1 Absolute maximum ratings

Table 1. Absolute maximum ratings (limiting value)

Symbol	Parameter	Value			Unit
	Farameter		Тур.	Max.	Unit
P _{IN}	Input Power RFIN			20	dBm
V _{ESD}	ESD Ratings MIL STD883C (HBM:C=100 pF, R=1.5 k Ω , Air discharge)	800			V
	ESD ratings machine model (MM: C=200 pF, R=25 Ω , L=500 nH)	550			V
T _{OP}	Operating temperature	-40		+80	°C

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2 Electrical characteristics

Table 2. Impedances

Symbol	Parameter		Value			
			Тур.	Max.	Unit	
Z _{OUT}	Nominal differential output impedance	-	Conjugate match to GreenPeak IC	-	Ω	
Z _{IN}	Nominal differential input impedance	-	100	-	Ω	

Table 3. RF performance

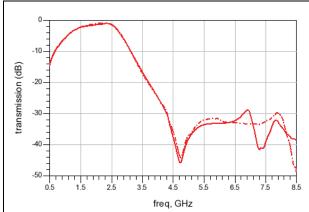
Symbol	Parameter	Test condition	Value			Unit
Symbol		rest condition	Min.	Тур.	Max.	Oilit
T _{OP}	Operating temperature	-	-40		+80	°C
f	Frequency range (bandwidth) -		2400		2500	MHz
ΙL	Insertion loss in bandwidth			-1.45	-1.7	dB
R _{L_ANT}	Return loss in bandwidth			-16	-11	dB
R _{L_IC}	Return loss in bandwidth T _j = 25 °C			-15	-10.5	dB
2f0	2f0 attenuation			-41	-37	dB
3f0	3f0 attenuation			-34	-28	dB

Electrical characteristics DLPF-GP-01D3

2.1 RF measurements (on board)

Figure 2. Differential transmission

Figure 3. DIFF mode insertion loss (dB)



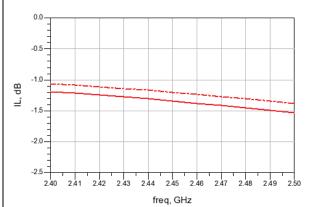
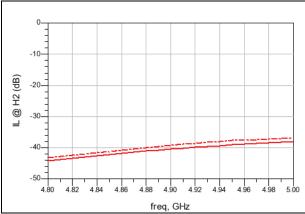


Figure 4. DIFF mode - 2f0 second harmonic (dB) Figure 5. DIFF mode - 3f0 third harmonic (dB)



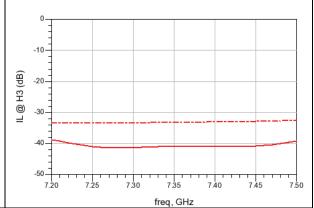
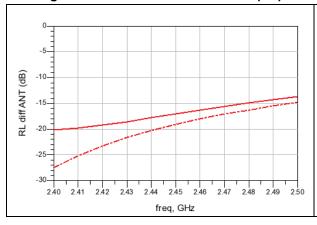
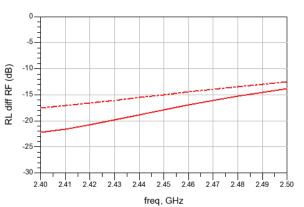


Figure 6. Return loss on ANT side (dB)

Figure 7. Return loss on IC side (dB)





3 Package mechanical data

In order to meet environmental requirements, ST offers these devices in different grades of ECOPACK[®] packages, depending on their level of environmental compliance. ECOPACK[®] specifications, grade definitions and product status are available at: www.st.com. ECOPACK[®] is an ST trademark.

