MBS Unit -1
Mast-mounted Base Station
425-470 MHz

Internal Photographs

Code: **D148101PT**
Version: **1.0**
Date: **17/12/2018**

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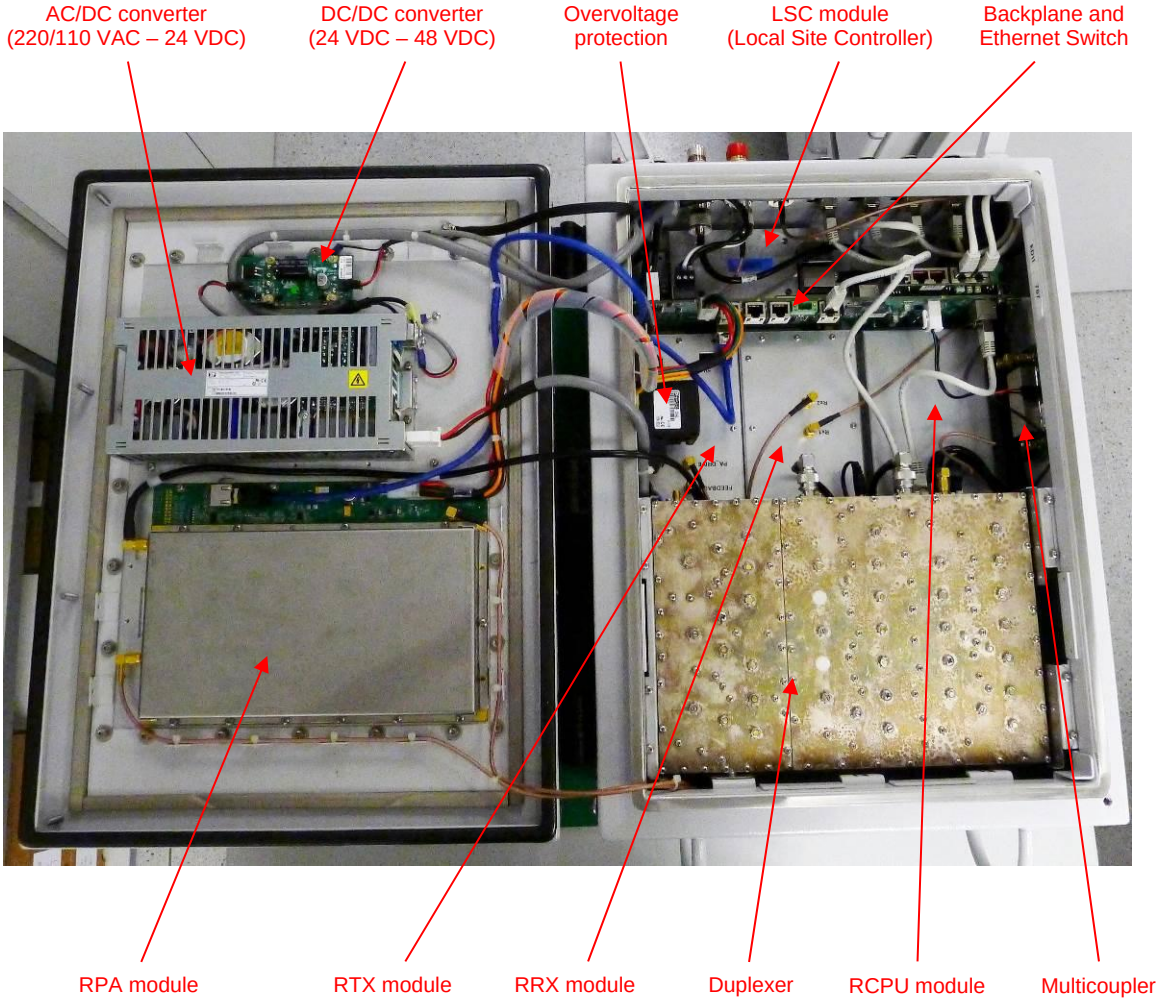
1. INTERNAL STRUCTURE

The internal structure of the MBS Unit -1 can be spotted by opening the enclosure, as shown in the figure below.



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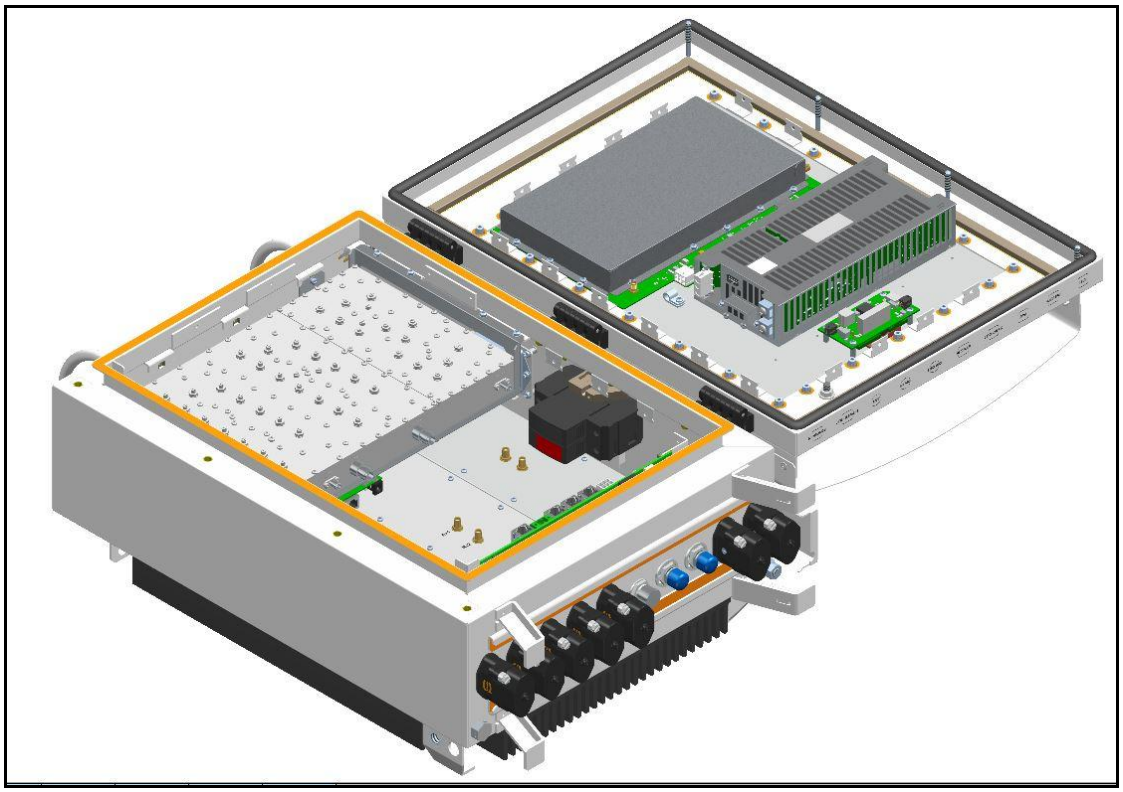
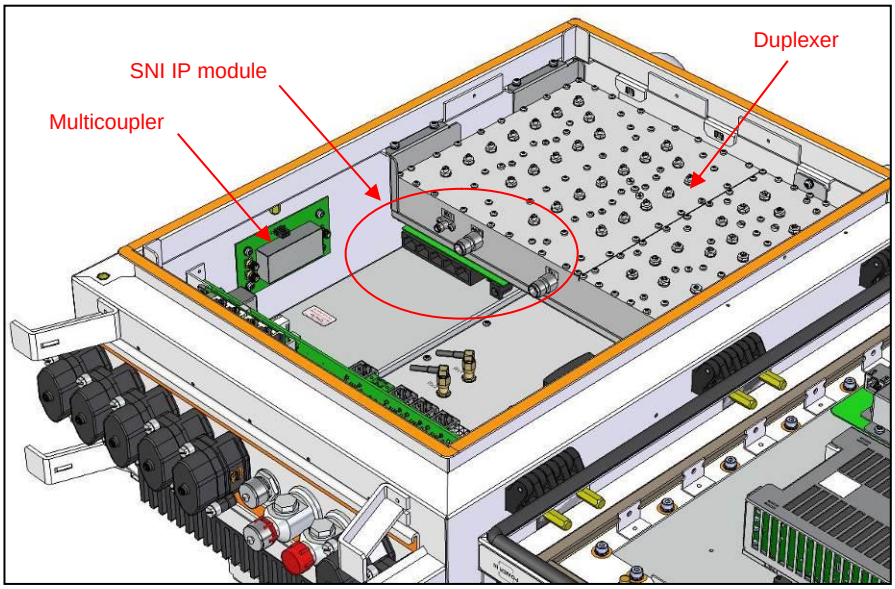
2. MBS UNIT -1 EXPLODING VIEW





