

SPECIFICATION FOR APPROVAL

规 格 书

Customer (客户): _____

Customer P/N: _____

(客户型号)

QINLON P/N : _____ SP-2055SA08

(本厂型号)

DESCRIPTION: _____ SMD Speaker

(样品编号)

SAMPLES Date _____

【注意/Note】

- 1, THIS PRODUCT MUST COMPLY WITH RoHS DIRECTIVE .(此本品符合欧洲 RoHS 规定指令)
2. IN CASE OF CHANGES, SUCH AS DIE & MOLD, MANUFACTURING PROCESS, MATERIAL, APPEARANCE, AND INSPECTION etc. ,THE SAME PROCEDURE IS REQUIRED.(此部品确认后`.如模具、制造方法、材料、外观、检查等发生变更的情况下必须事前由双方进行合议)

CUSTOMER'S APPROVED SIGNATURE

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SUPPLIER: CHANGZHOU QINGLONG ELECTRONIC COMPONENTS CO.,LTD

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Issued by 担当	Checked by 核查	Approved by 确认	Initial Date 日期	Updated 更新	Version
Liang Hongwei	He Binbin	Lu Tianming	2017/09/20	2023/09/23	V1.1

LoudSpeaker Specification

Version History 变 更 历 史

Rev.	Date 日 期	Detail changes 变 更 内 容	Reason 变更理由	Page
V0	2017/09/20	Initial	/	
V1.0	2020/03/27	Supplement installed indication	/	P6
V1.1	2023/09/23	Operating Temperature updated -40℃ to +110℃	/	P3,4
V1.2	2024/01/10	Add the weight and size of packaging	Re-edit	P7

Electrical and Mechanical Characteristics:

Part Number Description: **SP** (Micro-speaker), **2055**(diameter 20X20X55mm), **S** (SMD type), **A** (emit sound on PCB above), **08**(impedance 08 ohm)

Part No.	QINLON Part No 本厂编号	SP-2055SA08		Revision 版本	V1.2
	Customer project 顾客项目			Customer No 顾客型号	
No.	Item 项目	Specification 规格	Testing Condition 测试条件		
1.	Impedance 阻抗	8Ω±15%	At 2 kHz 1.0 Vrms		
2.	Resonance Freq 最低共振周波数	750 Hz±20%	Without Baffle		
3.	Output S.P.L. 出力音压	92±3dB	At 0.1m/0.1W 800Hz, 2KHz,3.2KHz Average		
		95±3dB	At 0.1m/0.2W 800Hz, 2KHz,3.2KHz Average		
4.	Rated Power 定格入力	0.8W			
5.	Max Power 最大入力	1.5W			
6.	Frequency Range 实效频宽	F0～10 kHz	Output S.P.L. -10 dB		
7.	Operation 可靠性试验	Must Be Normal	Program Source 0.8W		
8.	Buzzes & Rattles 异常音试验	Should not be audible buzz and rattle 无异常声	Sine Wave Between (正弦波入力) at 4.00Vrms /300Hz～3.4 kHz		
9.	Distortion 失真	≤5%	0.5w at 1kHz		
10.	Operating Temperature 工作温度	-40℃ to +110℃			
11.	Storage Temperature 储存温度	-40℃ to +115℃			
12	Weight 重量	3.0±7%g			

