

---

**UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Brand Nedap  
Model  
UPASS TARGET REGION 2-3  
Interior Photographs**

Description of EUT: UHF EPC Gen2 RFID reader operating on  
902-928 MHz  
Manufacturer: N.V. Nederlandsche Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID CGDUPASSTAR  
IC 1444A-UPASSTAR  
Type of Application New Application

---

**Description of item**

Description of EUT : UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer : N.V. Nederlandsche Apparatenfabriek "Nedap"  
Brand : Nedap  
Models : UPASS TARGET REGION 2-3  
FCC ID : CGDUPASSTAR  
IC : 1444A-UPASSTAR  
Type of Service : New Application

**Applicant information**

Applicant's representative : Mr. Jacques Hulshof  
Company : N.V. Nederlandsche Apparatenfabriek "Nedap"  
Address : Parallelweg 2  
Postal code : 7141 DC  
City : Groenlo  
PO-box : 6  
Postal code : 7140 AA  
City : Groenlo  
Country : The Netherlands  
Telephone number : +31 (0) 544 471111  
Telefax number : +31 (0) 544 463475

23 February 2016

Description of EUT: UHF EPC Gen2 RFID reader operating on  
902-928 MHz  
 Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
 Brand mark: Nedap  
 Model: UPASS TARGET REGION 2-3  
 FCC ID: CGDUPASSTAR  
 IC: 1444A-UPASSTAR  
 Type of Application: New Application

---

## **Table of contents**

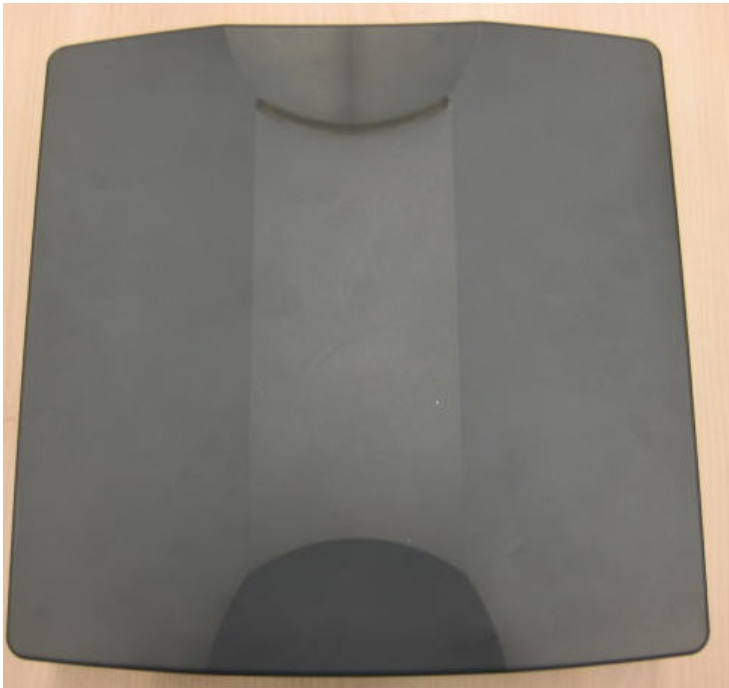
<b>1</b>	<b>EXTERNAL PHOTOGRAPHS OF THE UPASS TARGET REGION 2-3</b> .....	<b>4</b>
1.1	FRONT VIEW .....	4
1.2	REAR VIEW .....	4
<b>2</b>	<b>INTERNAL PICTURES CASING</b> .....	<b>5</b>
2.1	BACK COVER REMOVED .....	5
2.2	PLASTIC COVER .....	5
2.3	OVERVIEW OF THE PRINTED CIRCUIT BOARDS .....	6
2.4	PRINTED CIRCUIT BOARD CABLE CONNECTION SIDE .....	6
2.5	OVERVIEW TRANSCEIVER - AND MICROPROCESSOR BOARD .....	7
<b>3</b>	<b>PRINTED CIRCUIT BOARDS</b> .....	<b>8</b>
3.1	TRANSCEIVER BOARD .....	8
3.1.1	<i>Front side</i> .....	8
3.1.2	<i>Back side</i> .....	8
3.1.3	<i>Metal covers removed and the Printed circuit board front side</i> .....	9
3.1.4	<i>Front side</i> .....	9
3.1.5	<i>Back side</i> .....	10
3.2	MICROPROCESSOR BOARD .....	10
3.2.1	<i>Total overview</i> .....	10
3.2.2	<i>Front side</i> .....	11
3.2.3	<i>Back side</i> .....	11
3.3	ANTENNA BOARD .....	12
3.3.1	<i>Front antenna side and metal cover with holes</i> .....	12
3.3.2	<i>Antenna Printed Circuit Board front side</i> .....	12
3.3.3	<i>Back side antenna Printed Circuit board metal plated</i> .....	13
3.3.4	<i>Metal cover</i> .....	13
3.4	EXTERNAL CONNECTOR BOARD .....	14
3.4.1	<i>With metal cover</i> .....	14
3.4.2	<i>Front side Printed Circuit board</i> .....	14
3.4.3	<i>Back side printed circuit board</i> .....	14
<b>4</b>	<b>EXTERNAL ANTENNA</b> .....	<b>15</b>
4.1	OVERVIEW WITH METAL PLATE .....	15
4.2	METAL PLATE .....	15
4.3	PRINTED CIRCUIT BOARD WITH ANTENNA SHAPE .....	16
4.4	PRINTED CIRCUIT BOARD BACKSIDE .....	16

Description of EUT: UHF EPC Gen2 RFID reader operating on  
902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