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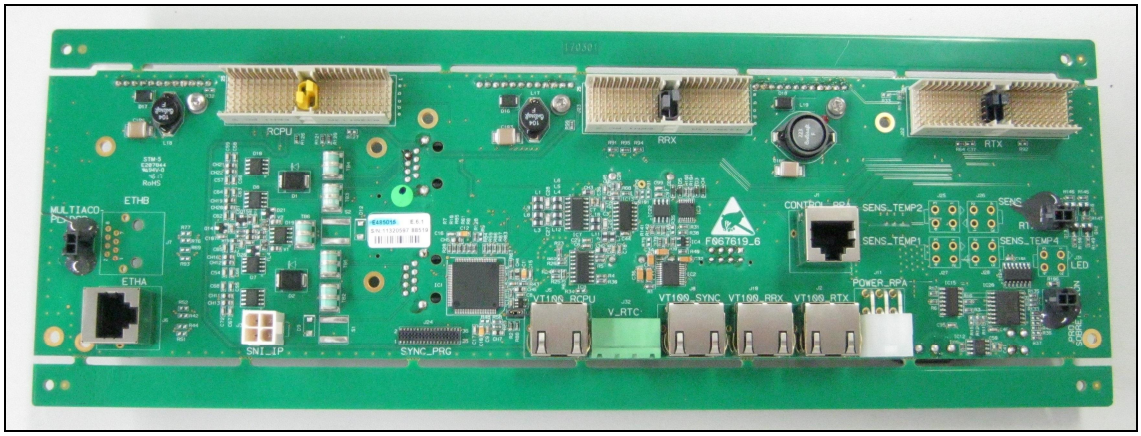
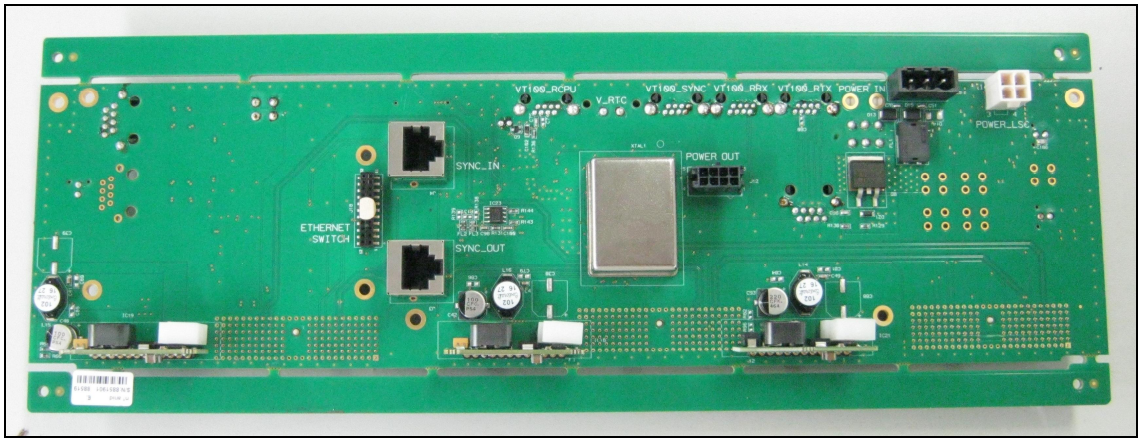
3. MBS UNIT -1 BACKPLANE

