

# **MDT-400 806-870 MHz Mobile Radio**

## **Internal Photographs**

**Code: D262N28PT**  
**Version: 1.0**  
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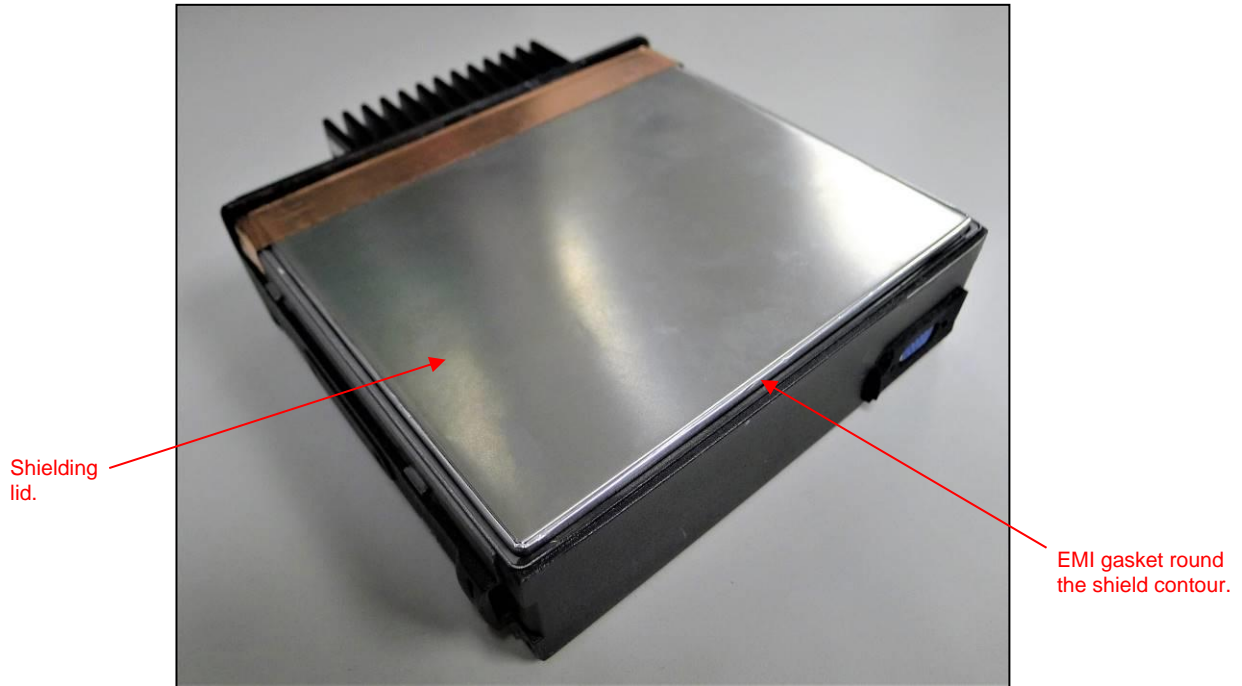
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# 1. INTERNAL STRUCTURE

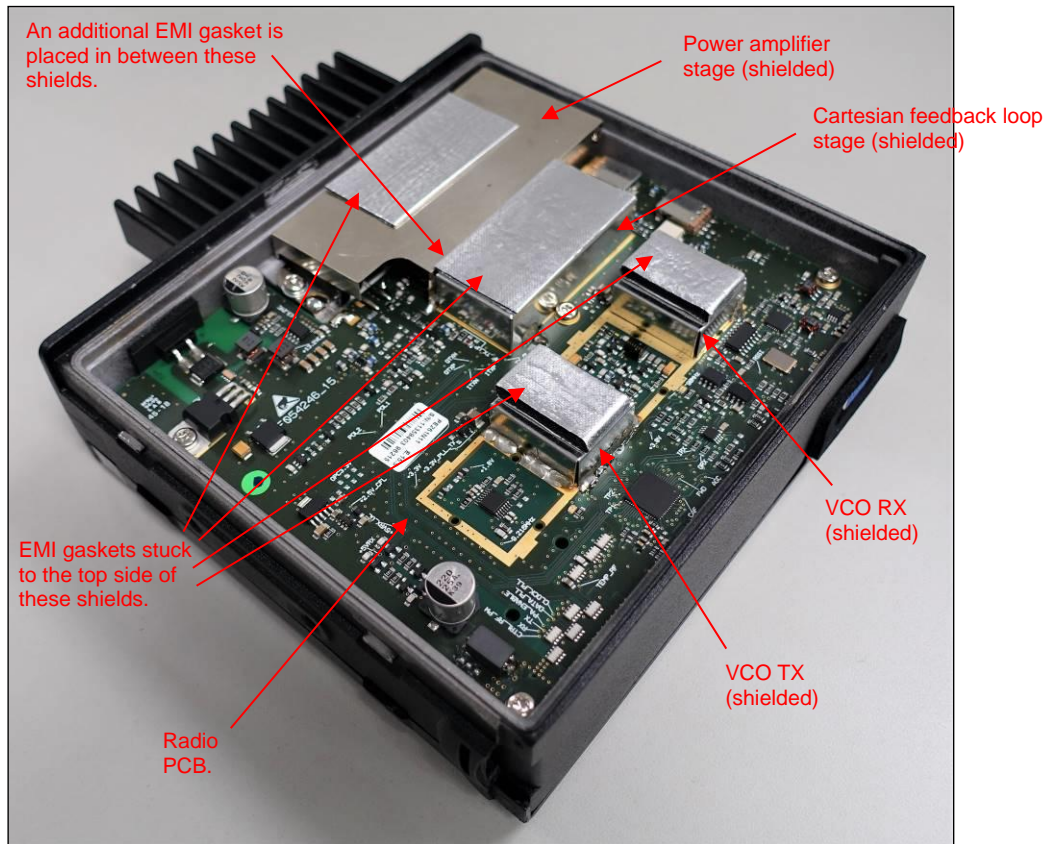
The internal structure of the MDT-400 806-870 MHz Mobile Radio can be spotted by opening the upper and lower plastic covers, as shown in the following pictures.

