



2021

Publication 1098

# PART II

**Annual Requirements and Specifications  
for the Development of 2D Barcode**



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### What's New

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The following forms will become obsolete starting 2021 and will be transitioning to Absolute Positioning:

- 3514, California Earned Income Tax Credit
- Schedule CA (540), California Adjustments – Residents

For more information about absolute positioning, please refer to Pub. 1098, Part I.

### Introduction

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Pub. 1098, Part II, Annual Requirements and Specifications for the Development of 2D Barcode, is designed for the preparation of 2 dimensional (2D) barcode enabled forms. It is not a substitute for Pub. 1098, Part I, Annual Requirements and Specifications for the Development and Use of Substitutes, Scannable, and Reproduced Tax Forms. The 2D barcode specifications are fully compliant with "Tax Forms Processing, 2D Bar Coding Standards, Revision 2010v1, dated October 31, 2010," a standard issued by the Federation of Tax Administration (FTA) and accepted by the National Association of Computerized Tax Preparers (NACTP). The following requirements and specifications are used to create 2D barcodes and outlines the order and type of data expected in the various 2D barcodes.

For 2021, the Franchise Tax Board (FTB) will accept 2D barcodes for the following two forms:

- Schedule D (540), California Capital Gain or Loss Adjustment
- Schedule P (540), Alternative Minimum Tax and Credit Limitations

Computerized Tax Processors (CTPs) must ensure that printed data on the tax forms and encoded data in the 2D barcode are an exact match.

### Who Must Get Approval for 2D Barcode Tax Forms

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Any company that develops and uses 2D barcode tax forms must get approval from the FTB if it develops:

- 2D barcode tax forms using its own tax software programs.
- Tax software programs to be used with 2D barcode tax forms developed by another company.

The company must get forms approval from the FTB annually, **before** it releases or distributes 2D barcode tax forms to its customers or clients.

If your company is described above, your customers or clients do not need to get additional approval from the FTB to use your FTB-approved 2D barcode tax forms. However, they should verify that your 2D barcode tax forms have the FTB's approval.

Examples of customers or clients, who should verify approval, by asking you for a copy of your FTB approval letter(s), are:

- Tax practitioners who purchase software that produces 2D barcode tax forms.
- Software providers who sell the products of tax software developers who design 2D barcode tax forms.

### How Does the 2D Barcode Forms Approval Process Work?

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Submit all 2D barcode forms that require approval to the FTB for review before you distribute or release them, or related products, to your customers or clients. See the "**DO NOT FILE Message Requirements**", "**How Does the Forms Approval Process Work?**", "**Electronic Forms Review Process**" and "**Submitting Forms to FTB for Approval**" in Part 1 of the Pub 1098 for more information.

Do **not** submit 2D Barcode forms for review until the FTB posts the 2D Barcode Test Specifications on the State Exchange System (SES). Doing so will increase delays in the review process. Before a company submits any 2D barcode form to FTB for approval, we recommend a complete review of Pub. 1098, Parts I and II.

### What the Company Should do for its Customers and Clients

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Provide your customers and clients with all of the information and instructions they need to produce accurate 2D barcode tax forms. The information and instructions that you provide should clearly inform your customers and clients about:

- The importance of printing a new tax return after making changes. Any information written onto the tax form, but not in the barcode, may not be processed accurately.
- The hardware requirements they will need to successfully "run" your software product.
- The printer requirements necessary to print FTB approved forms (including a complete list of printers that your software does not support; the printer fonts they will need to print the required graphics, etc.; and how to use printer font cartridges, if applicable).
- How to get software enhancements and the importance of "loading" them to their PCs.
- The importance of registering their business name and address with your company, if applicable.
- The importance of complying with error messages and edit checks, that they may see as a "pop-up" message on their PC screen.
- All other information that helps to ensure they use your software products correctly.
- How to enter taxpayer name and address information in the entity area on all personal income tax returns.

Also, upon request:

- Provide your customers and clients with a copy of your FTB forms approval letter(s).
- Provide a copy of notice(s) of correction(s) to software sent to your customers and clients.

## Preparer Requirements

For those tax returns prepared by someone other than the taxpayer, the identifying fields for preparer name, phone, and PTIN/FEIN are mandatory. The tax professional software must ensure that paid preparer information has been entered prior to printing.

## Print Requirements

**PrintScaling = None Duplex = Simplex.**

There is a setting in the PDF specifications that can be set in each file that will force the document to print without being shrunk. When using PDF files to save and/ or print tax returns, the following PDF Viewer Preferences or properties must be set by the vendor application. Setting the Print Scaling property to none will override the local setting and force the document to print without scaling. Setting the Duplex property to Simplex will override local settings and force the documents to be printed single sided. Simplex printing is a requirement for 2D barcode tax returns. Include this setting in all instructions to the user for printing a tax return.

## Submitting 2D Barcode Forms to the FTB for Approval

FTB only approves the appearance of the printed substitute forms and the 2D barcode readability. We do not certify the logic of specific software, or the calculation of formulas entered on any forms. Nor do we approve specific equipment or the process used in producing the substitute and 2D barcode tax forms, but do require that the substitute and 2D barcode tax forms meet the FTB's standards.

For 2D Barcode Test Specifications, please refer to the State Exchange System (SES), FTA State Exchange System>CAST>CAST.TxYr2021>CAST.Forms>CAST.2D.

All forms are required to have a Document ID, CTP ID, and anchor marks. These items must be placed in accordance with FTB's exact positioning requirements for that form (refer to Pub. 1098, Part I). Each form must contain the exact number of tax data fields, taxpayer ID fields, line items, and keying symbols as the official FTB form.

