

MFi Licensing Handbook

Release R1.2b November 11, 2010

Portal Features

Home

Selecting "Home" on the left menu bar will take you to the Home page of the Portal. Below the menu bar, you will see the name and e-mail address of your MFi Account Specialist, as well as the name and contact information of your company's designated Primary Contact.

Announcement Board

Each time you log in to the Portal, you will see key program updates on the Home page. Apple will communicate important information through the Announcement Board.

Product Plans

This section of the Portal allows you to view, manage and track your Product Plans through the certification process. You will submit Product Plan forms, Self-Certification forms and packaging files through this section of the Portal.

Product Plan IDs and Product Suffixes

In the Portal, each of your company's Product Plans will be assigned a "Product Plan ID" (PPID). The PPID is comprised of your company's 6-digit MFi <u>account</u> <u>number</u> followed by a 4-digit product suffix.

• Example: Product Plan ID 123456-0001 means that your company's account number is "123456" and your product suffix is "0001."

Product suffixes which were assigned prior to the launch of the Portal have moved from 2 digits to 4 digits but otherwise remain the same.

- Examples:
 - A product suffix that was previously "01" becomes "0001"
 - · A product suffix that was previously "201" becomes "0201"

Tracking the Status of Product Plans

When you click "Product Plans" on the menu bar, you will see a list of all of your company's existing Product Plans, including those with a status of Active, End-of-Life, Cancelled and On Hold.

Product Plan ID	SKU Number	Product Status	Self Cert Status	Packaging Status	Sell-In Date
106601-0001	A01	Active	Complete	Complete	9/1/10
106601-0002	A02	Active	Requested	-	10/1/10
106601-0003	A03	Cancelled	-	-	

When you click a specific Product Plan on the list, you will see a detailed view of its status, including Product Plan approval, certification and packaging review.

Product name: Accessory 1 Product type: General		Product Plan ID: 106601-0036 Model/SKU: A01		
1. Product Plans				
Step	Status	Last change	Action required	
1. Submit new Product Plan	Submitted	6/30/10	-	
2. Product Plan approval by Apple	Approved	6/30/10	View	
			All steps complete	
Step 1. Submit ATS Report	Status Complete	Last change 7/30/10	Action required	
4. Production-ready Self-Certific	ation			
Step	Status	Last change	Action required	
Step 1. Submit Self-Cert form	Status Submitted	Last change 7/30/10	Action required	
			Action required	
1. Submit Self-Cert form	Submitted		Action required - -	
 Submit Self-Cert form Select Lab 	Submitted		Action required - - -	
 Submit Self-Cert form Select Lab Print shipping label 	Submitted		Action required	
 Submit Self-Cert form Select Lab Print shipping label Ship production-ready samples 	Submitted Cetecom - -	7/30/10	Action required	
 Submit Self-Cert form Select Lab Print shipping label Ship production-ready samples Sample received by Self-Cert Lab Sample processed by Self-Cert 	Submitted Cetecom - - Received	7/30/10	Action required	
 Submit Self-Cert form Select Lab Print shipping label Ship production-ready samples Sample received by Self-Cert Lab Ga. Sample processed by Self-Cert Lab 	Submitted Cetecom - Received Complete	7/30/10 8/25/10 8/30/10	Action required	

How to Submit a Product Plan

- 1. Select "Product Plans" on the menu bar, then click the "Add a New Product" button.
- Complete all required fields and sections of the Product Plan. The Portal will dynamically generate only those questions which are applicable to your Proposed Product, based on platforms supported and product type. Product Plan sections include:
 - General Product Info
 - Hardware
 - Dates & Manufacturers
 - Licensed Components
 - Forecast & Regions

Final Review

Note: Product Plans for integrated circuits do not require the "Hardware," "Licensed Components," or "Forecast & Regions" sections.

- 3. Click "Submit" to submit your completed Product Plan to Apple. The "Submit" button will be grayed out until all required data has been provided. You will receive e-mail confirmation that your Product Plan has been successfully submitted to Apple.
- 4. When your Product Plan is approved, the individual who submitted the Product Plan will receive receive e-mail confirmation and it will appear on your list of Product Plans on the "Product Plans" page of the Portal.
- 5. You may now begin product development and order production quantities of the Licensed Component(s) selected on the approved Product Plan.
 - Your Avnet shopping cart will be updated approximately 1-2 business day after Product Plan approval.

To view sample Product Plan forms, please go to <u>Licensing Forms</u> folder the Document Center.

Product Types and Product Uses

Account Type: Standard

If your company's <u>account type</u> is "Standard," the Product Plan will ask you to select from the following product types:

- General An accessory product that uses iPod Accessory Protocol (iAP).
- Power only An accessory product whose sole function will be to (a) supply power to and/or charge the internal battery of an iPod/iPhone/iPad; OR (b) act as a conduit to pass USB data signals, unaltered, between a computer or other Licensed Product and an iPod/iPhone/iPad. Requires an executed Power Only Supplement.
- Headphone remote and mic system A headphone or headphone adapter that implements Apple's headphone remote and mic system technology. Requires an executed Remote Control Supplement.

Account Type: Auto

If your company's Account type is "Auto" (requires an executed Automotive Supplement), you will only be able to submit Product Plans for Automotive products, which are defined as head units or head unit adapters that enable all of the following:

- Playback of high-quality audio from iPod/iPhone/iPad through the vehicle's head unit
- · Command and control of iPod/iPhone/iPad
- · Charging of iPod/iPhone/iPad directly by the vehicle

On Automotive Product Plans, you will select a "product use," rather than a "product type." Product uses include:

- Commercial A product that will be (a) a factory install/factory option from an auto manufacturer; OR (b) sold as finished goods to retail channels and/or end users.
- Reference Design Hardware and/or software that (a) implements at least a
 portion of Licensed Technology and/or enhances its use or performance, and (b) will
 be sold/distributed to another Licensee for use in connection with its Licensed
 Product.

Account Type: Adjunct

If your company's Account type is "Adjunct" (requires executed Adjunct Supplement), you will only be able to submit Product Plans for integrated circuits which implement iAP lingoes.

How to View a Previously-Approved Product Plan

- 1. Click "Product Plans" on the menu bar and select a specific Product Plan from the list of Product Plans.
- In the detailed Product Plan view, navigate to the "Product Plans" heading. Click "View" next to "Product Plan approval by Apple."

1. Product Plans			
Step	Status	Last change	Action required
1. Submit new Product Plan	Submitted	7/1/10	
2. Product Plan approval by Apple	Approved	7/1/10	View
			All steps
			complete

3. You will see a read-only version of your Product Plan, which is the same view as the "Final Review" at Product Plan submission.