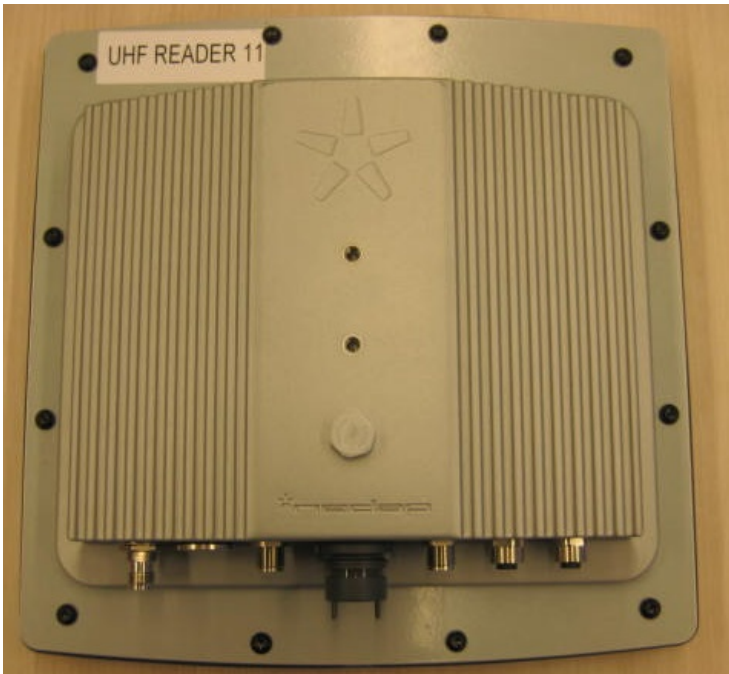
---

## 1 External Photographs of the UPASS TARGET REGION 2-3

### 1.1 Front view



### 1.2 Rear view

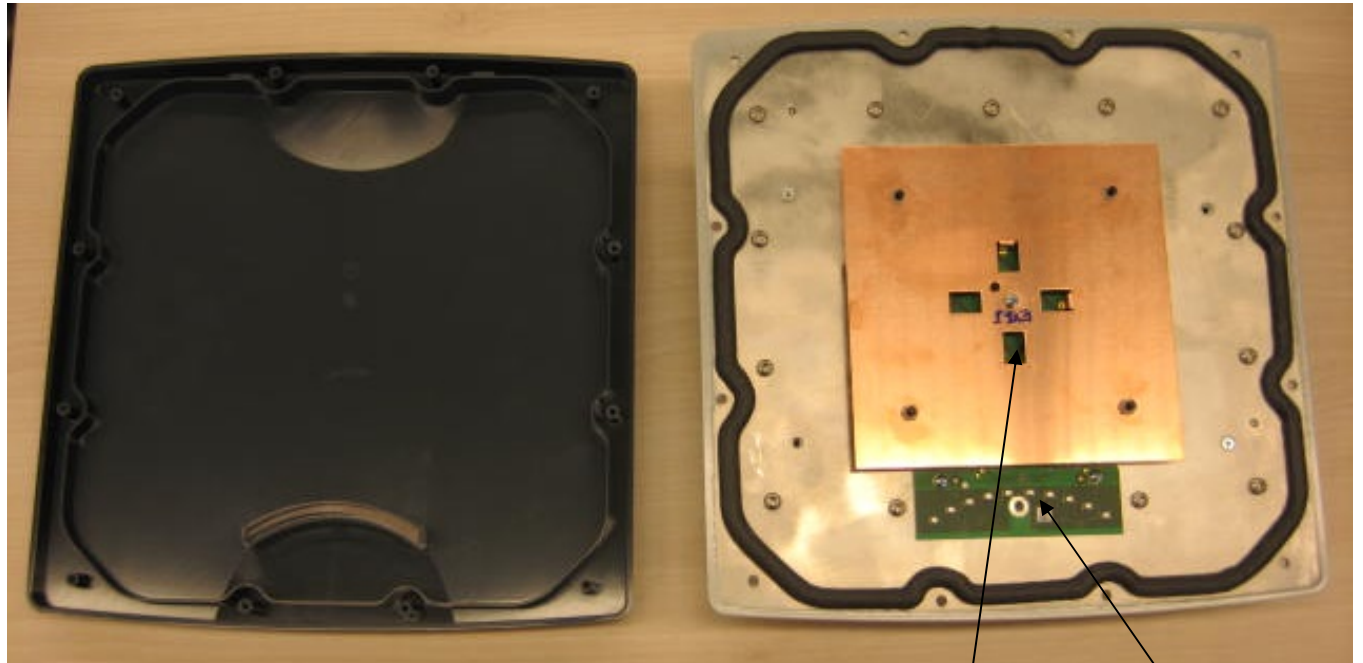


Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

## 2 Internal pictures casing

### 2.1 Back cover removed



### 2.2 Plastic cover



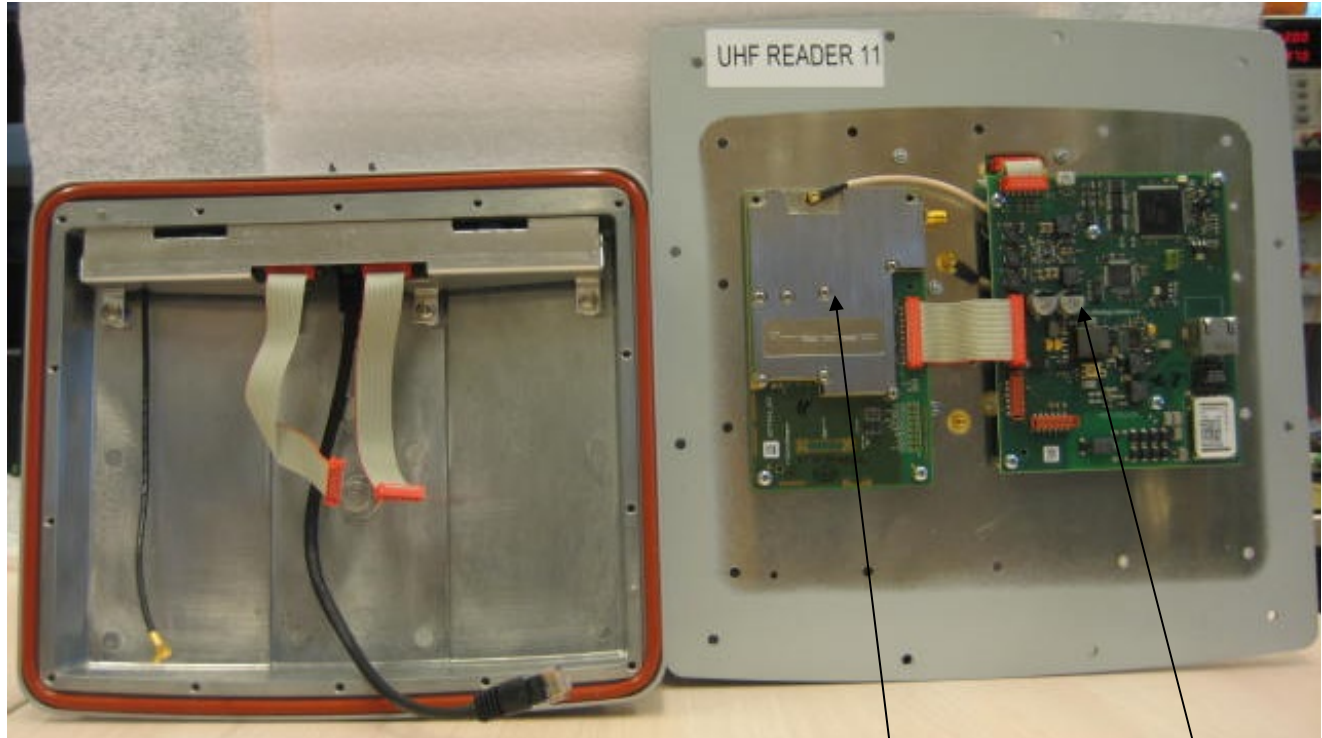
Antenna

Leds

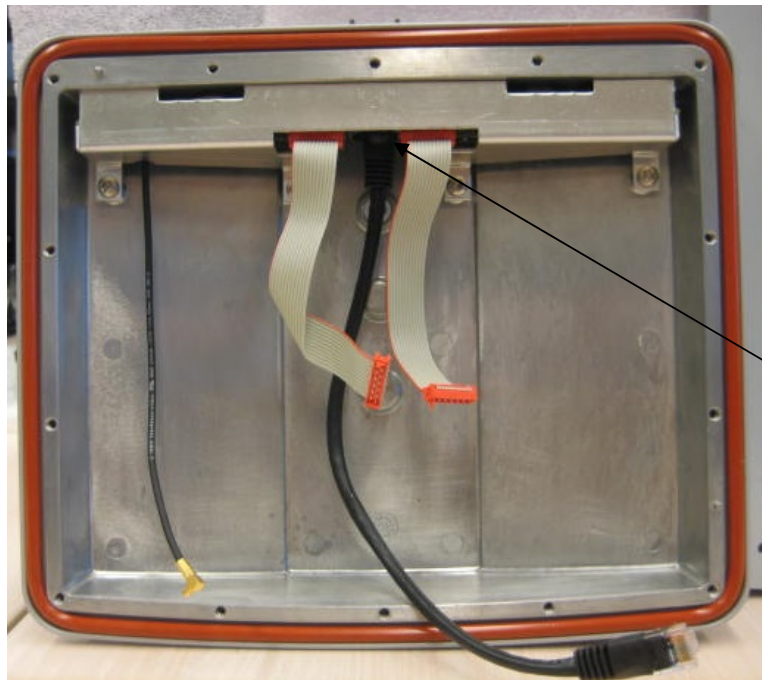
Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

### 2.3 Overview of the Printed Circuit boards



### 2.4 Printed circuit board cable connection side



Transceiver

Microprocessor

External connector board



Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

## 2.5 Overview transceiver - and microprocessor board



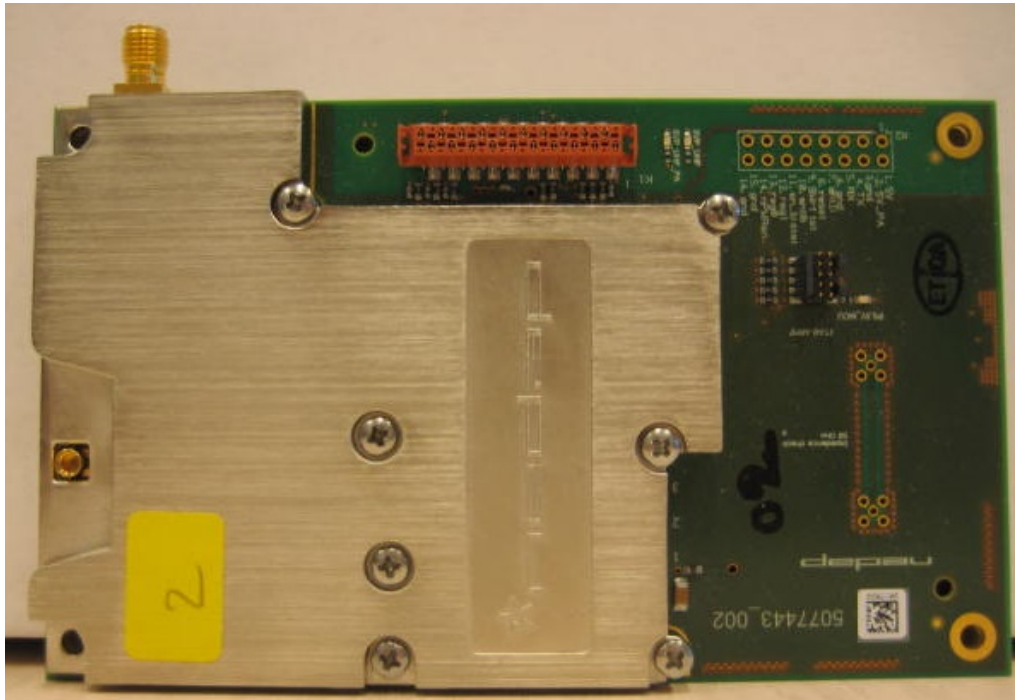
Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