In the event that a 2D barcode is unreadable, the exact positioning will allow software to capture and "read" the data.

The FTB will validate content in the 2D barcode to information printed on the tax form. For example:

On a married/RDP filing joint tax return, if the spouse/RDP name is reflected on the tax return but not present in the 2D barcode, it will be considered a fatal error and will be rejected.

## Submission

We will continue to accept electronic or paper for 2D barcode test package submissions as follows:

### First Submission

To avoid delays in the review process, follow these instructions:

1. Include a cover letter with every review package.
2. If your company's software product does not support a particular field or field size, etc., indicate this fact in the company's cover letter. This is important.
3. Sample pages should not be double sided. Do not submit any blank forms.
4. Use the Test Scenarios located on the State Exchange System (SES) for how to complete the test samples.
  - Original sample documents are required.
5. For electronic review process, send forms via SWIFT.
  - Select the "ToFTB" folder
  - Click "Upload"
6. For paper review process, send forms by courier, freight, or UPS to:

ATTN: Substitute Forms  
TAX FORMS DEV & DIST SECTION  
FRANCHISE TAX BOARD  
9646 BUTTERFIELD WAY M/S F 284  
SACRAMENTO CA 95827

The FTB highly recommends that you use a courier, freight, or UPS service when you submit your forms for paper review. This will help ensure that the Filing Methods Section receives your review package on the same day it is received at the FTB. If you prefer to use the U.S. Postal Service "regular mail service," see the FTB's PO Box address under "**How to Contact the FTB Regarding 2D Barcode Forms.**" Choosing to use USPS as method for submitting packages may delay the review of your package.

- Submit two original samples of each test specifications of each form. The samples must be generated from your tax engine and meet the requirements of the test specifications provided using the Publication 1098, Part II.

In most cases, the FTB will complete the first review of your 2D barcode form(s) within ten business days of receipt.

### Resubmission (Second review for approval)

#### Electronic Resubmission

When resubmitting a 2D barcode form, be sure to increment the Software Developer Version if there is a change to the 2D barcode programming. See “**Header Fields Definitions**” for more information. Include a cover letter with your resubmitted review package and indicate in caps, “**RESUBMISSION**” where it can be easily seen. This is critical. If your company’s software product does not support a particular field or field size, etc., indicate this fact in the company’s cover letter. Send all associated forms in the package, including the corrected form, via SWIFT within 3 business days.

- Select the “ToFTB” folder
- Click “Upload”

#### Paper Resubmission

When resubmitting a 2D barcode form, be sure to increment the Software Developer Version if there is a change to the 2D barcode programming. See “**Header Fields Definitions**” for more information. To avoid delays in any second review process, follow these instructions:

1. Make all corrections identified at first review.
2. Include a cover letter with your resubmitted review package, including all associated forms in the package, and indicate in caps, “**RESUBMISSION**” where it can be easily seen. **This is critical.** If your company’s software product does not support a particular field or field size, etc., indicate this fact in the company’s cover letter.
3. If you submit forms printed from different printers, identify the printer type with a removable note on the front of the form (or write the printer type on the back).
4. You must resubmit 2 hard copies of each test sample for us to review. We highly recommend you send your resubmission by courier, freight, or UPS to the address shown on this page within 3 business days.

In most cases, we will complete the review of your resubmission within three business days of receipt.

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### Benefits of Following the Guidelines for the Development of 2D Barcode

- The FTB will be able to complete its review and respond quickly (normally within ten business days from date received).
- The FTB will be able to process approved CTP tax forms which will result in fast, accurate processing and quick refunds for your customers’ clients.
- Software companies will have satisfied customers and clients who have confidence in the software product(s) they use.

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### Consequences of Not Following the Guidelines for the Development of 2D Barcode

The FTB will work with CTPs to correct any errors found on their tax forms during review. However, if a software company releases forms that fail to follow the “**Guidelines for the Development of 2D Barcode,**” the FTB:

- Will require the software company contact person to send proof (e.g., revised forms, excerpts from revised user manuals, release letters for new versions of software, etc.) that the company corrected all errors and notified their customers and clients of the corrections.
- Will publish the software company name in certain publications and on [ftb.ca.gov](http://ftb.ca.gov), stating that the software company did not follow the “**Guidelines for the Development of 2D Barcode.**” The FTB will publicize such a violation even if the software company subsequently corrects all errors.
- May notify taxpayers, if the software company fails to correct all errors, that their refund was delayed because the software company’s tax forms did not have the FTB approval.

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### How to Contact the FTB Regarding 2D Barcode Forms

For questions about the 2D Barcode Forms or Substitute Forms Program, contact your assigned account agent or send email to [substituteforms@ftb.ca.gov](mailto:substituteforms@ftb.ca.gov).

To mail correspondence regarding 2D barcode forms and related issues:

ATTN: SUBSTITUTE FORMS  
TAX FORMS DEV & DIST SECTION  
FRANCHISE TAX BOARD  
PO BOX 1468 M/S F 284  
SACRAMENTO CA 95812-1468

