1 Characteristics

Table 1. Absolute maximum ratings (T_{amb} = 25 °C)

Symbol	Parameter	Value	Unit
V_{PP}	ESD discharge IEC 61000-4-2(1) Air discharge Contact discharge	30	kV
I_{SPK}	Maximum rms currrent per channel	800	mA
T_j	Maximum junction temperature	125	°C
T_{op}	Operating temperature range	-30 to 85	°C
T_{stg}	Storage temperature range	-55 to + 150	°C

1. Measurements done on IEC 61000-4-2 test bench. For further details see Application note AN3353, “IEC 61000-4-2 standard testing”.

Figure 3. Electrical characteristics - definitions

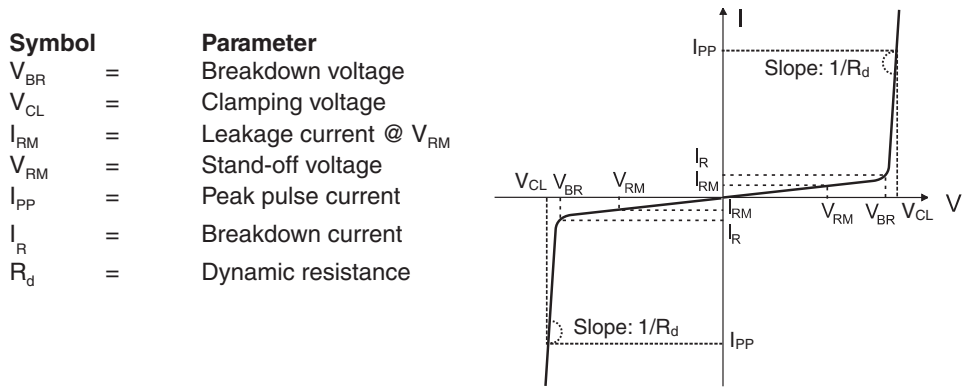


Table 2. Electrical characteristics - values (Tamb = 25 °C)

Symbol	Test conditions	Min.	Typ.	Max.	Unit
V_{BR}	I_R = 1 mA	6			V
R_d	tp = 100 ns		0.2		Ω
I_{RM}	V_{RM} = 3 V per line			0.3	µA
R_{DC_L}	DC resistance of the inductor		0.07	0.1	Ω
C_{line}	Vline = 0 V, V_{OSC} = 30 mV, F = 1 MHz		250		pF