## 1.1 UPPER SIDE



The shielding lid is stuck to the chassis with an adhesive copper strip, but the assembly of both can be lifted and removed with care. Then, the Radio PCB will be exposed, as shown in the next photographs:

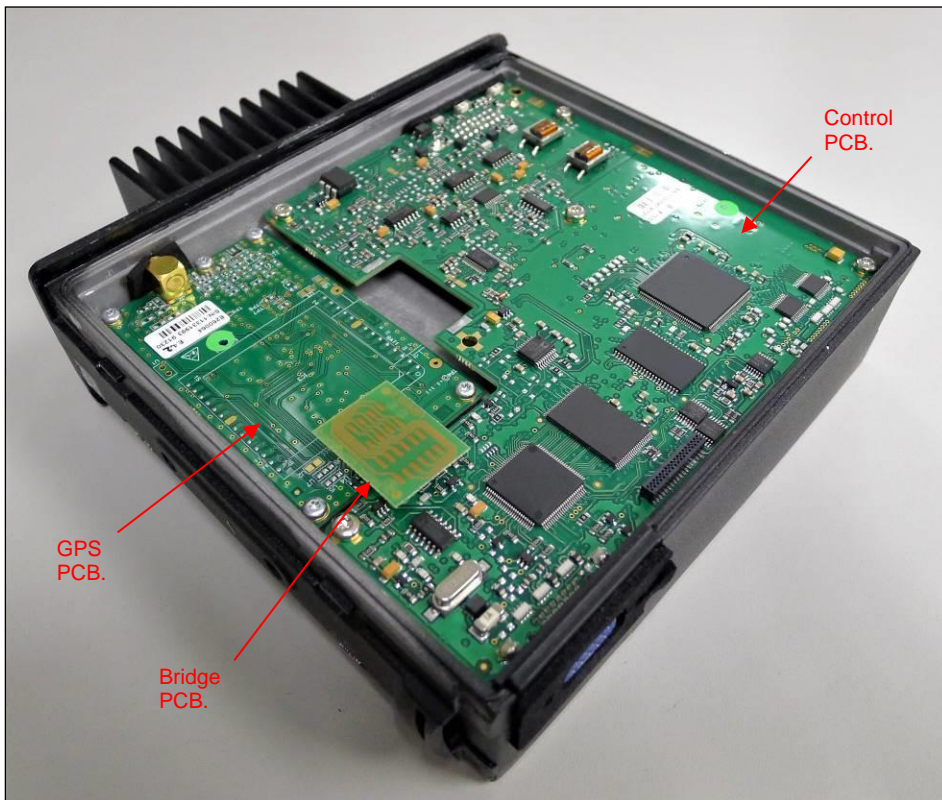
View from this point shown in the next picture. 





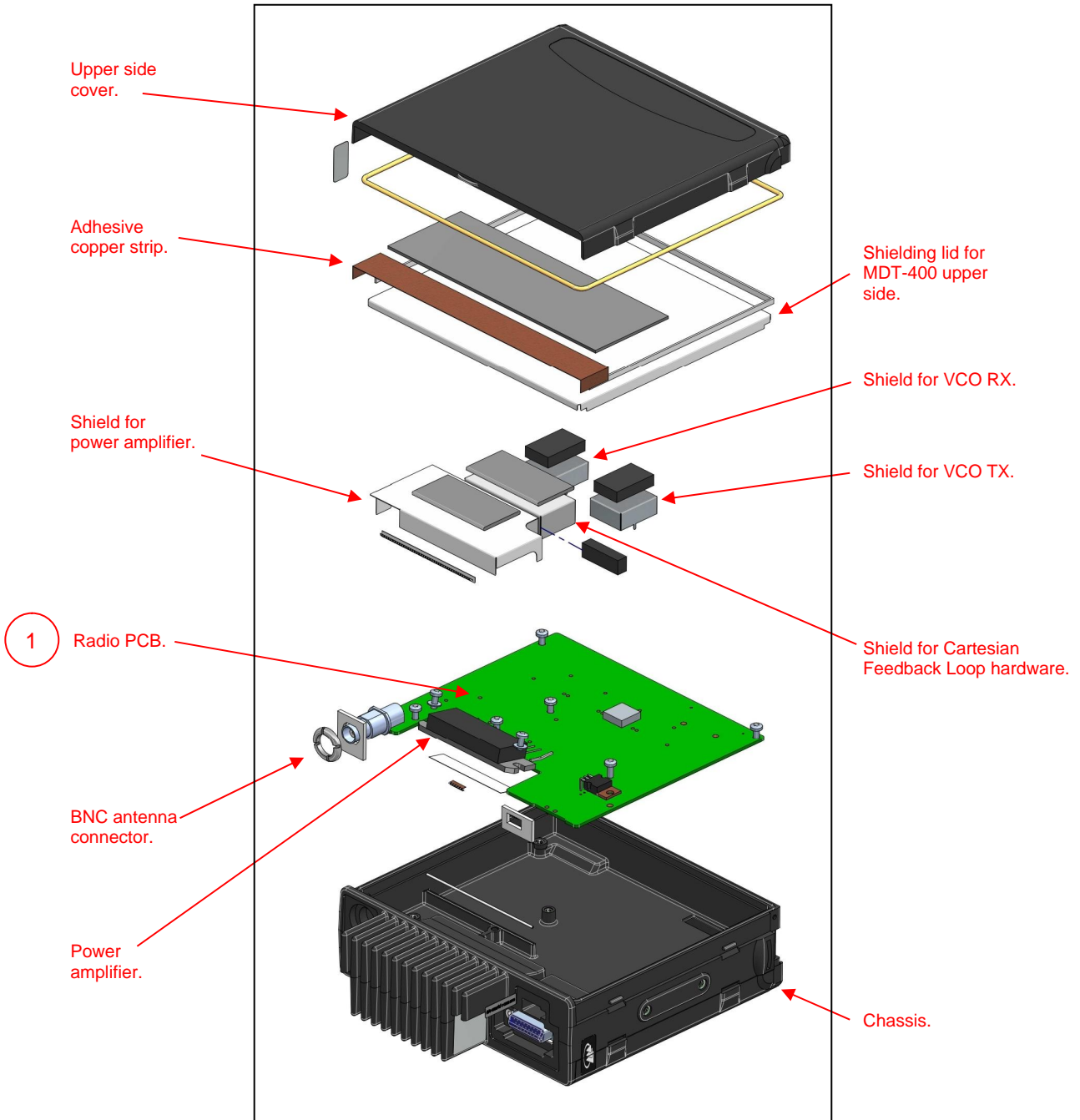
## 1.2 LOWER SIDE

The shielding lid fitted to the lower side of the terminal can also be lifted and removed. Then, the assembly of the remaining PCBs will be exposed, as shown in the next photographs:

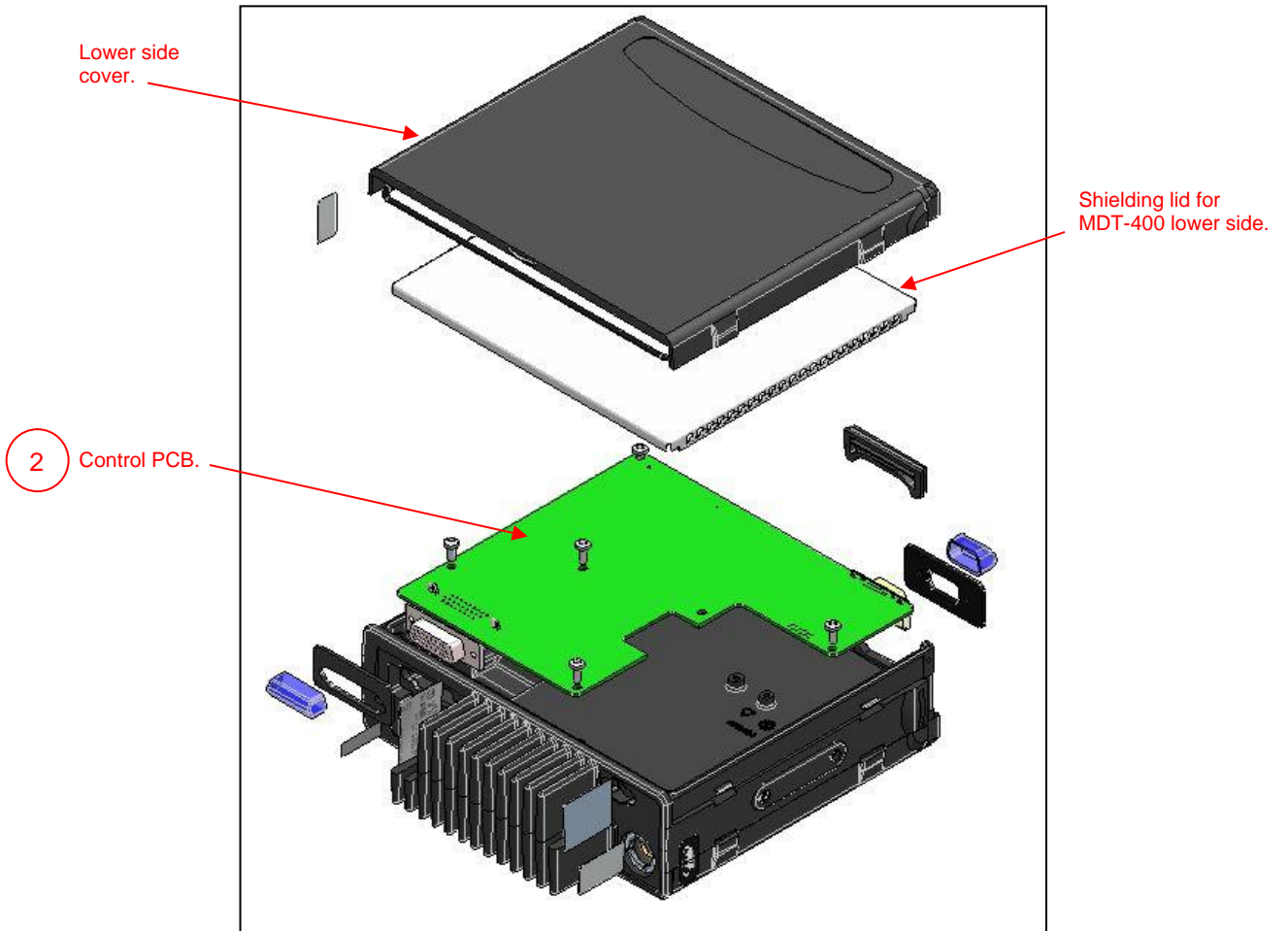


## 2. MDT-400 EXPLODING VIEW

The following picture shows the Radio Board and all other items that take part in the assembly of the MDT-400 806-870 MHz on the upper side:

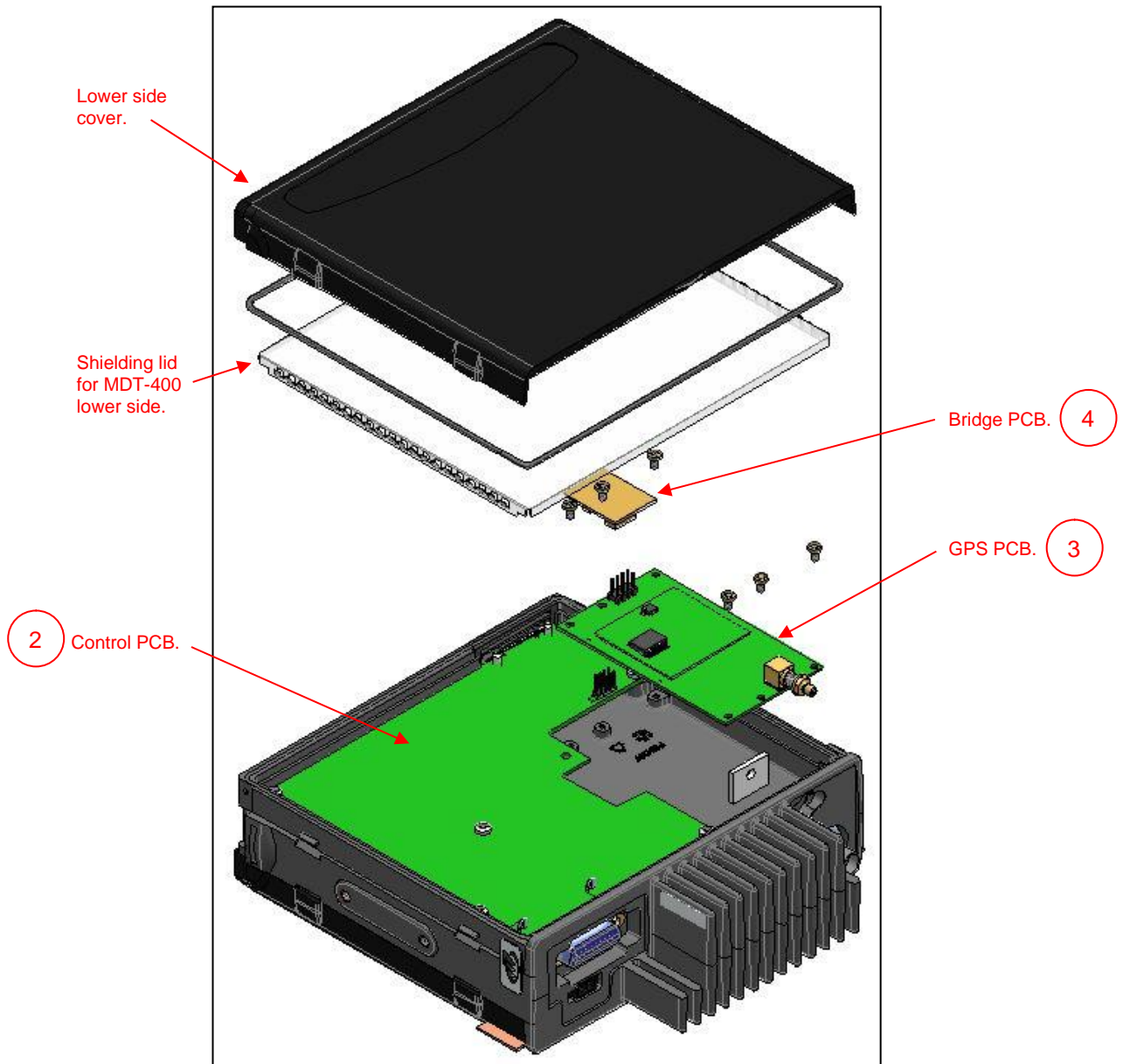


The three remaining boards of the terminal are integrated in the lower cavity of the chassis and their names are Control, GPS and Bridge PCB respectively. The exploding view below shows the assembly of the Control Board:





The GPS board is optional and is fitted in a specific location next to the Control Board. Both of them are connected with the Bridge Board as shown below:



### 3. PCBs INTEGRATED IN MODEL MDT-400 806-870 MHz

ITEM:	DESCRIPTION:	PCB CODE:	SCHEMATIC CODE:
1	Radio PCB	E261N11	F054246
2	Control PCB	E260022O000O003 <sup>(1)</sup>	F054001
3	GPS PCB (option O260000)	E260064	F054203
4	Bridge PCB (optional together with GPS PCB)	E260054	F054102

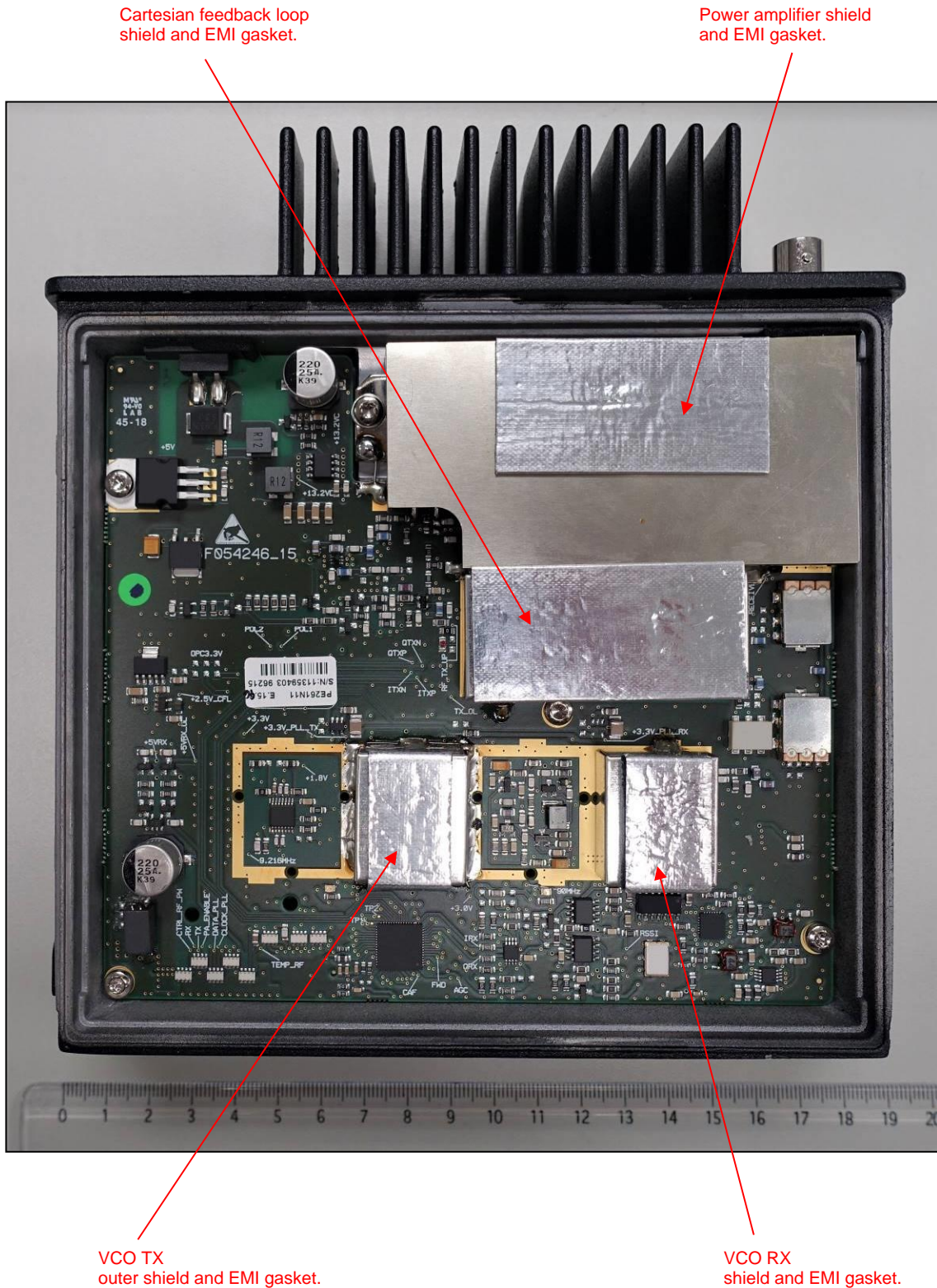
(1) The Control PCB can be configured with a basic hardware or optionally with a more complete one:

- The PCB code is E260022 when integrating a basic hardware.
- If the GPS option O260000 is added, then the code of the Control PCB turns to be E260022O000.
- If the Programmable I/O option O260003 is added, then the Control PCB will be coded as E260022O003.
- When the Control PCB integrates both options, it is coded as E260022O000O003.