**General 2D Specifications**

Encode type	Standard PDF417	The 2D encode type is Standard PDF417.
Error Correction Level	4	The error correction level in the current market-provided DLL is set to level 4.
Pixel shaving	ON	Pixel shaving improves read rates.
Resolution	600 dpi	Dots per inch is 600.
Code word count	Variable	
Encryption	None	
Module-Aspect Ratio	3:1	The Y/X element ratio is 3.
Data Rows	Variable	
Data Columns	24	
X-module Dimension	15 mils Max	The X dimension width is a maximum of 15.0 Mils.
Reserved space	1.15" x 7.43" (h x w)	The height of the barcode will vary according to the amount of information contained in the barcode. The size of the barcode cannot be greater than .95" high x 6.0" wide.
Data Rows	Variable	
Character Count per barcode	1400 Max	
Field Delimiter	Carriage Return	Each field will be separated by a carriage return.
End of File Delimiter	"*EOD*"	
Location of Barcode(s)	In the reserved areas indicated in the Record Layouts, on each form.	Do not print the box around the barcode.
Dollar Amounts	Round all figures to whole dollars, no commas	
Alpha Characters	Upper Case only	
Negative Amounts	Use minus sign only	
Unused Data	No Zero fill	

**Header Fields Definitions**

Line	Definition	Values
Header Version Number	NACTP standard	Currently set at T1
CTP ID	California CTP identification indicator	Numeric
Tax Year	Calendar Tax Year	2021
Form Type	Each barcode has a 3 to 6 character unique identifier	See “ <b>Barcode Summary</b> ”
Software Developer Version	Increment indicator when changes are made to barcode content only	001. Increment plus 1 for every subsequent barcode change
FTB Specification Version	California barcode specification version	001, FOR FTB USE ONLY. FTB will inform you if a new version is required.

**How to Use the Software Developer Version Control**

The FTB requires software developers begin with the indicator set at 001. This version is the first submission to The FTB for approval.

For example:

If The FTB disapproves a 2D barcode form due to a programming error in the barcode, then the next submission is version 002. If approved, then version 002 is valid for production. If The FTB disapproves a 2D barcode form due to a formatting issue only (and no changes are made to the barcode programming), then the version number would not change upon resubmission.

According to the Tax Forms Processing 2-D Bar Coding Standards, software developers must inform The FTB of any software version control changes made after the approval issued at testing.

For example:

Your software version 002 is approved during forms testing.

If changes were made to the barcode content in production, then the software version must increment to 003 and you must notify the Substitute Forms Desk of this change to ensure your software version is valid for production.

Notify your assigned account manager of any software version changes or send email to **substituteforms@ftb.ca.gov**.

**Barcode Summary**

The two 2021 PIT return forms will be encoded in the following three 2D barcodes.

Barcode	Description	Fields designate in this barcode	Sample Header Fields	Description of Header Fields
1	Schedule D (540) Barcode 1	From Entity "TP first name" to "Line 1oe "Gain"	T1 613 2021 776-01	Header Version CTP ID Tax Year Form type
2	Schedule D (540) Barcode 2	From Line 1pa "Description of Property" to Line 12b "Capital Gain Addition"	T1 613 2021 776-02	Header Version CTP ID Tax Year Form type
3	Schedule P (540)	All fields	T1 613 2021 797	Header Version CTP ID Tax Year Form type



2D SPECIFICATIONS FOR SCHEDULE D (540)

Schedule D (540) 2D Specifications Barcode 1 of 2

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
1	Header	Header Version Number	N	2	T1	
2	Header	CTP ID	N	3		
3	Gov't	Tax Year	N	4	YYYY	
4	Gov't	Form Type	N	6	776-01	
5	Gov't	Software Developer Version	N	3	001. Increment plus 1 for every change to the barcode	
6	Gov't	FTB Specification Version	N	3	001. See Header Fields Definitions in Publication 1098, Part II for more information.	
7		Taxpayer's First Name	A	11		
8		Taxpayer's Middle Initial	A	1		
9		Taxpayer's Last Name	A	35		
10		Taxpayer's Suffix	A	4		
11		Taxpayer's SSN or ITIN	N	9		
12	1aa	Line 1aa Description of Property	AN	35	Special chars: space .	
13	1ab	Line 1ab Sales price	N	15	Special chars: -	
14	1ac	Line 1ac Cost or other basis	N	15	Special chars: -	
15	1ad	Line 1ad Loss	N	15		
16	1ae	Line 1ae Gain	N	15	Special chars: -	
17	1ba	Line 1ba Description of Property	AN	35	Special chars: space .	
18	1bb	Line 1bb Sales price	N	15	Special chars: -	
19	1bc	Line 1bc Cost or other basis	N	15	Special chars: -	
20	1bd	Line 1bd Loss	N	15		
21	1be	Line 1be Gain	N	15	Special chars: -	
22	1ca	Line 1ca Description of Property	AN	35	Special chars: space .	
23	1cb	Line 1cb Sales price	N	15	Special chars: -	
24	1cc	Line 1cc Cost or other basis	N	15	Special chars: -	
25	1cd	Line 1cd Loss	N	15		
26	1ce	Line 1ce Gain	N	15	Special chars: -	
27	1da	Line 1da Description of Property	AN	35	Special chars: space .	
28	1db	Line 1db Sales price	N	15	Special chars: -	
29	1dc	Line 1dc Cost or other basis	N	15	Special chars: -	
30	1dd	Line 1dd Loss	N	15		
31	1de	Line 1de Gain	N	15	Special chars: -	
32	1ea	Line 1ea Description of Property	AN	35	Special chars: space .	
33	1eb	Line 1eb Sales price	N	15	Special chars: -	
34	1ec	Line 1ec Cost or other basis	N	15	Special chars: -	