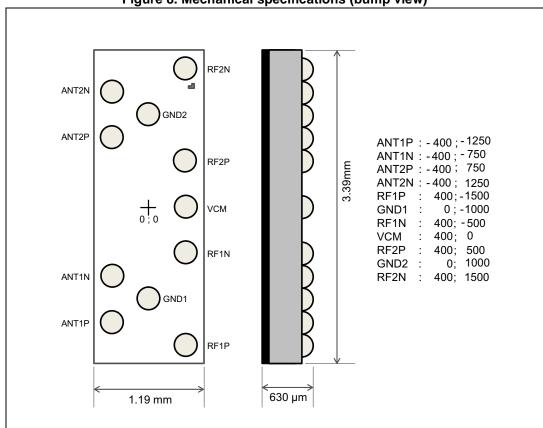


Figure 8. Mechanical specifications (bump view)

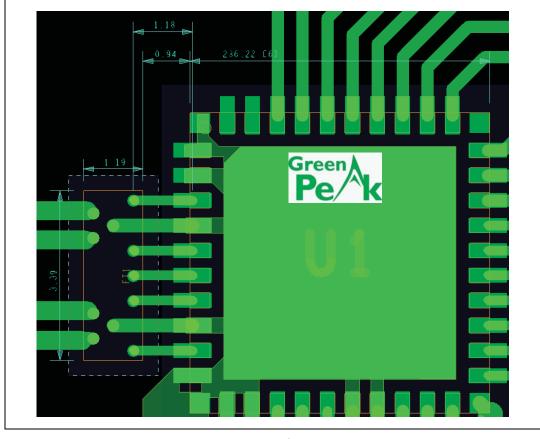
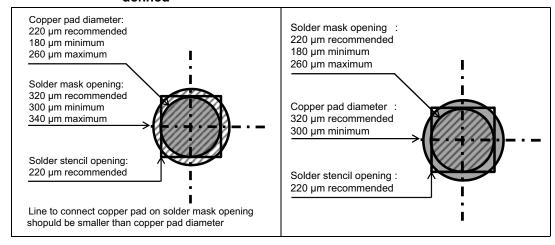


Figure 9. Layout recommendations

No extra components required thanks to DLPF-GP-01D3.

Dimensions (distances) from center pad to center pad (filter GP chip) shall be respected as much as possible in order to avoid any deviation in performances.

Figure 10. Footprint - non solder mask Figure 11. Footprint - solder mask defined defined



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Figure 12. Marking specification

Figure 13. Footprint coordinates

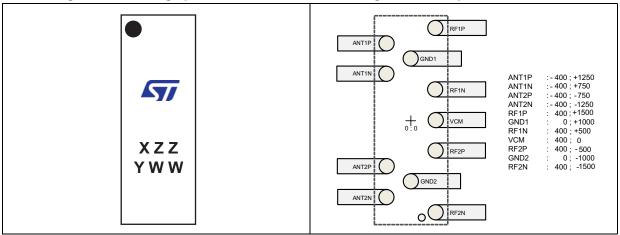
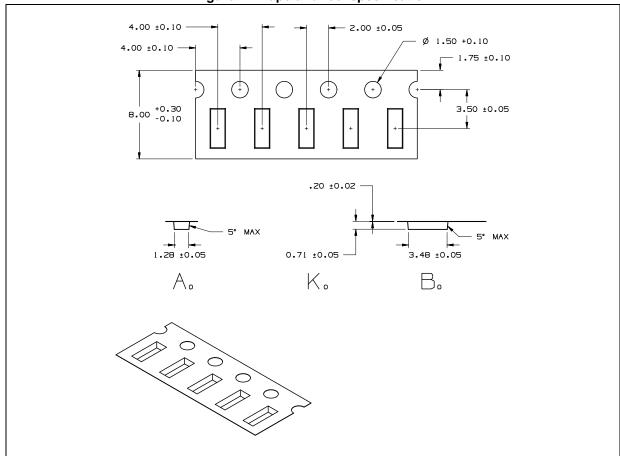


Figure 14. Tape and reel specification



Note: The dimensions shown on this proposed drawing are for illustrative purpose. Dimensions from actual carrier may vary slightly

More information is available in the application notes AN2348: "Flip Chip: Package description and recommendations for use".

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Ordering information DLPF-GP-01D3

4 Ordering information

Table 4. Ordering information

Part number	Marking	Weight	Base qty	Delivery mode
DLPF-GP-01D3	SW	4.43 mg	5000	Tape and reel

5 Revision history

Table 5. Document revision history

Date	Revision	Changes
10-Oct-2014	1	Initial release.

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