



UNDP-1 FCC Submittal Package

TL80-VH270-1 Rev. A

January 25, 2008

**Submit technical questions to:
regulatory.support@qualcomm.com**

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QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, CA 92121-1714
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January 15, 2008

UNDP-1 FCC Submittal Package
80-VH688-1 Rev. A

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1. Correspondence

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November 2, 2007

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, Maryland 21046

Re: Application for Cellular and PCS Transceiver Type Acceptance

Qualcomm Incorporated herein submits the Application for Equipment Authorization (FCC Form 731) and Exhibits for Type Acceptance of a Cellular & PCS Transceiver, FCC ID: J9CUNDP-1.

Applicant: Qualcomm Incorporated
5775 Morehouse Drive
San Diego, CA 92121

Manufacturer: Initial product by
Qualcomm Incorporated
5775 Morehouse Drive
San Diego, CA 92121

Second Party Volume Manufacturer TBD

The UNDP-1 product is a WWAN PCI Express™ Mini Card form factor. This data card solution delivers WWAN connectivity for notebook computers using CDMA2000 1x/1x-EVDO, WCDMA/HSPA and GSM/GPRS/EDGE protocols, plus GPS position location, in a single package. The complete UNDP-1 solution includes all hardware and software necessary for embedded wireless connectivity in notebook PCs.

All necessary information is provided in Exhibits 1 through 11.

Please contact me at Tel: (858) 658-5346 or Email: linl@qualcomm.com, if there are any questions or additional information needed.

Sincerely,

Lin Lu

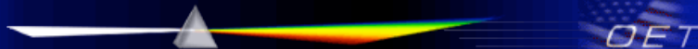
Lin Lu
Engineer, Senior Staff
Qualcomm Incorporated

This document was generated in response to a request for additional technical information by Steven Dayhoff (FCC) in regards to the FCC approval of the UNDP-1. The information included in related to the specific topics discussed in the following email received by Lin Lu on Dec. 20, 2007:

From: Generic Office of Engineering Technology [oetech@fccsun27w.fcc.gov]
Sent: Thursday, December 20, 2007 12:51 PM
To: Lu, Lin
Subject: Info Request



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Office of Engineering and Technology

To: Lin Lu, QUALCOMM Incorporated
From: Steven Dayhoff
Steven.Dayhoff@fcc.gov
FCC Equipment Authorization Branch

Applicant: Qualcomm Incorporated
FCC ID: J9CUNDP-1
Form 731 Confirmation Number: EA982387
Date of Original E-Mail: 12/20/2007
Correspondence Reference Number: 34561

1) User manual mentions

"Additional suggestions are provided in Antenna Design Guidelines for Laptop and Notebook Computers (80-H2929-1)."

- please submit these installation instructions

2) fyi-only: op desc exhibit includes info about "FCC Modular Requirements" - note that Modular Approval procedures in FCC Public Notice DA-00-140 7 (see also FCC-07-56) are for Part 15 devices only; FCC does not have corresponding procedures for modules in licensed radio services; requirements of 15.203 (unique antenna) and 15.204 (transmitter and antenna marketed as system) are not directly applicable for licensed modules.

3) fyi emission designator summary tables in op desc, test report, etc have error, i.e.

GMSK

824.2-848.8 248KGXW

1850.2-1909.8 250KG7W <- error

8PSK

824.2-848.8 248KGXW <- error

1850.2-1909.8 245KG7W

4) Besides MPE, filing must document antenna configurations in compliance with service-rule ERP/EIRP limits, if any. MPE exhibit has 873 mW with 4 dBi antenna = 2.2 W EIRP; per 24.232(c) max EIRP is 2 W - please revise MPE and other parts of filing where appropriate, e.g. user manual etc.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 60 days of the original e-mail date may result in application dismissal pursuant to Section 2.917 (c) and forfeiture of the filing fee pursuant to section 1.1108. DO NOT reply to this e-mail by using the Reply button. In order for your response to be processed expeditiously, you must upload your response via the Internet at www.fcc.gov, Electronic Filing, OET Equipment Authorization Electronic Filing. If the response is submitted through Add Attachments, in order to expedite processing, a message which informs the processing staff that a new exhibit has been submitted must also be submitted via Submit Correspondence. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.

Question #1: User manual mentions “Additional suggestions are provided in Antenna Design Guidelines for Laptop and Notebook Computers (80-H2929-1)”. Please submit these installation instructions

Qualcomm: The requested document has been uploaded with this correspondence. This document is Qualcomm proprietary material. So the confidentiality request letter has been updated and submitted to include the requested document.