## Schedule D (540) 2D Specifications Barcode 1 of 2

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
35	1ed	Line 1ed Loss	N	15		
36	1ee	Line 1ee Gain	N	15	Special chars: –	
37	1fa	Line 1fa Description of Property	AN	35	Special chars: space .	
38	1fb	Line 1fb Sales price	N	15	Special chars: –	
39	1fc	Line 1fc Cost or other basis	N	15	Special chars: –	
40	1fd	Line 1fd Loss	N	15		
41	1fe	Line 1fe Gain	N	15	Special chars: –	
42	1ga	Line 1ga Description of Property	AN	35	Special chars: space .	
43	1gb	Line 1gb Sales price	N	15	Special chars: –	
44	1gc	Line 1gc Cost or other basis	N	15	Special chars: –	
45	1gd	Line 1gd Loss	N	15		
46	1ge	Line 1ge Gain	N	15	Special chars: –	
47	1ha	Line 1ha Description of Property	AN	35	Special chars: space .	
48	1hb	Line 1hb Sales price	N	15	Special chars: –	
49	1hc	Line 1hc Cost or other basis	N	15	Special chars: –	
50	1hd	Line 1hd Loss	N	15		
51	1he	Line 1he Gain	N	15	Special chars: –	
52	1ia	Line 1ia Description of Property	AN	35	Special chars: space .	
53	1ib	Line 1ib Sales price	N	15	Special chars: –	
54	1ic	Line 1ic Cost or other basis	N	15	Special chars: –	
55	1id	Line 1id Loss	N	15		
56	1ie	Line 1ie Gain	N	15	Special chars: –	
57	1ja	Line 1ja Description of Property	AN	35	Special chars: space .	
58	1jb	Line 1jb Sales price	N	15	Special chars: –	
59	1jc	Line 1jc Cost or other basis	N	15	Special chars: –	
60	1jd	Line 1jd Loss	N	15		
61	1je	Line 1je Gain	N	15	Special chars: –	
62	1ka	Line 1ka Description of Property	AN	35	Special chars: space .	
63	1kb	Line 1kb Sales price	N	15	Special chars: –	
64	1kc	Line 1kc Cost or other basis	N	15	Special chars: –	
65	1kd	Line 1kd Loss	N	15		
66	1ke	Line 1ke Gain	N	15	Special chars: –	
67	1la	Line 1la Description of Property	AN	35	Special chars: space .	
68	1lb	Line 1lb Sales price	N	15	Special chars: –	
69	1lc	Line 1lc Cost or other basis	N	15	Special chars: –	
70	1ld	Line 1ld Loss	N	15		
71	1le	Line 1le Gain	N	15	Special chars: –	
72	1ma	Line 1ma Description of Property	AN	35	Special chars: space .	

**2D SPECIFICATIONS FOR SCHEDULE D (540)**

**Schedule D (540) 2D Specifications Barcode 1 of 2**

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
73	1mb	Line 1mb Sales price	N	15	Special chars: –	
74	1mc	Line 1mc Cost or other basis	N	15	Special chars: –	
75	1md	Line 1md Loss	N	15		
76	1me	Line 1me Gain	N	15	Special chars: –	
77	1na	Line 1na Description of Property	AN	35	Special chars: space .	
78	1nb	Line 1nb Sales price	N	15	Special chars: –	
79	1nc	Line 1nc Cost or other basis	N	15	Special chars: –	
80	1nd	Line 1nd Loss	N	15		
81	1ne	Line 1ne Gain	N	15	Special chars: –	
82	1oa	Line 1oa Description of Property	AN	35	Special chars: space .	
83	1ob	Line 1ob Sales price	N	15	Special chars: –	
84	1oc	Line 1oc Cost or other basis	N	15	Special chars: –	
85	1od	Line 1od Loss	N	15		
86	1oe	Line 1oe Gain	N	15	Special chars: –	
87		END OF FILE	AN	5	*EOD*	

Schedule D (540) 2D Specifications Barcode 2 of 2

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
1	Header	Header Version Number	N	2	T1	
2	Header	CTP ID	N	3		
3	Gov't	Tax Year	N	4	YYYY	
4	Gov't	Form Type	N	6	776-02	
5	Gov't	Software Developer Version	N	3	001. Increment plus 1 for every change to the barcode	
6	Gov't	FTB Specification Version	N	3	001. See Header Fields Definitions in Publication 1098, Part II for more information.	
7	1pa	Line 1pa Description of Property	AN	35	Special chars: space .	
8	1pb	Line 1pb Sales price	N	15	Special chars: -	
9	1pc	Line 1pc Cost or other basis	N	15	Special chars: -	
10	1pd	Line 1pd Loss	N	15		
11	1pe	Line 1pe Gain	N	15	Special chars: -	
12	1qa	Line 1qa Description of Property	AN	35	Special chars: space .	
13	1qb	Line 1qb Sales price	N	15	Special chars: -	
14	1qc	Line 1qc Cost or other basis	N	15	Special chars: -	
15	1qd	Line 1qd Loss	N	15		
16	1qe	Line 1qe Gain	N	15	Special chars: -	
17	1ra	Line 1ra Description of Property	AN	35	Special chars: space .	
18	1rb	Line 1rb Sales price	N	15	Special chars: -	
19	1rc	Line 1rc Cost or other basis	N	15	Special chars: -	
20	1rd	Line 1rd Loss	N	15		
21	1re	Line 1re Gain	N	15	Special chars: -	
22	1sa	Line 1sa Description of Property	AN	35	Special chars: space .	
23	1sb	Line 1sb Sales price	N	15	Special chars: -	
24	1sc	Line 1sc Cost or other basis	N	15	Special chars: -	
25	1sd	Line 1sd Loss	N	15		
26	1se	Line 1se Gain	N	15	Special chars: -	
27	1ta	Line 1ta Description of Property	AN	35	Special chars: space .	
28	1tb	Line 1tb Sales price	N	15	Special chars: -	
29	1tc	Line 1tc Cost or other basis	N	15	Special chars: -	
30	1td	Line 1td Loss	N	15		
31	1te	Line 1te Gain	N	15	Special chars: -	
32	1ua	Line 1ua Description of Property	AN	35	Special chars: space .	
33	1ub	Line 1ub Sales price	N	15	Special chars: -	
34	1uc	Line 1uc Cost or other basis	N	15	Special chars: -	
35	1ud	Line 1ud Loss	N	15		