P/N: SP-2055SA08

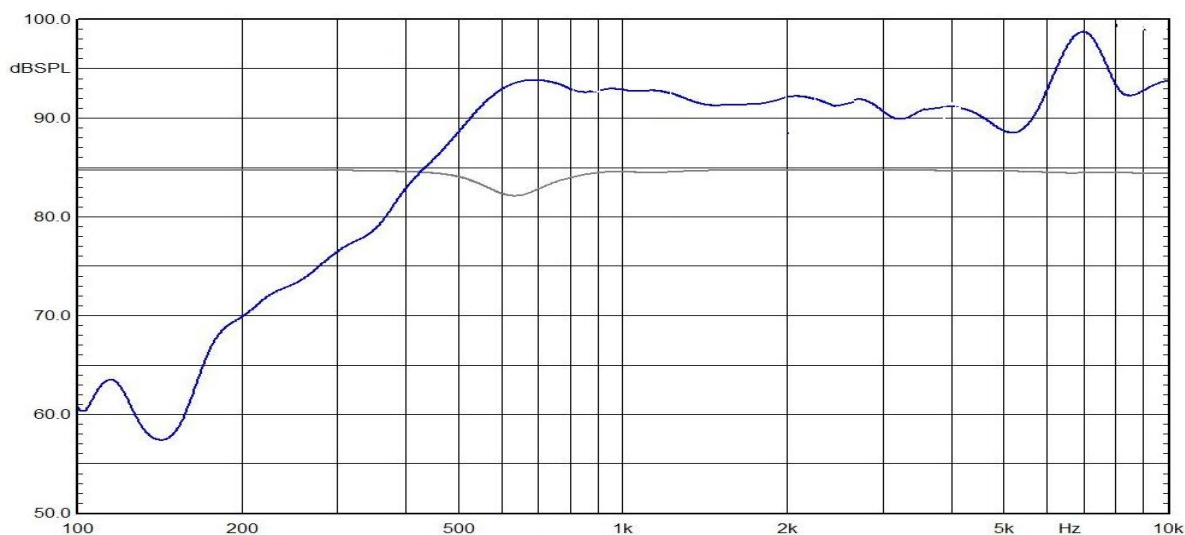
环境测试:

1	Cold Test 耐寒试验	After having been in a test chamber for 96 hours at the condition of $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and then left 2 hours in a room. ($-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 96 小时试验室温两小时后, 无异常)
2	Heat Test 耐热试验	After having been in a test chamber for 96 hours at the condition of $+115^{\circ}\text{C} \pm 2^{\circ}\text{C}$ then left 2 hours in a room. ($+115^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 96 小时试验常温 2 小时后, 无异常的不良)
3	Load Test 连续负荷试验	Must be normal after load test : 0.8W 1000 hours at -40°C 100 hours and $+110^{\circ}\text{C}$ 100 hours and room temperature 800 hours . (0.8 W 连续 1000 小时试验后无异常的不良)
4	Short Term Maximum Power test 瞬间最大功率测试	Test for 1 hour under maximum power. Input the signal will be 1 second on, 59 seconds off, total 60 cycles. (白噪音 1.5W, 1 秒开 59 秒关, 连续 60 循环, 试验后无异常之不良)
5	Polarity 极性	When a positive D.C current is applied to the voice terminal marked + or white, the diaphragm shall move forward (端子的正极输入电流, 振动板向前方向运动)
6	Drop Test 跌落试验	Drop the speakers contained in normal box onto a board 5mm thick 10 times from a height of 1.0m . (在厚 5mm 的木板上从 1.0m 的高度跌落 10 次, 无异常不良)
7	Terminal strength 端子强度	A static load of 5.0N shall be applied to the terminals for 10s in any direction between terminal block and frame and between terminal block and fasten terminal. (端子板和支架或焊片任一方向上 5.0N 的力 10s 无异常)