How to Update a Previously-Approved Product Plan Before Completion of Certification

You may revise certain fields on previously-approved Product Plans before the accessory covered in the Product Plan completes the certification process.

- 1. Click "Product Plans" on the menu bar and select a specific Product Plan from the list of Product Plans.
- 2. In the detailed Product Plan view, navigate to the "Product Plans" heading. Click "Edit" next to "Product Plan update."

Step	Status	Last change	Action required
1. Submit new Product Plan	Submitted	6/24/10	-
2. Product Plan approval by Apple	Approved	6/24/10	View
			All steps complete
Update Approved Product Plan			
1. Product Plan update			Edit

- Input the requested updates. Updates to previously-approved Product Plans are limited to:
 - Model/SKU #
 - MSRP
 - Development dates which are applicable to the product type (e.g., productionready hardware submission date, sell-in date)

General Product Information	
Selected platform(s) √ Made for iPhone √ Made for iPod Made for iPad	
New model/SKU #:	
New MSRP (USD):	
New Production-ready hardware submission date	
Cancel	Submit

Making Product Plan revisions other than the ones above will require submission of a new Product Plan.

 Click "Submit." The Product Plan information in the Portal will be automatically updated.

How to Update a Previously-Approved Product Plan After Completion of Certification

You may revise certain fields on previously-approved Product Plans after the accessory covered in the Product Plan completes the certification process.

- 1. Click "Product Plans" on the menu bar and select a specific Product Plan from the list of Product Plans.
- In the detailed Product Plan view, navigate to the "Update Approved Product Plan" heading at the bottom of the page. Click "Edit" next to "Product Plan update" and update the fields as appropriate.

Update Approved Product Plan				
Step	Status	Last change	Action required	
1. Product Plan update			Edit	
2. Re-Submit ATS Report	-		-	
3. Re-Submit Self-Cert	-		-	
4. Product Plan Update Approved	-		-	

Product Plan updates which do not trigger a recertification event are:

- Model/SKU #
- MSRP

- Sell-in date
- Authorized Manufacturers
 - The Product Plan will retain all of the Authorized Manufacturers previously entered. Any Authorized Manufacturers entered on this form will be added to the existing ones.
- Click "Submit." You will receive a confirmation e-mail once the Product Plan updates are approved and the Product Plan information in the Portal will be updated.

How to Complete Production-Ready Self-Certification

Each accessory covered in a Product Plan must complete all required certification steps before it goes into production or sells in. You may proceed with production-ready Self-Certification after <u>submitting a successful ATS report</u>.

Submit a Self-Cert Form

- 1. Click "Product Plans" on the menu bar and select a specific Product Plan from the list of Product Plans.
- 2. In the detailed Product Plan view, click "Complete form" under "Production-ready Self-Certification."

Step	Status	Last change	Action required
1. Submit Self-Cert form	Authorized		Complete form
2. Select Lab	-		-
Print shipping label	-		-
 Ship production-ready samples 	-		-
5. Sample received by Self-Cert Lab	-		-
6a. Sample processed by Self–Cert Lab	-		-
6b. Complete TDMA testing	-		-
6c. Complete OTA testing	-		-

- 3. Complete all sections and tests on the form which apply to the accessory covered in the Product Plan.
- 4. Click "Submit." The form will be reviewed by the Apple Self-Certification Lab in conjunction with the hardware samples they receive.

Ship Production-Ready Samples

- 1. In the detailed Product Plan view, click "Choose Lab."
 - You will ship hardware samples to the Apple Self-Certification Lab and, if your accessory requires third-party TDMA testing, to an authorized test lab. Once you select the third-party test lab, you will not be able to change it.

4. Production-ready Self-Certifi	cation		
Step	Status	Last change	Action required
1. Submit Self-Cert form	Submitted	6/29/10	
2. Select Lab	Cetecom		Choose Lab
3. Print shipping label	-		Download label
4. Ship production-ready samples	Authorized		Enter tracking info
5. Sample received by Self-Cert Lab	-		
6a. Sample processed by Self-Cert Lab	-		-
6b. Complete TDMA testing	-		-
6c. Complete OTA testing	-		-

- 2. Click "Download label" to print 2 copies of each shipping label.
 - Each shipping label will include all of the relevant Product Plan details and the appropriate ship-to address based on the lab(s) selected.
 - For each set of samples, include one copy inside the shipping box and affix another copy to the outside of the box.
- 3. Ship a complete set of production-ready materials to each lab, including:
 - 2 sample units
 - All power sources, cables, connectors, and dock inserts needed to operate the product
 - All components of the entire solution, if the product is one component of the solution (e.g., AV receiver for a home theater system)
 - · User manual and/or instructions for operating the product
- Click "Enter tracking info" to input the tracking number of the shipment destined for the Apple Self-Cert Lab.

Receive Confirmation of Completion

- 1. When the Apple Self-Cert Lab receives and processes your samples, the Product Plan status will be updated accordingly.
- 2. For accessories which require third-party TDMA testing, Apple will automatically receive the test results. The Portal will indicate when TDMA testing is complete.
- **3.** Once all production-ready Self-Certification steps are complete, you will receive confirmation of completion from Apple via e-mail. The accessory may go into mass production once Apple <u>approves the product packaging</u>.

For more information on production-ready Self-Certification, please see the <u>Production-Ready Self-Certification</u> section of the Program Overview.

How to Complete Prototype Self-Certification

Certain accessories require completion of prototype certification, in addition to production-ready certification. (See <u>Table 1</u> in the "Certification" section for details.) The process for completing prototype Self-Certification in the Portal is similar to the production-ready process.

Submit a Self-Cert Form

- 1. Click "Product Plans" on the menu bar and select a specific Product Plan from the list of Product Plans.
- 2. In the detailed Product Plan view, click "Complete form."

Step	Status	Last change	Action required
1. Submit Proto Self-Cert form	Authorized	2	Complete form
2. Print shipping label	-		
Ship prototype sample	-		-
4. Samples received by Self–Cert Lab	-		-
5. Apple Lab auditing	-		-

- **3.** Complete all sections and tests on the form which apply to the accessory covered in the Product Plan.
- 4. Click "Submit." The form will be reviewed by the Apple Self-Cert Lab in conjunction with the hardware sample they receive.

Ship Prototype Sample

- 1. In the detailed Product Plan view, click "Choose Lab."
- 2. Click "Download label" to print 2 copies of the shipping label.
 - The shipping label will include all of the relevant Product Plan details and the shipto address of the Apple Self-Cert Lab.
 - Include one copy inside the shipping box and affix another copy to the outside of the box.
- 3. Ship a complete set of prototype materials, including:
 - 1 sample unit
 - All power sources, cables, connectors, and dock inserts needed to operate the product
 - All components of the entire solution, if the product is one component of the solution (e.g., AV receiver for a home theater system)
 - User manual and/or instructions for operating the product
- 4. Click "Enter tracking info" to input the tracking number.