Question #2: fyi-only

Question #3: fyi

Question #4: Besides MPE, filing must document antenna configurations in compliance with service-rule ERP/EIRP limits, if any. MPE exhibit has 873 mW with 4 dBi antenna = 2.2 W EIRP; per 24.232 (c) max EIRP is 2 W - please revise MPE and other parts of filling where appropriate, e.g. user manual etc.

Qualcomm: The MPE evaluation report and User’s Guide have been revised as the maximum antenna gain in PCS band must not exceed 3.5 dBi to ensure the configuration in compliance with the requirements specified in FCC CFR 47 §1.1310, 2.1091as well as 24.232(c). The relevant documents have been updated with this correspondence.

This document was generated in response to FCC Correspondence # 34608, a request for additional technical information by Steven Dayhoff (FCC) in regards to the FCC approval of the UNDP-1. The information included in related to the specific topics discussed in the following email received by Lin Lu on Jan. 10, 2008:

Lu, Lin

From: oetech@fcc.gov
Sent: Thursday, January 10, 2008 6:40 AM
To: Lu, Lin
Subject: Info Request

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Office of Engineering and Technology

To: Lin Lu, QUALCOMM Incorporated
linl@qualcomm.com
From: Steven Dayhoff
Steven.Dayhoff@fcc.gov
Re: FCC ID: J9CUNDP-1
Applicant: Qualcomm Incorporated
Correspondence Reference Number: 34608
Form 731 Confirmation Number: EA982387
Date of Original E-mail: 01/09/2008

Submit the antenna design guidelines and request permanent confidentiality on this document.

Question #1: Submit the antenna design guidelines and request permanent confidentiality on this document.

Qualcomm: The requested document of antenna design guidelines (80-H2929-1) was submitted on Dec 21 2007 via FCC OET E-filing web site "Add Attachments" alone with response to the Info Request #34561. The updated confidentiality request letter which covers the confidentiality request on additional documents (including the antenna design guidelines) was also submitted on Dec 21 2007. The OET Exhibits Summary List attached below shows both requested documents were successfully uploaded in FCC E-filing database. Please let me know if the info needs to be re-submitted.

OET Exhibits Summary List

25 Matches found for FCC ID 'J9CUNDP-1'

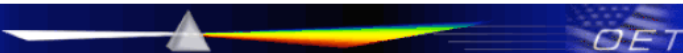
Exhibit Type	File Type	File Size	Description	Submission Date	Permanent Confidential	Short-Term Confidential	Supersede Date Available
Attestation Statements	Adobe Acrobat PDF14556	updated confidentiality request	12/21/2007	No	Yes	No	
Block Diagram	Adobe Acrobat PDF28332	Block Diagram	11/07/2007	Yes	No	No	
Cover Letter(s)	Adobe Acrobat PDF14893	Cover Letter	11/07/2007	No	No	No	
Cover Letter(s)	Adobe Acrobat PDF228041	response letter	12/21/2007	No	Yes	No	
Cover Letter(s)	Adobe Acrobat PDF14409	Confidentiality Request	11/07/2007	No	No	No	
External Photos	Adobe Acrobat PDF156664	External Photos	11/07/2007	No	Yes	No	
ID Label/Location Info	Adobe Acrobat PDF65097	FCC ID Label	11/07/2007	No	No	No	
Internal Photos	Adobe Acrobat PDF189581	Internal Photos	11/07/2007	No	Yes	No	
Operational Description	Adobe Acrobat PDF913985	Operational Description	11/07/2007	Yes	No	No	
Parts List/Tune Up Info	Adobe Acrobat PDF59719	Part List Tune Up	11/07/2007	Yes	No	No	
RF Exposure Info	Adobe Acrobat PDF81243	MPE Analysis Report	11/07/2007	No	No	No	
RF Exposure Info	Adobe Acrobat PDF81257	updated MPE report	12/21/2007	No	Yes	No	
Schematics	Adobe Acrobat PDF478788	Schematics	11/07/2007	Yes	No	No	
Test Report	Adobe Acrobat PDF676425	Radiated Test Report	11/07/2007	No	Yes	No	
Test Report	Adobe Acrobat PDF990518	Conducted Test Report	11/07/2007	No	Yes	No	
Users Manual	Adobe Acrobat PDF229013	User Manual	11/07/2007	No	Yes	No	
Users Manual	Adobe Acrobat PDF690792	updated user guide	12/21/2007	No	Yes	No	
Users Manual	Adobe Acrobat PDF2225985	antenna design guidelines pt5	12/21/2007	Yes	No	No	
Users Manual	Adobe Acrobat PDF2243573	antenna design guidelines pt1	12/21/2007	Yes	No	No	
Users Manual	Adobe Acrobat PDF2325905	antenna design guidelines pt8	12/21/2007	Yes	No	No	
Users Manual	Adobe Acrobat PDF2329579	antenna design guidelines pt4	12/21/2007	Yes	No	No	
Users Manual	Adobe Acrobat PDF2700293	antenna design guidelines pt3	12/21/2007	Yes	No	No	
Users Manual	Adobe Acrobat PDF2769679	antenna design guidelines pt7	12/21/2007	Yes	No	No	
Users Manual	Adobe Acrobat PDF3179048	antenna design guidelines pt6	12/21/2007	Yes	No	No	
Users Manual	Adobe Acrobat PDF3606532	antenna design guidelines pt2	12/21/2007	Yes	No	No	