Frequency Response

- Test Signal Input Power : 0.1W

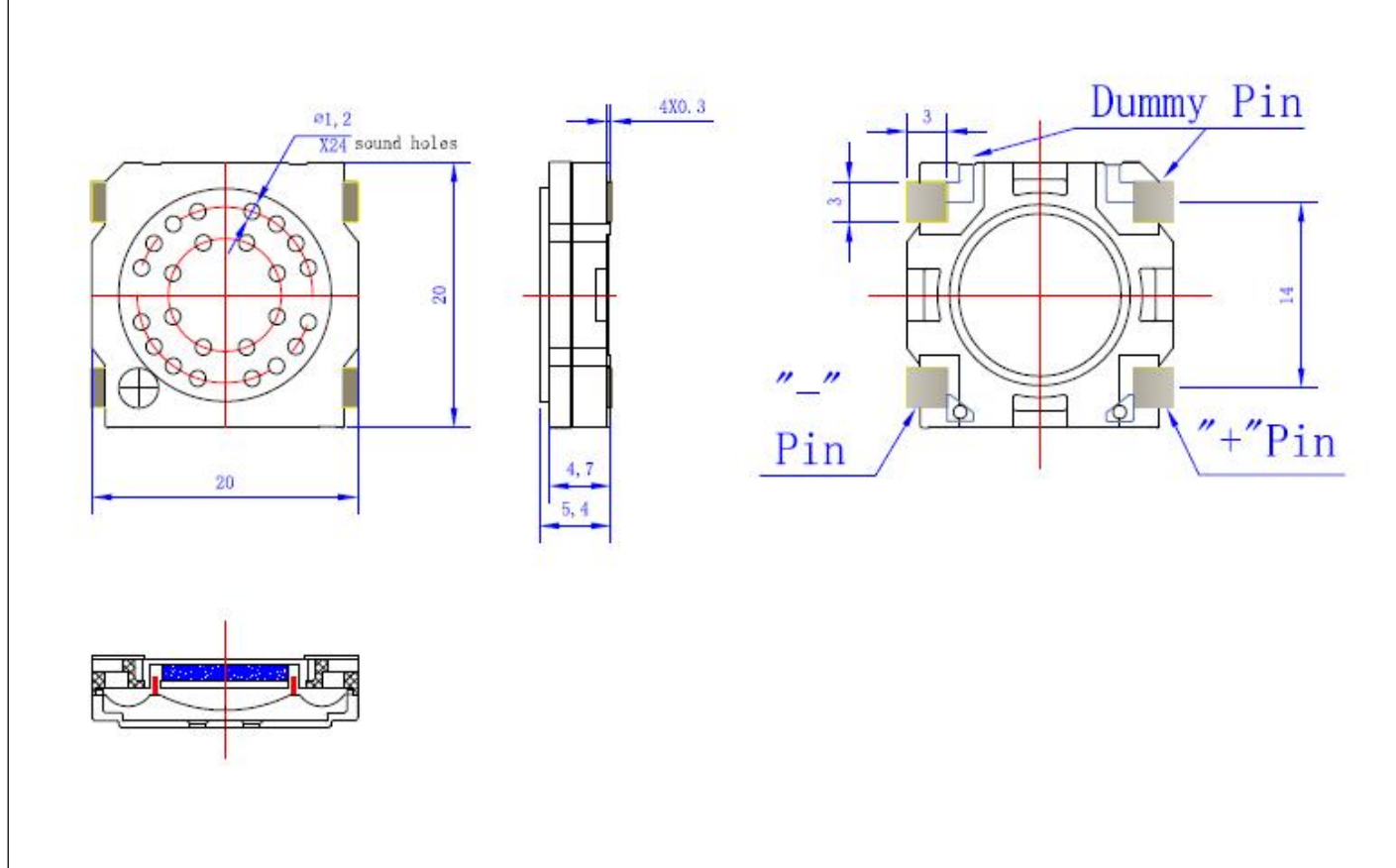
- Measured distance : 0.1m / on the Axis of speaker



Product	Outside	View
Product 1	Outside 1	View 1
Product 2	Outside 2	View 2
Product 3	Outside 3	View 3
Product 4	Outside 4	View 4
Product 5	Outside 5	View 5
Product 6	Outside 6	View 6
Product 7	Outside 7	View 7
Product 8	Outside 8	View 8
Product 9	Outside 9	View 9
Product 10	Outside 10	View 10
Product 11	Outside 11	View 11
Product 12	Outside 12	View 12
Product 13	Outside 13	View 13
Product 14	Outside 14	View 14
Product 15	Outside 15	View 15
Product 16	Outside 16	View 16
Product 17	Outside 17	View 17
Product 18	Outside 18	View 18
Product 19	Outside 19	View 19
Product 20	Outside 20	View 20
Product 21	Outside 21	View 21
Product 22	Outside 22	View 22
Product 23	Outside 23	View 23
Product 24	Outside 24	View 24
Product 25	Outside 25	View 25
Product 26	Outside 26	View 26
Product 27	Outside 27	View 27
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Product 31	Outside 31	View 31
Product 32	Outside 32	View 32
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Product 37	Outside 37	View 37
Product 38	Outside 38	View 38
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Product 40	Outside 40	View 40
Product 41	Outside 41	View 41
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Product 89	Outside 89	View 89
Product 90	Outside 90	View 90
Product 91	Outside 91	View 91
Product 92	Outside 92	View 92
Product 93	Outside 93	View 93
Product 94	Outside 94	View 94
Product 95	Outside 95	View 95
Product 96	Outside 96	View 96
Product 97	Outside 97	View 97
Product 98	Outside 98	View 98
Product 99	Outside 99	View 99
Product 100	Outside 100	View 100