Receive Confirmation of Completion

- 1. When the Apple Self-Cert Lab receives and processes your sample, the Product Plan status will be updated accordingly.
- Once all prototype Self-Certification steps are complete, you will receive confirmation of completion from Apple via e-mail. You may now move on to the next step shown in the detailed Product Plan view.

For more information on prototype Self-Certification, please see the <u>Prototype Self-Certification</u> section in the Program Overview.

How to Submit Product Packaging

Licensees must submit packaging, user guides and other product communications for review and approval prior to producing the materials. You may submit packaging any time after Product Plan approval and at least 30 days before the product goes into production.

- 1. Download and review the latest version of the Logo Guidelines and Icon Guidelines from the Document Center.
- 2. Click "Product Plans" on the menu bar and select a specific Product Plan from the list of Product Plans.
- 3. In the detailed Product Plan view, click "Upload Files" under "Packaging."

Packaging	
Upload Packaging for Approval	
Upload Files	
	Requested

4. Upload PDF files of your product packaging and any other product communications. Include any comments to your Account Specialist in the dialog box. Click "Submit."

🖉 Add File			
A01 packaging.pdf	6/30/10 1:02 PM	38 KB	
Comments from your Account Spe	ecialist		
PLease provide comments for you	r Account Specialist		//
This is the multi-lingual version of	of the packaging.		
Back			Submit

5. If the materials require any modifications, the Product Plan status will reflect this. Click "Upload Files" in the detailed Product Plan view.



6. Review the comments from your Account Specialist, make any necessary modifications, upload the revised materials and click "Submit."

🖉 Add File			
A01 packaging.pdf	6/30/10 1:02 PM	38 KB	
A01 packaging v2.pdf	6/30/10 1:16 PM	38 KB	
Comments from your Account S	Specialist		
Please revise the iPhone credit	line.		6
PLease provide comments for y	our Account Specialist		
This is the multi-lingual versio 6/30/10: iPhone credit line ha			
Back			Submit

7. Once your materials are approved, the packaging status of your Product Plan will be updated accordingly.

Upload Packaging for Approval	
Upload Files	
	Complete

How to Recertify a Previously-Certified Accessory

In order to claim compatibility with a new Apple device, Licensees must complete the recertification requirements specific to that device.

- 1. Click "Product Plans" on the menu bar and select a specific Product Plan from the list of Product Plans.
- In the detailed Product Plan view, navigate to the "Update Approved Product Plan" heading at the bottom of the page. Click "Edit" next to "Product Plan update" and update the fields as appropriate.

Update Approved Product Plan				
Step	Status	Last change	Action required	
1. Product Plan update			Edit	
2. Re-Submit ATS Report	-		-	
3. Re-Submit Self-Cert	-		-	
4. Product Plan Update Approved	-		-	

The Product Plan update which triggers a recertification event is adding support for additional Apple devices/models supported. Product Plan updates which do **not** trigger a recertification event are:

- Model/SKU #
- MSRP
- Sell-in date
- Authorized Manufacturers

- The Product Plan will retain all of the Authorized Manufacturers previously entered. Any Authorized Manufacturers entered on this form will be added to the existing ones.

You will receive a confirmation e-mail once the Product Plan is approved for recertification.

3. <u>Submit an ATS report</u> using the ATS Accessory Certification Assistant.

Step	Status	Last change	Action required
1. Product Plan update			-
2. Re-Submit ATS Report	Requested	6/30/10	Instructions
3. Re-Submit Self-Cert	-		-
4. Product Plan Update Approved	Submitted	6/30/10	-

4. Click "Complete form" to submit a Self-Cert form.

Step	Status	Last change	Action required
1. Product Plan update			-
2. Re-Submit ATS Report	Complete	9/1/10	
3. Re-Submit Self-Cert	Authorized	6/30/10	Complete form
4. Product Plan Update Approved	Submitted	6/30/10	

- 5. Complete third-party TDMA testing, if applicable.
 - This requirement generally applies to products which (1) pass audio or video and (2) required third-party TDMA testing in order to complete certification for the the first time.

Step	Status	Last change	Action required
1. Product Plan update			-
2. Re-Submit ATS Report	Complete	9/1/10	-
3. Re-Submit Self-Cert	Submitted	9/1/10	-
4. Product Plan Update Approved	Submitted	6/30/10	-

6. Revise product packaging to reflect compatibility with the new Apple devices/ models. Navigate to the "Packaging" heading in the detailed Product Plan view and click "Upload Files" to submit the revised packaging for approval.

Packaging	
Upload Packaging for Approval	
Upload Files	Requested Again

 Once Apple receives the TDMA test results from the third-party lab (if applicable) and approves your revised packaging, the recertification process will be complete. The Product Plan status in the Portal will be updated accordingly.

Document Center

The latest versions of all program-related technical specifications, documentation and forms are located in the Document Center. Only designated Technical Contacts may access technical specifications, which are watermarked. All documents are Apple Confidential and should only be shared with those individuals who have a need to know and are bound by the appropriate NDA.

For more information about the documents available in the Document Center, please see <u>Reviewing Technical and Program Documents</u>.

Procurement

This page provides a link to Avnet's MFi Web site. To learn how to log in and set up your Avnet account, please see <u>Setting Up Your Accounts - Avnet</u>.

Technical Resources

This page describes some of the technical resources available to assist with your product development, including Developer Technical Support, <u>Accessory Test</u> <u>System</u> (ATS) and authorized third-party test labs.

Quarterly Report

Licensees must submit a Quarterly Report to Apple within 30 days after the end of each calendar quarter. The Quarterly Report includes both of these elements:

- 1. Sales Data: Sell-in data reported by product suffix and by region
- Forecast Update: Sales forecasts for the current calendar quarter + 3 quarters, reported by product suffix

Licensees must submit both the Sales Data report and Forecast Update before Apple will review and approve these reports. Both elements of the Quarterly Report are still required for quarters with 0 sales. For more information about the Quarterly Report and royalty payment, please see <u>Quarterly Report and Royalty Payment</u>.

How to Submit Sales Data

- 1. Click "Quarterly Report" in the menu bar.
- 2. Click "Sales Data" to automatically generate a form which includes all of the Licensed Products currently being sold by your company.
 - Any Product Plan with a sell-in date that occurred before or during the reporting period AND a status of "Active" or "EOL" in our system will be included in your form.
 - Your company is responsible for ensuring that all Licensed Products sold during the reporting period are reflected in this report. If any models/SKUs are missing

from your auto-generated Sales Data form, please contact your Account Specialist.

