Product/Process Change Notice - PCN 22_0268 Rev. -

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This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

PCN Title:	ADRF5024-EP Data Sheet Revision
Publication Date:	07-Nov-2022
Effectivity Date:	07-Nov-2022 *(the earliest date that a customer could expect to receive changed material)*
Revision Description:	Initial Release.

Description Of Change:

Data Sheet Revision for ADRF5024-EP:
1. Recommended power handling for 'Input at RFx' case added to Table 1.
2. AMR power handling for 'Input at RFx' case added to Table 2.

Reason For Change:

Values corrected to reflect actual recommendation and part performance.

Impact of the change (positive or negative) on fit, form, function & reliability:

No change to fit, form, function, or reliability.

Summary of Supporting Information:

Changes will be reflected in Rev. A of the Product Data Sheet. See attached data sheet comparison detail.

Supporting Documents

Attachment 1: Type: Datasheet Specification Comparison

ADI_PCN_22_0268_Rev_-_ADRF5024-EP_Data Sheet_Comparison.pdf...

Note: If applicable, the device material declaration will be updated due to material change.

ADI Contact Information:

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.

Americas:	Europe:	Japan:	Rest of Asia:
PCN_Americas@analog.com	PCN_Europe@analog.com	PCN_Japan@analog.com	PCN_ROA@analog.com

Appendix A - Affected ADI Models:

Added Parts On This Revision - Product Family / Model Number (2)	
ADRF5024 / ADRF5024SCCZ-EP	ADRF5024 / ADRF5024SCCZ-EPR7

Appendix B - Revision History:			
Rev	**Publish Date**	**Effectivity Date**	**Rev Description**
Rev. -	07-Nov-2022	07-Nov-2022	Initial Release.

ADRF5024-EP: Rec. Power Handling for Input at RFx Ports

Recommended Power Handling in Data Sheet Rev. 0

RECOMMENDED OPERATING CONDITONS					
Supply Voltage					
Positive	V_{DD}		3.15	3.45	V
Negative	V_{SS}		−3.45	−3.15	V
Digital Control Voltage	V_{CTRL}		0	V_{DD}	V
RF Input Power[2]	P_{IN}	f = 200 MHz to 40 GHz, T_{CASE} = 85°C[3]			
Through Path		RF signal is applied to RFC or through connected RF1/RF2		27	dBm
Hot Switching		RF signal is present at RFC while switching between RF1 and RF2		27	dBm
Case Temperature	T_{CASE}		−40	+105	°C

[1] For input linearity performance over frequency, see Figure 13 to Figure 16.
[2] For power derating over frequency, see Figure 2 and Figure 3.
[3] For 105°C operation, the power handling degrades from the T_{CASE} = 85°C specification by 3 dB.

Updated Recommended Power Handling with 'Input at RFx' specified in Data Sheet Rev. A

RECOMMENDED OPERATING CONDITONS					
Supply Voltage					
Positive	V_{DD}		3.15	3.45	V
Negative	V_{SS}		−3.45	−3.15	V
Digital Control Voltage	V_{CTRL}		0	V_{DD}	V
RF Input Power[2]	P_{IN}	f = 200 MHz to 40 GHz, T_{CASE} = 85°C[3]			
Input at RFC					
Through Path		RF signal is applied to RFC		27	dBm
Hot Switching		RF signal is present at RFC while switching between RF1 and RF2		27	dBm
Input at RFx					
Through Path		RF signal is applied through connected RFx		26	dBm
Hot Switching		RF signal is present at RFx while switching between RF1 and RF2		26	dBm
Case Temperature	T_{CASE}		−40	+105	°C

[1] For input linearity performance over frequency, see Figure 13 to Figure 16.
[2] For power derating over frequency, see Figure 2 and Figure 3. This power derating is applicable for insertion loss path and hot switching power specifications.
[3] For 105°C operation, the power handling degrades from the T_{CASE} = 85°C specification by 3 dB.

ADRF5024-EP: AMR Power Handling for Input at RFx

AMR Power Handling in Data Sheet Rev. 0

Table 2.

Parameter	Rating
Positive Supply Voltage	−0.3 V to +3.6 V
Negative Supply Voltage	−3.6 V to +0.3 V
Digital Control Input Voltage	
Voltage	−0.3 V to VDD + 0.3 V
Current	3 mA
RF Input Power[1] (f = 200 MHz to 40 GHz, T_{CASE} = 85°C[2])	
Through Path	27.5 dBm
Hot Switching	27.5 dBm
RF Input Power Under Unbiased Condition[1] (V_{DD}, V_{SS} = 0 V)	21 dBm
Temperature	
Junction, T_J	135°C
Storage Range	−65°C to +150°C
Reflow	260°C
ESD Sensitivity	
Human Body Model (HBM)	
RFC, RF1, and RF2 Pins	500 V
Digital Pins	2000 V
Charged Device Model (CDM)	1250 V

[1] For power derating vs. frequency, see Figure 2 and Figure 3. This power derating is applicable for insertion loss path and hot switching power specifications.
[2] For 105°C operation, the power handling degrades from the TCASE = 85°C specification by 3 dB.

Updated AMR Power Handling with 'Input at RFx' specified in Data Sheet Rev. A

Table 2.

Parameter	Rating
Positive Supply Voltage	−0.3 V to +3.6 V
Negative Supply Voltage	−3.6 V to +0.3 V
Digital Control Input Voltage	
Voltage	−0.3 V to VDD + 0.3 V
Current	3 mA
RF Input Power[1] (f = 200 MHz to 40 GHz, T_{CASE} = 85°C[2])	
Input at RFC	
Through Path	27.5 dBm
Hot Switching	27.5 dBm
Input at RFx	
Through Path	26.5 dBm
Hot Switching	26.5 dBm
RF Input Power Under Unbiased Condition[1] (V_{DD}, V_{SS} = 0 V)	21 dBm
Temperature	
Junction, T_J	135°C
Storage Range	−65°C to +150°C
Reflow	260°C
ESD Sensitivity	
Human Body Model (HBM)	
RFC, RF1, and RF2 Pins	500 V
Digital Pins	2000 V
Charged Device Model (CDM)	1250 V

[1] For power derating vs. frequency, see Figure 2 and Figure 3. This power derating is applicable for insertion loss path and hot switching power specifications.

[2] For 105°C operation, the power handling degrades from the T_{CASE} = 85°C specification by 3 dB.