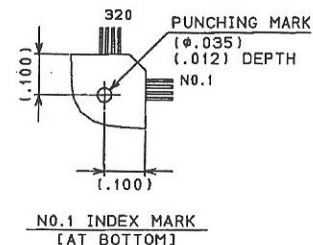
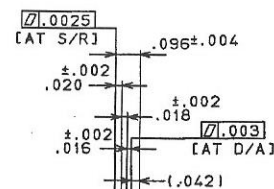
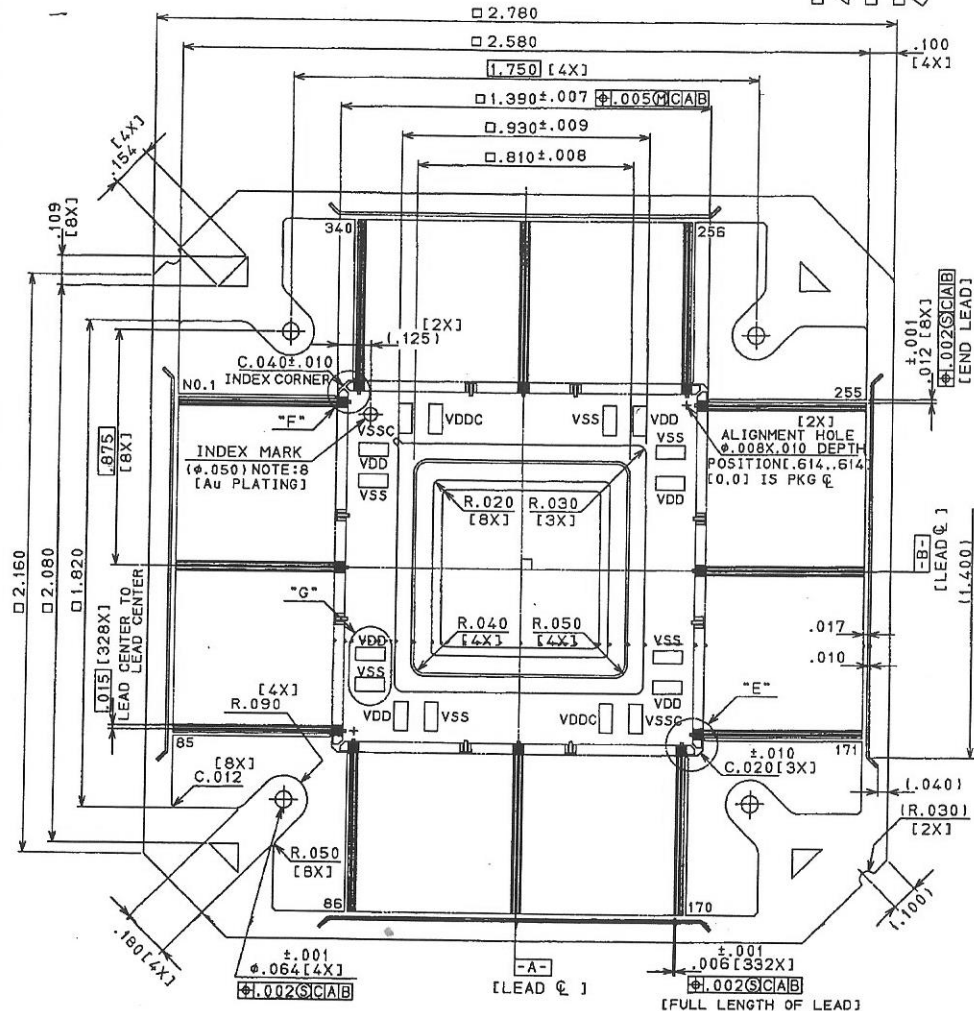


NTK

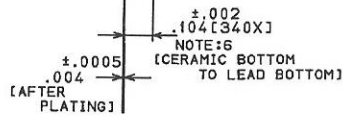
TECHNICAL CERAMICS

LATEST REVISION'S DESCRIPTION



NOTES:

1. PLATING: GOLD PLATE 100μ INCHES MIN OVER 50-200μ INCHES NICKEL. AT THE TIE BAR WITH φ.064 HOLE.
2. SEAL AREA TO BE ISOLATED. (FLOATING)
3. D/A AREA TO BE ISOLATED. (FLOATING)
4. RESISTANCE : VDD,VSS,VDDC,VSSC ---- 200mΩ MAX SIGNAL ----- 1000mΩ MAX
5. CHIP CAPACITOR PAD BURR OR PROTRUSION : .001" MAX
6. MEASURED .010 FROM THE CERAMIC EDGE.
7. BRAZING MATERIAL : Au/Cu
8. INDEX MARK TO BE CONNECTED TO NO.1 LEAD.



MODIFIED



| | | | | | |
|---|---------|---------------|-------------|---------|-------------------------|
| ③ | | | | | |
| ② | LEAD | KOVAR | | | |
| ① | CERAMIC | BLACK ALUMINA | | | |
| Item | Name | Material | Description | Rev. | Description |
| UNLESS OTHERWISE SPECIFIED TOLERANCES: ± 1% | | | DRAWN | H.OHIKE | NTK TECHNICAL CERAMICS |
| N. L. T. 2 DECIMALS .XX, ± 01 3 DECIMALS .XXX ± 005 | | | CHECKED | | NGK SPARK PLUG CO., LTD |
| CUSTOMER | | APPROVED | J. WASHINO | | TITLE |
| DWG NO. | | UNIT | INCH | | 340 LEAD FLAT PACKAGE |
| | | SCALE | | | DWG NO. |
| | | | | | IMKZ4F1-4703D |
| | | | | | SIZE |
| | | | | | A-2 (C) |

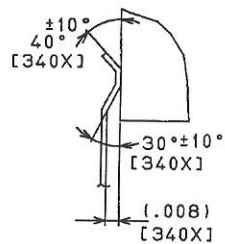
MODIFIED DWG NO. IMKZ4F1-4703B

M·H

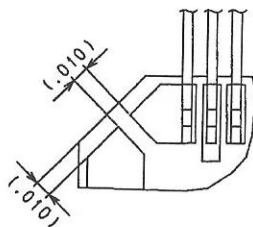
NTK

TECHNICAL CERAMICS

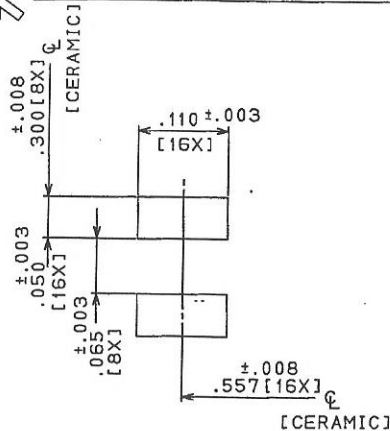
LATEST REVISION'S DESCRIPTION



DETAIL "D"

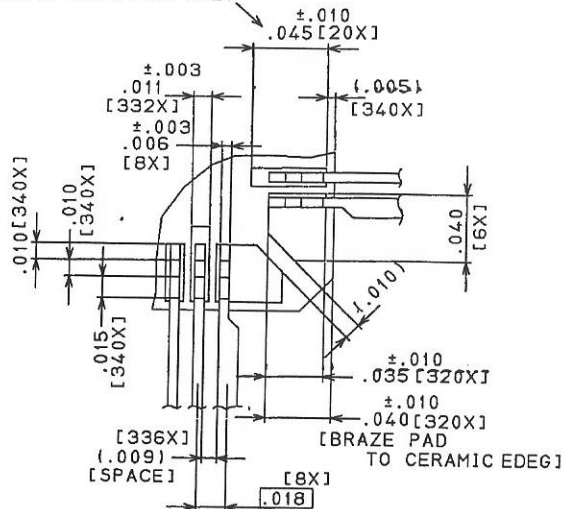


DETAIL "F"