- Enter the number of units sold and returned during the reporting period. Units sold data is reported by <u>product suffix</u> and by region; units returned data is reported by product suffix.
- 4. If you would like to save your work and continue later, click the "Save" button.
- 5. Once you have entered the data and are ready to submit, click the "Continue" button.
- 6. You will now see a page which summarizes the information entered and indicates the royalty payment due to Apple. The royalty calculation factors in the <u>withholding</u> <u>tax rate</u> previously entered in the Portal.
- 7. Click "Submit" if all of the information is correct.
 - If you need to revise the number of units sold, click "Back" to make the necessary revisions before submitting.
 - If you need to revise any other data on the summary page, please contact your Account Specialist.
- 8. <u>Submit the Forecast Update</u> if you have not already done so. You **must** submit both the Sales Data report and Forecast Update in order for Apple to review and approve these reports.
- 9. You will receive e-mail confirmation once Apple has approved your Sales Data. This e-mail will include the gross amount reported, withholding tax amount (if applicable) and the net royalty payment due. Please do not make royalty payment until you have received an electronic invoice from Apple.

For instructions on how to make royalty payment, please see <u>How to Remit Royalty</u> <u>Payment</u>.

How to Submit the Forecast Update

- 1. Click "Quarterly Report" on the left menu bar, then click the "Forecast Update" link
- Enter your sales forecasts for the current calendar quarter + 3 quarters, reported by product suffix. For example, if the Quarterly Report reporting period is CY Q4/09, you will enter sales forecasts for CY Q1/10-Q4/10:

SKU	Suffix	CQ1 2010	CQ2 2010	CQ3 2010	CQ4 2010
Accessory 3	0003	20000	30000	40000	50000
Accessory 2	0002	10000	20000	30000	40000
Accessory 1	0001	7500	10000	20000	30000
Cancel					Save Submit

• Any product suffix with a sell-in date before or during the current calendar quarter + 3 quarters AND a status of "Active" or "EOL" in our system will appear on your form. If any models/SKUs are missing from this form, please contact your Account Specialist.

- The form will be populated with the previous quarter's Forecast Update by product suffix.
- Click "Save" to save your data. When you are ready to submit the form, click "Submit."
- <u>Submit the Sales Data</u> report if you have not already done so. You **must** submit both the Sales Data report and Forecast Update in order for Apple to review and approve these reports.
- 5. You will receive e-mail confirmation once Apple has reviewed your Forecast Update.

My Account

This section of the Portal enables you to view your company information and your contact information. All MFi Contacts may update their own contact information (except e-mail address) and Contact type(s) as needed. In addition to the above, Primary Contacts may also add/delete Contacts, select Contact types for all Contacts, and change passwords for other Contacts (excluding themselves).

For more information about managing your account, please see <u>Managing Your</u> <u>Account</u>.

Reviewing Technical and Program Documents

All of the program-related technical specifications and documents described below are located in the <u>Document Center</u> and are subject to change. These documents are Apple Confidential and should only be shared with those individuals who have a need to know and are bound by the appropriate NDA.

Licensing Forms

Product Plans: Product Plan forms are submitted through the Portal. These reference documents enable Licensees to preview the forms as they appear in the Portal.

Self Certification: Self-Certification forms now submitted through the Portal. This reference document enables Licensees to preview the Self-Certification checklist as it appears in the Portal.

Marketing Materials

MFi Logo Guidelines

Made for iPod, Made for iPhone, Made for iPad and Combination Logos: Highresolution versions in English and French are provided for all logos.

iPod, iPhone, and iPad Icons Guidelines

iPod, iPhone and iPad Compatibility Icons

Technical Reference

ATS Installation Guide and User Manual: Contains the ATS Installation guide and User Manual.

ATS Software: Contains the ATS software and installation guide/user manual.

Component Guide: Describes the connectors and authentication coprocessors which can be used in iPod/iPhone accessories.

Dimensional Drawings: Contains two-dimensional drawings of iPod/iPhone/iPad models.

iPhone Universal Dock: Contains CAD/CAM and PDF files with design information for Apple's Universal Dock solution, including CAD/CAM files for each of the iPhone adapters.

iPod Connectors: Provides two-dimensional drawings of the various connectors used with the iPod/iPhone and an overview of the different types of connectors.

iPod Developer FAQs: Contains frequently asked questions and their answers.

iPod Universal Dock: Contains CAD/CAM and PDF files with design information for Apple's Universal Dock solution, including CAD/CAM files for each of the iPod adapters.

TDMA Test Files: Apple-supplied TDMA audio test files for use during certain TDMA Noise Tests described in the technical specifications.

Technical Specifications

The following files are watermarked and will only be accessible to your designated Technical Contact(s). The files available in the "Technical Specifications" folder are subject to change.

MFi Accessory Firmware Specification: Describes the iPod Accessory Protocol commands used to control an iPod/Phone/iPad through the 30-pin connector or Bluetooth.

MFi Accessory Hardware Specification: Contains details about the signals in the 30-pin connector. Provides guidelines for designing power supplies which power and charge iPod/iPhone/iPad and using audio and video signals.

MFi Accessory Testing Specification: Describes how to test and self-certify your products.

iPod Authentication Coprocessor (2.0A and 2.0B): Describes the 2.0A and 2.0B versions of the authentication coprocessor.

iPod shuffle: Details the headset jack in the iPod shuffle.

Product Plans

Licensees must submit a Product Plan for any accessory product which will use Apple Licensed Technology and/or a Licensed Component. Please submit your Product Plan well in advance of your anticipated production date, as you must factor in the review cycle and component procurement lead time. **Do not develop, manufacture or sell any products until you have received Apple approval**.

For detailed information on viewing, managing and tracking Product Plans, please see the <u>Product Plans</u> section of the Portal User Guide.

How to Submit a Product Plan

For instructions on how to submit a Product Plan through the Portal, please see <u>How to Submit a Product Plan</u>.

Defining "Prototype" and "Production-Ready"

Prototype — Product hardware and software are representative of the final product; slight changes to hardware and/or software may still be required.

Production-ready — Product hardware and software are in their final form; no further changes to hardware or software are planned or anticipated. Production-ready samples must be representative of the final product which the end customer will use.

Combining Multiple SKUs on 1 Product Plan

Any family of SKUs which meets **all** of the following criteria may be included on the same Product Plan:

- Shares identical electrical design as it relates to iPod/iPhone/iPad connectivity
- Shares identical iAP design
- Shares identical industrial design
- Utilizes the same Apple Licensed Component(s)

Please list all of the relevant models/SKUs on your Product Plan.