**2D SPECIFICATIONS FOR SCHEDULE D (540)**

**Schedule D (540) 2D Specifications Barcode 2 of 2**

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
36	1ue	Line 1ue Gain	N	15	Special chars: –	
37	1va	Line 1va Description of Property	AN	35	Special chars: space .	
38	1vb	Line 1vb Sales price	N	15	Special chars: –	
39	1vc	Line 1vc Cost or other basis	N	15	Special chars: –	
40	1vd	Line 1vd Loss	N	15		
41	1ve	Line 1ve Gain	N	15	Special chars: –	
42	2d	Net Loss	N	15		
43	2e	Net Gain	N	15		
44	3	Capital gain distribution	N	15		
45	4	Total gains	N	15		
46	5	2021 loss	N	15		
47	6	Prior Year Capital Loss Carryover	N	15		
48	7	Total Loss	N	15		
49	8	Net Gain/Loss	N	15	Special chars: –	
50	9	Deductible Loss	N	15		
51	10	Federal Gain/Loss	N	15	Special chars: –	
52	11	California Gain/Loss	N	15	Special chars: –	
53	12a	Capital Gain Subtraction	N	15		
54	12b	Capital Gain Addition	N	15		
55		END OF FILE	AN	5	*EOD*	

Schedule D (540) Substitute Mapped Form

TAXABLE YEAR

2021

California Capital Gain or Loss Adjustment

Do not complete this schedule if all of your California gains (losses) are the same as your federal gains (losses).

SCHEDULE

D (540)

Name(s) as shown on return

7-10

SSN or ITIN

11

	(a) Description of property Example: 100 shares of "Z" Co.	(b) Sales price	(c) Cost or other basis	(d) Loss If (c) is more than (b), subtract (b) from (c)	(e) Gain If (b) is more than (c), subtract (c) from (b)
1					
a	12	13	14	15	16
b	17	18	19	20	21
c	22	23	24	25	26
d	27	28	29	30	31
e	32	33	34	35	36
f	37	38	39	40	41
g	42	43	44	45	46
h	47	48	49	50	51
i	52	53	54	55	56
j	57	58	59	60	61
k	62	63	64	65	66
l	67	68	69	70	71
m	72	73	74	75	76
n	77	78	79	80	81
o	82	83	84	85	86
p	7	8	9	10	11
q	12	13	14	15	16
r	17	18	19	20	21
s	22	23	24	25	26
t	27	28	29	30	31
u	32	33	34	35	36
v	37	38	39	40	41

- 2 Net gain or (loss) shown on California Schedule(s) K-1 (100S, 541, 565, and 568). . . . . 2  42  43
- 3 Capital gain distributions (federal Form 1099-DIV, box 2a) . . . . .  3  44
- 4 Total 2021 gains from all sources. Add column (e) amounts of line 1, line 2, and line 3 . . . . .  4  45
- 5 2021 loss. Add column (d) amounts of line 1 and line 2. . . . .  5 (  46 )
- 6 California capital loss carryover from 2020, if any. See instructions. . . . .  6 (  47 )
- 7 Total 2021 loss. Add line 5 and line 6 . . . . .  7 (  48 )

Schedule D (540) Substitute Mapped Form



- 8 Net gain or loss. Combine line 4 and line 7. If a loss, go to line 9. If a gain, go to line 10 .....  8 49
- 9 If line 8 is a loss, enter the smaller of:
  - a the loss on line 8.
  - b \$3,000 (\$1,500 if married/RDP filing separate). See instructions .....  9 ( 50 )
- 10 Enter the gain or (loss) from federal Form 1040 or 1040-SR, line 7. ....  10 51
- 11 Enter the California gain from line 8 or (loss) from line 9. ....  11 52
- 12 a If line 10 is **more** than line 11, enter the difference here and on Schedule CA (540), Part I, Section A, line 7, column B .....  12a 53
- b If line 10 is **less** than line 11, enter the difference here and on Schedule CA (540), Part I, Section A, line 7, column C .....  12b 54

This space reserved for 2D barcode

This space reserved for 2D barcode

**Schedule D (540) Barcode Placement Side 2 Specifications**

Print Line Number	Identification	Begin Print Position	Maximum Field Length	End Print Position	Field Description
1-3	Blank lines	–	–	–	–
4	Anchor Mark	59	2	60	Anchor mark, Conventional form size/style
5-44	Blank lines	–	–	–	–
45-51	“2D BARCODE”	7	73	79	Conventional form size/style
52-53	Blank lines	–	–	–	–
54-60	“2D BARCODE”	7	73	79	Conventional form size/style
61	Blank line	–	–	–	–
62-63	Bottom Registration Mark, Anchor Mark, and conventional form	–	–	–	End of bottom registration mark, anchor mark and conventional form size/style
63	CTP ID (mandatory)	32	3	34	Numeric , replace ‘613’ with your assigned CTP ID.
63	Doc. ID (mandatory)	40	7	46	Numeric, “7762214” (Side 2)