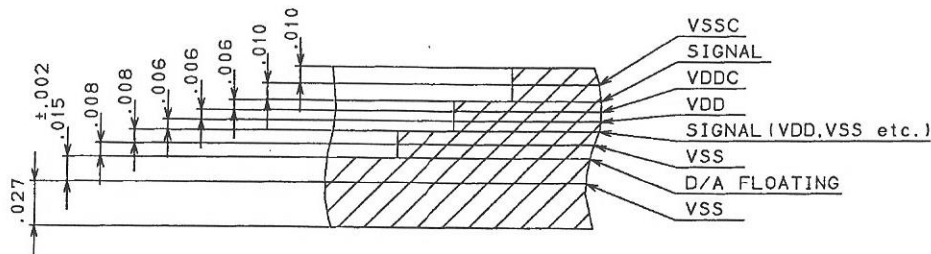
DETAIL "G"

VDD & VDDC PAD ONLY



LEAD CENTER TO LEAD CENTER
(END LEAD & BRAZING DESIGN)

DETAIL "E"



PACKAGE LAYUP



MODIFIED

MODIFIED DWG NO. 1 IMKZ4F1-4703B

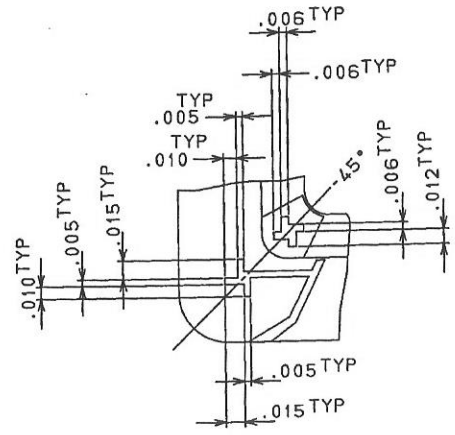
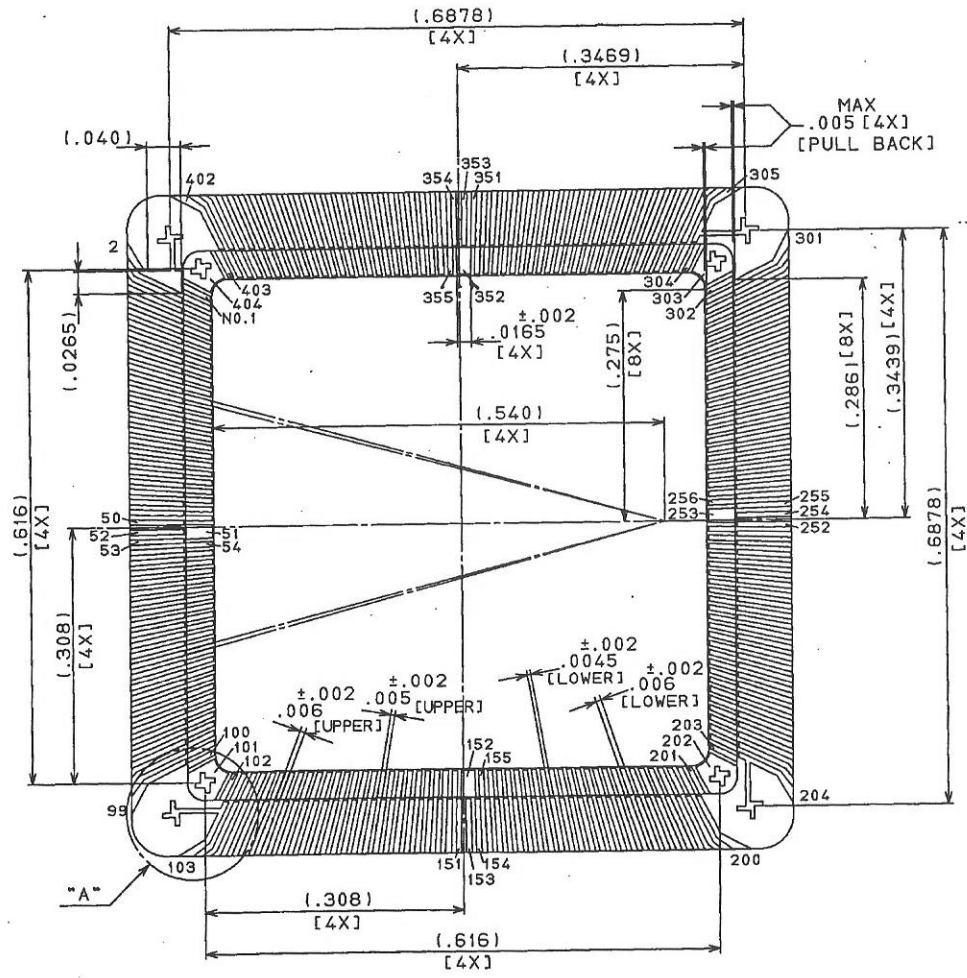
| | | | |
|--|-----------|---------------|-------------------------|
| UNLESS OTHERWISE SPECIFIED TOLERANCES: ± 1% N. L. T. 2 DECIMALS, XX ±.01 3 DECIMALS, XXX ±.005 | | DRAWN H.OHIKE | NTK TECHNICAL CERAMICS |
| CHECKED | | J. WASHINO | NGK SPARK PLUG CO., LTD |
| APPROVED | | J. WASHINO | TITLE PACKAGE DETAIL |
| CUSTOMER | UNIT INCH | DWG NO. | IMKZ4F1-4703D |
| DWG NO. | SCALE | | SIZE A-2 (C) |