Figure 4. Insertion losses versus frequency

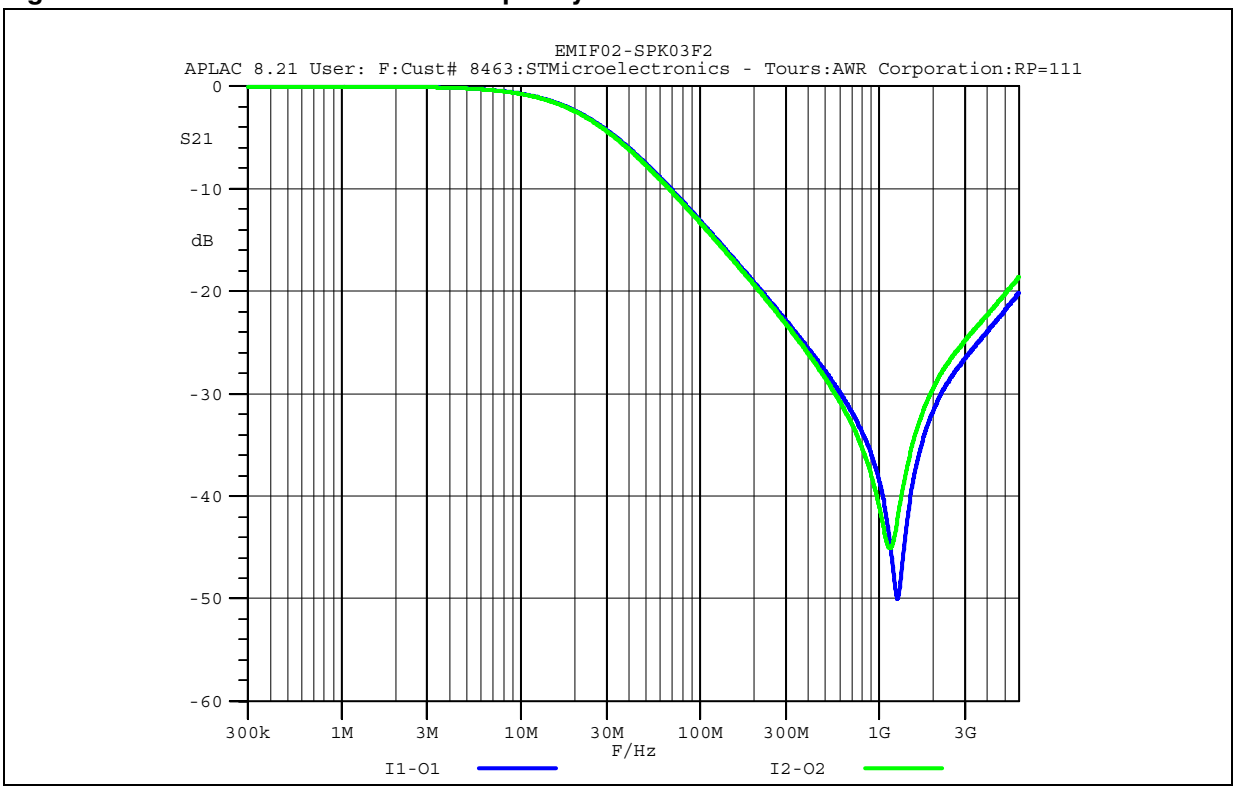


Figure 5. Analog crosstalk versus frequency

