

|                                                      |                   |                                               |                    |                                           |                                              |             |
|------------------------------------------------------|-------------------|-----------------------------------------------|--------------------|-------------------------------------------|----------------------------------------------|-------------|
| PARTS LIST                                           |                   | DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532 | DRAWING NUMBER<br>2241-2020-1             | REV<br>-                                     | PAGE 1 OF 6 |
| TITLE<br>PRINTED WIRING ASSEMBLY,<br>LOW PASS FILTER |                   |                                               | CONTRACT NUMBER    |                                           | DATE: 98-04-15                               |             |
| REVISIONS                                            |                   |                                               |                    |                                           |                                              |             |
| LTR                                                  | DESCRIPTION       |                                               |                    | DATE                                      | APPROVED                                     |             |
| -                                                    | INITIAL RELEASE.  |                                               |                    | 98-04-21<br>98-4-21<br>98-4-23<br>98-5-18 | MENORMAN<br>C. Anderson<br>Jim Stahl<br>Will |             |
|                                                      | JIM BRAY 98-04-15 |                                               |                    |                                           |                                              |             |
|                                                      |                   |                                               |                    |                                           |                                              |             |

|            |                                               |                    |                               |          |           |
|------------|-----------------------------------------------|--------------------|-------------------------------|----------|-----------|
| PARTS LIST | DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532 | DRAWING NUMBER<br>2241-2020-1 | REV<br>— | PAGE 2 OF |
|------------|-----------------------------------------------|--------------------|-------------------------------|----------|-----------|

NOTES: UNLESS OTHER SPECIFIED

1. ELECTROSTATIC DISCHARGE CONTROL PROGRAM FOR PROTECTION  
OF ELECTRICAL AND ELECTRONIC PARTS, ASSEMBLIES AND EQUIPMENT  
SHALL BE IN ACCORDANCE WITH MIL-STD-1686 AND DOD-HBK-263.
2. VENDOR ITEM: SEE SPEC CONTROL DWG.

PART NUMBER : 2241-2020-1X

TITLE: PWA,LOW PASS FILTER THRU HOLE

CAGE CODE: 59532

REV : /

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>               | <u>VENDOR P/N</u> | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u>                                     |
|------------|------------|--------------------|----------------------------------|-------------------|-------------|------------------------------------------------------------------------|
| 001        | 0          | D2241-2020         | PWA,LOW PASS FILTER PA-5050A     |                   |             |                                                                        |
| 002        | 0          | PL2241-2020        | PWA,LOW PASS FILTER PA-5050A     |                   |             |                                                                        |
| 010        | 1          | 2241-2120-7        | PWB,LOW PASS FILTER FAA APPROVED |                   |             |                                                                        |
| 011        | 1          | 322-010            | CONN,HEADER,.100 ST LK 9 PIN GLD | 22-11-2092        | M27264      | J1                                                                     |
| 012        | 16         | 111-089            | RELAY,                           | VB-24STCU-E       | M30143      | K1,K2,K3,K4,K5,K6,K7,K8,K9,K10,K11,K12,K13,K14,K15,K16                 |
| 014        | 0          | 784-007            | SOLDER,WIRE FLUX .020 DIA SN63   | SN63WRMAP2        | MQPL        |                                                                        |
| 015        | 16         | 475-023            | DIODE 1A,600V                    | 1N4005            | M04713      | CR1,CR2,CR3,CR4,CR5,CR6,CR7,CR8,CR9,CR10,CR11,CR12,CR13,CR14,CR15,CR16 |
| 018        | 1          | 322-005            | CONN,HEADER,.100 ST LK 4 PIN GLD | 2101816C-04001    | M06994      | J2                                                                     |
| 021        | 3          | 012-601            | COIL,TOROID 5T                   |                   |             | L1,L23,L24                                                             |
| 022        | 2          | 012-602            | COIL,TOROID 6T                   |                   |             | L6,L22                                                                 |
| 023        | 1          | 012-603            | COIL,TOROID 7T                   |                   |             | L5                                                                     |
| 024        | 1          | 012-604            | COIL,TOROID 9T                   |                   |             | L16                                                                    |
| 025        | 2          | 012-605            | COIL,TOROID 10T                  |                   |             | L11,L12                                                                |
| 027        | 1          | 012-607            | COIL,TOROID 12T                  |                   |             | L10                                                                    |
| 030        | 2          | 012-610            | COIL,AIR CORE,.75ID 5T           |                   |             | L14,L21                                                                |
| 031        | 1          | 012-611            | COIL,AIR CORE,.75ID 6T           |                   |             | L19                                                                    |
| 034        | 2          | 012-638            | COIL,TOROID 4T                   |                   |             | L2,L3                                                                  |
| 035        | 3          | 012-639            | COIL,TOROID 3T                   |                   |             | L7,L8,L9                                                               |
| 036        | 3          | 012-640            | COIL,TOROID 8T                   |                   |             | L4,L17,L18                                                             |
| 037        | 2          | 012-613            | COIL,AIR CORE,.75ID 4.5T         |                   |             | L13,L20                                                                |