The pictures displayed in section 3.2 refer to the last case, as adding both options leads to the most complete hardware.

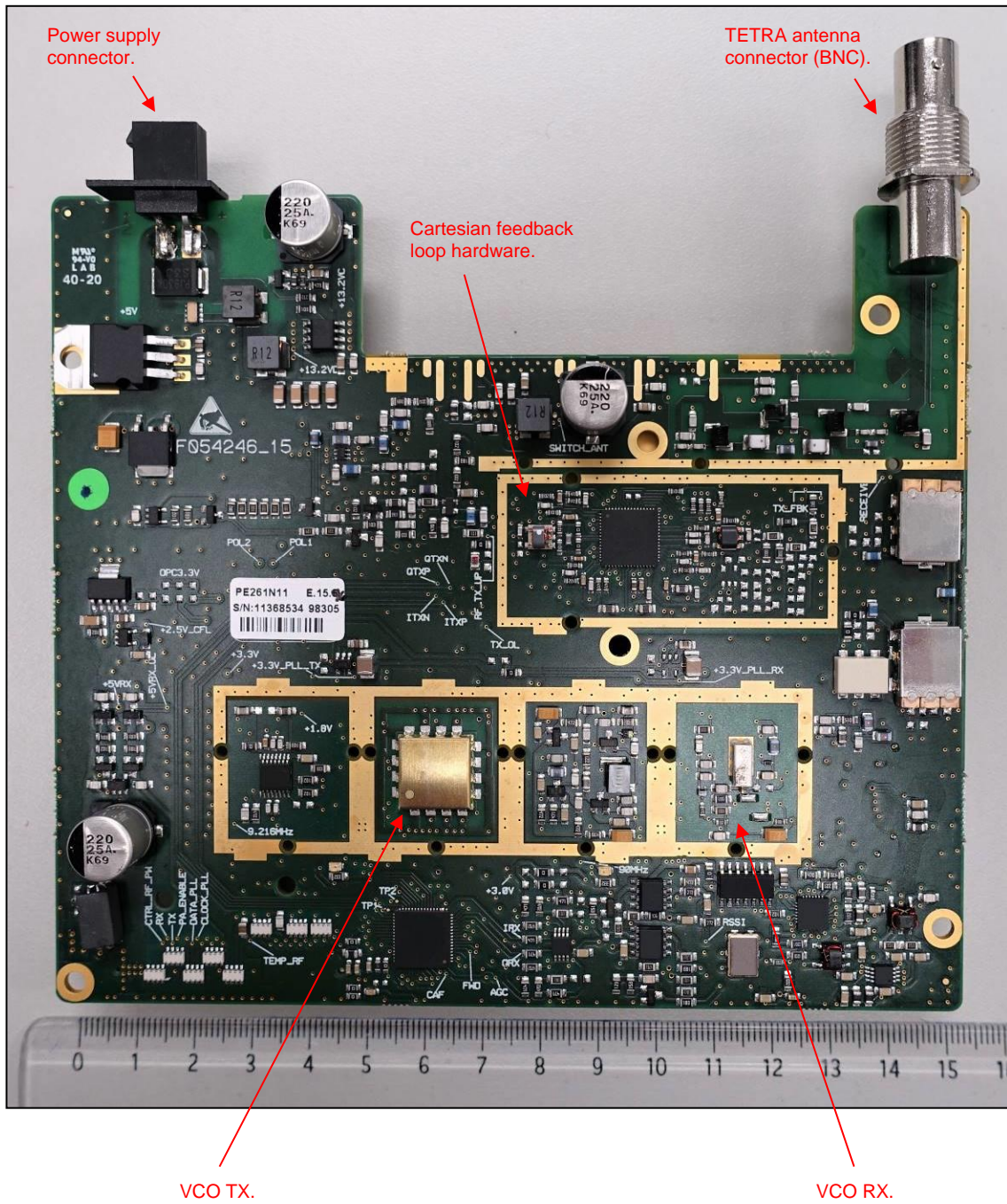
### 3.1 RADIO PCB (E261N11 - F054246)