NEW DRAWING 3-23 -1995

PART NO.

SHEET 2 OF 4

M-H



DETAIL "A"
[TARGET MARK]

MODIFIED



MODIFIED DWG NO. IMKZ4F1-4703B

| | | | |
|---|----------|------------|-------------------------|
| UNLESS OTHERWISE SPECIFIED TOLERANCES: ± 1% N. L. T. 2 DECIMALS: .XX ± .01 3 DECIMALS: .XXX ± .005 | DRAWN | H.OHIKE | NTK TECHNICAL CERAMICS |
| | CHECKED | | NGK SPARK PLUG CO., LTD |
| CUSTOMER | APPROVED | J. WASHINO | B/G PADS DETAIL |
| DWG NO. | UNIT | INCH | DWG NO. IMKZ4F1-4703D |
| | SCALE | | SIZE A-2 (C) |

| | | |
|------|-------------|-----------|
| Rev. | Description | Date |
| | NEW DRAWING | 3-23-1995 |

340 LDCC INTERCONNECTION TABLE

| B/F | LEAD | B/F | LEAD | B/F | LEAD | B/F | LEAD | B/F | LEAD | B/F | LEAD | B/F | LEAD | B/F | LEAD | B/F | LEAD |
|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| 1 | VDD | 51 | VSS | 101 | VSS | 151 | 126 | 201 | VDD | 251 | VDD | 301 | VDDC | 351 | 295 | | |
| 2 | VSSC | 52 | 45 | 102 | VDD | 152 | VSSC | 202 | VSS | 252 | 211 | 302 | VDD | 352 | VSSC | | |
| 3 | 3 | 53 | 46 | 103 | VSSC | 153 | 130 | 203 | VDD | 253 | VSS | 303 | VSS | 353 | 296 | | |
| 4 | 4 | 54 | 47 | 104 | 88 | 154 | 131 | 204 | VSSC | 254 | 215 | 304 | VDD | 354 | 300 | | |
| 5 | 5 | 55 | 48 | 105 | 89 | 155 | VDD | 205 | 173 | 255 | 216 | 305 | VSSC | 355 | VDDC | | |
| 6 | 6 | 56 | 49 | 106 | 90 | 156 | 132 | 206 | 174 | 256 | 217 | 306 | 258 | 356 | 301 | | |
| 7 | 7 | 57 | 50 | 107 | 91 | 157 | VSS | 207 | 175 | 257 | 218 | 307 | 259 | 357 | VDD | | |
| 8 | 8 | 58 | VSSC | 108 | 92 | 158 | 133 | 208 | 176 | 258 | 219 | 308 | 260 | 358 | 302 | | |
| 9 | VDD | 59 | 51 | 109 | 93 | 159 | 134 | 209 | 177 | 259 | 220 | 309 | 261 | 359 | VSS | | |
| 10 | 9 | 60 | VDDC | 110 | VDD | 160 | 135 | 210 | 178 | 260 | VSSC | 310 | 262 | 360 | 303 | | |
| 11 | VSS | 61 | 52 | 111 | 94 | 161 | 136 | 211 | VDD | 261 | 221 | 311 | 263 | 361 | 304 | | |
| 12 | 10 | 62 | 53 | 112 | VSS | 162 | 137 | 212 | 179 | 262 | VDDC | 312 | VDD | 362 | 305 | | |
| 13 | 11 | 63 | 54 | 113 | 95 | 163 | 138 | 213 | VSS | 263 | 222 | 313 | 264 | 363 | 306 | | |