This document was generated in response to FCC Correspondence # 34671, a request for additional technical information by Tim Harrington (FCC) in regards to the FCC approval of the UNDP-1. The information included in related to the specific topics discussed in the following email received by Lin Lu on Jan. 17, 2008:

From: oetech@fcc.gov
Sent: Thursday, January 17, 2008 2:52 PM
To: Lu, Lin
Subject: confid.



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Office of Engineering and Technology

To: Lin Lu, QUALCOMM Incorporated
linl@qualcomm.com
From: Tim Harrington
Tim.Harrington@fcc.gov
Re: FCC ID: J9CUNDP-1
Applicant: Qualcomm Incorporated
Correspondence Reference Number: 34671
Form 731 Confirmation Number: EA982387
Date of Original E-mail: 01/17/2008

Exhibit types allowed for limited confidentiality per DA-04-1705 do not include Test Report nor RF Exposure Info - please submit revised confid. request letter, and adjusted exhibits if appropriate. Note also that application cover letters and Certification Grant cannot be held confidential. However, review and processing can be completed and the entire application put into deferred status if there is some later requested date for Grant to be available on FCC website - please advise if applicable.

Question #1: Exhibit types allowed for limited confidentiality per DA-04-1705 do not include Test Report nor RF Exposure info – please submit revised confidentiality request letter, and adjusted exhibits if appropriate. Note also that application cover letters and Certification Grant cannot be held confidential.

Qualcomm: The confidentiality request letter has been updated and submitted via the Internet at www.fcc.gov, e-filing, OET Equipment Authorization Electronic Filing, Submit Correspondence. The following documents have been removed from the short term confidentiality request list.

- 1) Exhibit 2 UNDP-1 Part 22&24 Conducted Test Report
- 2) Exhibit 3 UNDP-1 Radiated Test Report
- 3) Exhibit 4 MPE Evaluation
- 4) Cover letter
- 5) Grant of Equipment Authorization Certification

November 2, 2007

Federal Communications Commission
 Authorization and Evaluation Division
 7435 Oakland Mills Road
 Columbia, Maryland 21046

Re: Request of Confidentiality for FCC ID: J9CUNDP-1

To Whom It May Concern:

Pursuant to Sections 0.457 and 0.459 of the Commission's Rules (CFR 47), Qualcomm Incorporated hereby requests confidential and treatment of information accompanying this Application as outlined in table 1. The materials contain trade secrets and proprietary information not customarily released to the public. The public disclosure of these matters might be harmful to the Applicant and provide unjustified benefits to its competitors.

Furthermore, pursuant to Public Notice DA 04-1705 in order to comply with the marketing regulations in CFR 47 §2.803 and the importation rules in CFR 47 §2.1204, we request the following exhibits listed in table 1 be withheld from public viewing for a short limited time of 45 days from the date of the Grant of Equipment Authorization, due to the sensitive business information.

The requested Confidential and Temporary Confidential exhibits are listed in table 1 below:

Table 1. Confidential and Short-Term Confidential		
	Exhibit	Description
Confidential	1	UNDP-1 Operation Descriptions & Documentation
	5	UNDP-1 Schematics
	6	UNDP-1 Parts List & Tune-up procedure
	7	UNDP-1 Block diagrams
Short-Term Confidential	2	UNDP-1 Part 22&24 Conducted Test Report
	3	UNDP-1 Radiated Test Report
	4	MPE Evaluation
	8	FCC Label Information
	9	UNDP-1 Internal Photos
	10	UNDP-1 External Photos
	11	UNDP-1 User's Guide
	Grant of Equipment Authorization Certification	

The Applicant understands that pursuant to Rule 0.457, disclosure of this Application and all accompanying documentation will not be made before the date of the Grant for this Application.

