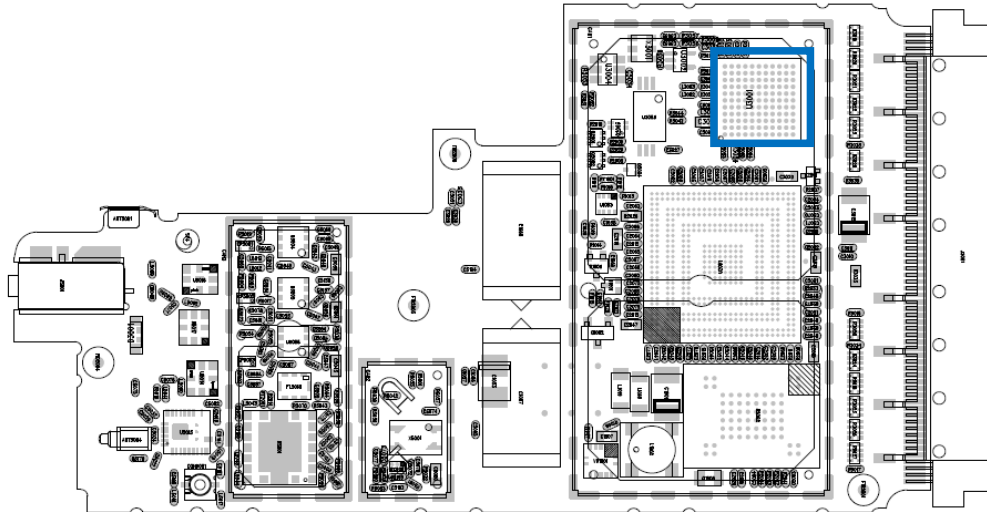


Figure 4: GX0301 HW v2.1 PCB layout top

4. 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.