3.1 UPPER SIDE OF THE BACKPLANE PCB



3.2 LOWER SIDE OF THE BACKPLANE PCB



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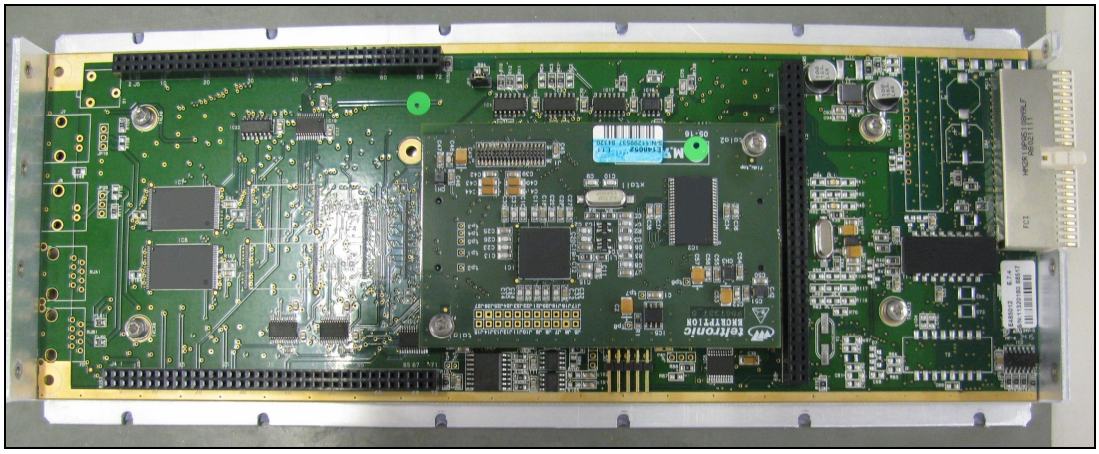
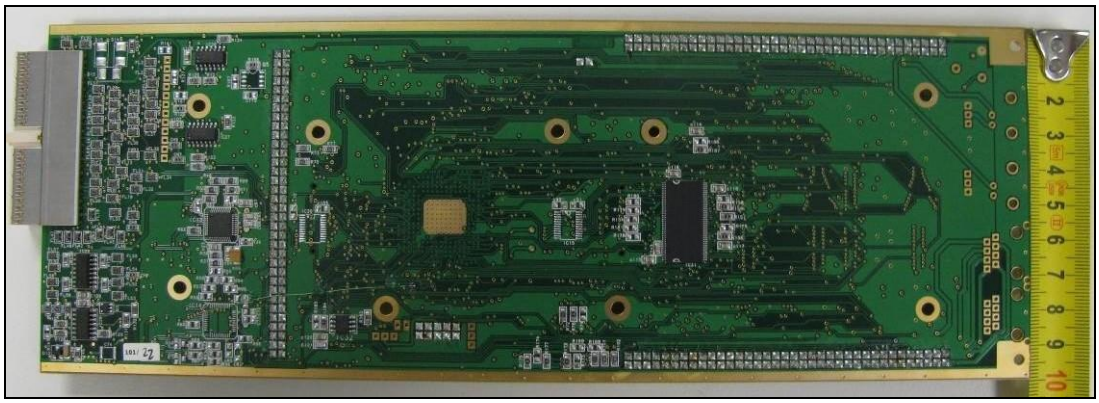
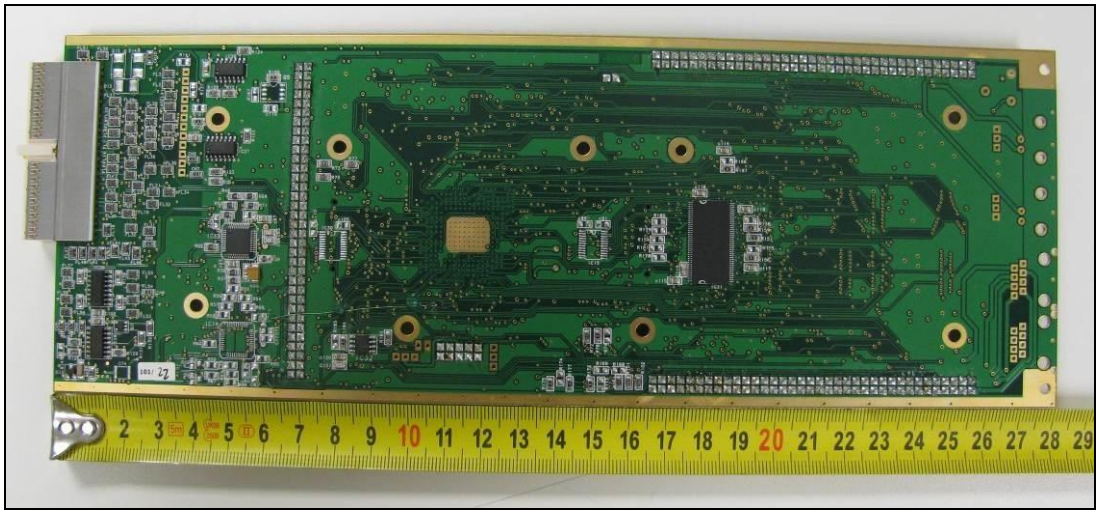
4. MBS UNIT -1 RCPU MODULE

4.1 UPPER SIDE OF THE MNI PCB



4.2 LOWER SIDE OF THE MNI PCB





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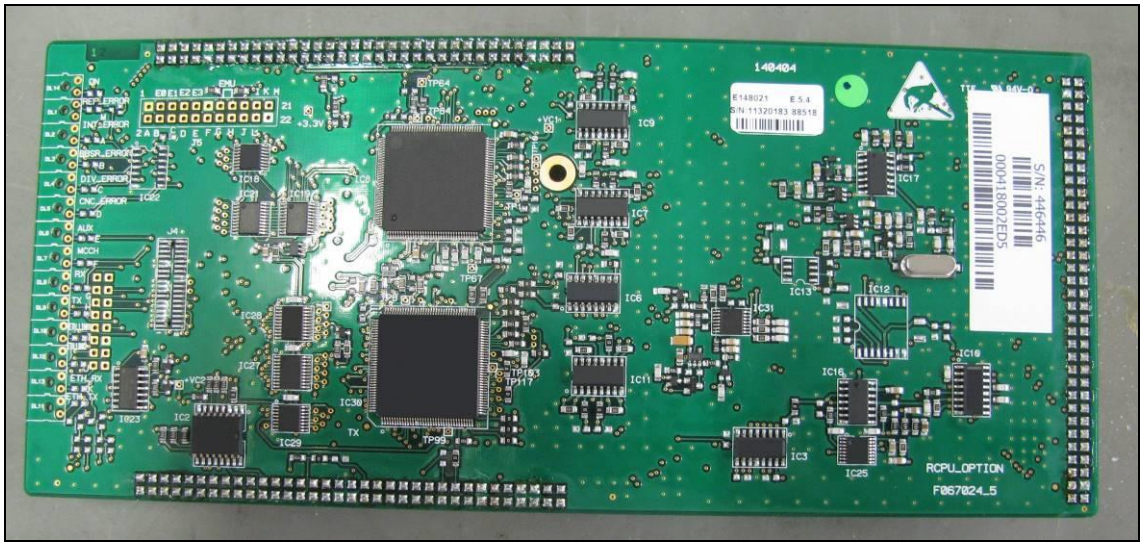
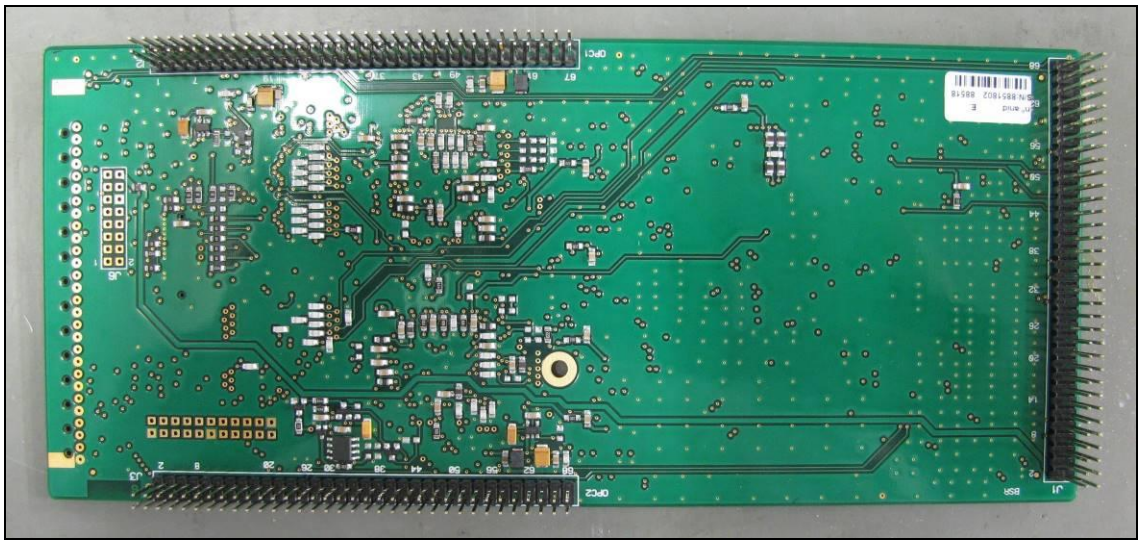
4.3 UPPER SIDE OF THE RCPU PCB