**CUBIC.COMMUNICATIONS***A member of the Cubic Corporation family of companies***BILL OF MATERIAL**05/29/98  
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PART NUMBER : 2241-2020-1X

TITLE: PWA,LOW PASS FILTER THRU HOLE

CAGE CODE: 59532

REV : /

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>              | <u>VENDOR P/N</u> | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u> |
|------------|------------|--------------------|---------------------------------|-------------------|-------------|------------------------------------|
| 038        | 1          | 012-612            | COIL,AIR CORE,.75ID 3.5T        |                   |             | L15                                |
| 040        | 8          | 045-510            | RES,CARBON FILM,1/4W 5% 51 OHMS | 4701701C-4510J    | M06994      | R1,R2,R3,R4,R5,R6,R7,R8            |
| 044        | 2          | 083-121            | CAP,CER HF POWER 5% 120 PF      | MHP-1-121         | M05079      | C18,C37                            |
| 045        | 1          | 083-122            | CAP,CER HF POWER 5% 1200 PF     | UFP1122J          | M32897      | C40                                |
| 046        | 4          | 083-131            | CAP,CER HF POWER 5% 130 PF      | MHP-1-131         | M05079      | C6,C21,C31,C33                     |
| 047        | 1          | 083-161            | CAP,CER HF POWER 5% 160 PF      | MHP-1-161         | M05079      | C4                                 |
| 049        | 2          | 083-180            | CAP,CER HF POWER 5% 18 PF       | MHP-1-180         | M05079      | C30,C44                            |
| 050        | 3          | 083-181            | CAP,CER HF POWER 5% 180 PF      | MHP-1-181         | M05079      | C15,C47,C55                        |
| 052        | 3          | 083-201            | CAP,CER HF POWER 5% 200 PF      | MHP-1-201         | M05079      | C7,C23,C45                         |
| 054        | 2          | 083-241            | CAP,CER HF POWER 5% 240 PF      | MHP1241J          | M05079      | C1,C53                             |
| 055        | 2          | 083-270            | CAP,CER HF POWER 5% 27 PF       | MHP-1-270         | M05079      | C16,C35                            |
| 056        | 3          | 083-271            | CAP,CER HF POWER 5% 270 PF      | MHP1271J          | M05079      | C13,C19,C56                        |
| 057        | 1          | 083-301            | CAP,CER HF POWER 5% 300 PF      | MHP1301J          | M05079      | C17                                |
| 057        | 1          | 083-301            | CAP,CER HF POWER 5% 300 PF      | MHP1301J          | M05079      |                                    |
| 058        | 1          | 083-330            | CAP,CER HF POWER 5% 33 PF       | MHP-1-330         | M05079      | C10B                               |
| 059        | 2          | 083-331            | CAP,CER HF POWER 5% 330 PF      | UFP1-331          | M32897      | C3,C11                             |
| 060        | 3          | 083-361            | CAP,CER HF POWER 5% 360 PF      | MHP1361J          | M05079      | C14,C38B,C50                       |
| 061        | 2          | 083-390            | CAP,CER HF POWER 5% 39 PF       | MHP-1-390         | M05079      | C32,C34                            |
| 062        | 2          | 083-391            | CAP,CER HF POWER 5% 390 PF      | MHP-1-391         | M05079      | C5,C41                             |
| 063        | 2          | 083-470            | CAP,CER HF POWER 5% 47 PF       | MHP-1-470         | M05079      | C2,C49                             |
| 064        | 1          | 083-471            | CAP,CER HF POWER 5% 470 PF      | MHP1471J          | M05079      | C39                                |

