

## SPECIFICATIONS

| ITEMS                       | SPECIFICATIONS                                                                                                                                                                                                                                                                                       |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 DIMENSIONS                | 205 MM ( 8 INCH )                                                                                                                                                                                                                                                                                    |
| 2 IMPEDANCE                 | 4 $\pm$ 0.6 OHM( 0.3 KHz 1.0 V)                                                                                                                                                                                                                                                                      |
| 3 INPUT                     | RATED - W , MAX 80 W                                                                                                                                                                                                                                                                                 |
| 4 LOWEST RESONANT FREQUENCY | 35 $\pm$ 7 Hz ( 1.0 V)                                                                                                                                                                                                                                                                               |
| 5 SOUND PRESSURE LEVEL      | 91 $\pm$ 2 dB/W ( 2 V , 1.0 M ) AVERANE<br>AT 0.2 , 0.25 , 0.3 , 0.4 KHz                                                                                                                                                                                                                             |
| 6 EFFECTIVE FREQUENCY RANGE | FO $\sim$ 5000 Hz                                                                                                                                                                                                                                                                                    |
| 7 DISTORTION FACTOR         | 5.0 % MAX (AT 0.3 KHz , 10 W , 1.0 M )                                                                                                                                                                                                                                                               |
| 8 FLUX DENSITY              | — $\pm$ — GAUSS                                                                                                                                                                                                                                                                                      |
| 9 TOTAL FLUX                | — $\pm$ — MAXWELL                                                                                                                                                                                                                                                                                    |
| 10 POLARITY                 | WHEN A POSITIVE DC CURRENT IS APPLIED<br>TO THE TERMINAL MARKED + , THE DIAPHRAGM<br>SHALL MOVE FORWARD .                                                                                                                                                                                            |
| 11 SINE WAVE TEST           | 10 V                                                                                                                                                                                                                                                                                                 |
| 12 MAGNET                   | 100 $\times$ 60 $\times$ 20 MM( 503 GRAMS) ( 17.7 OZ)                                                                                                                                                                                                                                                |
| 13 WEIGHT                   | 1480 GRAMS ( 52.20 OZ )                                                                                                                                                                                                                                                                              |
| 14 DROP TEST                | THE SPEAKER SHALL BE DROPPED ALONG<br>A FLAT PLATE 15° INCLINED FROM THE<br>VERTICAL. THEN LET THE MAGNETIC FIELD<br>PART IMPACT THE MAHOGANY BLOCK AT THE<br>BOTTOM OF THE SLIDE. NO ANY STRUCTURAL<br>OR ACOUSTIC DEFECT SHALL OCCUR AS A<br>RESULT OF THIS TEST. THE DROP DISTANCE<br>IS 1 METER. |
| 15 LIFE TEST                | 80 W 96 H EIA WHITE NOISE                                                                                                                                                                                                                                                                            |
| 16 HUMIDITY TEST            | 43 °C 92 2 % RH 96 H                                                                                                                                                                                                                                                                                 |
| 17 TEMPERATURE TEST         | 70 °C 96 H                                                                                                                                                                                                                                                                                           |

| DESIGE | CHARGE | HEAD | MANAGER |
|--------|--------|------|---------|
|        |        |      |         |

---

SCIENTIFIC DESIGN SOFTWARE  
Driver Parameters From Measurement Data

---

---

Entered Data as Follows:

---

|                                            |                |            |
|--------------------------------------------|----------------|------------|
| Entered driver DC resistance (Re)          | 3.40 ohms      |            |
| Entered driver resonance frequency (Fs)    | 35.00 hertz    |            |
| Entered driver maximum impedance at Fs     | 34.30 ohms     |            |
| Entered driver F1 frequency                | 21.00 hertz at | 10.80 ohms |
| Entered driver F2 frequency                | 56.00 hertz at | 10.80 ohms |
| Calculated Square root of F1*F2            | 34.30 hertz    |            |
| Calculated error factor                    | 2.00 percent   |            |
| Compliance calculated by ADDED MASS method |                |            |
| Entered added mass                         | 20.00 grams    |            |
| Entered driver new resonance frequency     | 24.00 hertz    |            |
| Entered driver piston diameter             | 164.00 mm      |            |
| Entered driver magnet gap depth            | 6.00 mm        |            |
| Entered driver voice coil length           | 6.80 mm        |            |

---

---

Calculated Thiele/Small Parameters:

---

|                                      |                      |
|--------------------------------------|----------------------|
| Free Air Resonance (Fs)=SQR(F1*F2)   | 34.30 hertz          |
| Qts                                  | 0.3085               |
| Qes                                  | 0.3425               |
| Qms                                  | 3.11                 |
| Equivalent acoustic compliance (Vas) | 70.34 liters         |
| Piston area (Sd)                     | 0.0211 square meters |
| DC resistance (Re)                   | 3.40 ohms            |
| Volume displacement (Vd)             | 21.12 ccm            |
| Linear displacement (Xmax)           | 1.00 mm              |
| Coil Inductance (Le)                 | 0.62 mH              |
| Reference Efficiency (Ref Eff)       | 0.80 percent         |
| Efficiency Bandwidth Product (EBP)   | 100.15 hertz         |