#### 3.1.1 Upper side (shielded)

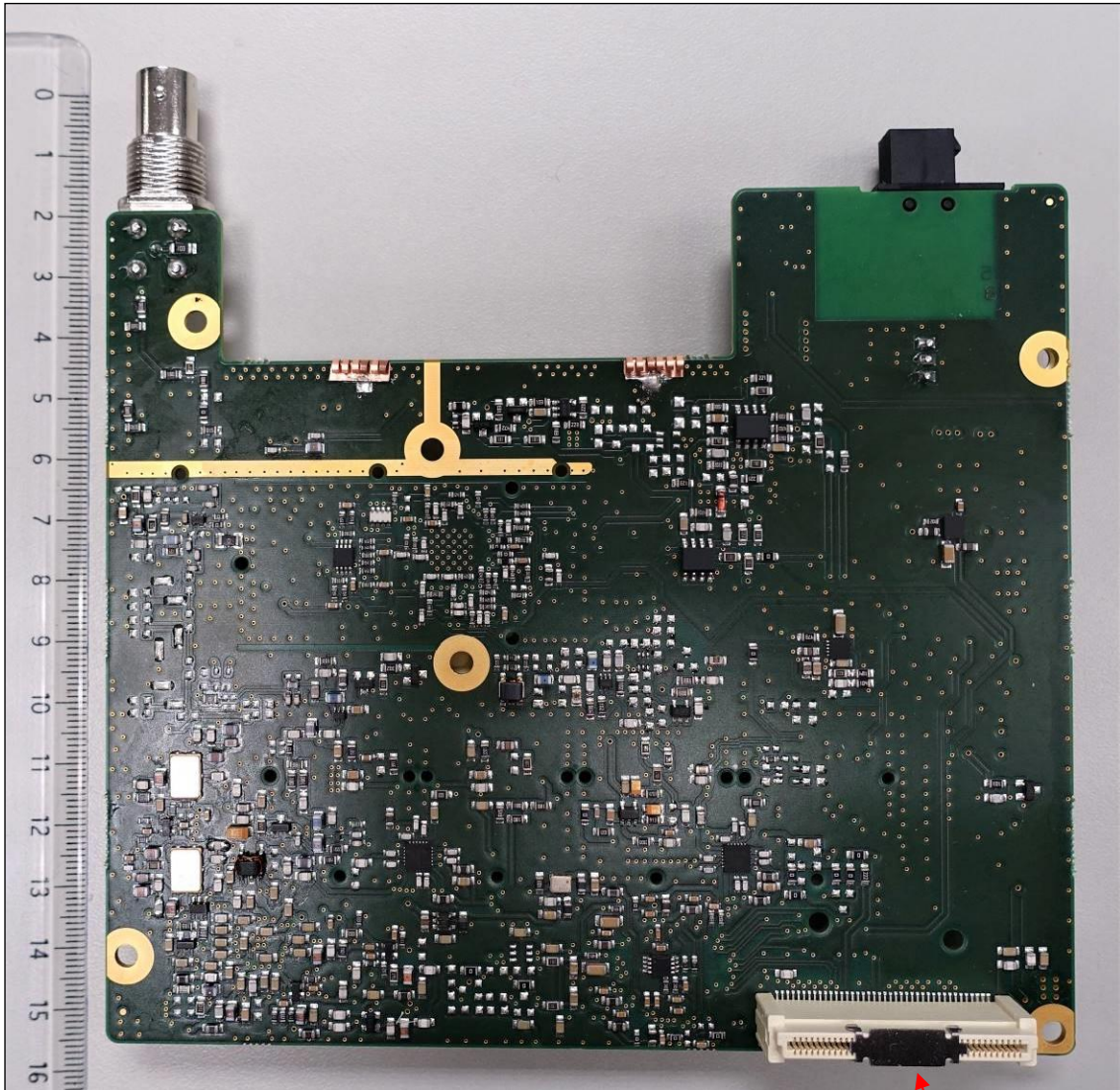




**3.1.2 Upper side (unshielded)**



**3.1.3 Lower side**

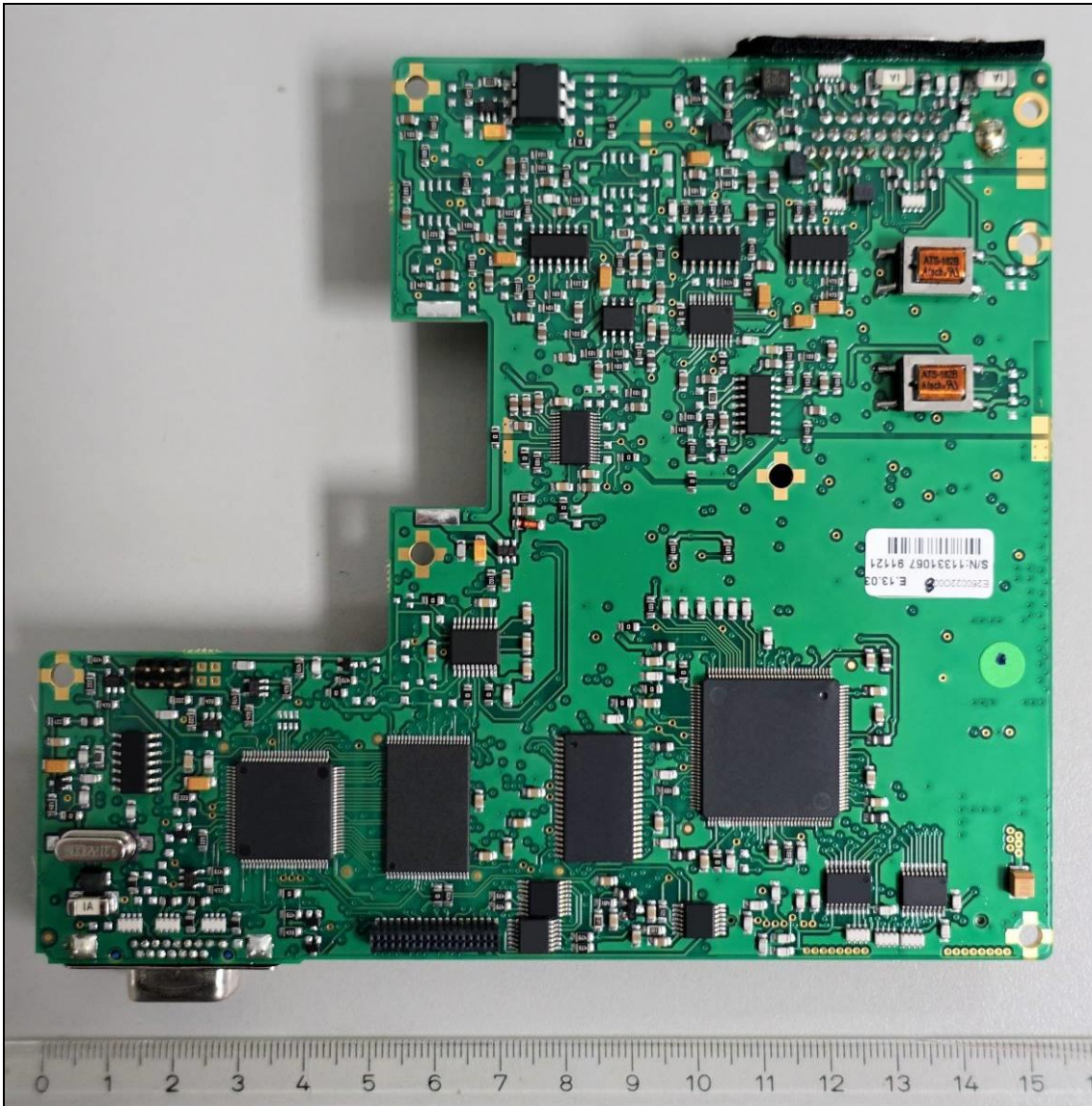


Board-to-board connector to attach the Radio PCB to the Control PCB, which is fitted in the opposite cavity of the chassis.