## Schedule P (540) 2D Specifications Barcode 1 of 1

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
1	Header	Header Version Number	N	2	T1	
2	Header	CTP ID	N	3		
3	Gov't	Tax Year	N	4	YYYY	
4	Gov't	Form Type	N	6	797	
5	Gov't	Software Developer Version	N	3	001. Increment plus 1 for change to the barcode.	
6	Gov't	FTB Specification Version	N	3	001. See Header Fields Definitions in Publication 1098, Part II for more information.	
7		Taxpayer's First Name	A	11		
8		Taxpayer's Middle Initial	A	1		
9		Taxpayer's Last Name	A	35		
10		Taxpayer Suffix	A	4		
11		Taxpayer's SSN, or ITIN	N	9		
12	2	Medical and dental expenses	N	15		
13	3	Personal property taxes and real property taxes	N	15		
14	4	Certain interest on a home mortgage not used to buy, build, or improve your home	N	15		
15	5	Miscellaneous itemized deductions	N	15		
16	6	Refund of personal property taxes and real property taxes	N	15		
17	7	Investment interest expense adjustment	N	15	Special chars: –	
18	8	Post-1986 depreciation	N	15	Special chars: –	
19	9	Adjusted gain or loss	N	15	Special chars: –	
20	10	Incentive stock options and California qualified stock options (CASOs)	N	15	Special chars: –	
21	11	Passive activities adjustment	N	15	Special chars: –	
22	12	Beneficiaries of estates and trusts	N	15	Special chars: –	
23	13a	Circulation expenditures	N	15	Special chars: –	
24	13b	Depletion	N	15	Special chars: –	
25	13c	Installment sales	N	15	Special chars: –	
26	13d	Intangible drilling costs	N	15	Special chars: –	
27	13e	Long-term contracts	N	15	Special chars: –	
28	13f	Loss limitations	N	15	Special chars: –	
29	13g	Mining costs	N	15	Special chars: –	
30	13h	Patron's adjustment	N	15	Special chars: –	
31	13i	Pollution control facilities	N	15	Special chars: –	
32	13j	Research and experimental	N	15	Special chars: –	
33	13k	Tax shelter farm activities	N	15	Special chars: –	
34	13l	Related adjustments	N	15	Special chars: –	

2D SPECIFICATIONS FOR SCHEDULE P (540)

Schedule P (540) 2D Specifications Barcode 1 of 1

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
35	13	Other adjustments and preference. Enter the amount if any for each item a through ....	N	15	Special chars: -	
36	14	Total adjustments and preferences	N	15	Special chars: -	
37	15	Enter taxable income from Form 540	N	15	Special chars: -	
38	16	Regular NOL deductions	N	15		
39	17	AMTI exclusion line 17	N	15		
40	18	Federal adjusted gross income	N	15		
41	19	Combine 14 through 18	N	15	Special chars: -	
42	20	AMT NOL deduction	N	15	Special chars: -	
43	21	AMTI	N	15	Special chars: -	
44	22	Exemption amount	N	15		
45	24	Tentative minimum tax	N	15	Special chars: -	
46	25	Regular tax before credits	N	15	Special chars: -	
47	26	Alternative minimum tax	N	15		
48	Part III, Line 1	Enter the amount from 540, line 35	N	15	Special chars: -	
49	Part III, Line 2	Enter the tentative minimum tax from Part II, line 24	N	15	Special chars: -	
50	Part III, Line 3c	Excess tax that may be offset by credits	N	15		
51	Part III, Line 4b	Code: 162 Prison inmate labor, credit used	N	15		
52	Part III, Line 5b	Code: 232 Child and dependent care expenses, credit used	N	15		
53	Part III, Line 6	Code	N	3		
54	Part III, Line 6b	Credit used	N	15		
55	Part III, Line 6d	Credit carryover	N	15		
56	Part III, Line 7	Code	N	3		
57	Part III, Line 7b	Credit used	N	15		
58	Part III, Line 7d	Credit carryover	N	15		
59	Part III, Line 8	Code	N	3		
60	Part III, Line 8b	Credit used	N	15		
61	Part III, Line 8d	Credit carryover	N	15		
62	Part III, Line 9	Code	N	3		
63	Part III, Line 9b	Credit used	N	15		
64	Part III, Line 9d	Credit carryover	N	15		

## Schedule P (540) 2D Specifications Barcode 1 of 1

Index/ Field No.	Line/ Box No.	Description	Data Type A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	Length	Value/ Comments	Special Printing Instructions on Substitute Form(s) Blank = Print in associated field
65	Part III, Line 10a	Code: 188 Credit for prior year AMT, credit amount	N	15		
66	Part III, Line 10b	Code: 188 Credit for prior year AMT, credit used	N	15		
67	Part III, Line 10d	Code: 188 Credit for prior year AMT, credit carryover	N	15		
68	Part III, Line 11c	Enter the amount from line 1 or....	N	15	Special chars: -	
69	Part III, Line 12b	Code: 170 Credit for joint custody head of household, credit used	N	15		
70	Part III, Line 13b	Code: 173 Credit for dependent parent, credit used	N	15		
71	Part III, Line 14b	Code: 163 Credit for senior head of household, credit used	N	15		
72	Part III, Line 15b	Nonrefundable renter's credit, credit used	N	15		
73	Part III, Line 16	Code	N	3		
74	Part III, line 16b	Credit used	N	15		
75	Part III, line 16d	Credit carryover	N	15		
76	Part III, Line 17	Code	N	3		
77	Part III, Line 17b	Credit used	N	15		
78	Part III, Line 17d	Credit carryover	N	15		
79	Part III, Line 18	Code	N	3		
80	Part III, Line 18b	Credit used	N	15		
81	Part III, Line 18d	Credit carryover	N	15		
82	Part III, Line 19	Code	N	3		
83	Part III, Line 19b	Credit used	N	15		
84	Part III, Line 19d	Credit carryover	N	15		
85	Part III, Line 20b	Code: 187 Other state tax credit, credit used	N	15		
86	Part III, Line 21c	Enter your alternative minimum tax from Part II, line 26	N	15	Special chars: -	
87	Part III, Line 22b	Code: 180 solar energy credit carryover used this year	N	15		
88	Part III, Line 22d	Code: 180 solar energy credit carryover	N	15		
89	Part III, Line 23b	Code: 181 Commercial solar energy credit carryover used this year	N	15		