单位 Unit: mm. 公差 Tolerance 0.2mm

1. ☐ 2. ☐ 3. ☐ 4. ☐ 5. ☐ 6. ☐ 7. ☐ 8. ☐ 9. ☐ 10. ☐ 11. ☐ 12. ☐ 13. ☐ 14. ☐ 15. ☐ 16. ☐ 17. ☐ 18. ☐ 19. ☐ 20. ☐ 21. ☐ 22. ☐ 23. ☐ 24. ☐ 25. ☐ 26. ☐ 27. ☐ 28. ☐ 29. ☐ 30. ☐ 31. ☐ 32. ☐ 33. ☐ 34. ☐ 35. ☐ 36. ☐ 37. ☐ 38. ☐ 39. ☐ 40. ☐ 41. ☐ 42. ☐ 43. ☐ 44. ☐ 45. ☐ 46. ☐ 47. ☐ 48. ☐ 49. ☐ 50. ☐ 51. ☐ 52. ☐ 53. ☐ 54. ☐ 55. ☐ 56. ☐ 57. ☐ 58. ☐ 59. ☐ 60. ☐ 61. ☐ 62. ☐ 63. ☐ 64. ☐ 65. ☐ 66. ☐ 67. ☐ 68. ☐ 69. ☐ 70. ☐ 71. ☐ 72. ☐ 73. ☐ 74. ☐ 75. ☐ 76. ☐ 77. ☐ 78. ☐ 79. ☐ 80. ☐ 81. ☐ 82. ☐ 83. ☐ 84. ☐ 85. ☐ 86. ☐ 87. ☐ 88. ☐ 89. ☐ 90. ☐ 91. ☐ 92. ☐ 93. ☐ 94. ☐ 95. ☐ 96. ☐ 97. ☐ 98. ☐ 99. ☐ 100. ☐ 101. ☐ 102. ☐ 103. ☐ 104. ☐ 105. ☐ 106. ☐ 107. ☐ 108. ☐ 109. ☐ 110. ☐ 111. ☐ 112. ☐ 113. ☐ 114. ☐ 115. ☐ 116. ☐ 117. ☐ 118. ☐ 119. ☐ 120. ☐ 121. ☐ 122. ☐ 123. ☐ 124. ☐ 125. ☐ 126. ☐ 127. ☐ 128. ☐ 129. ☐ 130. ☐ 131. ☐ 132. ☐ 133. ☐ 134. ☐ 135. ☐ 136. ☐ 137. ☐ 138. ☐ 139. ☐ 140. ☐ 141. ☐ 142. ☐ 143. ☐ 144. ☐ 145. ☐ 146. ☐ 147. ☐ 148. ☐ 149. ☐ 150. ☐ 151. ☐ 152. ☐ 153. ☐ 154. ☐ 155. ☐ 156. ☐ 157. ☐ 158. ☐ 159. ☐ 160. ☐ 161. ☐ 162. ☐ 163. ☐ 164. ☐ 165. ☐ 166. ☐ 167. ☐ 168. ☐ 169. ☐ 170. ☐ 171. ☐ 172. ☐ 173. ☐ 174. ☐ 175. ☐ 176. ☐ 177. ☐ 178. ☐ 179. ☐ 180. ☐ 181. ☐ 182. ☐ 183. ☐ 184. ☐ 185. ☐ 186. ☐ 187. ☐ 188. ☐ 189. ☐ 190. ☐ 191. ☐ 192. ☐ 193. ☐ 194. ☐ 195. ☐ 196. ☐ 197. ☐ 