4.4 LOWER SIDE OF THE RCPU PCB



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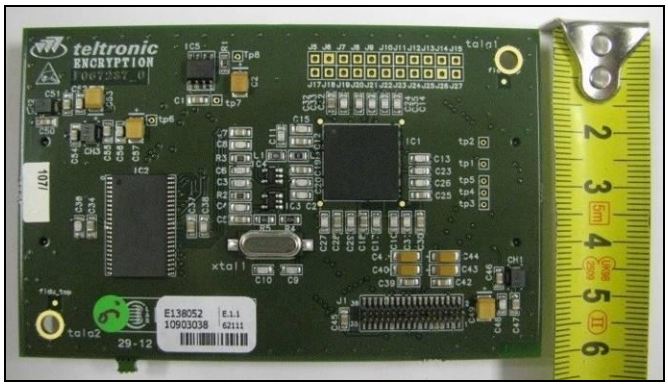
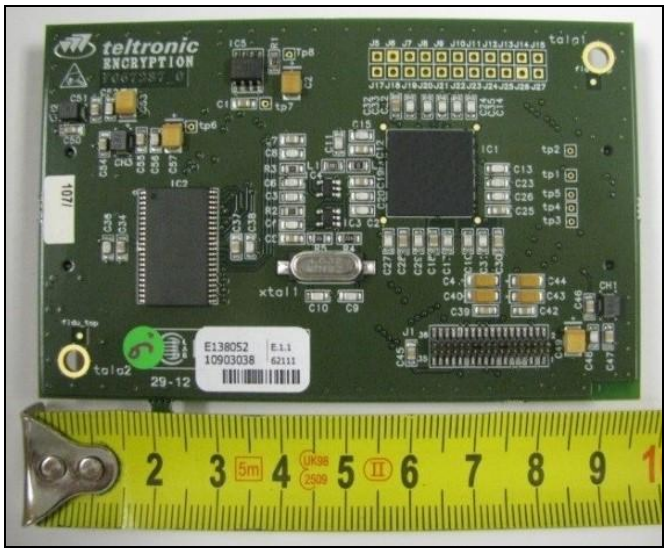
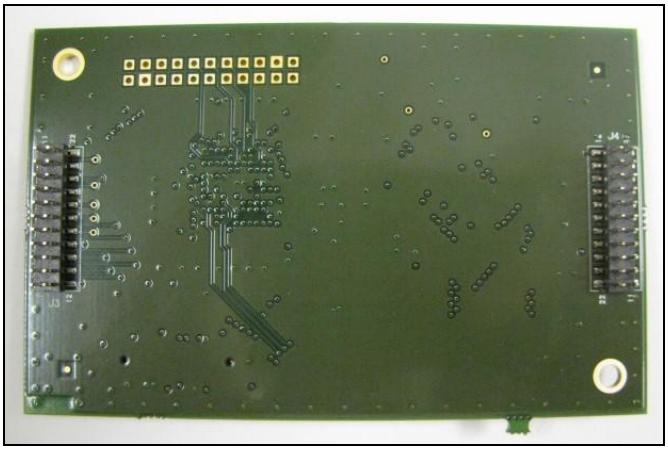
4.5 UPPER SIDE OF THE ENCRYPTION PCB





4.6 LOWER SIDE OF THE ENCRYPTION PCB



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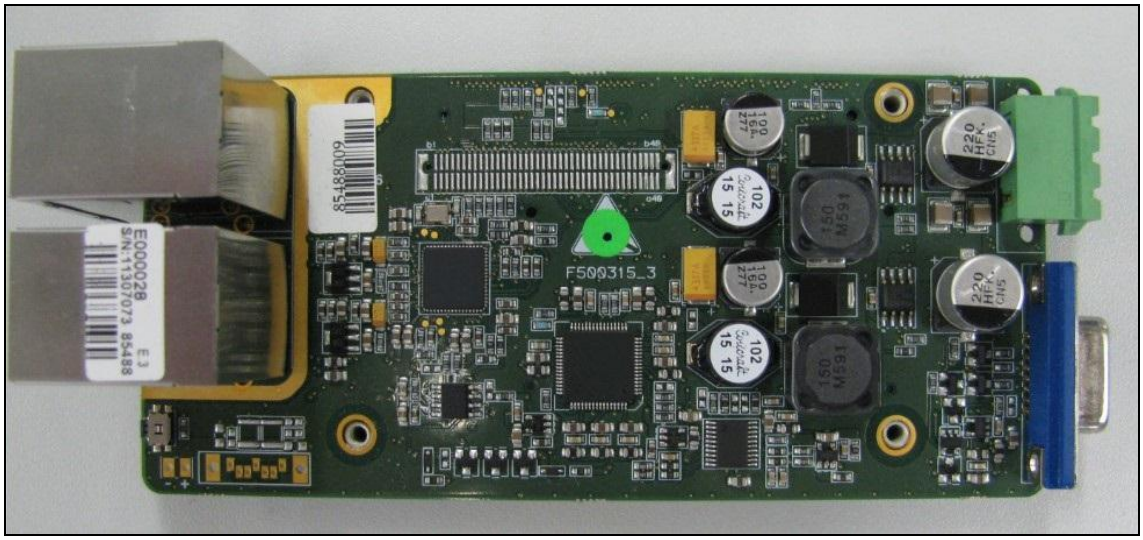
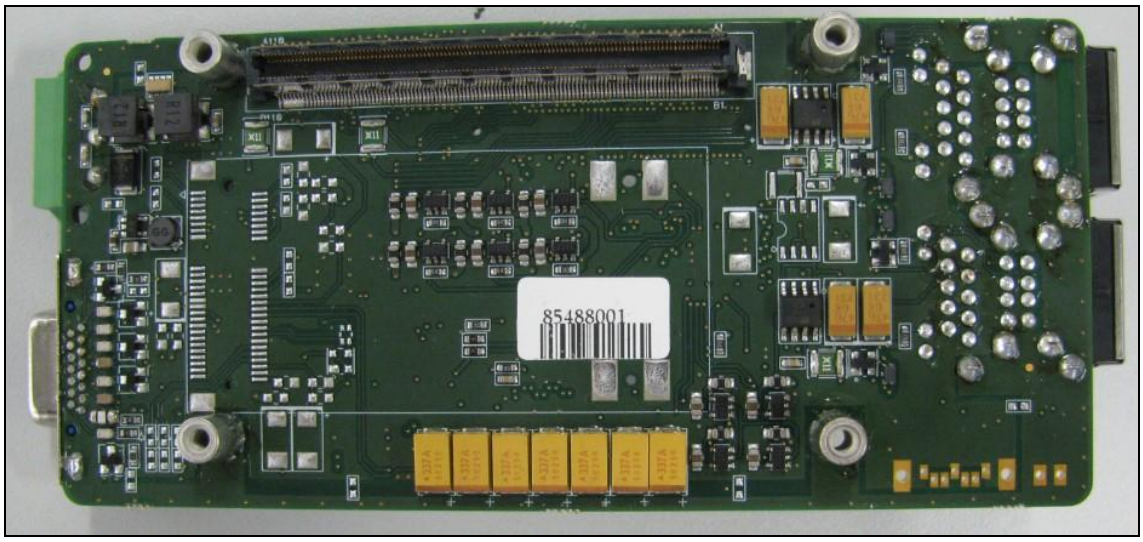
5. MBS UNIT -1 LSC MODULE