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PART NUMBER : 2241-2020-1X

TITLE: PWA,LOW PASS FILTER THRU HOLE

CAGE CODE: 59532

REV : /

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>         | <u>VENDOR P/N</u> | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u> |
|------------|------------|--------------------|----------------------------|-------------------|-------------|------------------------------------|
| 065        | 2          | 083-511            | CAP,CER HF POWER 5% 510 PF | MHP1511J          | M05079      | C8,C22B                            |
| 066        | 3          | 083-560            | CAP,CER HF POWER 5% 56 PF  | MHP-1-560         | M05079      | C29,C48,C51                        |
| 067        | 2          | 083-561            | CAP,CER HF POWER 5% 560 PF | MHP1561J          | M05079      | C27,C54                            |
| 068        | 2          | 083-621            | CAP,CER HF POWER 5% 620 PF | UFP1-621          | M32897      | C42,C52                            |
| 069        | 1          | 083-681            | CAP,CER HF POWER 5% 680 PF | UFP1-681          | M32897      | C25                                |
| 070        | 1          | 083-750            | CAP,CER HF POWER 5% 75 PF  | MHP-1-750         | M05079      | C46                                |
| 071        | 1          | 083-751            | CAP,CER HF POWER 5% 750 PF | UFP1-751          | M32897      | C36                                |
| 072        | 6          | 083-821            | CAP,CER HF POWER 5% 820 PF | MHP-1-821         | M05079      | C10A,C12,C22A,C26A,C26B,C28        |
| 073        | 3          | 083-910            | CAP,CER HF POWER 5% 91 PF  | MHP-1-910         | M05079      | C9,C20,C43                         |
| 074        | 3          | 083-911            | CAP,CER HF POWER 5% 910 PF | MHP1911J          | M05079      | C24A,C24B,C38A                     |

PART NUMBER : 2241-2020-1

TITLE: PWA,LOW PASS FILTER FCC VERSION

CAGE CODE: 59532

REV : /

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>               | <u>VENDOR P/N</u> | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u> |
|------------|------------|--------------------|----------------------------------|-------------------|-------------|------------------------------------|
| 001        | 0          | D2241-2020         | PWA,LOW PASS FILTER PA-5050A     |                   |             |                                    |
| 001        | 1          | 2241-2020-1X       | PWA,LOW PASS FILTER THRU HOLE    |                   |             |                                    |
| 002        | 0          | PL2241-2020        | PWA,LOW PASS FILTER PA-5050A     |                   |             |                                    |
| 003        | 0          | D2241-2420         | SCHEMATIC,LOW PASS FILTER        |                   |             |                                    |
| 004        | 0          | SPEC LIST 1        | SPEC,MARKING                     |                   |             |                                    |
| 005        | 0          | SPEC LIST 17       | SPEC,ESD                         |                   |             |                                    |
| 006        | 0          | MIL-STD-2000       | STD REQS FOR SOLDERED ELECTRICAL |                   |             |                                    |

|                               |                                                                                                                                 |                                                     |                                                   |               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------|---------------|
| PARTS LIST                    |  DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532                                  | PL-2241-2008-1                                    | PAGE 1 OF 2   |
| TITLE DISPLAY ASSY,<br>L.C.D. |                                                                                                                                 | CONTRACT<br>NUMBER                                  |                                                   | REV<br>DATE C |
| REVISIONS                     |                                                                                                                                 |                                                     |                                                   |               |
| LTR                           | DESCRIPTION                                                                                                                     | DATE                                                | APPD                                              |               |
| A                             | DCR 723016: REVISED AND REDRAWN.<br><br>M. THORP 96-5-14                                                                        | 96-6-5<br>96-6-24<br>96-6-5<br>96-6-5               | C. Dandrea<br>A. B. G. G.<br>EC<br>J. M. J. M.    |               |
| B                             | DCR 723507: DELETED FN11, WAS 680-106.<br>FN12 WAS 325-046. ADDED FN15, 16, 17.<br>M. THORP 97-1-21                             | 97-1-23<br>97-1-23<br>97-1-23<br>97-1-24<br>97-1-23 | C. Dandrea<br>W. J. M.<br>K. J. M.<br>J. M. J. M. |               |
| C                             | DCR 726000: DRAWING ONLY AFFECTED.<br><br>M. THORP 97-5-22                                                                      | 97-6-12<br>7-10-97<br>97-6-12<br>97-5-29            | C. Dandrea<br>L. J. M.<br>EC<br>N. J. M.          |               |
|                               |                                                                                                                                 |                                                     |                                                   |               |