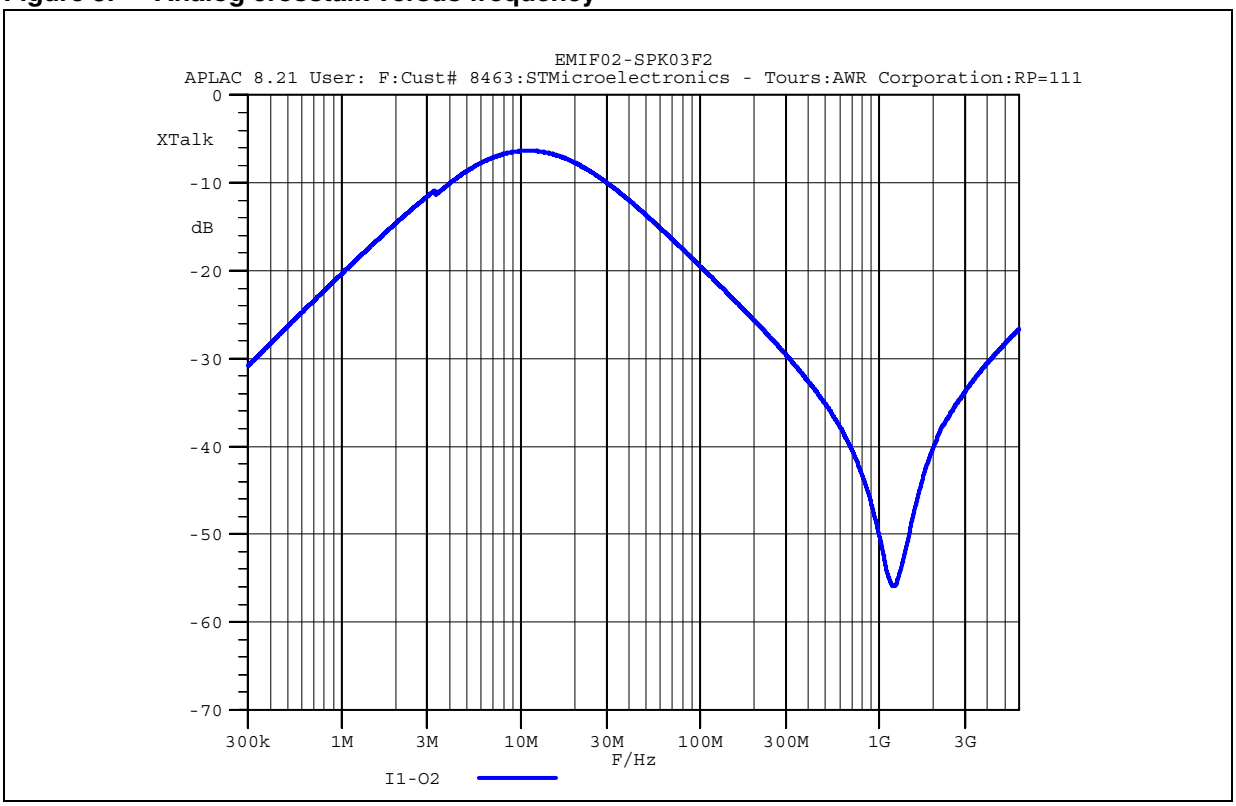


Figure 6. Audio band analog crosstalk

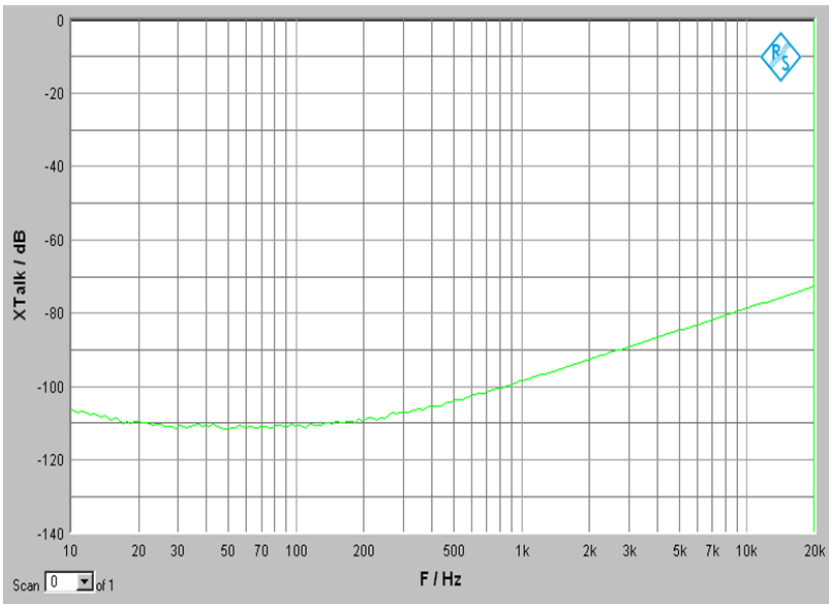
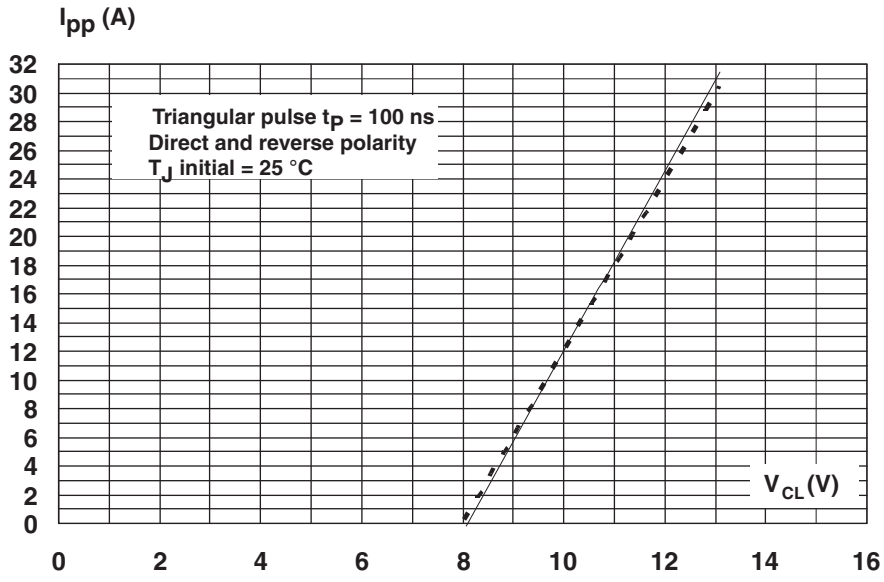