| 14 | 12 | 64 | 55 | 114 | 96 | 164 | 139 | 214 | 180 | 264 | 223 | 314 | VSS | 364 | 307 | | |
| 15 | 13 | 65 | 58 | 115 | 97 | 165 | 140 | 215 | 181 | 265 | 224 | 315 | 265 | 365 | 308 | | |
| 16 | 14 | 66 | VSS | 116 | 98 | 166 | 143 | 216 | 182 | 266 | 225 | 316 | 266 | 366 | 309 | | |
| 17 | VDD | 67 | 59 | 117 | 99 | 167 | VSS | 217 | 183 | 267 | 228 | 317 | 267 | 367 | 310 | | |
| 18 | 15 | 68 | VDD | 118 | VDD | 168 | 144 | 218 | 184 | 268 | VSS | 318 | 268 | 368 | 313 | | |
| 19 | VSS | 69 | 60 | 119 | 100 | 169 | VDD | 219 | VDD | 269 | 229 | 319 | 269 | 369 | VSS | | |
| 20 | 16 | 70 | 61 | 120 | VSS | 170 | 145 | 220 | 185 | 270 | VDD | 320 | VDD | 370 | 314 | | |
| 21 | 17 | 71 | 62 | 121 | 101 | 171 | 146 | 221 | VSS | 271 | 230 | 321 | 270 | 371 | VDD | | |
| 22 | 18 | 72 | 63 | 122 | 102 | 172 | 147 | 222 | 186 | 272 | 231 | 322 | VSS | 372 | 315 | | |
| 23 | 19 | 73 | 64 | 123 | 103 | 173 | 148 | 223 | 187 | 273 | 232 | 323 | 271 | 373 | 316 | | |
| 24 | 20 | 74 | VSS | 124 | 104 | 174 | 149 | 224 | 188 | 274 | 233 | 324 | 272 | 374 | 317 | | |
| 25 | VDD | 75 | 65 | 125 | 105 | 175 | VSS | 225 | 189 | 275 | 234 | 325 | 273 | 375 | 318 | | |
| 26 | 21 | 76 | VDD | 126 | VDD | 176 | 150 | 226 | 190 | 276 | VSS | 326 | 274 | 376 | 319 | | |
| 27 | VSS | 77 | 66 | 127 | 106 | 177 | VDD | 227 | VDD | 277 | 235 | 327 | 275 | 377 | VSS | | |
| 28 | 22 | 78 | 67 | 128 | VSS | 178 | 151 | 228 | 191 | 278 | VDD | 328 | VDD | 378 | 320 | | |
| 29 | 23 | 79 | 68 | 129 | 107 | 179 | 152 | 229 | VSS | 279 | 236 | 329 | 276 | 379 | VDD | | |
| 30 | 24 | 80 | 69 | 130 | 108 | 180 | 153 | 230 | 192 | 280 | 237 | 330 | VSS | 380 | 321 | | |
| 31 | 25 | 81 | 70 | 131 | 109 | 181 | 154 | 231 | 193 | 281 | 238 | 331 | 277 | 381 | 322 | | |
| 32 | 26 | 82 | VSS | 132 | 110 | 182 | 155 | 232 | 194 | 282 | 239 | 332 | 278 | 382 | 323 | | |
| 33 | VDD | 83 | 71 | 133 | 111 | 183 | VSS | 233 | 195 | 283 | 240 | 333 | 279 | 383 | 324 | | |