Sincerely,

Lin Lu

Lin Lu
 Engineer, Senior Staff
 Qualcomm Incorporated

November 20, 2007

Federal Communications Commission
 Authorization and Evaluation Division
 7435 Oakland Mills Road
 Columbia, Maryland 21046

Re: Request of Confidentiality for FCC ID: J9CUNDP-1

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	6	UNDP-1 Parts List & Tune-up procedure
	7	UNDP-1 Block diagrams
	12	Antenna Design Guidelines for Laptop and Notebook Computers
Short-Term Confidential	2	UNDP-1 Part 22&24 Conducted Test Report
	3	UNDP-1 Radiated Test Report
	4	MPE Evaluation
	8	FCC Label Information
	9	UNDP-1 Internal Photos
	10	UNDP-1 External Photos
	11	UNDP-1 User's Guide
	Cover letters	
	Grant of Equipment Authorization Certification	

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Sincerely,
Lin Lu

Lin Lu
 Engineer, Senior Staff
 Qualcomm Incorporated

November 20, 2007

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 7435 Oakland Mills Road
 Columbia, Maryland 21046

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	7	UNDP-1 Block diagrams
	12	Antenna Design Guidelines for Laptop and Notebook Computers
Short-Term Confidential	8	FCC Label Information
	9	UNDP-1 Internal Photos
	10	UNDP-1 External Photos
	11	UNDP-1 User's Guide

The Applicant understands that pursuant to Rule 0.457, disclosure of this Application and all accompanying documentation will not be made before the date of the Grant for this Application.

Sincerely,

Lin Lu

Lin Lu
 Engineer, Senior Staff
 Qualcomm Incorporated

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2. Exhibits

The following table lists documents that are associated with this one (TL80-VH270-1), and were provided to the FCC under this submittal. These documents are included with all distributions of TL80-VH270-1.

Exhibit 1 – UNDP-1 Operation Description and FCC Documentation	80-VH270-1
Exhibit 2 – UNDP-1 Part 22 & 24 Conducted Test Report	80-VH270-3
Exhibit 3 – UNDP-1 Radiated Test Report	80-VH270-4
Exhibit 4 – UNDP-1 MPE Evaluation	80-VH270-5
Exhibit 8 – UNDP-1 FCC Label Information	TL80-VH270-1 (This document)
Exhibit 9 – UNDP-1 Internal Photos	TL80-VH270-1 (This document)
Exhibit 10 – UNDP-1 External Photos	TL80-VH270-1 (This document)
UNDP-1 – Form 731 J9CUNDP-1	80-VH270-14
Exhibit 11 UNDP-1 User's Guide	80-VF329-3

The following table lists documents that were provided to the FCC under this submittal, but are not associated with this document, and must be obtained separately from TL80-VH270-1.

Antenna Design Guidelines for Laptop and Notebook Computers	80-H2929-1
Exhibit 5 – UNDP-1 Schematics	LD20-VD114
Exhibit 6 – UNDP-1 Parts List and Tune-up Procedure	80-VH270-7
Exhibit 7 – UNDP-1 Block Diagram	80-VH270-8

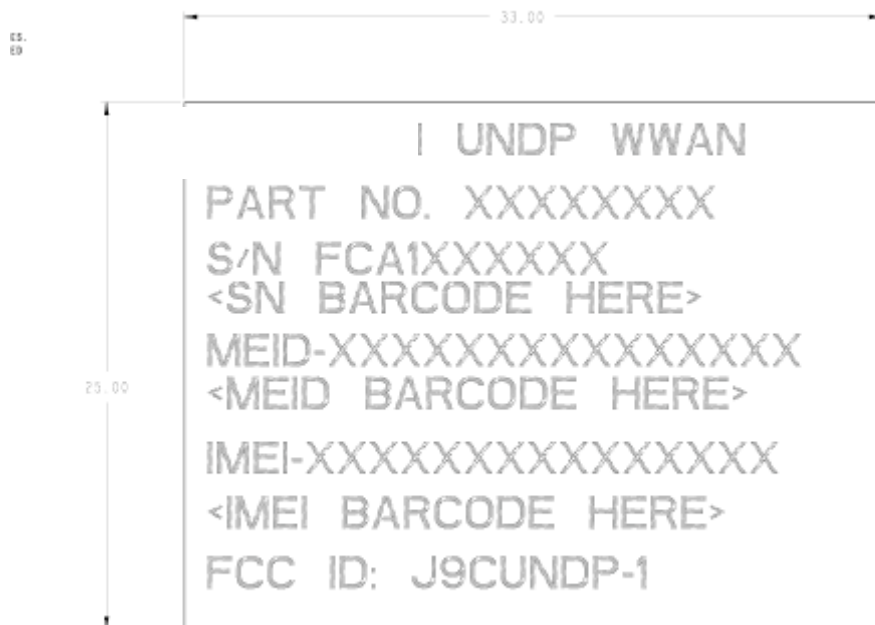
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3. UNDP-1 FCC Label Information (Exhibit 8)