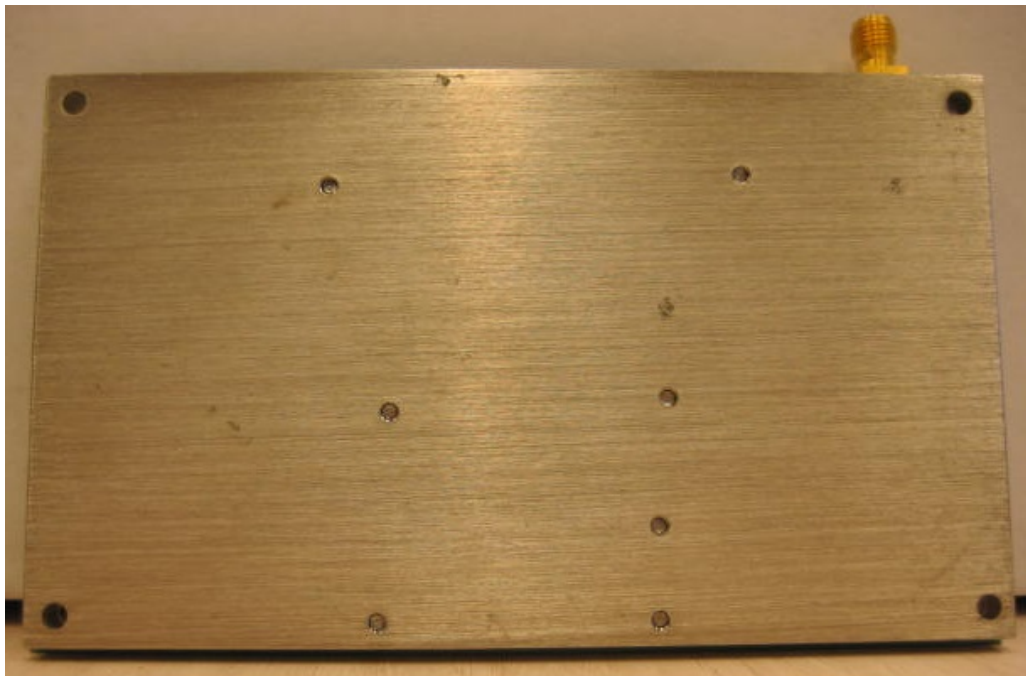
### 3 Printed Circuit boards

#### 3.1 Transceiver board

##### 3.1.1 Front side



##### 3.1.2 Back side

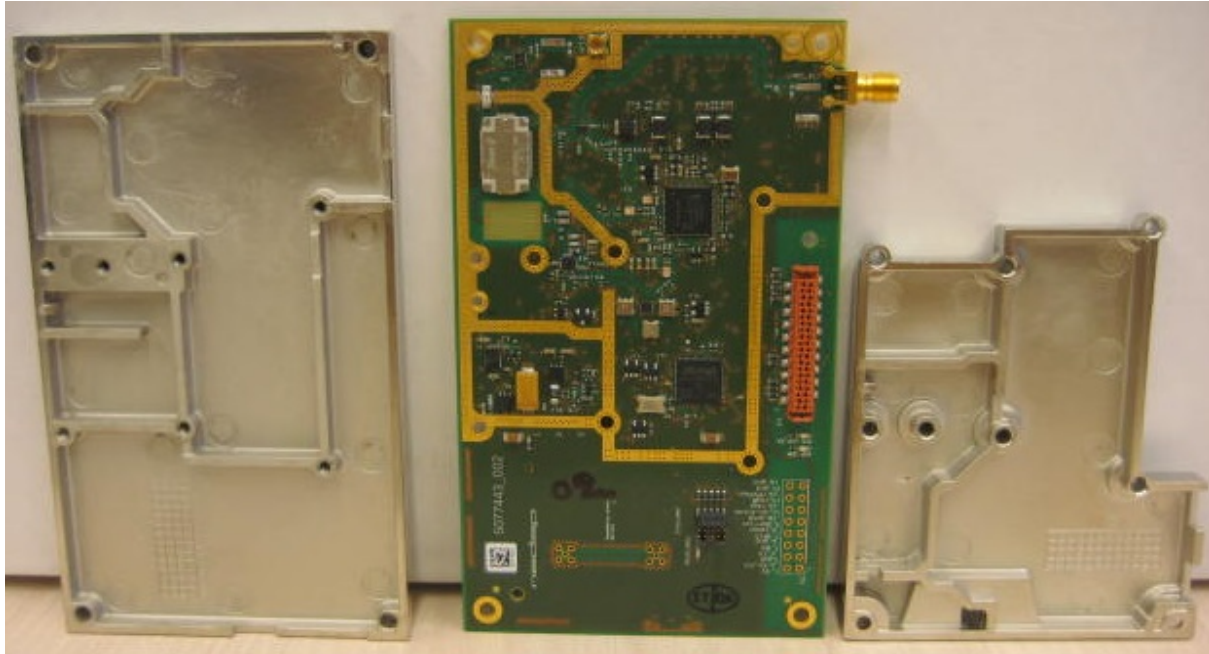




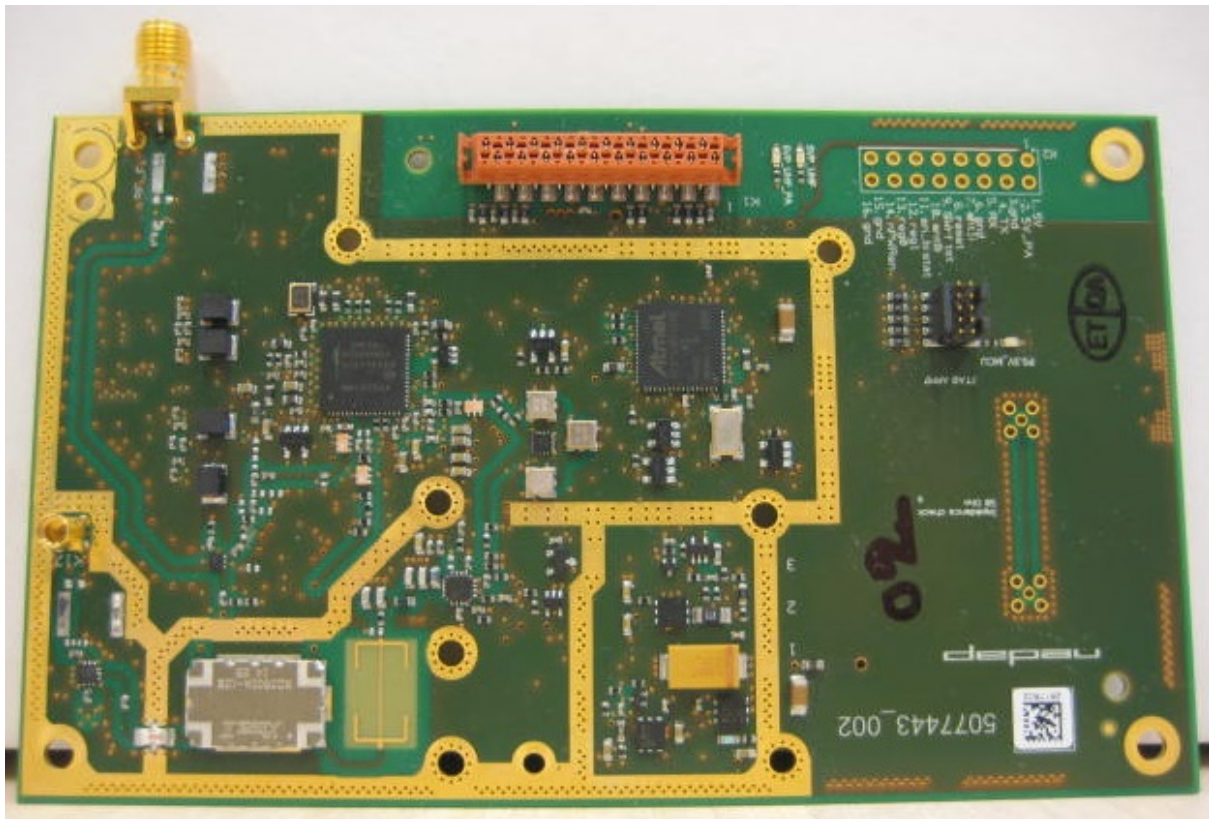
Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