198. ☐ 199. ☐ 200. ☐ 201. ☐ 202. ☐ 203. ☐ 204. ☐ 205. ☐ 206. ☐ 207. ☐ 208. ☐ 209. ☐ 210. ☐ 211. ☐ 212. ☐ 213. ☐ 214. ☐ 215. ☐ 216. ☐ 217. ☐ 218. ☐ 219. ☐ 220. ☐ 221. ☐ 222. ☐ 223. ☐ 224. ☐ 225. ☐ 226. ☐ 227. ☐ 228. ☐ 229. ☐ 230. ☐ 231. ☐ 232. ☐ 233. ☐ 234. ☐ 235. ☐ 236. ☐ 237. ☐ 238. ☐ 239. ☐ 240. ☐ 241. ☐ 242. ☐ 243. ☐ 244. ☐ 245. ☐ 246. ☐ 247. ☐ 248. ☐ 249. ☐ 250. ☐ 251. ☐ 252. ☐ 253. ☐ 254. ☐ 255. ☐ 256. ☐ 257. ☐ 258. ☐ 259. ☐ 260. ☐ 261. ☐ 262. ☐ 263. ☐ 264. ☐ 265. ☐ 266. ☐ 267. ☐ 268. ☐ 269. ☐ 270. ☐ 271. ☐ 272. ☐ 273. ☐ 274. ☐ 275. ☐ 276. ☐ 277. ☐ 278. ☐ 279. ☐ 280. ☐ 281. ☐ 282. ☐ 283. ☐ 284. ☐ 285. ☐ 286. ☐ 287. ☐ 288. ☐ 289. ☐ 290. ☐ 291. ☐ 292. ☐ 293. ☐ 294. ☐ 295. ☐ 296. ☐ 297. ☐ 298. ☐ 299. ☐ 300. ☐ 301. ☐ 302. ☐ 303. ☐ 304. ☐ 305. ☐ 306. ☐ 307. ☐ 308. ☐ 309. ☐ 310. ☐ 311. ☐ 312. ☐ 313. ☐ 314. ☐ 315. ☐ 316. ☐ 317. ☐ 318. ☐ 319. ☐ 320. ☐ 321. ☐ 322. ☐ 323. ☐ 324. ☐ 325. ☐ 326. ☐ 327. ☐ 328. ☐ 329. ☐ 330. ☐ 331. ☐ 332. ☐ 333. ☐ 334. ☐ 335. ☐ 336. ☐ 337. ☐ 338. ☐ 339. ☐ 340. ☐ 341. ☐ 342. ☐ 343. ☐ 344. ☐ 345. ☐ 346. ☐ 347. ☐ 348. ☐ 349. ☐ 350. ☐ 351. ☐ 352. ☐ 353. ☐ 354. ☐ 355. ☐ 356. ☐ 357. ☐ 358. ☐ 359. ☐ 360. ☐ 361. ☐ 362. ☐ 363. ☐ 364. ☐ 365. ☐ 366. ☐ 367. ☐ 368. ☐ 369. ☐ 370. ☐ 371. ☐ 372. ☐ 373. ☐ 374. ☐ 375. ☐ 376. ☐ 377. ☐ 378. ☐ 379. ☐ 380. ☐ 381. ☐ 382. ☐