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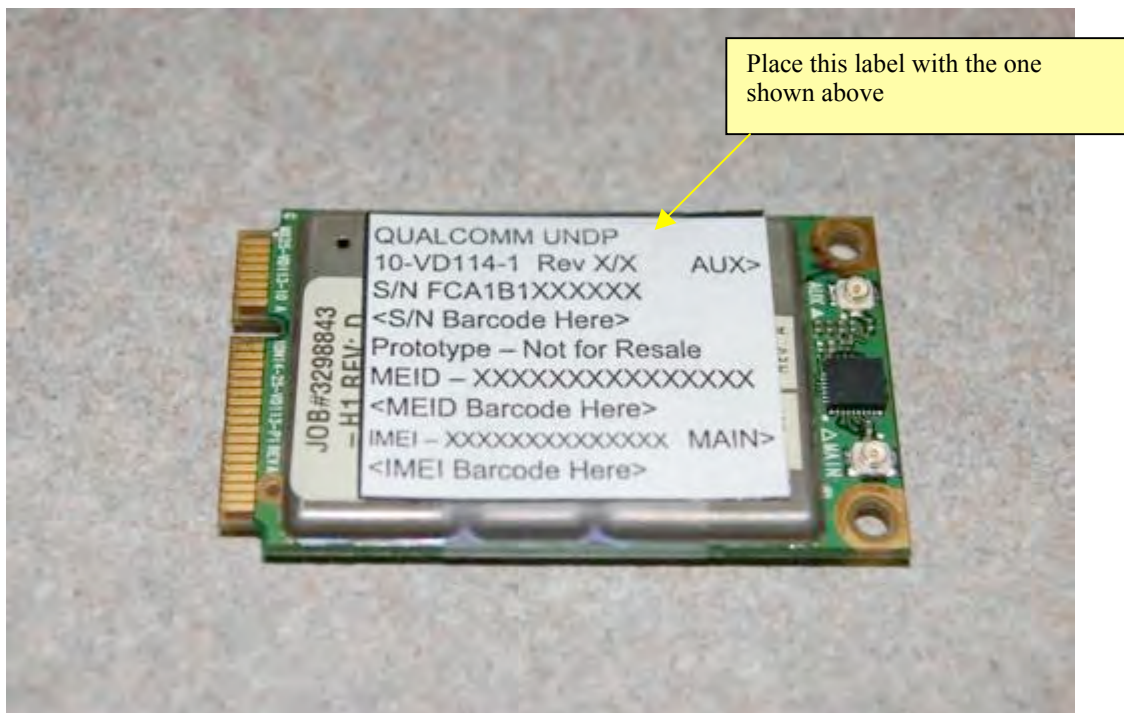
Exhibit 8: FCC Label Information

1. Label Format



Note the dimensions are in mm.

2. Label Location



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4. UNDP-1 Internal Photos (Exhibit 9)