Updating Previously-Approved Product Plans

You may submit Product Plan updates if you plan to make minor changes which do **not** impact electrical/iAP/industrial design or Licensed Component(s). Updates to previously-approved Product Plans are limited to:

- Model/SKU #
- MSRP

• Development dates which are applicable to the product type (e.g., production-ready hardware submission date, sell-in date)

You must submit a new Product Plan for approval if you plan to make changes to electrical/iAP/industrial design or Licensed Component(s).

For instructions on how to update a Product Plan through the Portal, please see <u>How to Update a Previously-Approved Product Plan</u>.

Product Plan Compliance

Should any of your development dates change, you must revise the relevant Product Plan(s) through the Portal to remain in compliance with your MFi License. Development dates vary by product type; examples include:

- Prototype hardware submission date
- Production-ready hardware submission date
- Sell-in date

For instructions on how to revise development dates, please see <u>How to Update a</u> <u>Previously-Approved Product Plan</u>.

Certification

Once you have an approved Product Plan, you must complete all certification requirements for the accessory covered in the Product Plan before going into production or selling in. The following table summarizes the standard certification requirements by product type. There may be variations depending on the specific accessory product and platforms supported (i.e., iPod, iPhone, iPad).

Table 1: Certification Requirements by Product Type

Product Type	Prototype Self-Cert	ATS Report ¹	TDMA Testing ²	3 rd -Party OTA Testing	Prod-Ready Self-Cert
General	No	Yes	Yes - 3 rd party	Optional	Yes
General + iOS Accessory	Yes	Yes	Yes - 3 rd party	Optional	Yes
General - iAP over Bluetooth	Yes	No	Yes - self- certify ³	No	Yes
General - uses existing reference design	No	Yes	No - if previously passed	Optional	Yes
Power only (excluding battery packs)	No	Yes	No	Optional	Yes
Power only - battery pack	No	Yes	No	Yes	Yes
Headphone remote and mic system	No	No	Yes - self- certify ³	No	Yes
Auto	No	Yes	Yes - self- certify ³	No	Yes
Auto + iOS Accessory	Yes	Yes	Yes - self- certify ³	No	Yes
IC	No	Contact your Account Specialist	No	No	Contact your Account Specialist

¹See <u>Table 2: ATS Requirement by Product Description</u>.

²TDMA testing is not required for accessories which do not handle audio or video in any way. ³Licensee self-certifies per the specifications and submits appropriate documentation to the Apple Self-Cert Lab.

To see process flows for various product types, please see Appendix B.

You may track the status of a product through the certification process on the "Product Plans" page of the Portal. For more information, please see <u>Tracking the</u> <u>Status of Product Plans</u>.

Accessory Test System (ATS)

ATS is a development tool for serial (UART) iAP accessories and power-only accessories. Licensees must submit test results to the Self-Certification Lab using the ATS Accessory Certification Assistant. ATS requires an Intel-based Mac running Mac OS X v10.5.6 or later. ATS units are available for purchase through Avnet. The ATS Installation Guide and User Manual and ATS Software are available in the Document Center. The Installation Guide and User Manual are also accessible in ATS under the "Help" menu.

The table below summarizes which accessory products require ATS test results as part of the certification process.

Product Description	ATS Required?
Serial (UART), 30-pin connector-based accessories	Yes
Battery packs, AC adapters, car chargers	Yes
iAP over USB accessories	No
iAP over Bluetooth accessories	No
Sync cables	No
Headphone remote and mic system headphones and headphone adapters	No

Table 2: ATS Requirement by Product Description

How to Submit an ATS Report

- 1. Log in to the ATS Accessory Certification Assistant using your MFi Universal Sign-In.
 - You can retrieve your password at any time using the password retrieval option in ATS; this option appears when ATS prompts you to log in.
- 2. When the Certification Assistant displays the list of accessories for which you have an approved Product Plan, select the accessory you would like to test.
 - If you have previously submitted test results for a particular accessory, it will no longer appear on the list.
- 3. Submit test results to the Apple Self-Certification Lab.

Self-Certification

As shown in <u>Table 1</u>, certain product types require Self-Certification only at the production-ready phase and others require Self-Certification at both the prototype and production-ready phases.

Production-Ready Self-Certification

You may proceed with production-ready Self-Certification after <u>submitting a</u> <u>successful ATS report</u>. This phase entails the the following:

- 1. Test your accessory to ensure that it meets the MFi accessory specifications, passes all applicable tests on the Self-Certification form and is compatible with each model with which you will be claiming compatibility.
- 2. Submit a completed Self-Certification form through the Portal. For instructions, please see <u>Submit a Self-Cert Form</u> in the Portal User Guide.
- Ship a complete set of production-ready materials to the Apple Self-Cert Lab and, if applicable, another set to the authorized test lab. Production-ready materials include:
 - 2 sample units
 - All power sources, cables, connectors, and dock inserts needed to operate the product
 - All components of the entire solution, if the product is one component (e.g., AV receiver for a home theater system)
 - · User manual and/or instructions for operating the product

For instructions on shipping these materials, please see <u>Ship Production-Ready</u> <u>Samples</u> in the Portal User Guide.

 Once all production-ready Self-Certification steps are complete, you will receive confirmation of completion from Apple via e-mail. The accessory may go into mass production once Apple has <u>approved the product packaging</u>.

Production-ready hardware is catalogued and stored by Apple. Due to the volume of products received, the Apple Self-Cert Lab is unable to return any samples.

For more information on completing production-ready Self-Certification through the Portal, please see <u>How to Complete Production-Ready Self-Certification</u> in the Portal User Guide.

Prototype Self-Certification

The prototype self-certification process is similar to the production-ready process. The differences are:

- Ship only 1 hardware sample to the Apple Self-Cert Lab
- No third-party testing requirement at this phase

Prototype Self-Certification entails the following:

- 1. Test your accessory to ensure that it meets the MFi accessory specifications, passes all applicable tests on the Self-Certification form and is compatible with each model with which you will be claiming compatibility.
- 2. Submit a completed Self-Certification form through the Portal. For instructions, please see <u>Submit a Self-Cert Form</u> in the Portal User Guide.
- 3. Ship a complete set of prototype materials to the Apple Self-Cert Lab, including:
 - 1 sample unit
 - All power sources, cables, connectors, and dock inserts needed to operate the product

- All components of the entire solution, if the product is one component (e.g., AV receiver for a home theater system)
- · User manual and/or instructions for operating the product

For instructions on shipping these materials, please see <u>Ship Prototype Samples</u> in the Portal User Guide.