| 34 | 27 | 84 | VDD | 134 | VDD | 184 | 156 | 234 | 196 | 284 | VSS | 334 | 280 | 384 | 325 | | |
| 35 | VSS | 85 | 72 | 135 | 112 | 185 | VDD | 235 | VDD | 285 | 241 | 335 | 281 | 385 | VSS | | |
| 36 | 28 | 86 | 73 | 136 | VSS | 186 | 157 | 236 | 197 | 286 | VDD | 336 | VDD | 386 | 326 | | |
| 37 | 31 | 87 | 74 | 137 | 113 | 187 | 158 | 237 | VSS | 287 | 242 | 337 | 282 | 387 | VDD | | |
| 38 | 32 | 88 | 75 | 138 | 116 | 188 | 159 | 238 | 198 | 288 | 243 | 338 | VSS | 388 | 327 | | |
| 39 | 33 | 89 | 76 | 139 | 117 | 189 | 160 | 239 | 201 | 289 | 244 | 339 | 283 | 389 | 328 | | |
| 40 | 34 | 90 | VSS | 140 | 118 | 190 | 161 | 240 | 202 | 290 | 245 | 340 | 286 | 390 | 329 | | |
| 41 | VDDC | 91 | 77 | 141 | 119 | 191 | VSS | 241 | 203 | 291 | 246 | 341 | 287 | 391 | 330 | | |
| 42 | 35 | 92 | VDD | 142 | 120 | 192 | 162 | 242 | 204 | 292 | VSS | 342 | 288 | 392 | 331 | | |
| 43 | VSSC | 93 | 78 | 143 | 121 | 193 | VDD | 243 | VDDC | 293 | 247 | 343 | 289 | 393 | VSS | | |
| 44 | 36 | 94 | 79 | 144 | 122 | 194 | 163 | 244 | 205 | 294 | VDD | 344 | 290 | 394 | 332 | | |
| 45 | 37 | 95 | 80 | 145 | 123 | 195 | 164 | 245 | VSSC | 295 | 248 | 345 | 291 | 395 | VDD | | |
| 46 | 38 | 96 | 81 | 146 | VDD | 196 | 165 | 246 | 206 | 296 | 249 | 346 | 292 | 396 | 333 | | |
| 47 | 39 | 97 | 82 | 147 | 124 | 197 | 166 | 247 | 207 | 297 | 250 | 347 | 293 | 397 | 334 | | |
| 48 | 40 | 98 | 83 | 148 | VSS | 198 | 167 | 248 | 208 | 298 | 251 | 348 | VDD | 398 | 335 | | |
| 49 | VDD | 99 | VDDC | 149 | 125 | 199 | 168 | 249 | 209 | 299 | 252 | 349 | 294 | 399 | 336 | | |
| 50 | 41 | 100 | VDD | 150 | VDDC | 200 | VDDC | 250 | 210 | 300 | 253 | 350 | VSS | 400 | 337 | | |
| | | | | | | | | | | | | | | 401 | 336 | | |
| | | | | | | | | | | | | | | 402 | VDDC | | |
| | | | | | | | | | | | | | | 403 | VDD | | |
| | | | | | | | | | | | | | | 404 | VSS | | |

| PAD | LEAD |
|------|--|
| VSS | 1,42,44,57,85,86,127,129,142,170,171,212,214,227,255,256,297,299,312,340 |
| VSSC | 29,114,199,284 |
| VDD | 2,43,56,84,87,128,141,169,172,213,226,254,257,298,311,339 |
| VDDC | 30,115,200,285 |