**2D SPECIFICATIONS FOR SCHEDULE P (540)**

**Schedule P (540) 2D Specifications Barcode 1 of 1**

<b>Index/ Field No.</b>	<b>Line/ Box No.</b>	<b>Description</b>	<b>Data Type</b> A = Alpha N = Numeric AN = Alphanumeric X = Checkbox	<b>Length</b>	<b>Value/ Comments</b>	<b>Special Printing Instructions on Substitute Form(s)</b> Blank = Print in associated field
90	Part III, Line 23d	Code: 181 Commercial solar energy credit carryover	N	15		
91	Part III, Line 24c	Adjusted AMT	N	15	Special chars: –	
92		END OF FILE	AN	5	*EOD*	

Schedule P (540) Substitute Mapped Form

TAXABLE YEAR

2021

Alternative Minimum Tax and Credit Limitations – Residents

CALIFORNIA SCHEDULE

P (540)

Attach this schedule to Form 540.

Name(s) as shown on Form 540

7-10

Your SSN or ITIN

11

**Part I Alternative Minimum Taxable Income (AMTI)** Important: See instructions for information regarding California/federal differences.

1	If you itemized deductions, go to line 2. If you did not itemize deductions, enter your standard deduction from Form 540, line 18, and go to line 6	1		00
2	Medical and dental expenses. Enter the smaller of federal Schedule A (Form 1040), line 4, or 2½% (.025) of federal Form 1040 or 1040-SR, line 11	2	12	00
3	Personal property taxes and real property taxes. See instructions.	3	13	00
4	Certain interest on a home mortgage not used to buy, build, or improve your home. See instructions	4	14	00
5	Miscellaneous itemized deductions. See instructions	5	15	00
6	Refund of personal property taxes and real property taxes. See instructions. Do not include your state income tax refund on this line.	6	16	00
7	Investment interest expense adjustment. See instructions.	7	17	00
8	Post-1986 depreciation. See instructions.	8	18	00
9	Adjusted gain or loss. See instructions	9	19	00
10	Incentive stock options and California qualified stock options (CQSOs). See instructions	10	20	00
11	Passive activities adjustment. See instructions	11	21	00
12	Beneficiaries of estates and trusts. Enter the amount from Schedule K-1 (541), line 12a	12	22	00
13	Other adjustment and preferences. Enter the amount, if any, for each item, a through l, and enter the total on line 13. See instructions.			
	a Circulation expenditures	23	00	
	b Depletion	24	00	
	c Installment sales	25	00	
	d Intangible drilling costs	26	00	
	e Long-term contracts	27	00	
	f Loss limitations	28	00	
	g Mining costs	29	00	
	h Patron's adjustment	30	00	
	i Pollution control facilities	31	00	
	j Research and experimental	32	00	
	k Tax shelter farm activities	33	00	
	l Related adjustments	34	00	
		13	35	00
14	Total Adjustments and Preferences. Combine line 1 through line 13	14	36	00
15	Enter taxable income from Form 540, line 19. See instructions	15	37	00
16	Net operating loss (NOL) deductions from Schedule CA (540), Part I, Section B, line 9b1, line 9b2, and line 9b3, column B. Enter as a positive amount.	16	38	00
17	AMTI exclusion. See instructions	17	39	00
18	If your federal adjusted gross income (AGI) is less than the amount for your filing status (listed below), skip this line and go to line 19. If you itemized deductions and your federal AGI is more than the amount for your filing status, see instructions.	18	40	00
	Single or married/RDP filing separately		\$212,288	
	Married/RDP filing jointly or qualifying widow(er)		\$424,581	
	Head of household		\$318,437	
19	Combine line 14 through line 18	19	41	00
20	Alternative minimum tax NOL deduction. See instructions	20	42	00
21	Alternative Minimum Taxable Income. Subtract line 20 from line 19 (if married/RDP filing separately and line 21 is more than \$403,348, see instructions).	21	43	00

**Part II Alternative Minimum Tax (AMT)**

22	Exemption Amount. (If this schedule is for a certain child under age 24, see instructions.)			
	If your filing status is:	And line 21 is not over:	Enter on line 22:	
	Single or head of household	\$292,763	\$78,070	} 22 44 00
	Married/RDP filing jointly or qualifying widow(er)	\$390,351	\$104,094	
	Married/RDP filing separately	\$195,172	\$52,044	
	If Part I, line 21 is more than the amount shown above for your filing status, see instructions.			
23	Subtract line 22 from line 21. If zero or less, enter -0-. See instructions	23		00
24	Tentative Minimum Tax. Multiply line 23 by 7.0% (.07)	24	45	00
25	Regular tax before credits from Form 540, line 31	25	46	00
26	Alternative Minimum Tax. Subtract line 25 from line 24. If zero or less, enter -0- here and on Form 540, line 61. If more than zero, enter here and on Form 540, line 61. If you make estimated tax payments for taxable year 2022, enter amount from line 26 on the 2022 Form 540-ES, California Estimated Tax Worksheet, line 16. (Exception: If you have carryover credit for solar energy or commercial solar energy, first enter the result on Side 2, Part III, Section C, line 22 or 23)	26	47	00