5.1 UPPER SIDE OF THE LSC CARRIER PCB



5.2 LOWER SIDE OF THE LSC CARRIER PCB



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5.3 UPPER SIDE OF THE NANOX-TCR PCB

5.4 LOWER SIDE OF THE NANOX-TCR PCB

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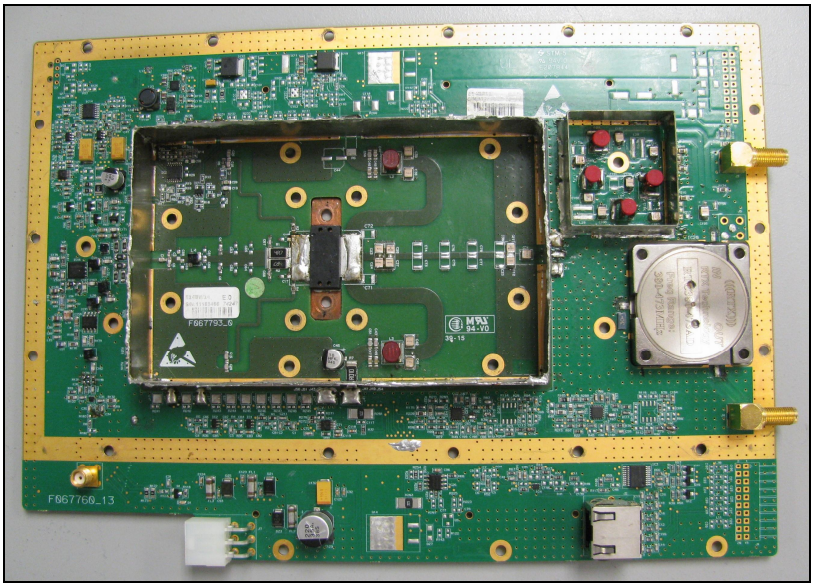
6. MBS UNIT -1 RPA MODULE

6.1 UPPER SIDE OF THE RPA PCB

The pictures below show the RPA PCB (Repeater Power Amplifier) with and without shielding lids, respectively. A chain of three amplifying stages is integrated on this board. The first and the second ones correspond to drivers that are located on the left side of the PCB. The third stage integrates the power amplifier and is built up on an ancillary PCB named PA PCB.

The RPA PCB provides a central void surrounded by a number of pads on which the PA PCB is laid and soldered. Then it is shielded with a metallic enclosure that is also soldered to the RPA board.

The enclosure on the right side is intended to shield the harmonic filter.



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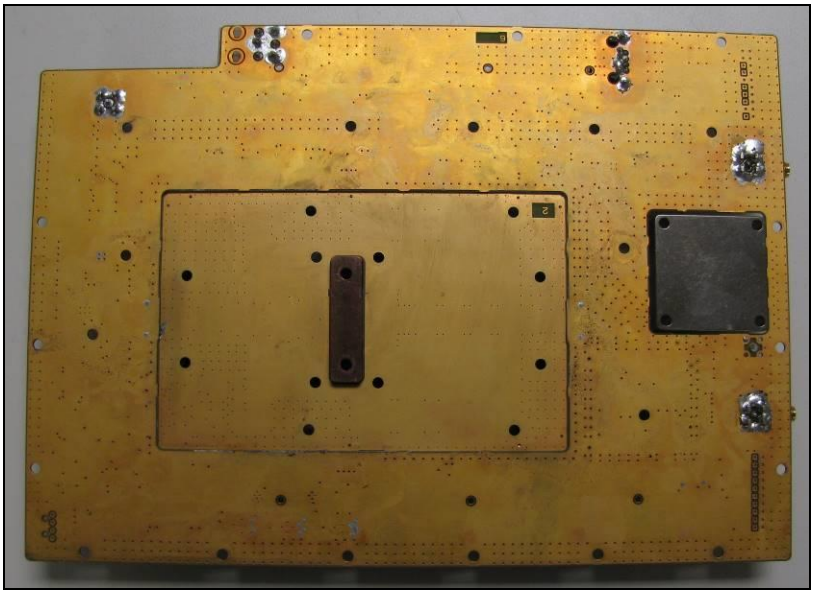
6.2 LOWER SIDE OF THE RPA PCB



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7. MBS UNIT -1 RTX MODULE

7.1 UPPER SIDE OF THE RTX PCB

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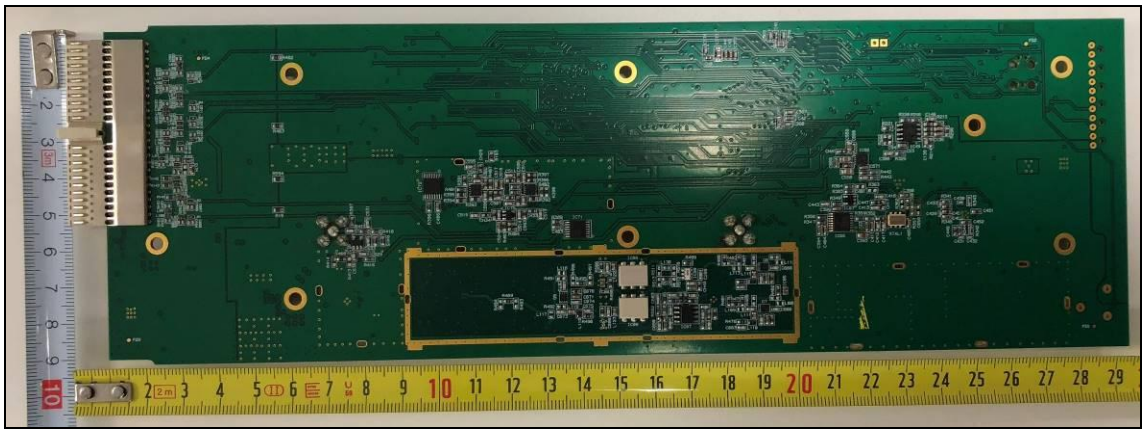
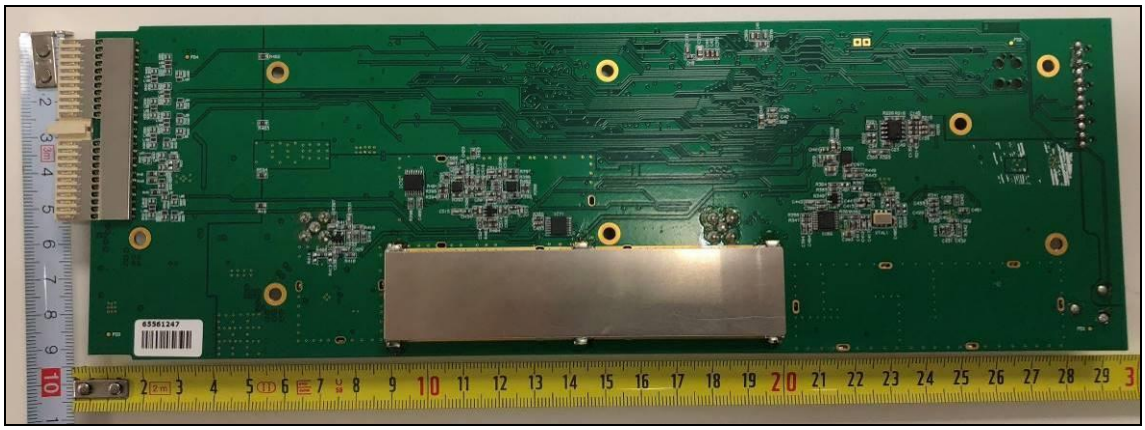
7.2 LOWER SIDE OF THE RTX PCB