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Exhibit 9: Internal Photos

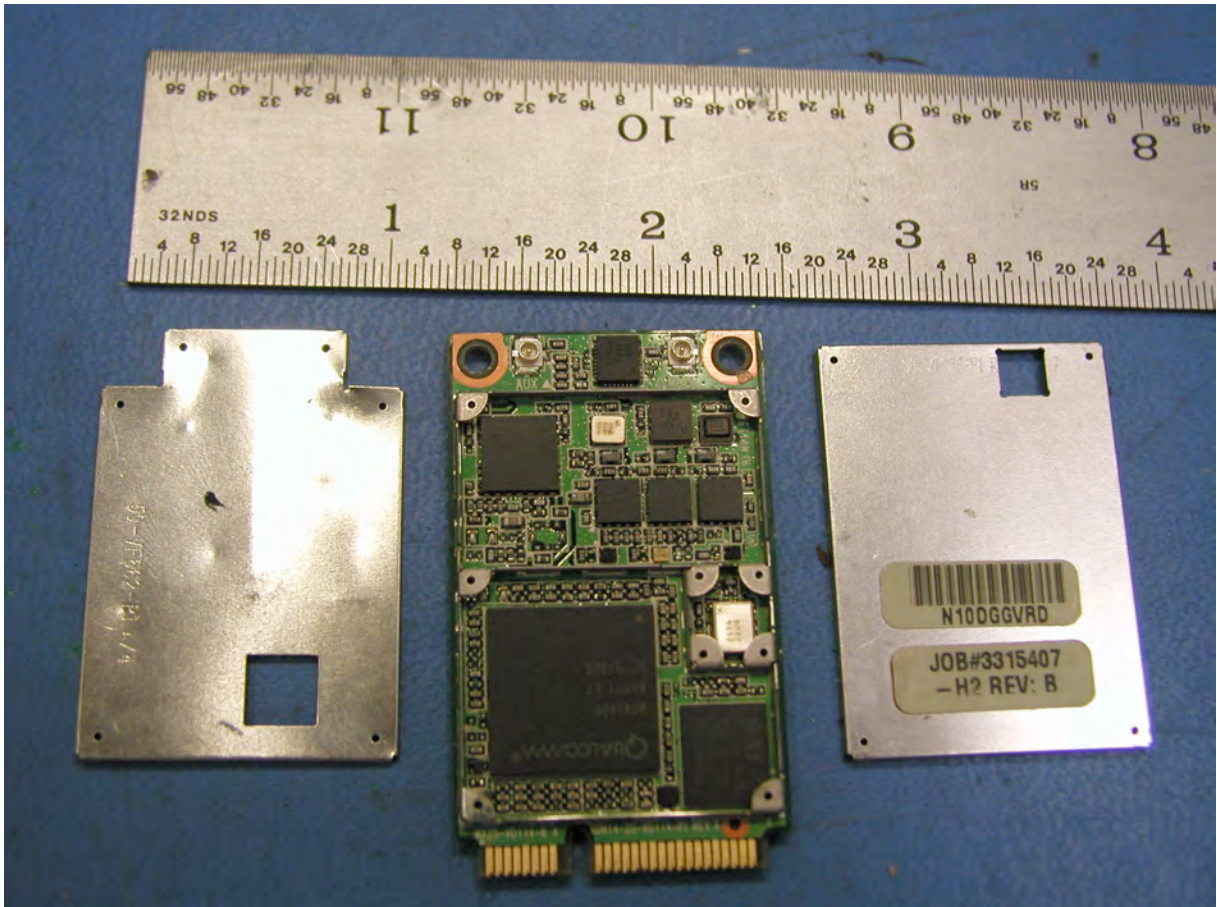


Figure 1 Digital and Power Management Compartments