Figure 7. Clamping voltage V_{CL} versus peak pulse current I_{PP} for short pulse duration such as ESD surges



Note: For further information on the dynamic characteristic see the STMicroelectronics' application note AN4022, "TVS short pulse R_d measurement and correlation with TVS clamping voltage during ESD".

Figure 8. ESD test conditions

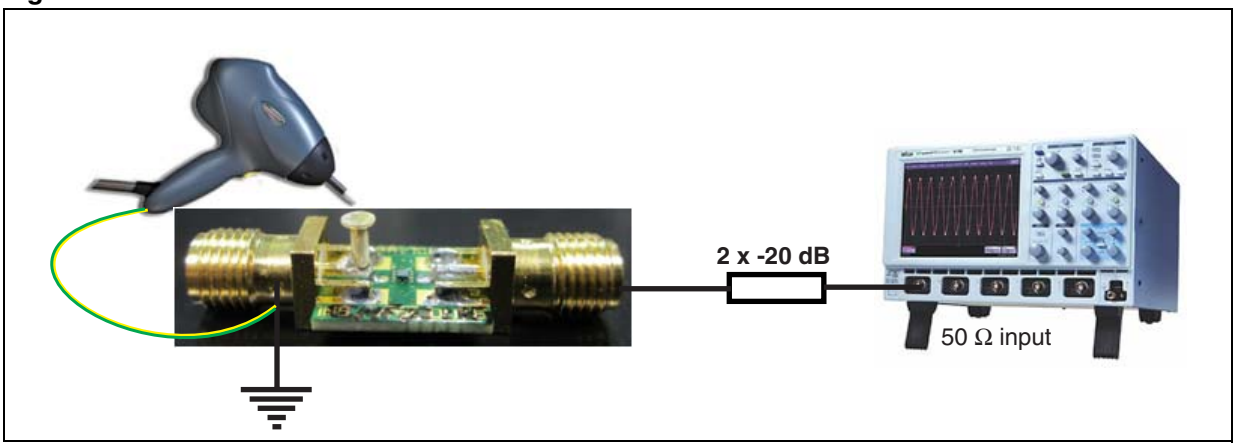


Figure 9. Output filter ESD response to IEC 61000-4-2 (+30 kV contact discharge) Ix to Ox