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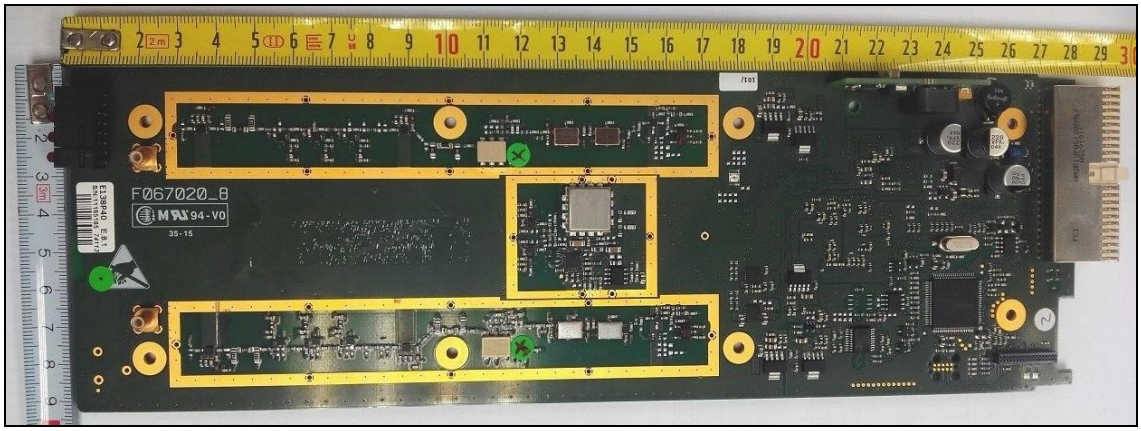
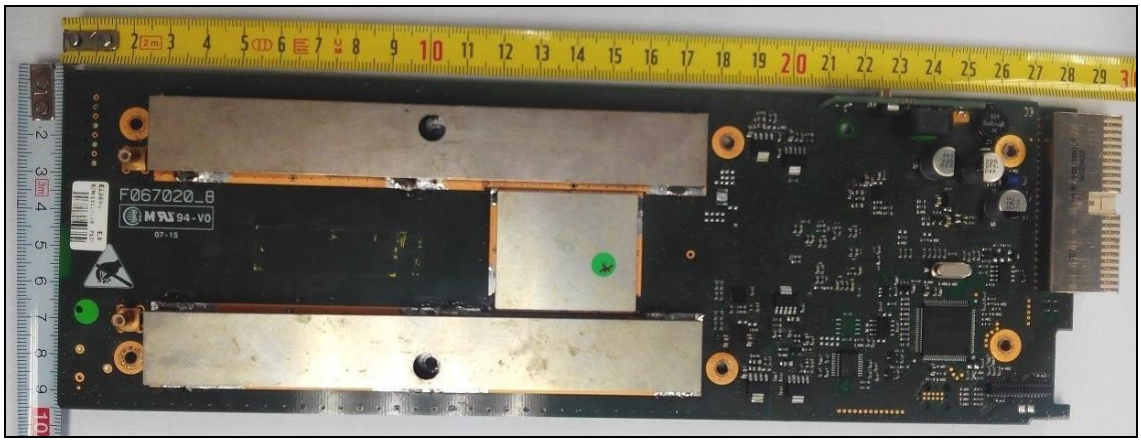
8. MBS UNIT -1 RRX MODULE

8.1 UPPER SIDE OF THE RRX PCB





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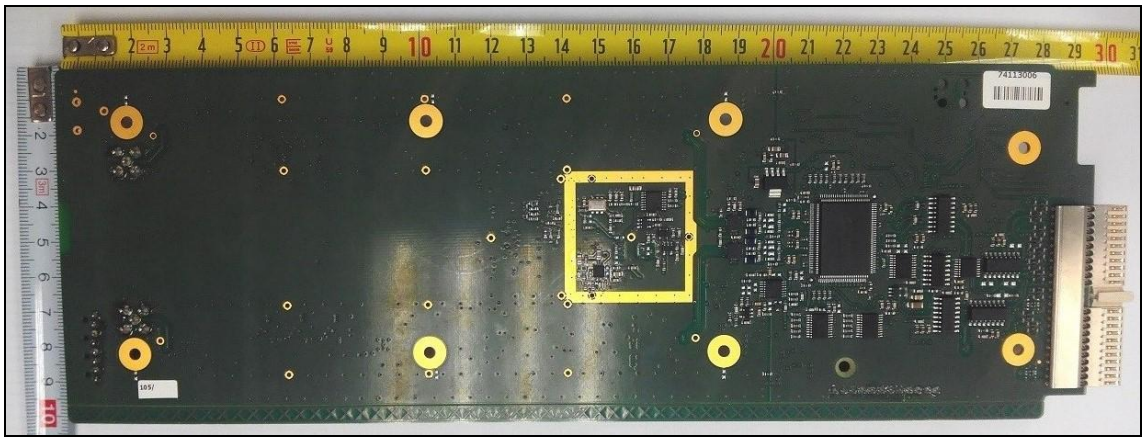
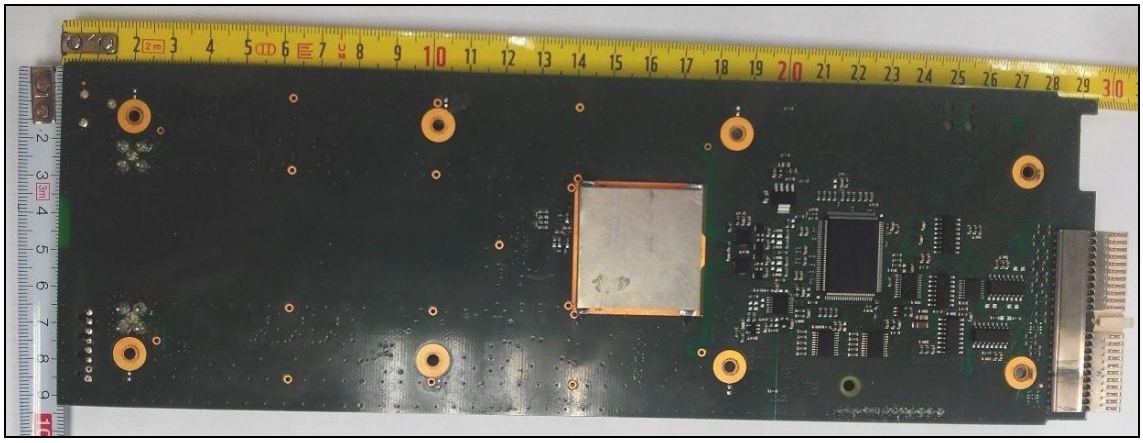
8.2 LOWER SIDE OF THE RRX PCB