---

---

Other Calculated Data:

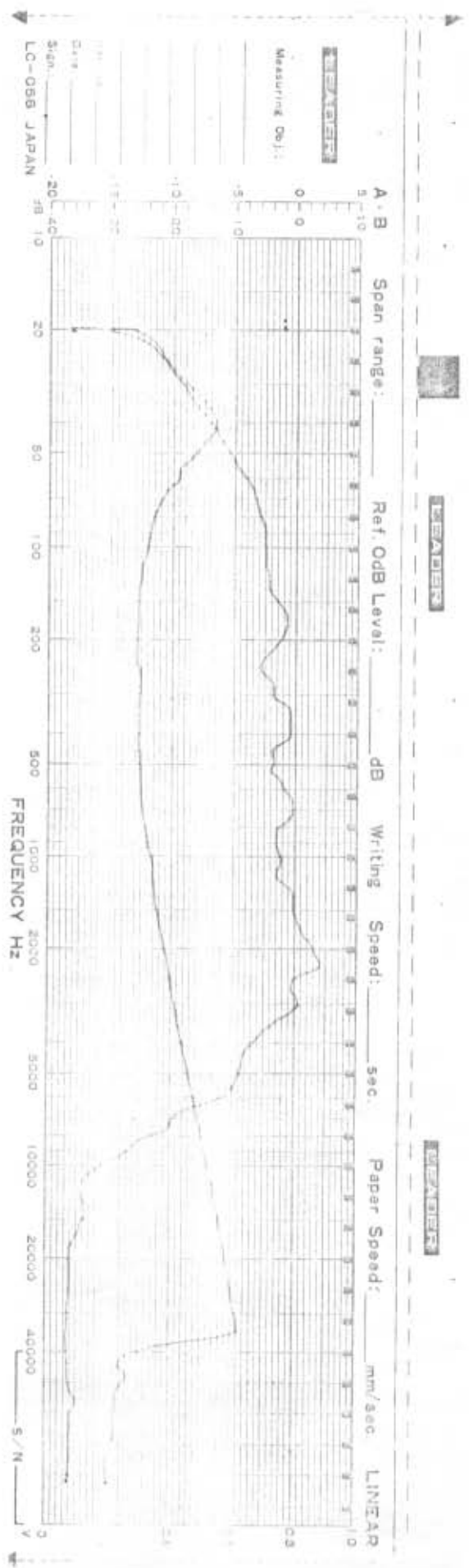
---

|                                           |             |
|-------------------------------------------|-------------|
| Moving Mass of Diaphragm only (Mmd)       | 17.44 grams |
| Moving Mass of Diaphragm & Air Load (Mms) | 19.18 grams |
| Mass of Air load on diaphragm (Ma)        | 1.74 grams  |
| Compliance (Cms)                          | 0.00113 m/N |
| BL product (BL)                           | 6.41 N/A    |
| Sensitivity (SPL 1w/1m)                   | 91.01 dB    |

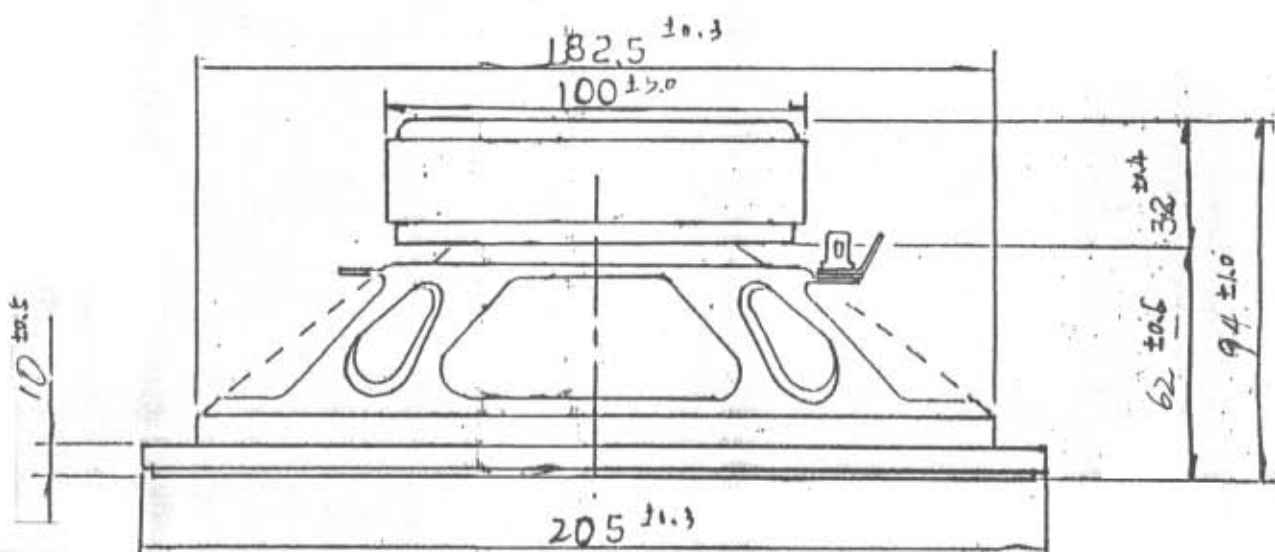
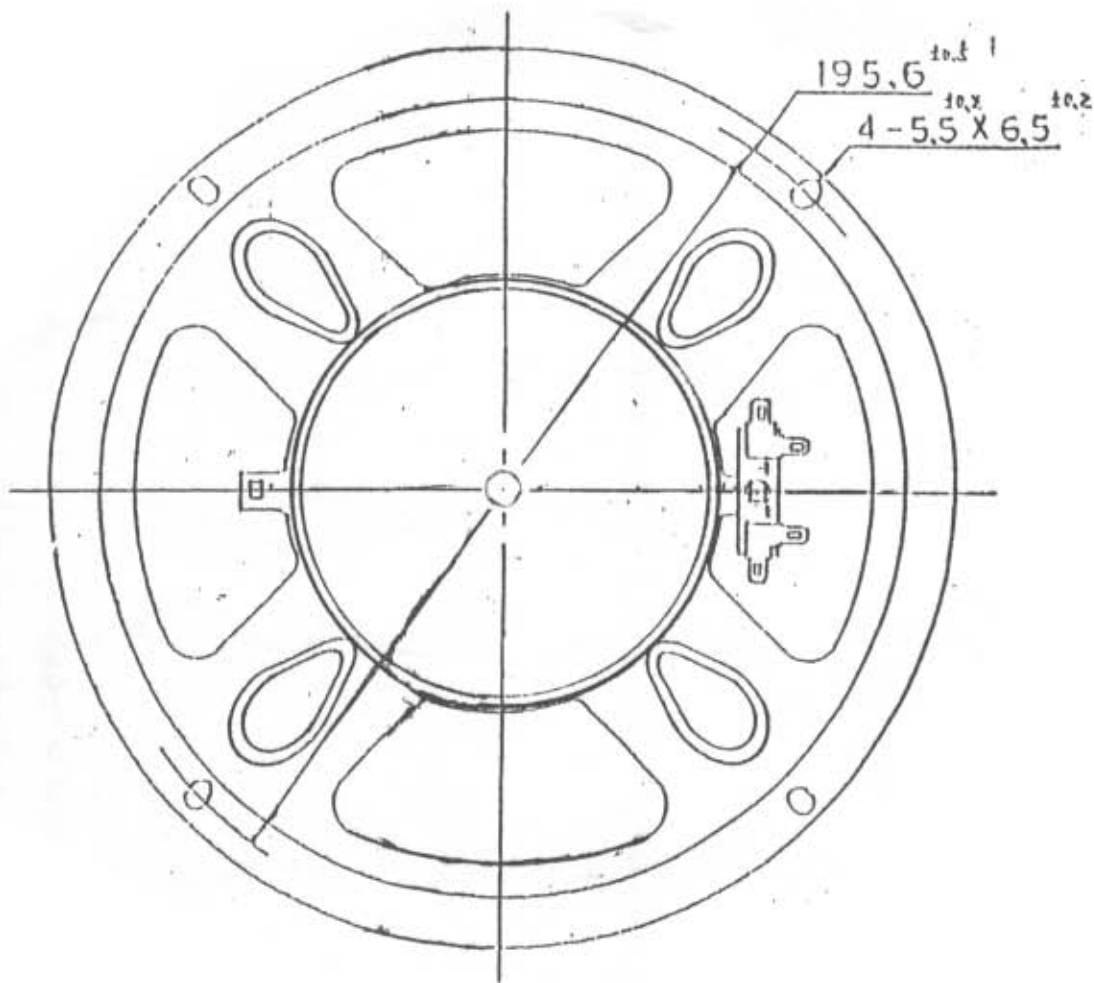
---

END OF REPORT

MCM Audio Select  
8" Woofer  
Model 55-1520



MCM Audio Select  
8" Woofer  
Model 55-1520



|  |  |                     |            |          |
|--|--|---------------------|------------|----------|
|  |  | MATERIAL            | SCALE 1/8" | QUANTITY |
|  |  | FINISH              | TOLERANCE  | ANGLE    |
|  |  | TITLE Model 55-1520 |            |          |
|  |  |                     |            |          |
|  |  |                     |            |          |
|  |  |                     |            |          |