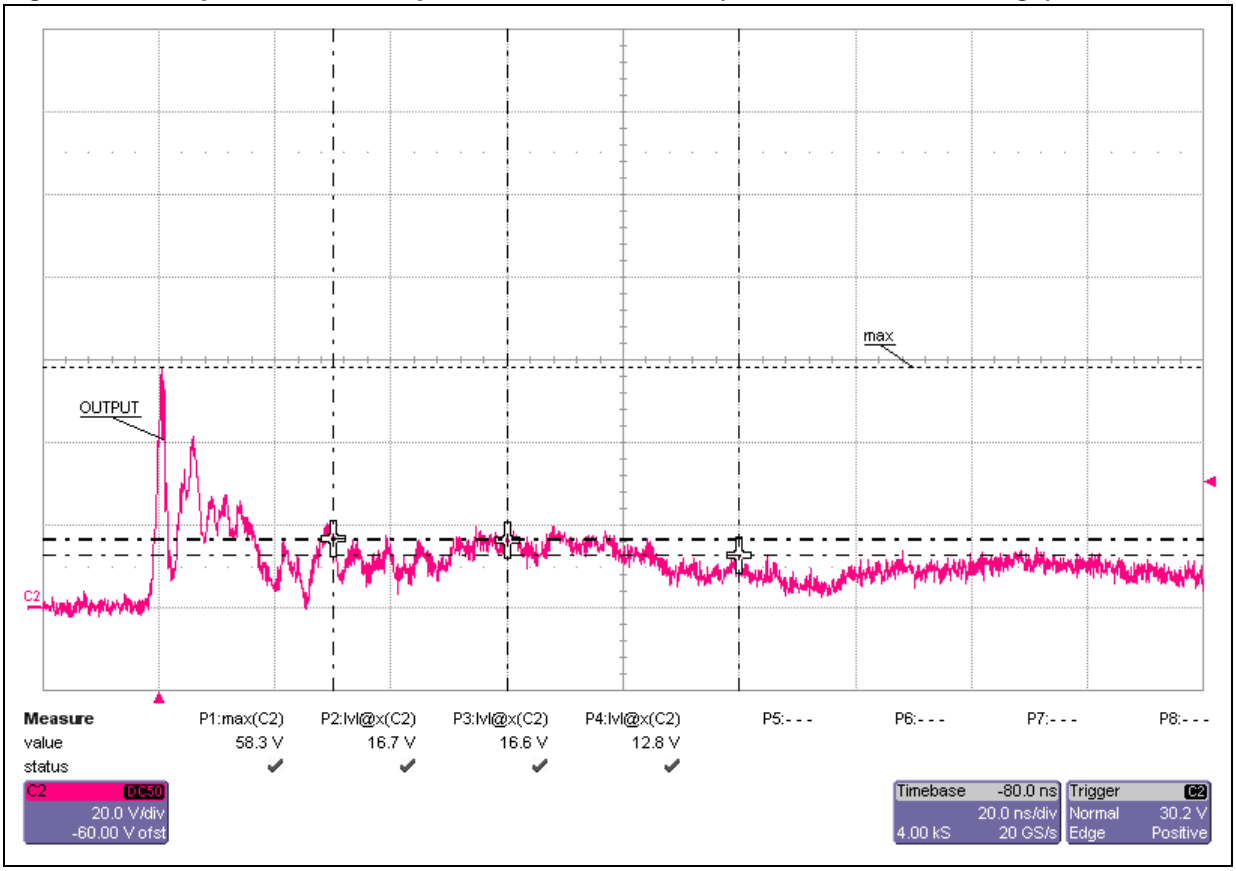


Figure 10. Output filter ESD response to IEC 61000-4-2 (-30 kV contact discharge) Ix to Ox