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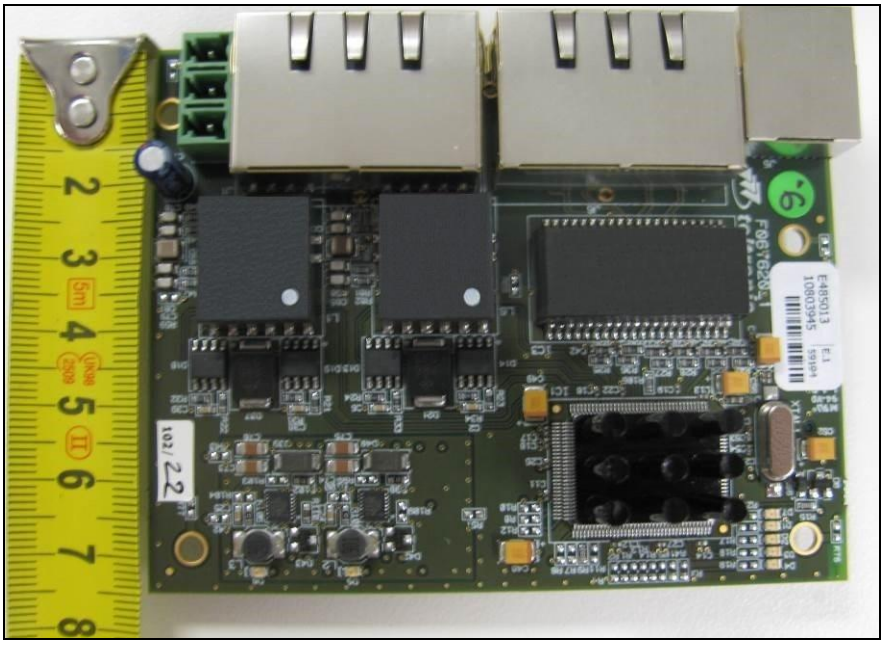
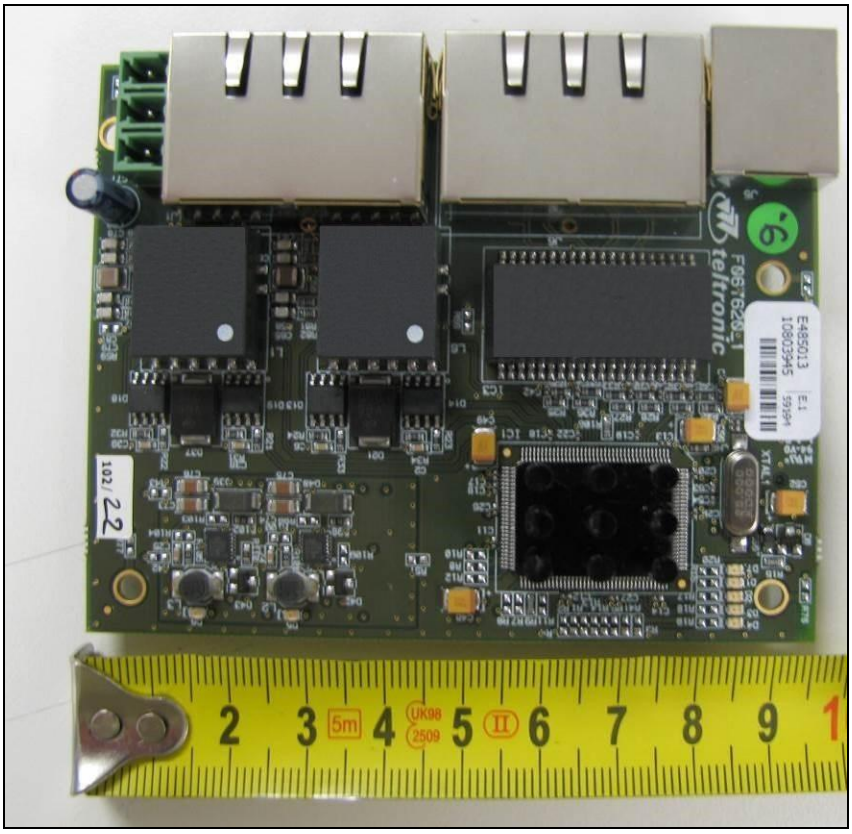
9. ETHERNET SWITCH

9.1 UPPER SIDE OF THE ETHERNET SWITCH PCB





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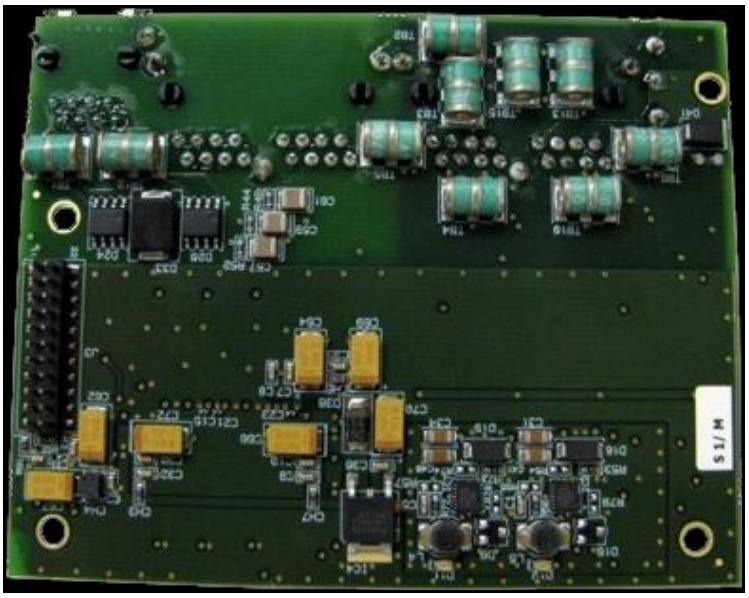
9.2 LOWER SIDE OF THE ETHERNET SWITCH PCB



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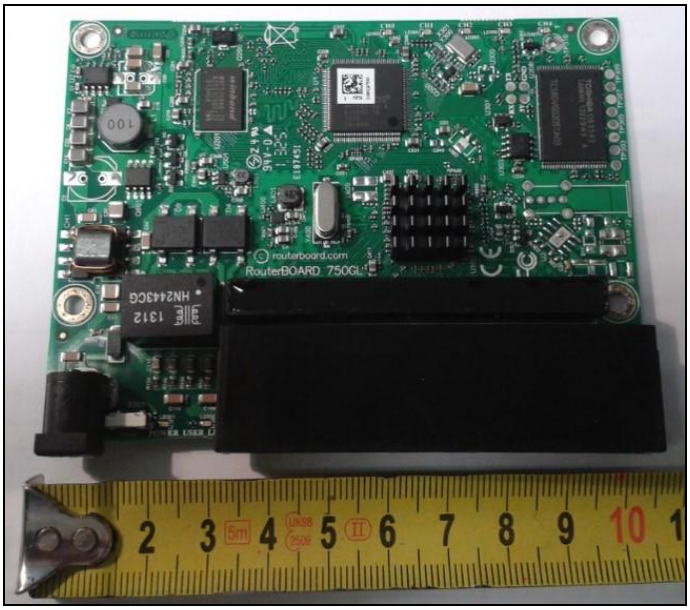
10. SNI IP

The SNI IP router has a single board fitted inside, as shown in the photographs below. This module is provided by a third party.