4. Once all prototype Self-Certification steps are complete, you will receive confirmation of completion from Apple via e-mail. You may now move on to the next step shown in the detailed Product Plan view.

All prototype hardware is confidentially destroyed upon completion of prototype Self-Certification.

For more information on completing prototype Self-Certification through the Portal, please see <u>How to Complete Prototype Self-Certification</u> in the Portal User Guide.

TDMA Noise Testing

TDMA testing ensures that an accessory does not produce an excessive level of audible TDMA noise.

Third-Party TDMA Testing

As shown in <u>Table 1</u>, most accessories which (1) support iPhone and/or iPad and (2) pass audio or video require TDMA noise testing by an authorized third-party test facility. Your accessory must successfully pass TDMA testing prior to submission of production-ready Self-Certification materials. For a list of authorized test labs, click "Technical Resources" on the menu bar of the Portal.

iPhone, iPhone 3G and iPhone 3GS are considered one platform for TDMA testing purposes. iPhone 4 and iPad 3G are considered another platform. Each platform has its own TDMA test plan. In order to use the "Made for iPhone" logo and claim compatibility with iPhone 4 (including use of the iPhone 4 compatibility icon), an accessory must pass two separate TDMA tests: one with iPhone 4 and another with iPhone 3GS. If the accessory passes one TDMA test but not the other, the "Made for iPhone" logo may not be used in conjunction with the accessory. Exceptions to this policy are as follows:

- Accessories which are form-factor specific to either iPhone 4 or iPhone 3GS only need to pass the one applicable TDMA test.
- "Made for iPhone" accessories submitted on a Product Plan through the MFi Portal before 7/29/10 will be permitted to test with iPhone 3GS only.

A legacy accessory which supports iPod only and has not completed TDMA testing will trigger a warning dialog on the screen of the iPhone/iPad when the end user connects the accessory to an iPhone/iPad. This warning dialog will appear each time the accessory is connected to and iPhone/iPad.

TDMA Testing for Headphone Remote and Mic Products

Headphone remote and mic system products require TDMA testing by the Licensee and not by a third-party lab. Complete the "TDMA Noise Test for Headphone Remote and Mic Systems" described in the specifications.

TDMA Testing for Auto Products

Automotive head units and head unit adapters require TDMA testing by the Licensee and not by a third-party lab. Complete the "TDMA Noise Test for Automotive Head Units" described in the specifications. Then upload the test results (e.g., spectrum analyzer screen shots) when you <u>submit your Self-Cert form</u> through the Portal.

The following types of accessories are exempt from the TDMA testing requirement at this time:

- No audio or video output
- iAP over Bluetooth
- Too large to be accommodated in a testing chamber (contact your Account Specialist; if applicable, Apple will provide a waiver in writing)

OTA Testing (Optional)

OTA (Over-the-Air) testing ensures that the accessory does not interfere with cellular reception when connected to an iPhone or iPad.

iPhone, iPhone 3G and iPhone 3GS are considered one platform for OTA testing purposes. iPhone 4 and iPad 3G are considered another platform. Each platform has its own OTA test plan.

At this time, OTA testing is optional for accessories that support iPhone; it is not required for accessories that support only iPad and/or iPod. Licensees may use the "Made for iPhone" logo in conjunction with an accessory, as long as it completes all required certification steps (e.g., ATS report, Self-Cert form, TDMA testing).

Selecting an Authorized Test Lab

Once you submit your Self-Cert form through the Portal, the next step is to select an authorized third-party test lab in the Portal. When requesting test services, be prepared to provide the following information:

- Apple contract number
- Product name, SKU and corresponding Apple Product Plan ID
- · Apple device(s) to be used for testing

Once you select the lab in the Portal, you will not be able to change it.

For more information on selecting a lab in the Portal, please see <u>Ship Production-</u> <u>Ready Samples</u> in the Portal User Guide.

Packaging Review

Licensees must submit packaging, user guides and other product communications for review and approval prior to producing the materials. You may submit packaging any time after Product Plan approval and at least 30 days before the product goes into production.

For instructions on submitting materials for review, please see <u>How to Submit</u> <u>Product Packaging</u>.

Recertifying a Previously-Certified Accessory

In order to claim compatibility with a new Apple device/model, Licensees must complete the recertification requirements specific to that device. Recertification entails the following steps:

- 1. Update the Product Plan in the Portal.
- 2. Submit an ATS report.
- 3. Submit a Self-Certification form.
- 4. Complete third-party TDMA testing, if applicable. This requirement generally applies to products which (1) pass audio or video and (2) required TDMA testing in order to complete certification for the the first time.
- 5. Submit revised packaging for approval.

For instructions on how to recertify a previously-certified accessory through the Portal, please see <u>How to Recertify a Previously-Certified Accessory</u>.

Technical Support

Participation in the MFi program includes access to Apple's Developer Technical Support (DTS) team. For information on how to request technical assistance, please see the <u>Developer Technical Support</u> section under "Getting Started."

Certification of iOS Accessories

An iOS accessory is an MFi accessory that communicates with an iOS application. The certification requirements for such accessories differ from those of non-iOS accessories. Following is an overview of current requirements (subject to change):

- The brands of the accessory hardware and associated iOS app may be the same or different. In addition, multiple apps may work with one hardware model and multiple hardware models may work with one app—regardless of the the brands associated with the hardware units and the apps.
- The app may be a standalone app which can be used independently of the accessory hardware; similarly, the hardware may also be used independently of the app.

- Accessories must be compatible with both iPhone and iPod touch, unless the hardware is form-factor specific to one device. iPad compatibility is optional
- Self-Certification for hardware in conjunction with the app must be completed twice — once at prototype phase and again at production-ready phase.
- After completion of production-ready Self-Certification, the App Review team will review the app in conjunction with the production-ready hardware which was submitted to the Self-Certification Lab.
- If the iOS accessory supports iPad, the associated app must be an iPad application.
- iOS app development requires membership in the iPhone Developer Program; app review and approval is a separate process managed by the iTunes Store.

Certification Steps for iOS Accessories

Product Plan - Whitelisting

- 1. In order to enable apps bearing a different brand than the hardware to communicate with the hardware, the hardware developer must "whitelist" the apps by adding the apps' Bundle Seed IDs and External Accessory framework protocol names to the hardware developer's Product Plan.
 - At this time, you may provide this information to your Account Specialist via email. In the future, you will include this information in the Product Plan through the Portal.

Prototype Self-Certification

- 1. Test your accessory to ensure that it meets the MFi accessory specifications, passes all applicable tests on the Self-Certification form and is compatible with each model with which you will be claiming compatibility.
- 2. Submit a completed Self-Certification form through the Portal. For instructions, please see <u>Submit a Self-Cert Form</u> in the Portal User Guide.
- 3. Ship a complete set of prototype materials to the Apple Self-Cert Lab, including:
 - 1 sample unit
 - · A CD which contains a functional version of the iOS app
 - All power sources, cables, connectors, and dock inserts needed to operate the product
 - All components of the entire solution, if the product is one component (e.g., AV receiver for a home theater system)
 - User manual and/or instructions for operating the product

For instructions on shipping these materials, please see <u>Ship Prototype Samples</u> in the Portal User Guide.

4. Once all prototype Self-Certification steps are complete, you will receive confirmation of completion from Apple via e-mail.

ATS

1. <u>Submit an ATS report</u> using the ATS Accessory Certification Assistant.

Production-Ready Self-Certification

- 1. Test your accessory to ensure that it meets the MFi accessory specifications, passes all applicable tests on the Self-Certification form and is compatible with each model with which you will be claiming compatibility.
- 2. Submit a completed Self-Certification form through the Portal. For instructions, please see <u>Submit a Self-Cert Form</u> in the Portal User Guide.
- If your accessory requires third-party TDMA testing (see <u>Table 1: Certification</u> <u>Requirements by Product Type</u>), ask your selected test lab for the Unique Device ID (UDID) of each iPhone model to be used during testing. Add the UDIDs provided by the lab to your iOS application's associated provisioning profile.
 - For information on how to add UDIDs to a provisioning profile, go to the iPhone Dev Center on the Apple Developer Web site: http://developer.apple.com.
- 4. Ship a complete set of production-ready materials to the Apple Self-Cert Lab and, if applicable, another set to the authorized test lab. Production-ready materials include:
 - 2 sample units
 - A CD which contains the application, newly-created provisioning profile (e.g., "test.mobileprovision") and application bundle (e.g., "test.app")
 - All power sources, cables, connectors, and dock inserts needed to operate the product
 - All components of the entire solution, if the product is one component (e.g., AV receiver for a home theater system)
 - · User manual and/or instructions for operating the product and app

For instructions on shipping these materials, please see <u>Ship Production-Ready</u> <u>Samples</u> in the Portal User Guide.

5. Once all production-ready Self-Certification steps are complete for the hardware, you will receive confirmation of completion from Apple via e-mail.

App Review

Once your accessory completes MFi production-ready self-certification, the App Review team will review your app in conjunction with the production-ready samples shipped to the Apple Self-Cert Lab. The app review process is separate from the MFi certification process.

- 1. Submit the final version of your app to the iTunes Store. The app should be submitted by the developer of the app (requires membership in the iPhone Developer Program).
 - If an app is already available as a standalone app on the App Store, you must resubmit the app to the App Review team using a revised Bundle Seed ID.
- 2. Receive notification that the app is Ready for Sale.

Packaging Review

- 1. Submit product packaging through the Portal.
- 2. Receive approval from Apple.

Begin Mass Production and Sell In

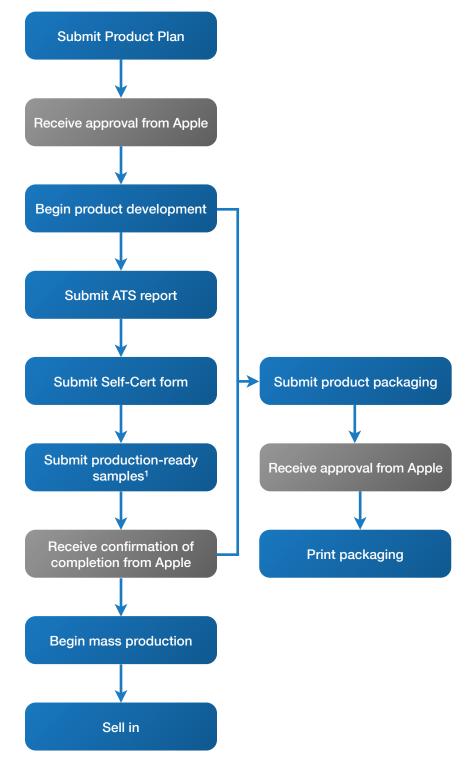
Once you have completed all of the steps above, you may go into mass production and begin selling your iOS accessory.

Please see the <u>iOS Accessory flow chart</u> in Appendix A.

Appendix

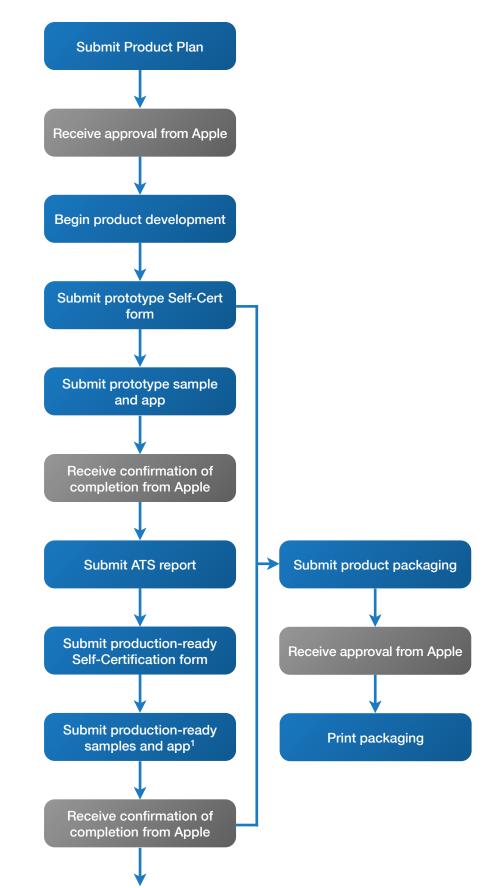
Appendix A: Sample Certification Process Flows

Product Type: General



¹If the accessory does not handle audio or video in any way, you do not need to submit samples to a third-party lab for TDMA noise testing.

Product Type: General + iOS Accessory



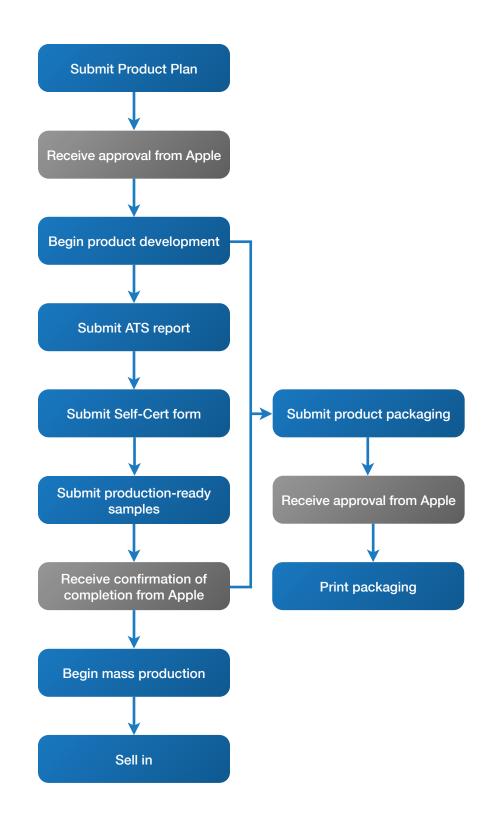
Product Type: General + iOS Accessory (cont.)



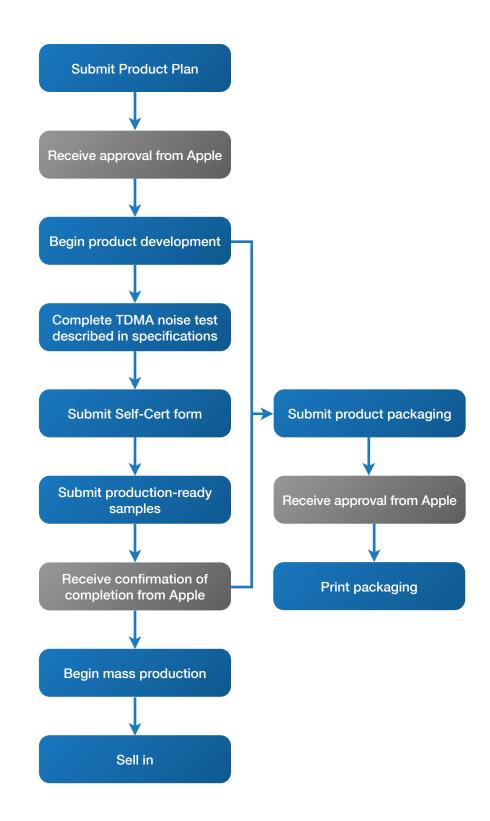
¹If the accessory does not handle audio or video in any way, you do not need to submit samples to a third-party lab for TDMA noise testing.

²The app must be approved for sale by the iTunes Store prior to selling in.

Product Type: Power Only (Excludes Form-Fitting Battery Packs)

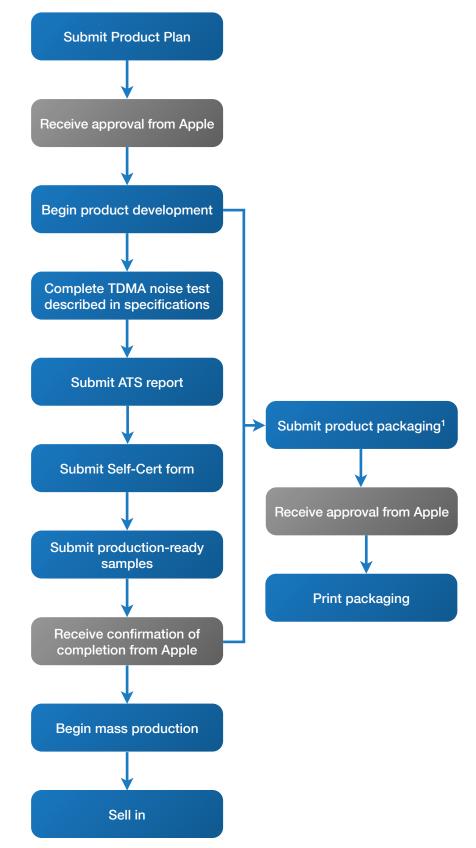


Product Type: Headphone Remote and Mic System



MFi Licensing Handbook R1.2b Apple Need-to-Know Confidential

Product Type: Auto



¹Apple may waive this requirement for automotive products which do not ship in retail/end-user packaging.

Change History

Version	Description	Date
R1.2b	Added "Packaging Contact" to the Contact type definitions; deleted the Business Contact type because it will no longer be used in the Portal; revised the definition/role of the Legal Contact (pp. 7-8)	11/11/10
R1.2a	Revised e-mail address to which requests for Technical Support Incidents should be sent (p. 30)	7/29/10
	Updated third-party TDMA noise test requirement for "Made for iPhone" accessories (p. 41)	
R1.2	Evidence of withholding tax payment is required if withholding tax rate is not zero (p. 9)	7/1/10
	Instructions for updating the e-mail address associated with an MFi Contact on the Portal (p. 11)	
	Updated instructions for selecting your company's withholding tax rate (p. 11)	
	Significant additions to the "Product Plans" section of the Portal User Guide (pp. 13-23)	
	Updated description of Commercial product use for Auto products (p. 16)	
	Updated the "Quarterly Report" section of Portal User Guide (pp. 24-26)	
	Revised Developer Technical Support section (pp. 29-30)	
	Updated Avnet sales/shipping terms and credit card payment sections (pp. 31-32)	
	Updated document names and/or descriptions of files in Document Center (pp. 34-35)	
	Additions to the "Product Plans" section of the Program Overview (pp. 36-37)	
	Added new "Certification" section (pp. 38-45)	
	Updated the "Quarterly Report" section of the Program Overview (p. 46)	
	Added Appendix A - Sample Certification Process Flows (pp. 49-54)	
	Removed previous Appendix A - Sample Product Plan Forms	
R1.1	Supported browsers for MFi Portal (p. 6)	3/18/10
	Updated information regarding MFi Universal Sign-In (p. 6)	
	Non-Accounting Contacts may declare withholding tax rate, submit Sales Data and remit royalty payment (pp. 8, 15, 29-30)	
	Contact information of MFi Account Specialist and Licensee's Primary Contact visible on Home page (p. 11)	
	Instructions for submitting Product Plans through Portal (p. 11)	
	Description of product types and product uses on Product Plan form (pp. 12-13)	
	Instructions for submitting Inventory Reconciliation through Portal (p. 15)	
	Instructions for submitting Forecast Update through Portal (p. 16)	
	Updated file names in Document Center; removed obsolete Licensing forms and technical specification files (pp. 24-25)	
	Added "Product Plans" section (pp. 26-27)	
	Removed royalty payment due date column in "Summary of Key Dates" table (p. 28)	
	Updated royalty payment due date (p. 28)	
	Revised item 4 under "How to Remit Royalty Payment" section (p. 29)	
	Added Appendix A (starting on p. 31)	

Version	Description	Date
R1	Initial release	1/18/10