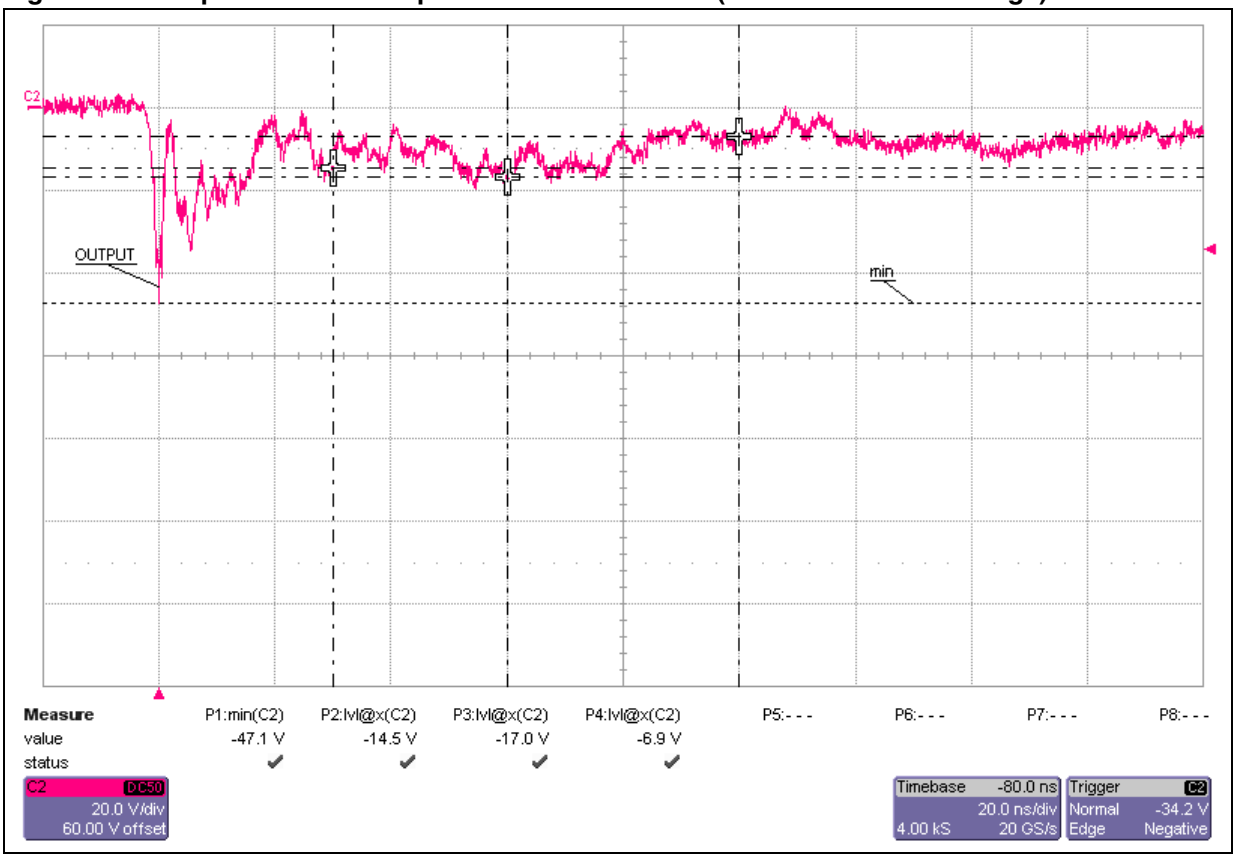
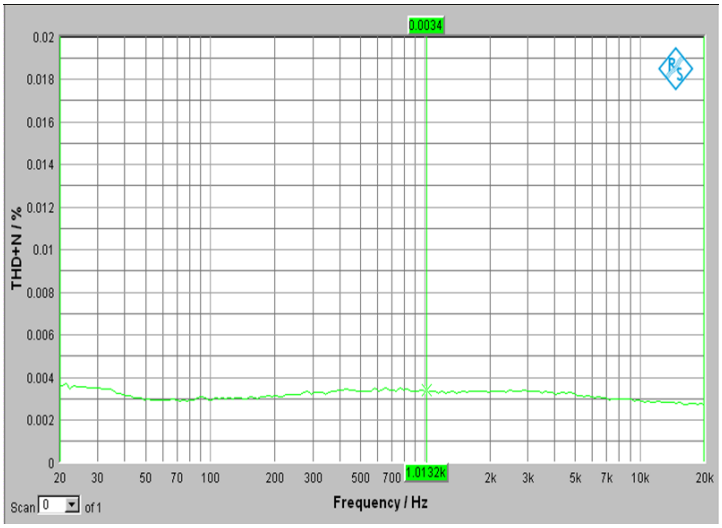