10.1 UPPER SIDE OF THE SNI IP PCB



10.2 LOWER SIDE OF THE SNI IP PCB

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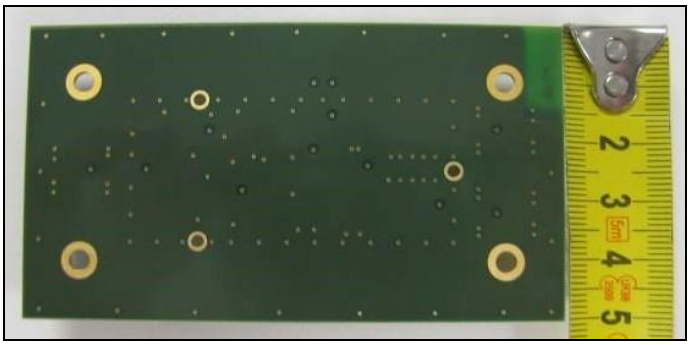
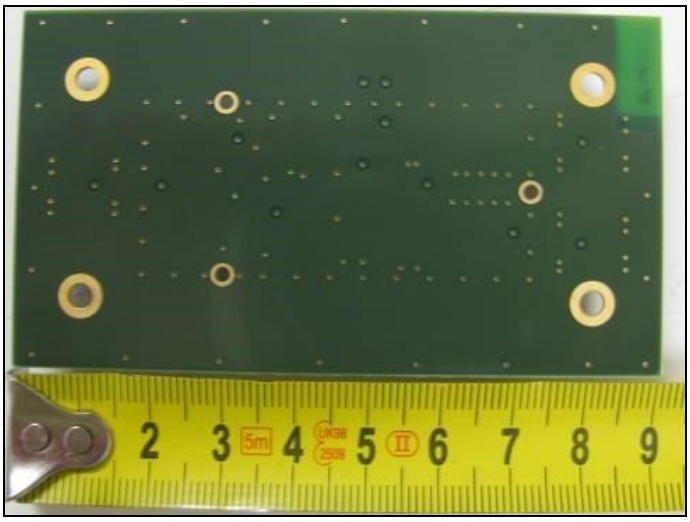
11. MULTICOUPLER

11.1 UPPER SIDE OF THE MULTICOUPLER PCB

11.2 LOWER SIDE OF THE MULTICOUPLER PCB





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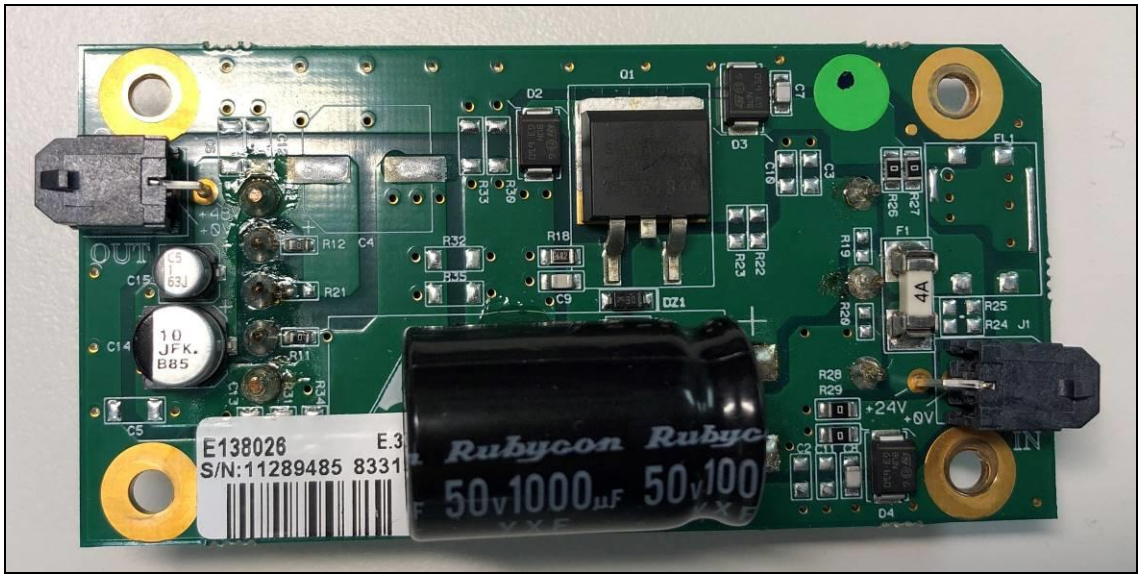
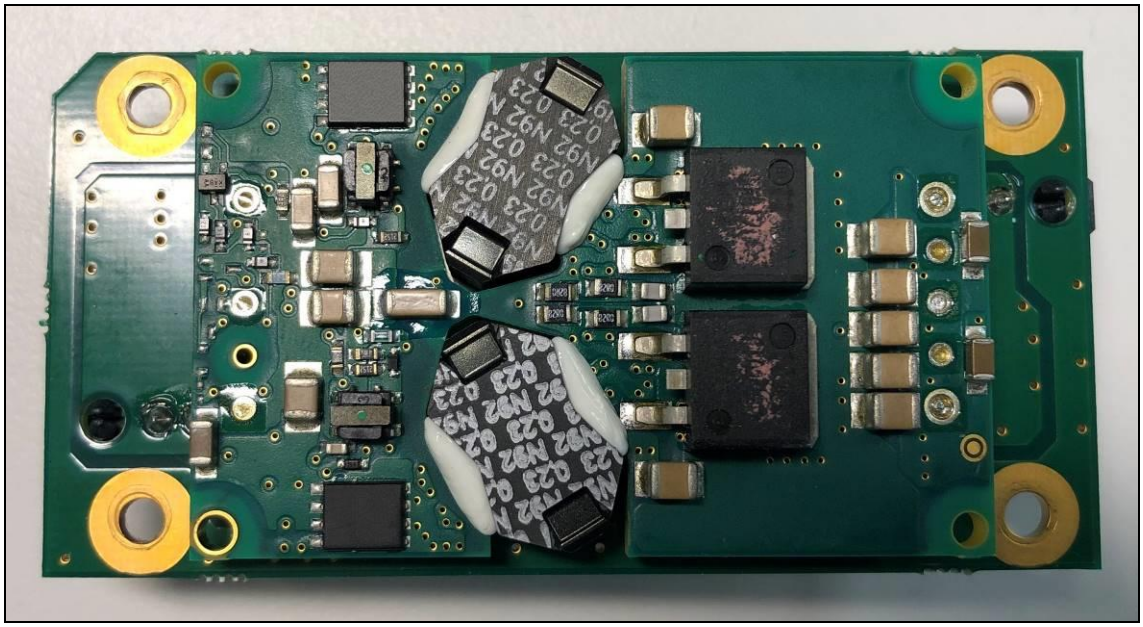
12. DC/DC CONVERTER

12.1 UPPER SIDE OF THE DC/DC CONVERTER PCB



12.2 LOWER SIDE OF THE DC/DC CONVERTER PCB



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