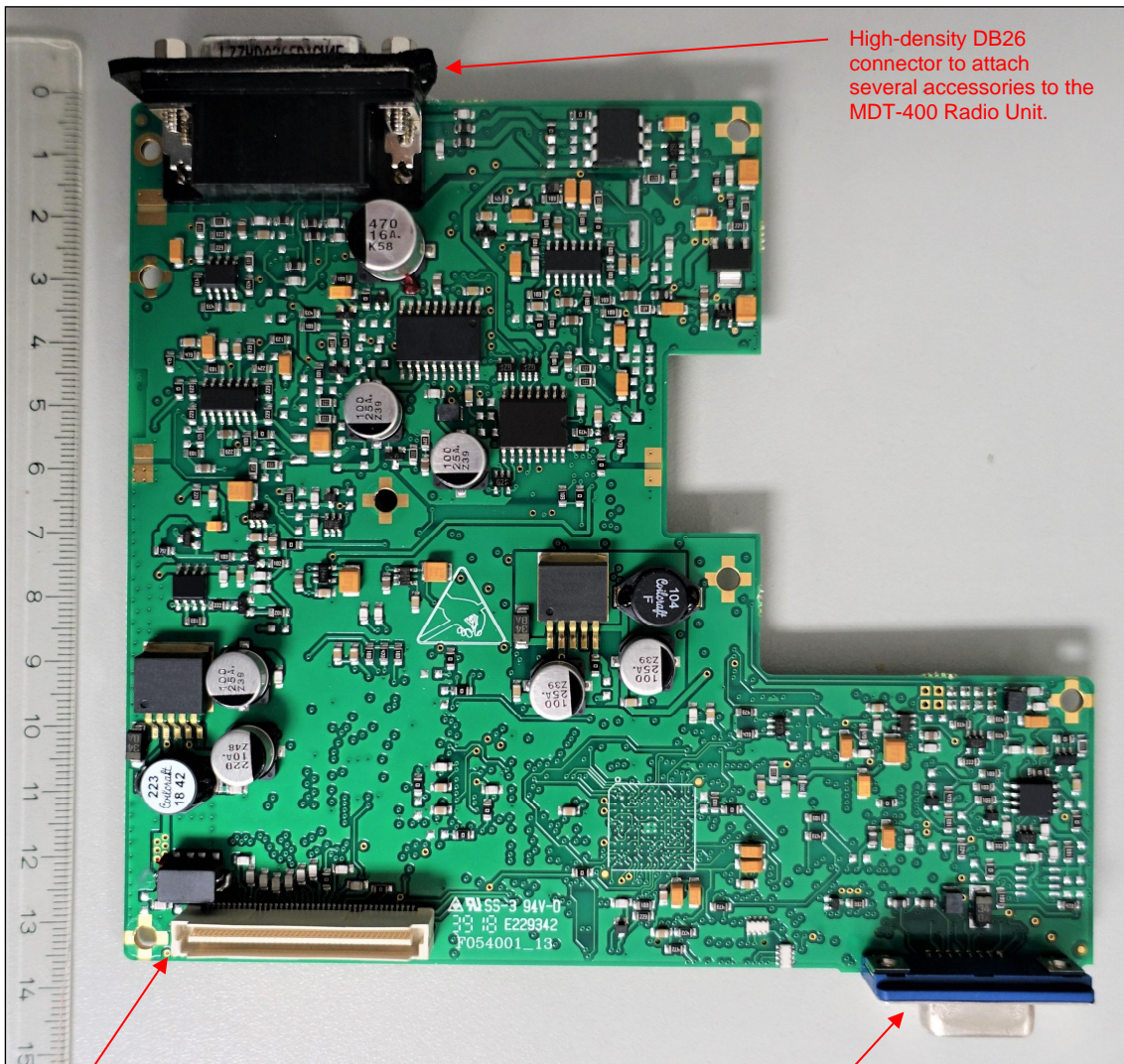


**3.2 CONTROL PCB (E260022O000O003 - F054001)**

**3.2.1 Upper side**



**3.2.2 Lower side**



High-density DB26 connector to attach several accessories to the MDT-400 Radio Unit.

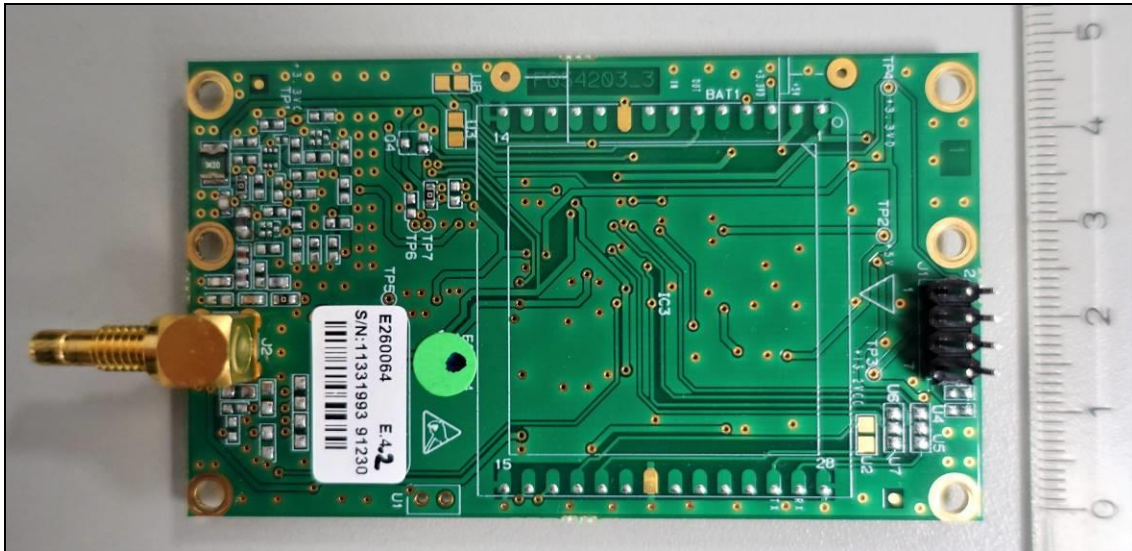
Board-to-board connector to attach the Control PCB to the Radio PCB, which is fitted in the opposite cavity of the chassis.

High-density DB15 connector to attach the F-400 Front Console to the MDT-400 Radio Unit.