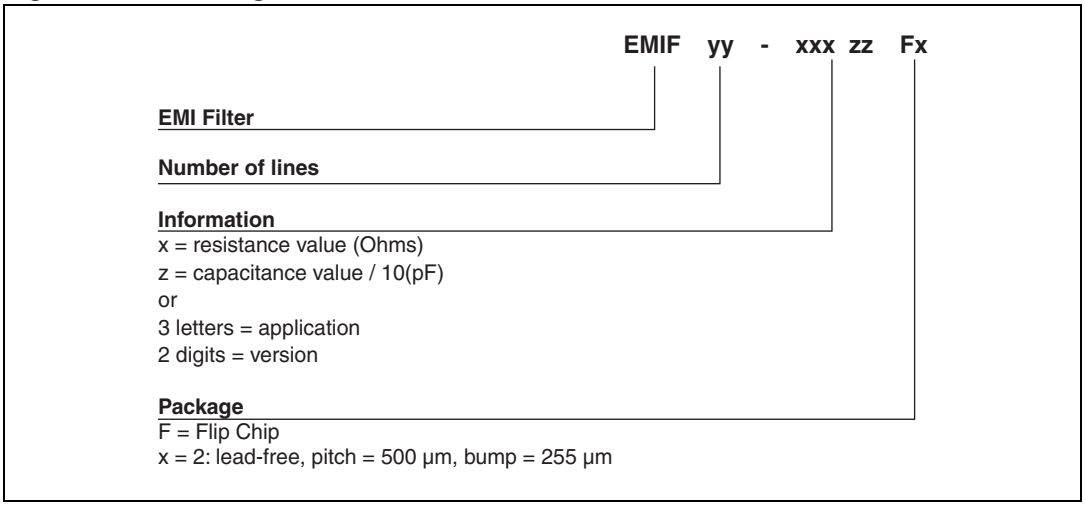