3.1.3 Metal covers removed and the Printed circuit board front side



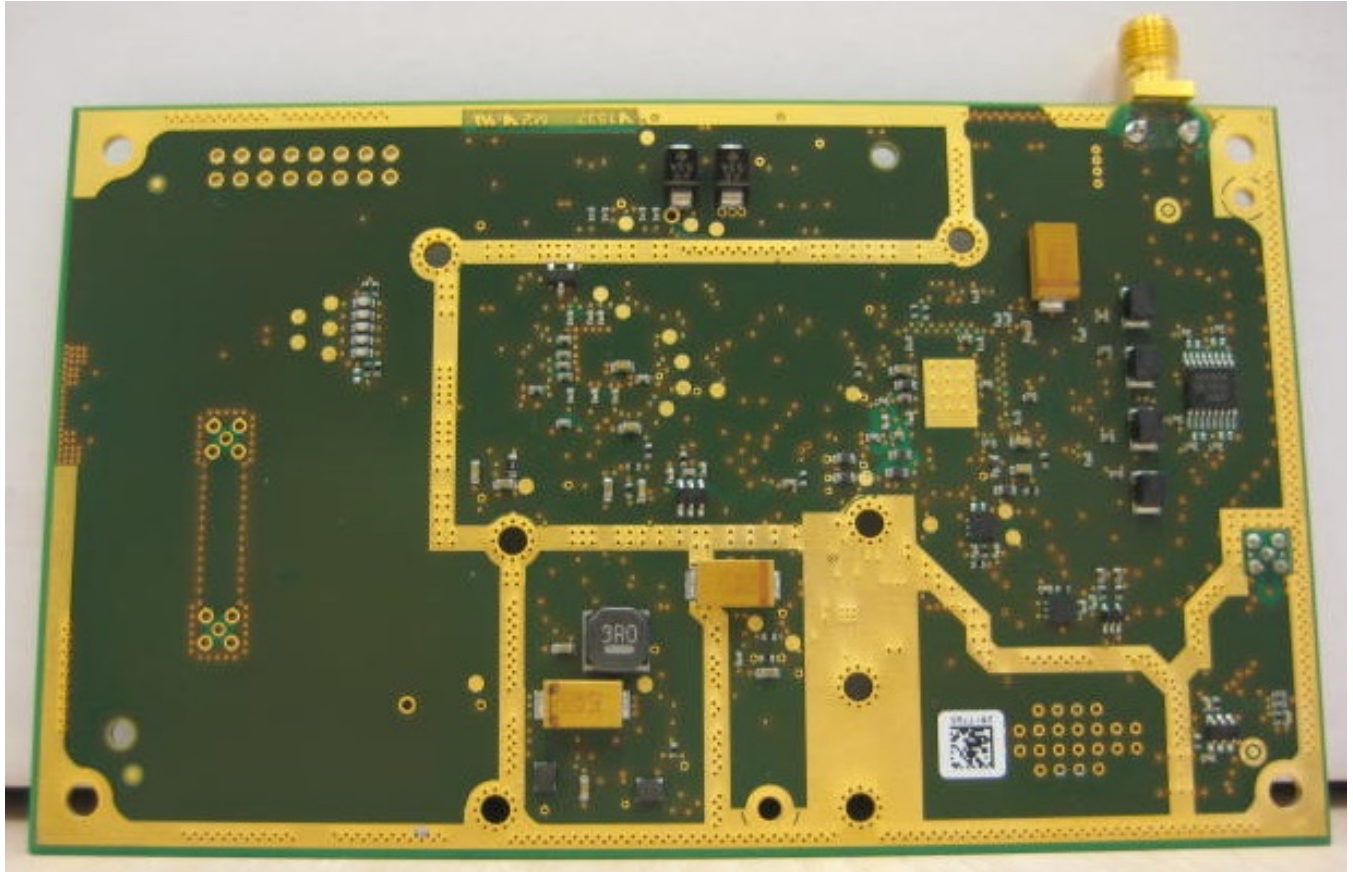
3.1.4 Front side



Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

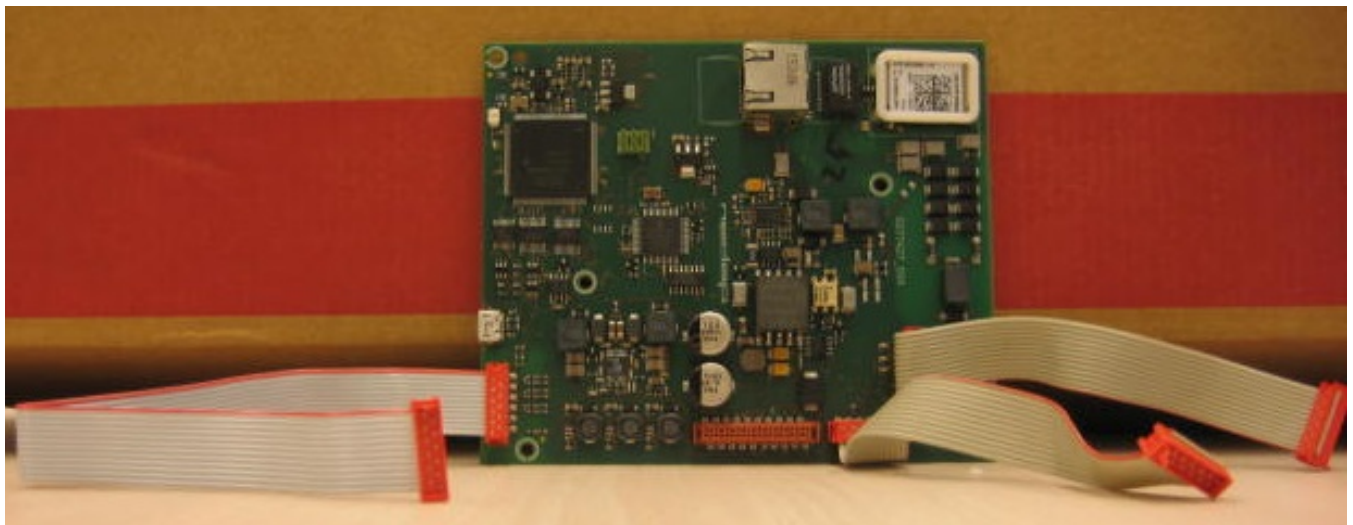