Schedule P (540) Substitute Mapped Form

**Part III Credits that Reduce Tax** Note: Be sure to attach your credit forms to Form 540.

1	Enter the amount from Form 540, line 35. . . . .	<input checked="" type="radio"/> 1	<b>48</b>	00
2	Enter the tentative minimum tax from Side 1, Part II, line 24. . . . .	<input checked="" type="radio"/> 2	<b>49</b>	00

	(a) Credit amount	(b)* Credit used this year	(c) Tax balance that may be offset by credits	(d) Credit carryover
<b>Section A – Credits that reduce excess tax.</b>				
3	Subtract line 2 from line 1. If zero or less enter -0- and see instructions. This is your excess tax which may be offset by credits. . . . .		<input checked="" type="radio"/> <b>50</b>	
<b>A1 Credits that reduce excess tax and have no carryover provisions.</b>				
4	Code: 162 Prison inmate labor credit (FTB 3507) . . . . .	<input checked="" type="radio"/> <b>51</b>		
5	Code: 232 Child and dependent care expenses credit (FTB 3506) . . . . .	<input checked="" type="radio"/> <b>52</b>		
<b>A2 Credits that reduce excess tax and have carryover provisions. See instructions.</b>				
6	Code: <input checked="" type="radio"/> <b>53</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>54</b>		<input checked="" type="radio"/> <b>55</b>
7	Code: <input checked="" type="radio"/> <b>56</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>57</b>		<input checked="" type="radio"/> <b>58</b>
8	Code: <input checked="" type="radio"/> <b>59</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>60</b>		<input checked="" type="radio"/> <b>61</b>
9	Code: <input checked="" type="radio"/> <b>62</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>63</b>		<input checked="" type="radio"/> <b>64</b>
10	Code: 188 Credit for prior year alternative minimum tax. . . . .	<input checked="" type="radio"/> <b>65</b>	<input checked="" type="radio"/> <b>66</b>	<input checked="" type="radio"/> <b>67</b>
<b>Section B – Credits that may reduce tax below tentative minimum tax.</b>				
11	If Part III, line 3 is zero, enter the amount from line 1. If line 3 is more than zero, enter the total of line 2 and the last entry in column (c). . . . .		<input checked="" type="radio"/> <b>68</b>	
<b>B1 Credits that reduce net tax and have no carryover provisions.</b>				
12	Code: 170 Credit for joint custody head of household. . . . .	<input checked="" type="radio"/> <b>69</b>		
13	Code: 173 Credit for dependent parent . . . . .	<input checked="" type="radio"/> <b>70</b>		
14	Code: 163 Credit for senior head of household . . . . .	<input checked="" type="radio"/> <b>71</b>		
15	Nonrefundable renter's credit . . . . .	<input checked="" type="radio"/> <b>72</b>		
<b>B2 Credits that reduce net tax and have carryover provisions. See instructions.</b>				
16	Code: <input checked="" type="radio"/> <b>73</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>74</b>		<input checked="" type="radio"/> <b>75</b>
17	Code: <input checked="" type="radio"/> <b>76</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>77</b>		<input checked="" type="radio"/> <b>78</b>
18	Code: <input checked="" type="radio"/> <b>79</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>80</b>		<input checked="" type="radio"/> <b>81</b>
19	Code: <input checked="" type="radio"/> <b>82</b> Credit Name: . . . . .	<input checked="" type="radio"/> <b>83</b>		<input checked="" type="radio"/> <b>84</b>
<b>B3 Other state tax credit.</b>				
20	Code: 187 Other state tax credit . . . . .	<input checked="" type="radio"/> <b>85</b>		
<b>Section C – Credits that may reduce alternative minimum tax.</b>				
21	Enter your alternative minimum tax from Side 1, Part II, line 26. . . . .		<input checked="" type="radio"/> <b>86</b>	
22	Code: 180 Solar energy credit carryover from Section B2, column (d) . . . . .	<input checked="" type="radio"/> <b>87</b>		<input checked="" type="radio"/> <b>88</b>
23	Code: 181 Commercial solar energy credit carryover from Section B2, column (d)..	<input checked="" type="radio"/> <b>89</b>		<input checked="" type="radio"/> <b>90</b>
24	Adjusted AMT. Enter the balance from line 23, column (c) here and on Form 540, line 61 . . . . .		<input checked="" type="radio"/> <b>91</b>	

\*If the taxpayer is subject to the business credit limitation, the total of the business credits in Part III, Sections A and B, column (b) cannot exceed \$5,000,000. See instructions.

This space reserved for 2D barcode

**Schedule P (540) Barcode Placement Side 2 Specifications**

Comments: Use Courier 12-point font, for CTP ID and Doc. ID (print line 63).

<u>Print Line Number</u>	<u>Identification</u>	<u>Begin Print Position</u>	<u>Maximum Field Length</u>	<u>End Print Position</u>	<u>Field Description</u>
1-3	Blank lines	–	–	–	–
4	Anchor Mark	59	2	60	Anchor mark, Conventional form size/style
5-53	Blank lines	–	–	–	–
54-60	“2D BARCODE”	7	73	79	Conventional form size/style
61	Blank line	–	–	–	–
62-63	Bottom Registration Mark, Anchor Mark, and conventional form	–	–	–	End of bottom registration mark, anchor mark and conventional form size/style
63	CTP ID (mandatory)	32	3	34	Numeric
63	Doc. ID (mandatory)	40	7	46	Numeric, “7972214” (Side 2)