Figure 11. Total harmonic distortion plus noise



2 Ordering information scheme

Figure 12. Ordering information scheme



3 Package information

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 13. Package dimensions

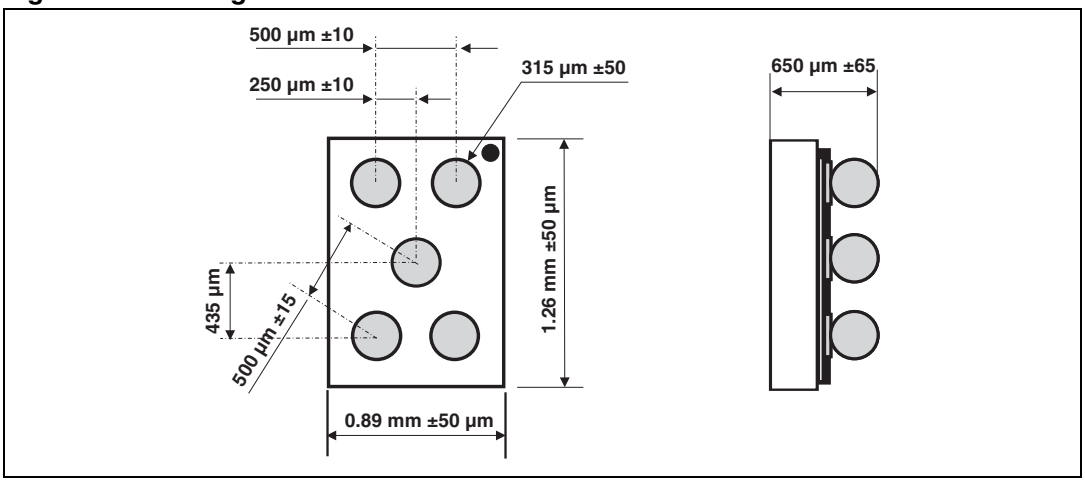


Figure 14. Footprint

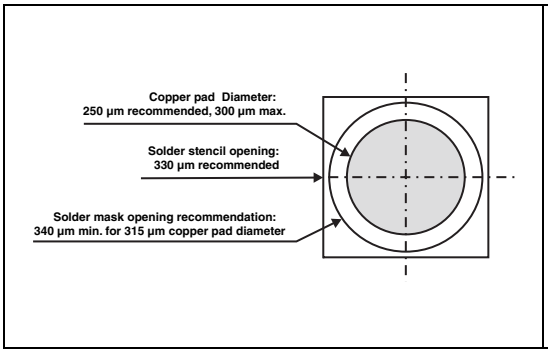


Figure 15. Marking

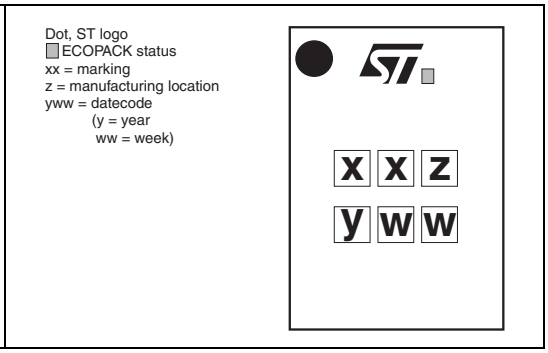
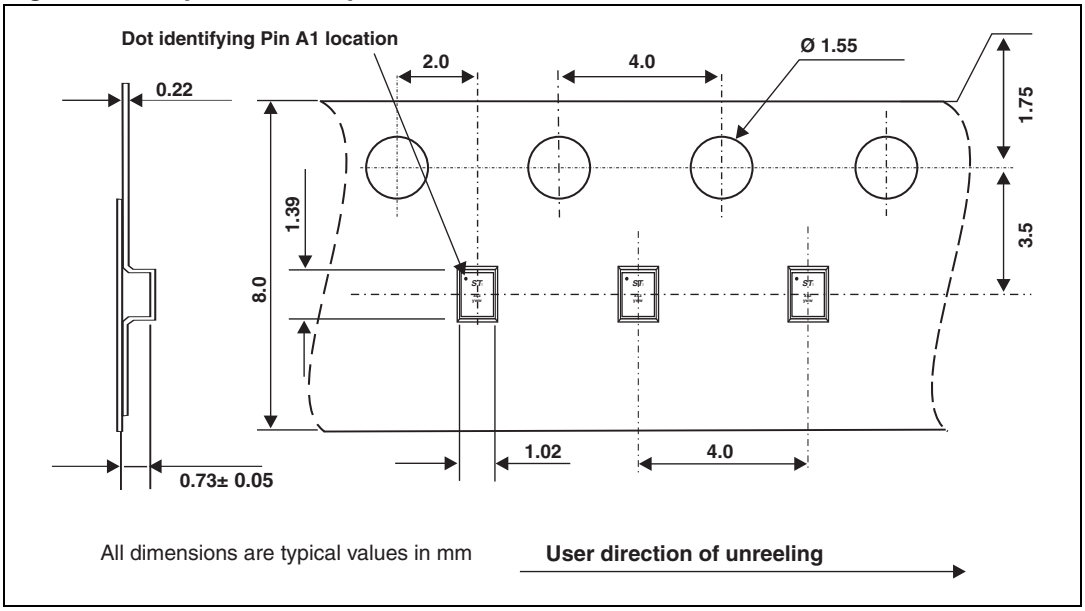


Figure 16. Tape and reel specification



Note: More information is available in the application notes:
AN1235,"IPAD™ 400 µm Flip Chip: package description and recommendations for use"
AN1751, "EMI filters: recommendations and measurements"

4 Ordering information

Table 3. Ordering information

Order code	Marking	Package	Weight	Base qty	Delivery mode
EMIF02-SPK03F2	JX	Flip Chip	1.8 mg	5000	Tape and reel 7"

5 Revision history

Table 4. Document revision history

Date	Revision	Changes
19-Jun-2012	1	Initial release.

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