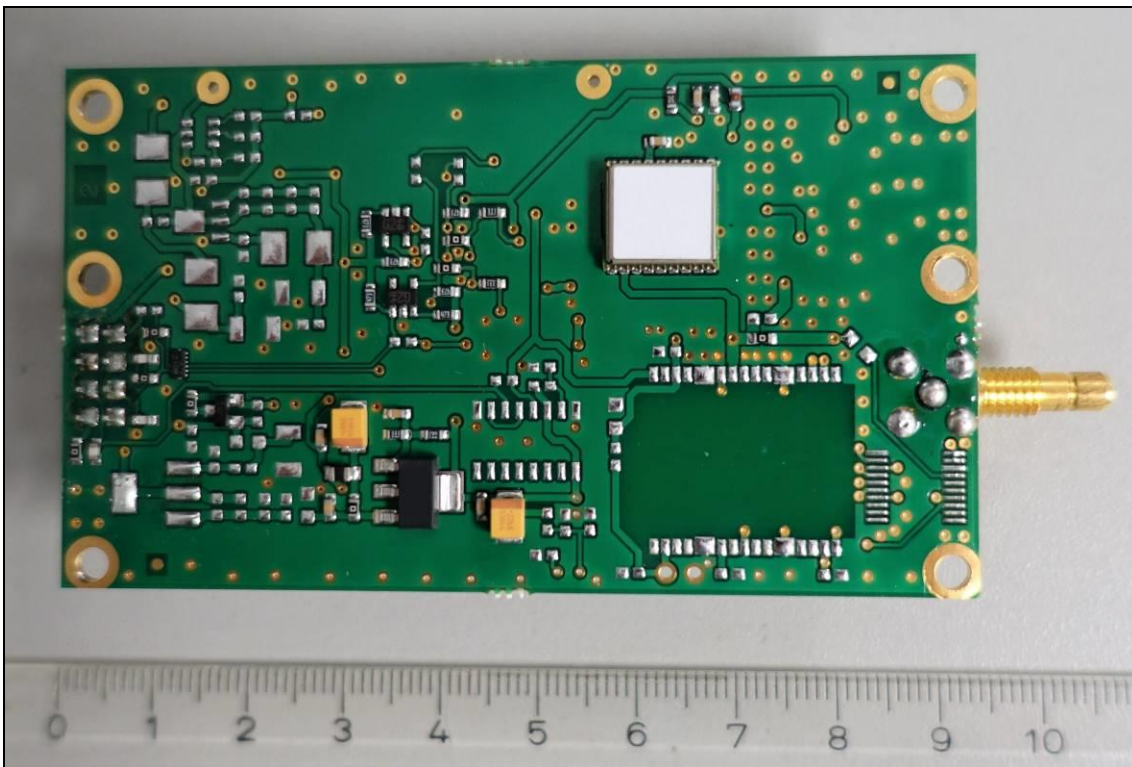


### 3.3 GPS PCB (E260064 - F054203)

#### 3.3.1 Upper side

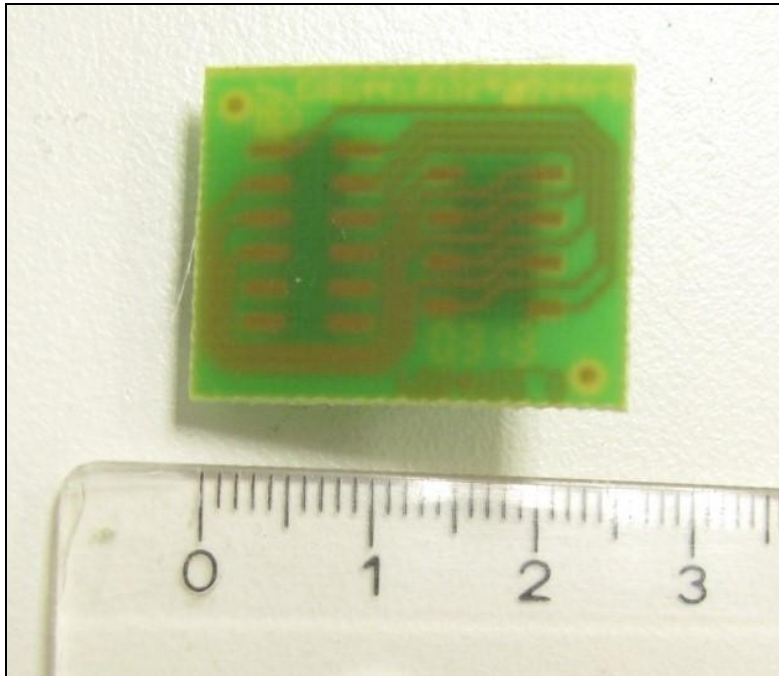


#### 3.3.2 Lower side

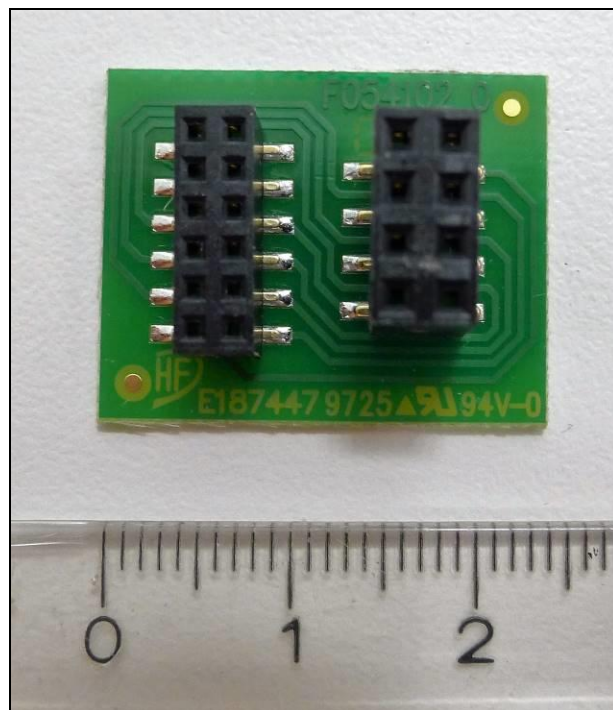


**3.4 BRIDGE PCB (E260054 - F054102)**

**3.4.1 Upper side**



**3.4.2 Lower side**





#### 4. MDT-400 806-870 MHz POWER AMPLIFIER

The power amplifier is made up from a commercial module and can be spotted by removing the shield that is located next to the fins of the chassis. A layer of conductive thermal silicone is dispensed on the underside of the module before assembling it. Then, it is laid down and screwed to the chassis. Finally, its pins are soldered to the corresponding pads of the Radio Board. The pictures below show what the final assembly looks like:

