

# POWER SUPPLY LOAD TEST

**MAKE:** MOTOROLA      **MODEL:** TPN1154A      **DATE:** 11-Jun-11

**CONT. RATING:** UNK      **INT. RATING:** UNK      **SERIAL:** NONE

**AC MAINS FUSE:** 5A FB      **REMARKS:** SEE NOTES 1-4 BELOW

| <b>LOAD<br/>AMPS</b> | <b>OUTPUT<br/>VOLTS</b> | <b>OUTPUT<br/>WATTS</b> | <b>AC INPUT<br/>VOLTS</b> | <b>AC INPUT<br/>AMPS</b> | <b>AC INPUT<br/>WATTS</b> | <b>AC INPUT<br/>VA</b> | <b>AC INPUT<br/>PF</b> | <b>OVERALL<br/>EFFICIENCY</b> |
|----------------------|-------------------------|-------------------------|---------------------------|--------------------------|---------------------------|------------------------|------------------------|-------------------------------|
| <b>0.0</b>           | 14.91                   | 0.0                     | 122.8                     | 0.18                     | 12                        | 22                     | 0.54                   | 0%                            |
| <b>1.0</b>           | 14.85                   | 14.9                    | 122.9                     | 0.46                     | 38                        | 57                     | 0.67                   | 39%                           |
| <b>2.0</b>           | 14.81                   | 29.6                    | 122.9                     | 0.76                     | 64                        | 93                     | 0.69                   | 46%                           |
| <b>3.0</b>           | 14.77                   | 44.3                    | 122.8                     | 1.04                     | 90                        | 128                    | 0.70                   | 49%                           |
| <b>4.0</b>           | 14.72                   | 58.9                    | 122.6                     | 1.32                     | 116                       | 162                    | 0.72                   | 51%                           |
| <b>5.0</b>           | 14.68                   | 73.4                    | 122.5                     | 1.57                     | 141                       | 192                    | 0.73                   | 52%                           |
| <b>6.0</b>           | 14.64                   | 87.8                    | 122.5                     | 1.83                     | 166                       | 224                    | 0.74                   | 53%                           |
| <b>7.0</b>           | 14.60                   | 102.2                   | 122.4                     | 2.07                     | 191                       | 253                    | 0.75                   | 54%                           |
| <b>8.0</b>           | 14.56                   | 116.5                   | 122.4                     | 2.31                     | 216                       | 283                    | 0.76                   | 54%                           |
| <b>9.0</b>           | 14.53                   | 130.8                   | 122.4                     | 2.54                     | 241                       | 311                    | 0.78                   | 54%                           |
| <b>10.0</b>          | 14.49                   | 144.9                   | 122.2                     | 2.77                     | 265                       | 338                    | 0.78                   | 55%                           |
| <b>11.0</b>          | 14.45                   | 159.0                   | 122.2                     | 2.99                     | 290                       | 365                    | 0.79                   | 55%                           |
| <b>12.0</b>          | 14.41                   | 172.9                   | 122.1                     | 3.22                     | 314                       | 393                    | 0.80                   | 55%                           |
| <b>13.0</b>          | 14.36                   | 186.7                   | 122.0                     | 3.43                     | 339                       | 418                    | 0.81                   | 55%                           |
| <b>14.0</b>          | 14.32                   | 200.5                   | 122.0                     | 3.66                     | 363                       | 447                    | 0.81                   | 55%                           |
| <b>15.0</b>          | 14.28                   | 214.2                   | 122.0                     | 3.86                     | 386                       | 471                    | 0.82                   | 55%                           |
| <b>16.0</b>          | 14.23                   | 227.7                   | 121.8                     | 4.07                     | 410                       | 496                    | 0.83                   | 56%                           |
| <b>17.0</b>          | 14.18                   | 241.1                   | 121.7                     | 4.26                     | 434                       | 518                    | 0.84                   | 56%                           |
| <b>18.0</b>          | 14.13                   | 254.3                   | 121.6                     | 4.46                     | 457                       | 542                    | 0.84                   | 56%                           |
| <b>19.0</b>          | 14.04                   | 266.8                   | 121.5                     | 4.65                     | 481                       | 565                    | 0.85                   | 55%                           |
| <b>20.0</b>          | 13.91                   | 278.2                   | 121.5                     | 4.86                     | 503                       | 590                    | 0.85                   | 55%                           |
| <b>21.0</b>          | 13.69                   | 287.5                   | 121.4                     | 5.05                     | 527                       | 613                    | 0.86                   | 55%                           |

**NOTE 1:** THIS SUPPLY SHOULD NOT BE LOADED ABOVE 20 AMPS, DUE TO THE MAINS FUSE RATING.

**NOTE 2:** THE TPN1154A WAS USED AS A BASE/CONTROL POWER SUPPLY FOR THE HIGH-POWER MCX-100 RADIO.

**NOTE 3:** THE TPN1154A IS PHYSICALLY AND ELECTRICALLY IDENTICAL TO THE HPN3000A POWER SUPPLY.

**NOTE 4:** THE OUTPUT VOLTAGE CAN BE REDUCED TO 13.8 VDC BY ADDING A 5.6k RESISTOR ACROSS R7.