---

### 3.1.5 Back side



## 3.2 Microprocessor board

### 3.2.1 Total overview

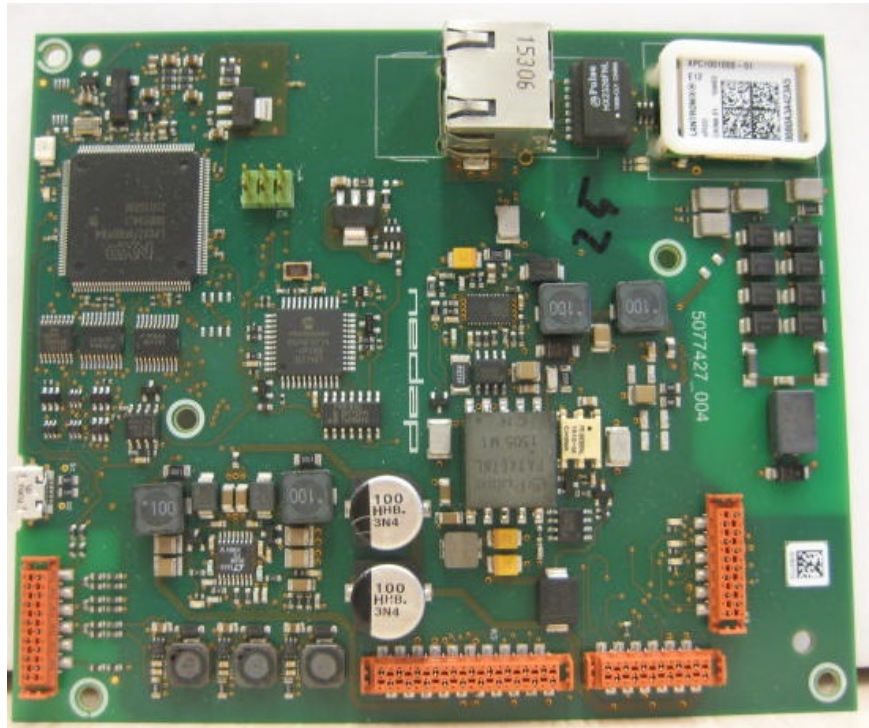




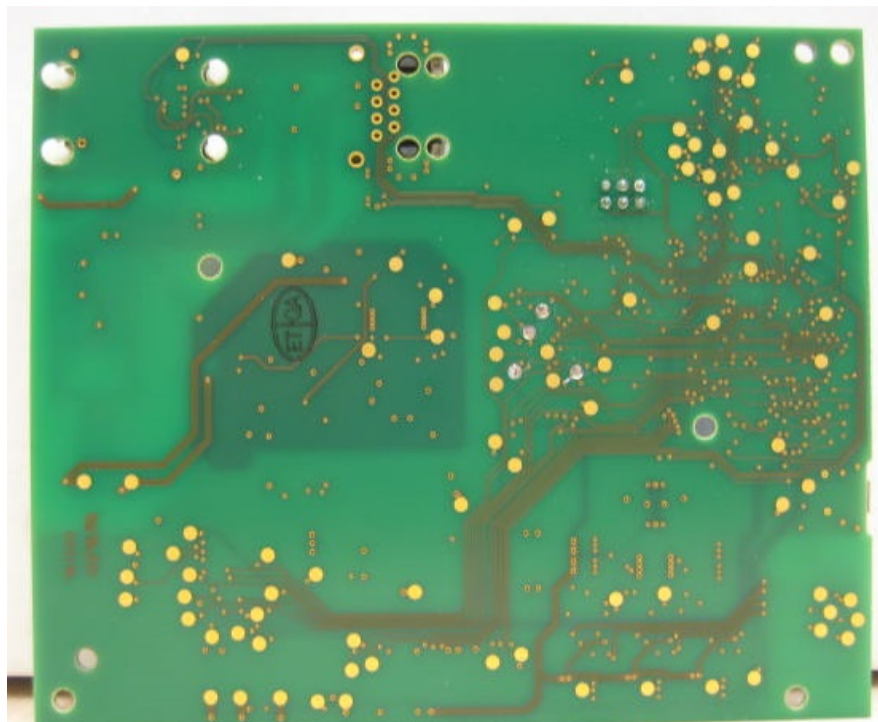
Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