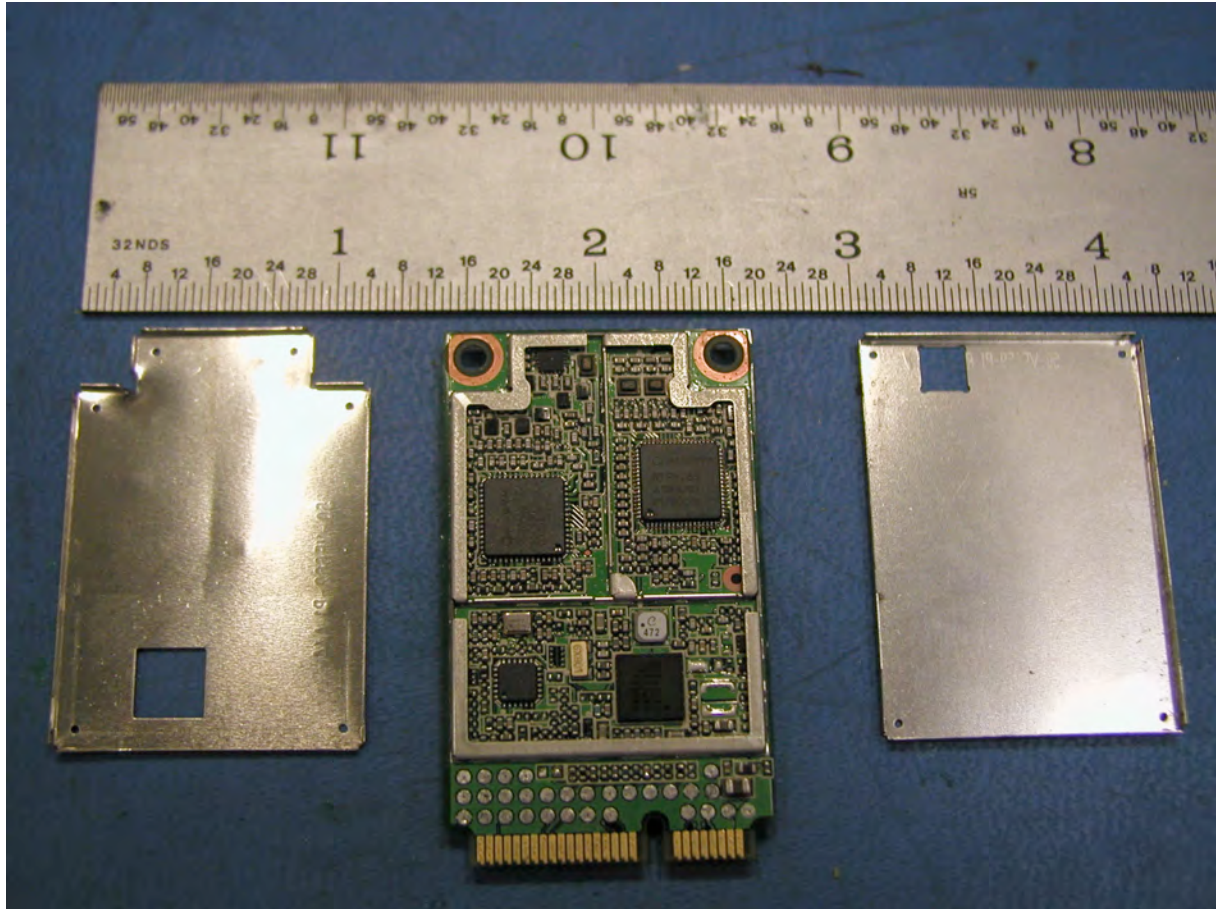


Figure 2 Tx and Rx Compartments

5. UNDP-1 External Photos (Exhibit 10)

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Exhibit 