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



### Ports

# Recommended Power Handling in Data Sheet Rev. 0

RECOMMENDED OPERATING CONDITIONS	T .				
Supply Voltage					
Positive	Voo		3.15	3.45	V
Negative	Vss		-3.45	-3.15	V
Digital Control Voltage	VCTRL		0	V <sub>DD</sub>	V
RF Input Power <sup>2</sup>	PiN	f = 200 MHz to 40 GHz, Tcase = 85°C3			
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	TCASE	TO VANDAGE ON COOK DESIGNATION OF INVESTIGATION	-40	+105	°C

<sup>&</sup>lt;sup>1</sup> For input linearity performance over frequency, see Figure 13 to Figure 16.

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

RECOMMENDED OPERATING CONDITONS					
Supply Voltage					
Positive	V <sub>DD</sub>		3.15	3.45	V
Negative	VSS		-3.45	-3.15	V
Digital Control Voltage	V <sub>CTRL</sub>		0	$V_{DD}$	V
RF Input Power <sup>2</sup>	PIN	f = 200 MHz to 40 GHz, T <sub>CASE</sub> = 85°C <sup>3</sup>			
Input at RFC	500	70 (3073A50)			
Through Path		RF signal is applied to RFC		27	dBm
		RF signal is present at RFC while switching between			
Hot Switching		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 <sub>CASE</sub>		-40	+105	°C

For input linearity performance over frequency, see Figure 13 to Figure 16.

<sup>&</sup>lt;sup>2</sup> For power derating over frequency, see Figure 2 and Figure 3.

<sup>&</sup>lt;sup>3</sup> For 105°C operation, the power handling degrades from the T<sub>CASE</sub> = 85°C specification by 3 dB.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> For 105°C operation, the power handling degrades from the T<sub>CASF</sub> = 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 <sup>1</sup> ( $f = 200 \text{ MHz to } 40 \text{ GHz, T}_{CASE} = 85^{\circ}\text{C}^2$ )			
Through Path	27.5 dBm		
Hot Switching	27.5 dBm		
RF Input Power Under Unbiased	21 dBm		
Condition <sup>1</sup> ( $V_{DD}$ , $V_{SS} = 0 \text{ V}$ )			
Temperature			
Junction, T <sub>J</sub>	135℃		
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		

<sup>&</sup>lt;sup>1</sup> 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.

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

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 <sup>1</sup> (f = 200 MHz to 40 GHz, $T_{CASE}$ = $85^{\circ}C^{2}$ )	
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 <sup>1</sup> (V <sub>DD</sub> ,	
V <sub>SS</sub> = 0 V)	21 dBm
Temperature	
Junction, T <sub>J</sub>	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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> For 105°C operation, the power handling degrades from the TCASE = 85°C specification by 3 dB.

 $<sup>^2</sup>$  For 105°C operation, the power handling degrades from the T<sub>CASE</sub> = 85°C specification by 3 dB.