### 3.2.2 Front side



### 3.2.3 Back side

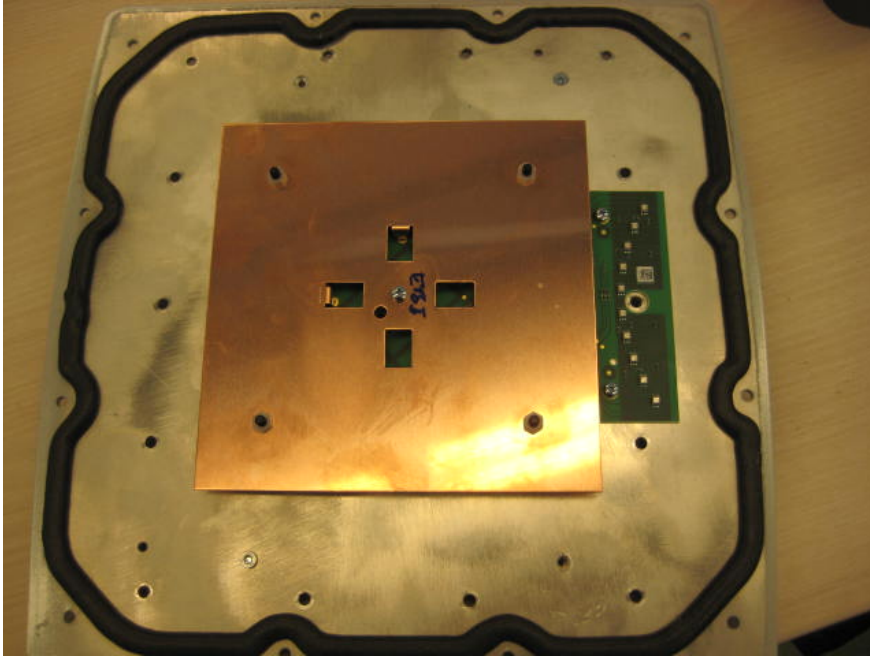


Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

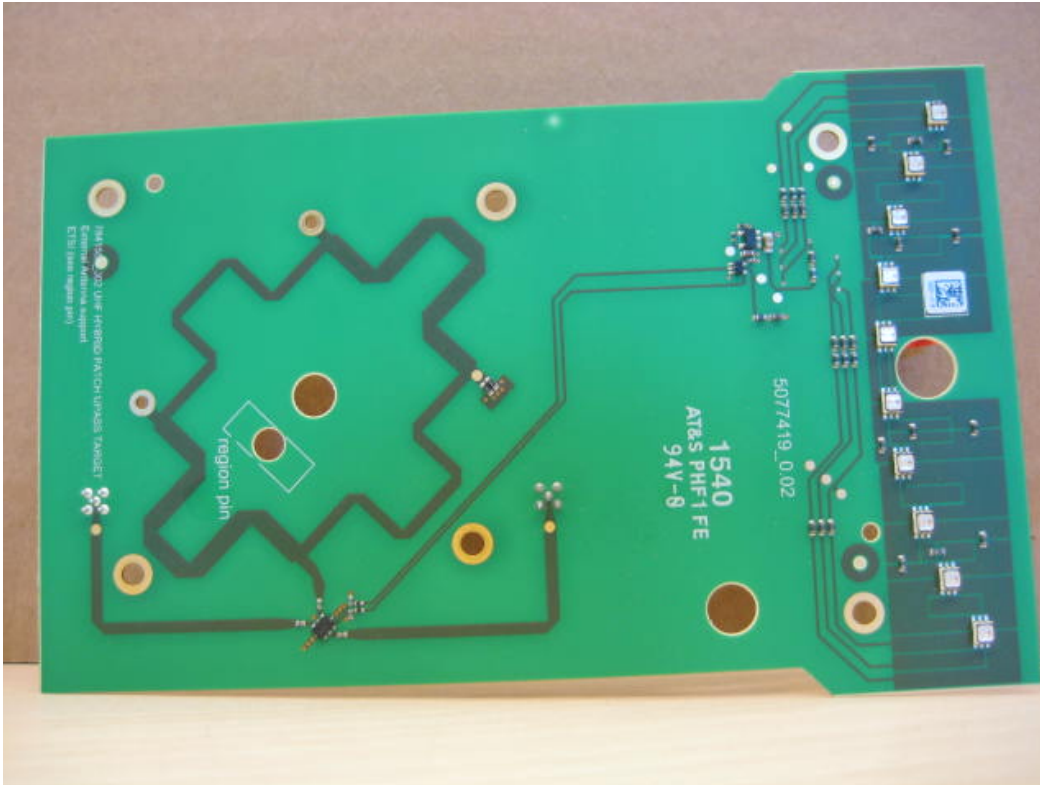
---

### 3.3 Antenna board

#### 3.3.1 Front antenna side and metal cover with holes



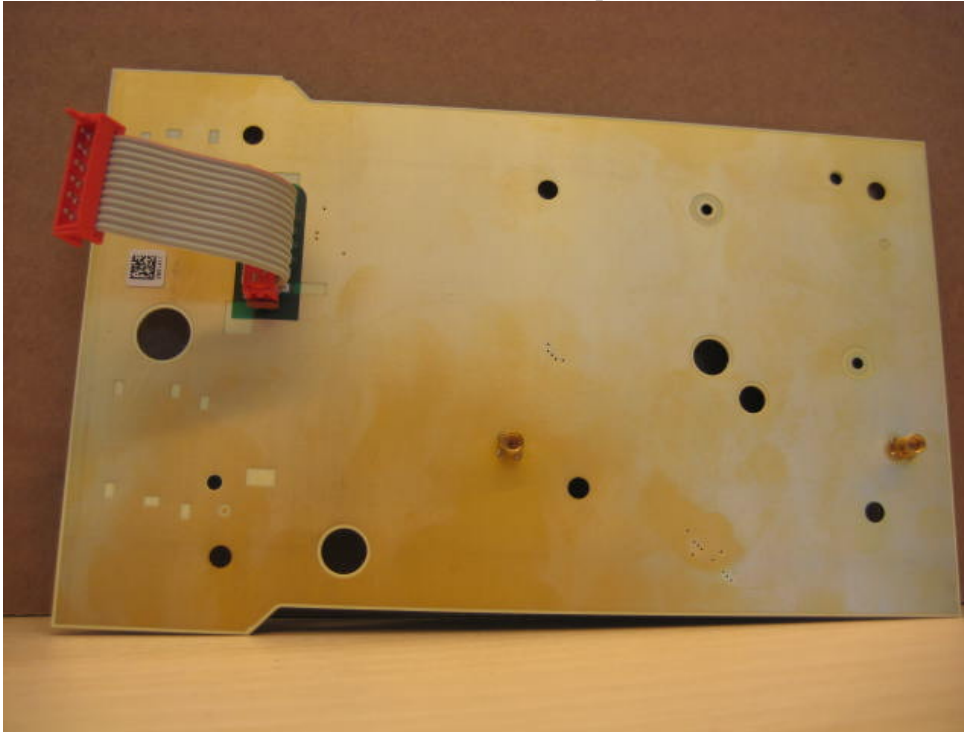
#### 3.3.2 Antenna Printed Circuit Board front side



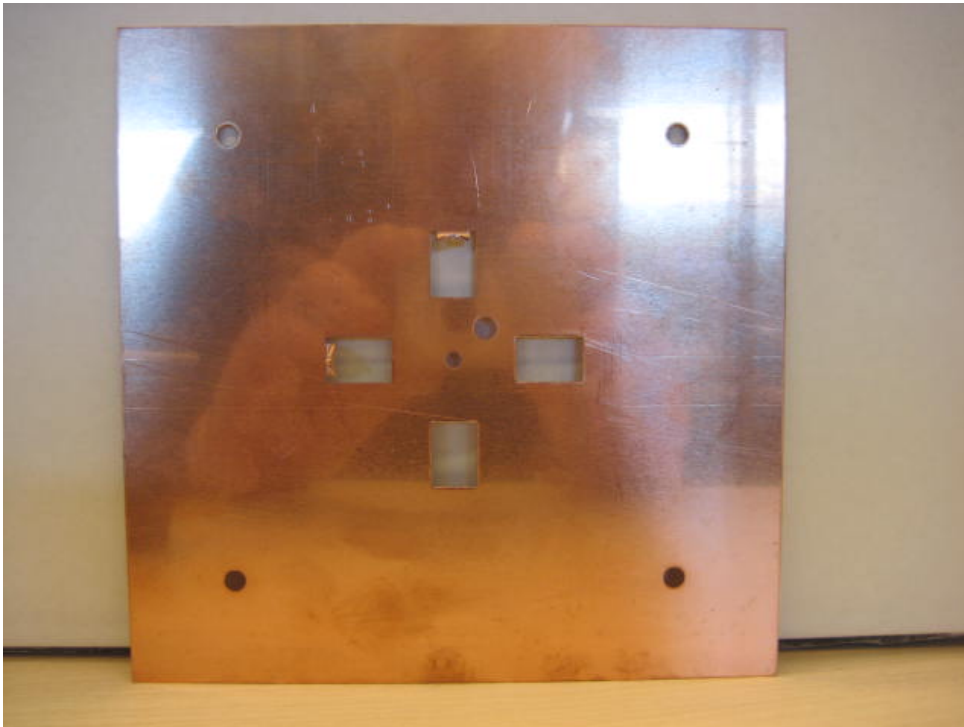
Description of EUT: UHF EPC Gen2 RFID reader operating on  
902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