10 External Photos

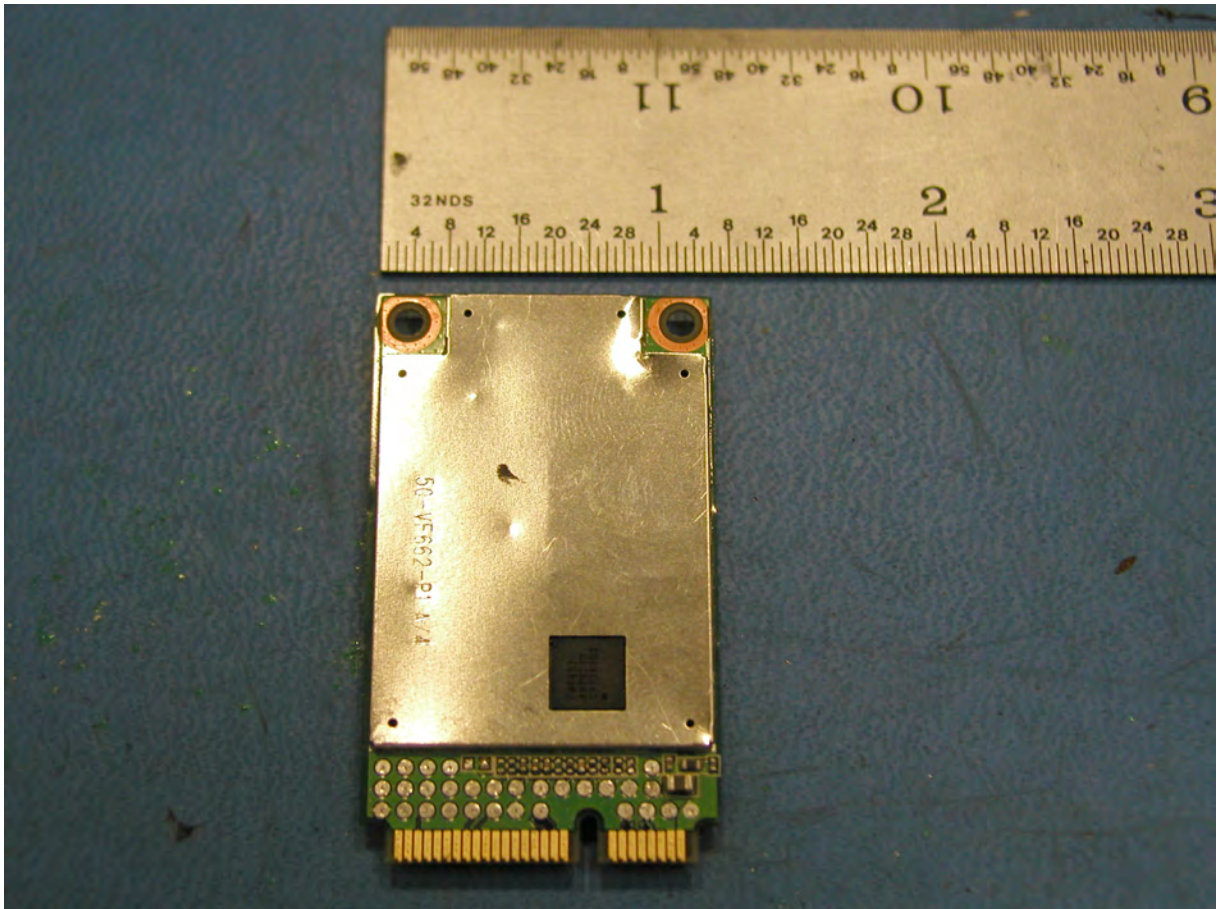


Figure 1 JTAG side

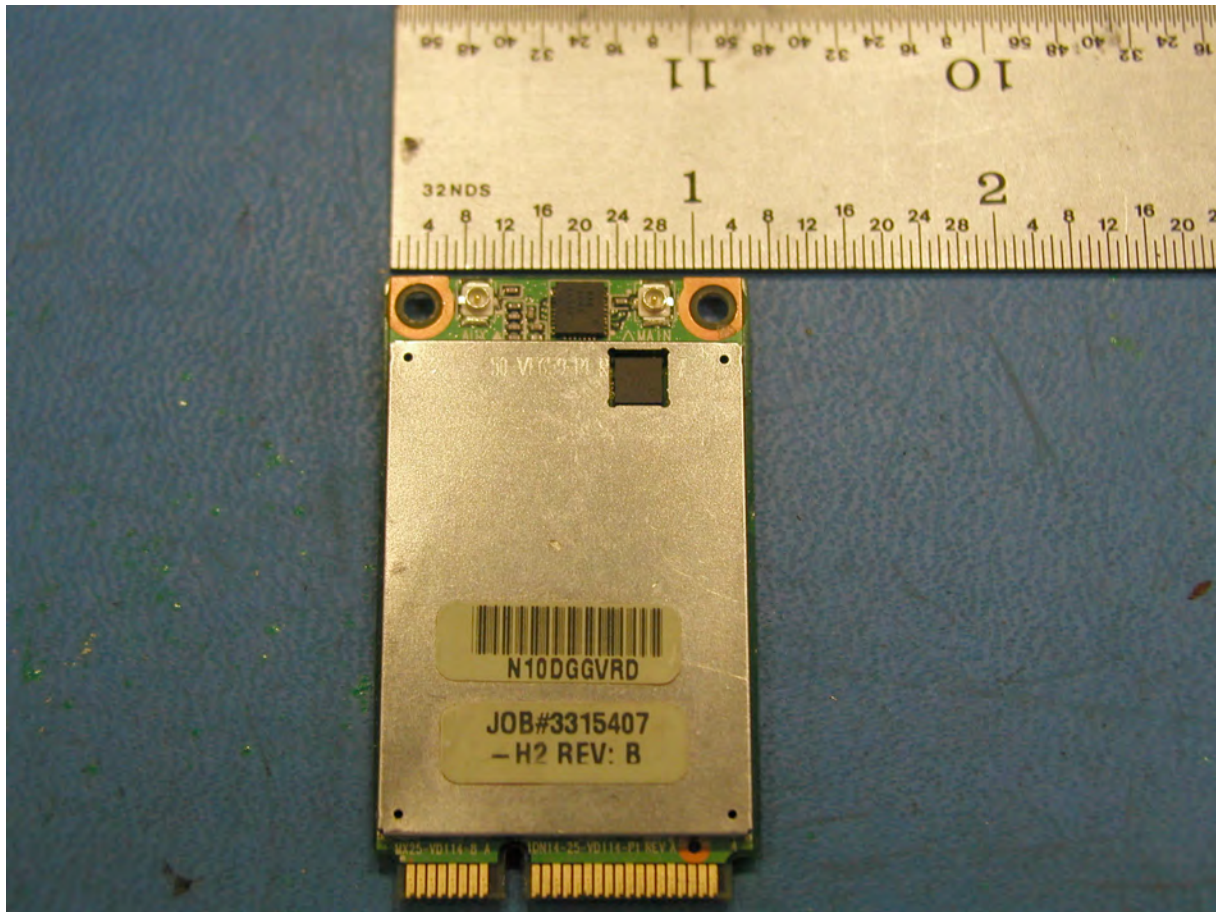


Figure 2 RF Connector side