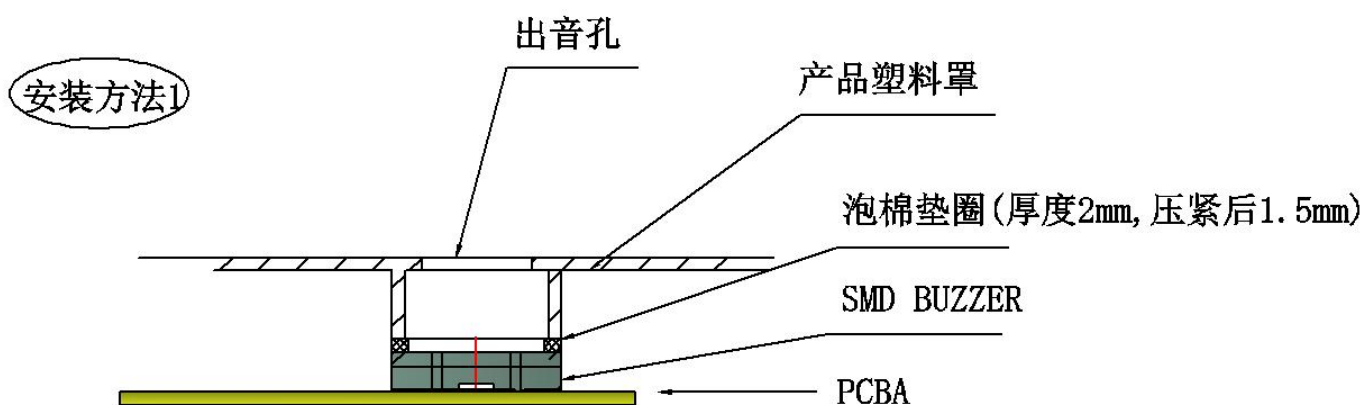
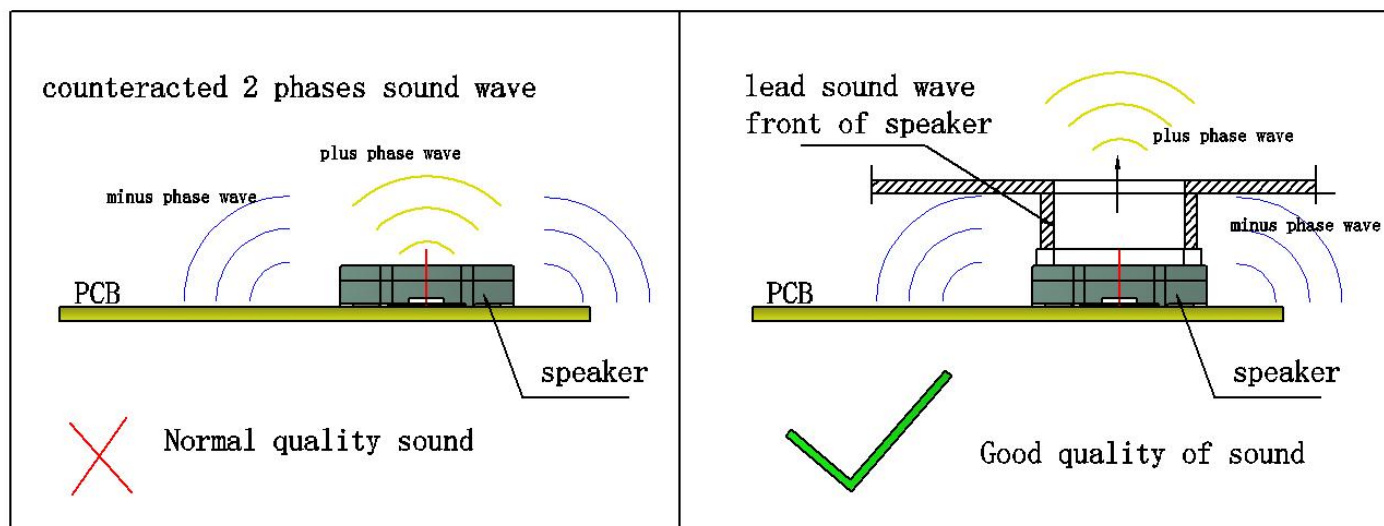
Technical drawing of a rectangular component with dimensions and labels:

- Overall width: 22
- Overall height: 18, 2
- Internal width: 18, 6
- Internal height: 14
- Top-left corner: 3, 4
- Top-right corner: 4, 2
- Bottom-left corner: 18, 6
- Bottom-right corner: 18, 2
- Label: 焊接区 (soldering point) with an arrow pointing to the bottom-left corner.

Technical drawing of a rectangular component with dimensions and labels:

- Overall width: 22
- Overall height: 18, 2
- Internal width: 18, 6
- Internal height: 14
- Top-left corner: 3, 4
- Top-right corner: 4, 2
- Bottom-left corner: 18, 6
- Bottom-right corner: 18, 2
- Label: 焊接区 (soldering point) with an arrow pointing to the bottom-left corner.

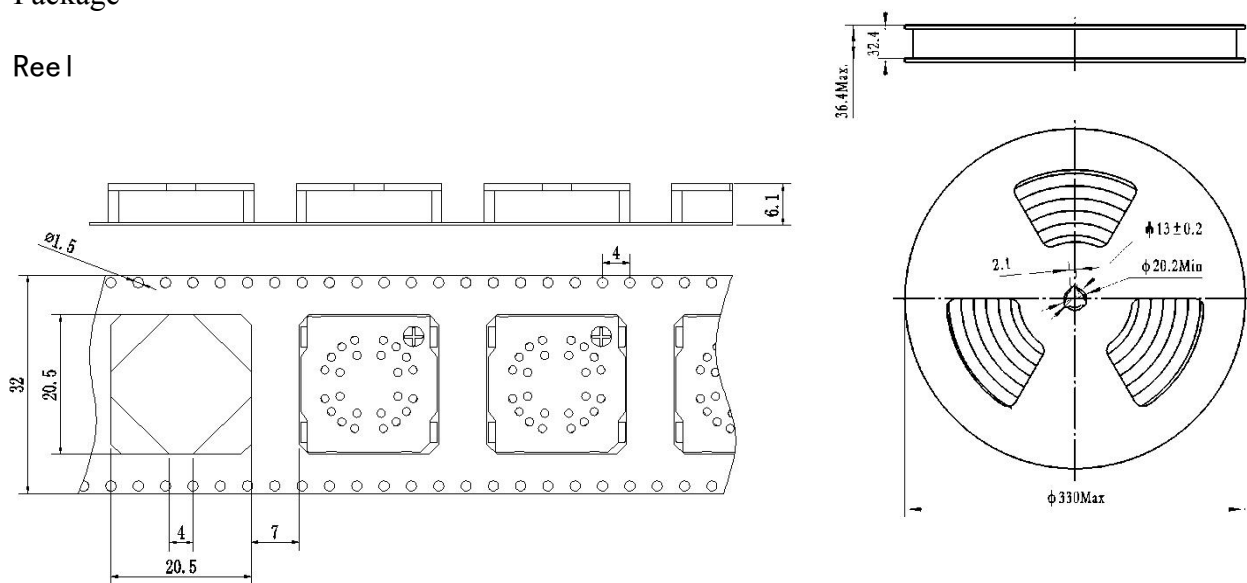
推荐的安装图和声音波分析：



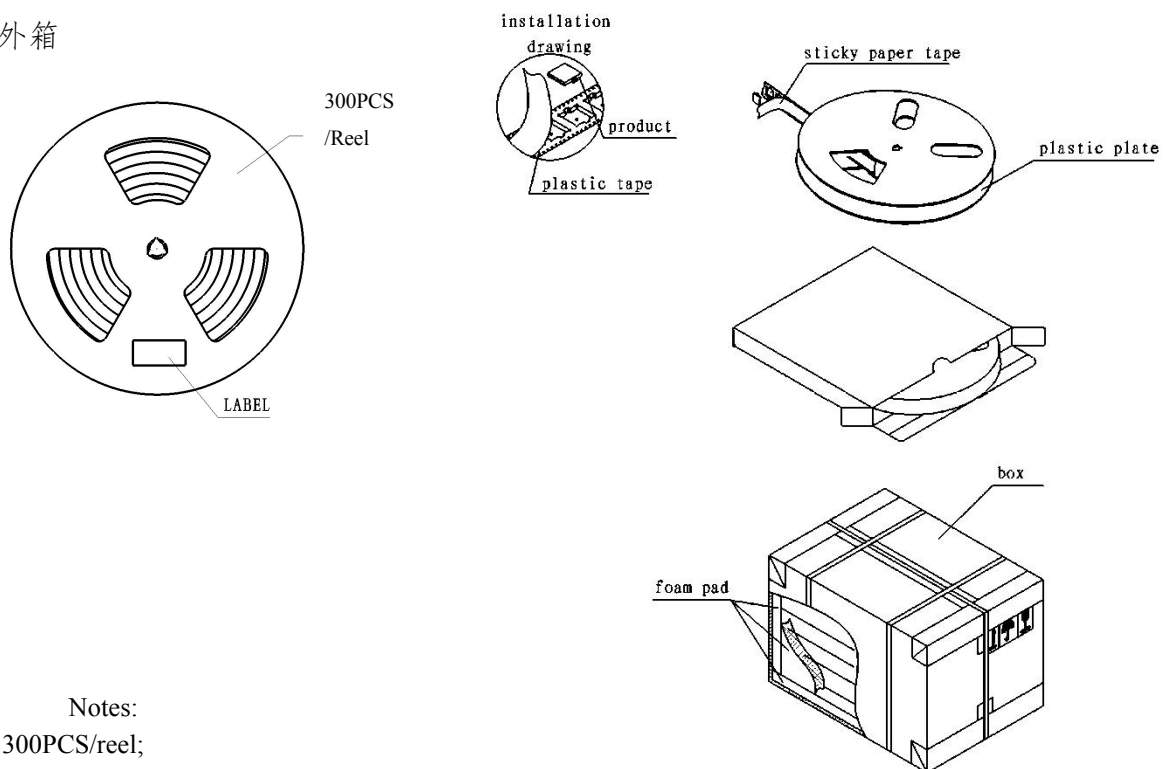
泡棉垫圈自带双面胶，在扬声器 SMT 焊接后才能加上，因为回流焊接温度 260 度左右，泡棉垫圈耐温只有 120 度或者泡棉垫圈胶在应用产品外壳上也可以。

Package

Reel



Carton 外箱



Notes:

- 1、300PCS/reel;
- 2、5reels /carton , 1500Pcs/Carton in total;
- 3、Carton Size :380x370x300mm . Weight : 6Kg