### 3.3.3 Back side antenna Printed Circuit board metal plated



### 3.3.4 Metal cover



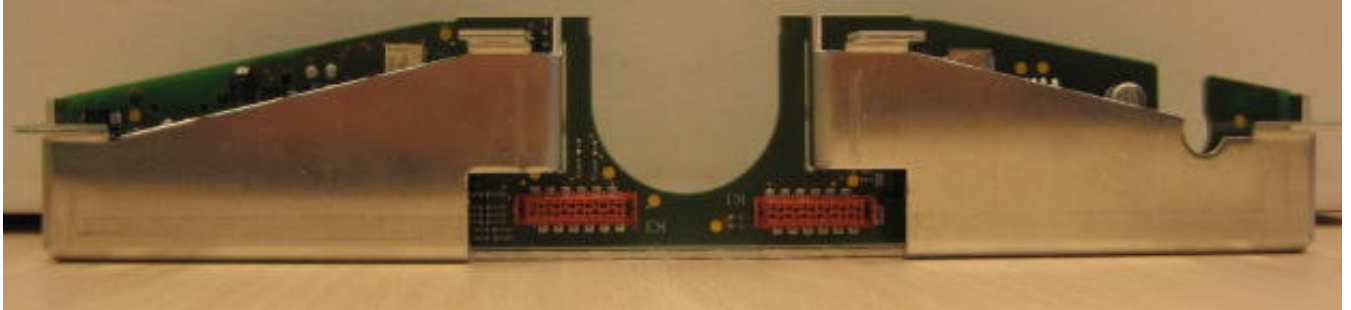


Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

### 3.4 External connector board

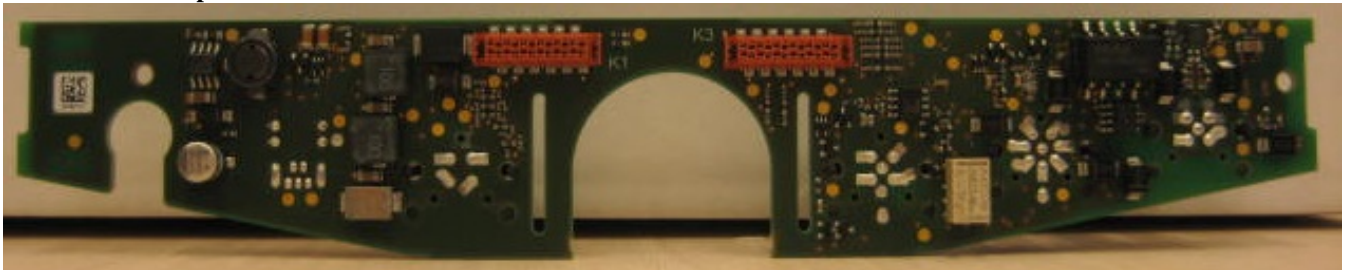
#### 3.4.1 With metal cover



#### 3.4.2 Front side Printed Circuit board



#### 3.4.3 Back side printed circuit board



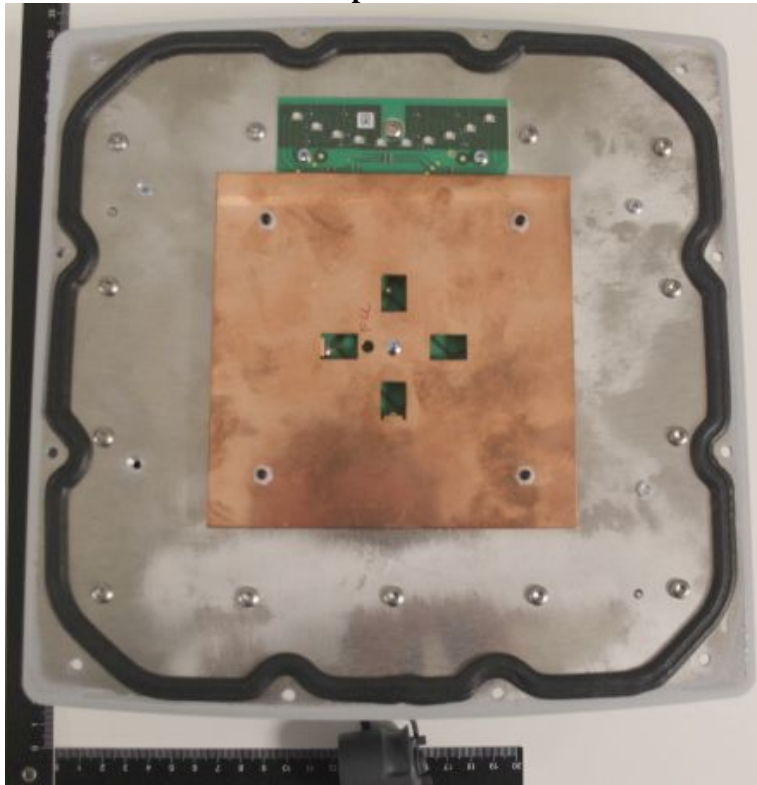


Description of EUT: UHF EPC Gen2 RFID reader operating on  
902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

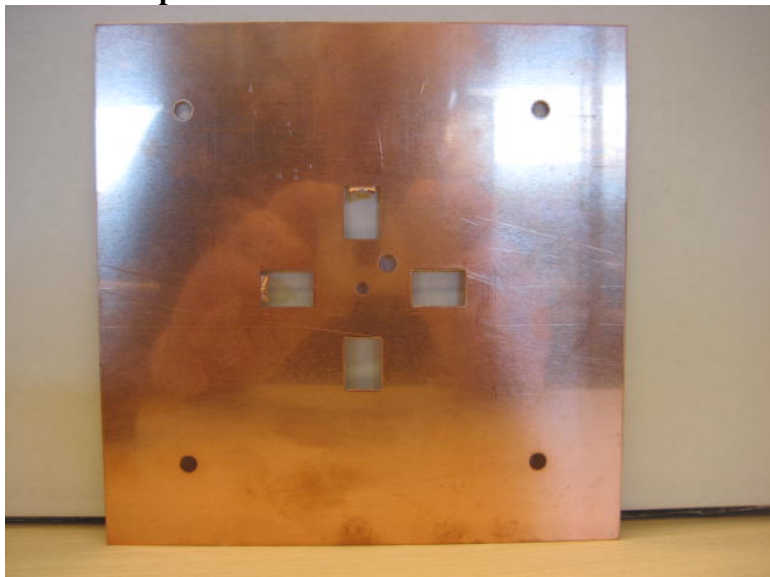
---

## 4 External antenna

### 4.1 Overview with metal plate



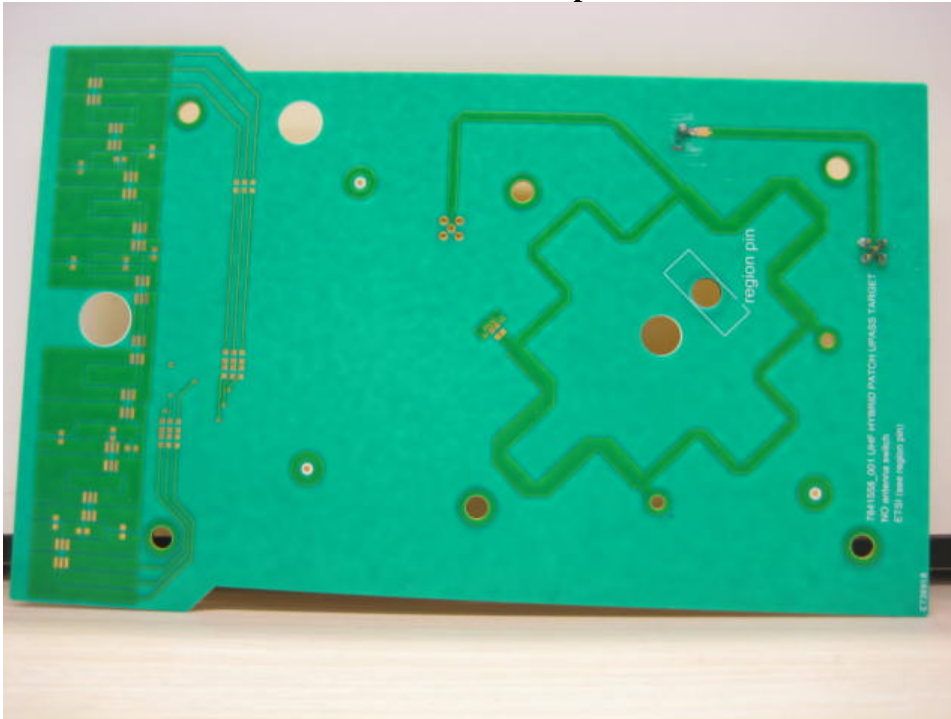
### 4.2 Metal plate



Description of EUT: UHF EPC Gen2 RFID reader operating on 902-928 MHz  
Manufacturer: N.V. Nederlandse Apparatenfabriek "Nedap"  
Brand mark: Nedap  
Model: UPASS TARGET REGION 2-3  
FCC ID: CGDUPASSTAR  
IC: 1444A-UPASSTAR  
Type of Application: New Application

---

#### 4.3 Printed circuit board with antenna shape



#### 4.4 Printed circuit board backside