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07/18/97

PAGE - 1 2

PART NUMBER : 2241-2008-1

TITLE: PWA,DISPLAY ASSY,LCD

CAGE CODE: 59532

REV : C

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>               | <u>VENDOR P/N</u> | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u> |
|------------|------------|--------------------|----------------------------------|-------------------|-------------|------------------------------------|
| 001        | 0          | D2241-2008         | ASSY,DISPLAY LCD                 |                   |             |                                    |
| 002        | 0          | PL2241-2008        | ASSY,DISPLAY LCD                 |                   |             |                                    |
| 003        | 0          | SPEC LIST 8        | SPEC,STD GENL REQMT EL EQUIPMENT |                   |             |                                    |
| 004        | 0          | SPEC LIST 11       | SPEC,DRAWING PRACTICES           |                   |             |                                    |
| 005        | 0          | MIL-STD-2000       | STD REQS FOR SOLDERED ELECTRICAL |                   |             |                                    |
| 010        | 1          | 470-004            | DISPLAY,LCD 16 CHARACTERS 1 LINE | L1671B1J000       | M62712      |                                    |
| 012        | 1          | 322-015            | CONN,HEADER,,100,ST LK14 PIN GLD | 22-11-2142        | M27264      |                                    |
| 015        | 2          | 673-609            | WIRE,#24/19, TYPE BU WHITE       | NB1936U9          | M04569      |                                    |
| 016        | 2          | 675-547            | TUBING,TFE TEFLON SIZE 15        | 6032-15-10        | M04569      |                                    |
| 017        | 1          | 045-628            | RES,CARBON FILM,1/4W 5% 6.2 OHMS |                   |             |                                    |
| 020        | 0          | 784-007            | SOLDER,WIRE FLUX .020 DIA SN63   | SN63WRMAP2        | MQPL        |                                    |

13:03:14  
FUNCTION: BILI

CUBIC COMMUNICATIONS, INC.  
SINGLE LEVEL BILL

PAGE: 1  
01/14/1999

OPTION: A IN EFF: 011499 OUT EFF: 123179

PARENT: 2245-2001-1 DESC: PWA,CONTROL THRU HOLE  
RV: C UM: EA RUN LT: 9.9999 FIXED LT: 0  
PLNR: ADM LT: Y PLN POL: N DRWG: D2245-2001

PT USE SEQN COMPONENT  
STARTING:

| PT    | USE | SEQN         | COMPONENT                        | DESCRIPTION | C<br>T | QUANTITY | Q<br>T | UM | M<br>B | L<br>T |
|-------|-----|--------------|----------------------------------|-------------|--------|----------|--------|----|--------|--------|
| KITPL | 002 | 2245-2001-1X | PWA,CONTROL                      | SMT O N     | 1      | I        | EA     | M  | Y      |        |
| KITPL | 047 | 052-226      | RES,VAR 1/4"SQ TOP ADJ 100K OHMS | N           | 2      | I        | EA     | B  | N      |        |
| KITPL | 048 | 052-293      | RES,VAR 1/4 SQ PCMT TOP ADJ 50K  | N           | 2      | I        | EA     | B  | N      |        |
| KITPL | 086 | 073-151      | CAP,ELECTROLYTIC,63V 100 UF      | N           | 1      | I        | EA     | B  | N      |        |
| KITPL | 128 | 322-005      | CONN,HEADER,.100 ST LK 4 PIN GLD | N           | 1      | I        | EA     | B  | N      |        |
| KITPL | 130 | 322-007      | CONN,HEADER,.100 ST LK 6 PIN GLD | N           | 1      | I        | EA     | B  | N      |        |
| KITPL | 132 | 322-008      | CONN,HEADER,.100 ST LK 7 PIN GLD | N           | 1      | I        | EA     | B  | N      |        |
| KITPL | 138 | 322-069      | CONN,HEADER MINIFIT JR 6 PIN     | N           | 1      | I        | EA     | B  | N      |        |
| KITPL | 140 | 322-218      | CONN,HEADER BRKAWAY DUAL ROW ST  | N           | 2      | I        | EA     | B  | N      |        |
| KITPL | 144 | 322-188      | CONN,HEADER BRKAWAY DUAL ROW ST  | N           | 1      | I        | EA     | B  | N      |        |
| KITPL | 150 | 324-073      | CONN,D-SUB PIN RA PCMT FLTR 9 PI | N           | 6      | I        | EA     | B  | N      |        |
| KITPL | 160 | 344-364      | CONN, HEADER,.200, ST NL , 3 PIN | N           | 1      | I        | EA     | B  | N      |        |
| KITPL | 164 | 344-413      | CONN,JACK SMB PC MT SMB          | N           | 2      | I        | EA     | B  | N      |        |
| KITPL | 166 | 458-107      | STANDOFF,4-40 THD 1/4 L          | N           | 6      | I        | EA     | B  | N      |        |
| KITPL | 188 | 505-034      | IC,CONV DC/DC,20 WATTS 28 IN 12  | N           | 1      | I        | EA     | B  | N      |        |
| REV A | 001 | DCR727847    | CHANGE 2245-2001 TO REV A        | X           | 0      | I        | EA     | M  | N      |        |
| REV A | 001 | DCR727774    | CHANGE 2245-2001 TO REV A        | X           | 0      | I        | EA     | M  | N      |        |
| REV B | 002 | DCR727850    | CHANGE 2245-2001 TO REV B        | X           | 0      | I        | EA     | M  | N      |        |
| REV C | 003 | DCR727851    | CHG 2245-2001/C 1000-1/A 1102-1/ | X           | 0      | I        | EA     | M  | N      |        |

\*\*\* END OF REPORT \*\*\*

|                     |                                                                                                                                 |                              |                                |               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------|---------------|
| PARTS LIST          |  DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532           | PL2241-2004-1                  | PAGE 1 OF 2   |
| TITLE PWA, COMBINER |                                                                                                                                 | CONTRACT<br>NUMBER           |                                | REV -<br>DATE |
|                     | REVISIONS                                                                                                                       |                              |                                |               |
| LTR                 | DESCRIPTION                                                                                                                     | DATE                         | APPD                           |               |
| B                   | DCR 723016:<br><br>M. THORP 96-3-22                                                                                             | 96-4-17<br>96-4-17<br>96-4-8 | L. Lumbard<br>PC<br>Jim Martin |               |
|                     |                                                                                                                                 |                              |                                |               |

11:35:35  
FUNCTION: BILI

CUBIC COMMUNICATIONS, INC.  
SINGLE LEVEL BILL  
OPTION: M

PAGE: 1  
04/17/1996

PARENT: 2241-2004-1      DESC: PWA,COMBINER  
RV: B      UM: EA      RUN LT: 7      FIXED LT: 0  
PLNR: USA      LT: Y      PLN POL: N      DRWG: D2241-2004

PT USE      SEQN      COMPONENT  
STARTING:

| PT<br>USE | SEQN | COMPONENT   | DESCRIPTION                    | C<br>T | QUANTITY | Q<br>T | UM | M<br>B | L<br>T |
|-----------|------|-------------|--------------------------------|--------|----------|--------|----|--------|--------|
| KITPL     | 001  | 2241-2104-7 | PWB,COMBINER                   | P      | 1        | I      | EA | B      | Y      |
| KITPL     | 002  | 072-108     | CAP, DISC, 1 KV, .250LS , 68   | N      | 2        | I      | EA | B      | N      |
| KITPL     | 003  | 072-105     | CAP, DISC, 1 KV, .250LS ,180   | N      | 1        | I      | EA | B      | N      |
| KITPL     | 004  | 322-018     | CONN,HEADER,.100 RA LK 2 PIN   | N      | 1        | I      | EA | B      | N      |
| KITPL     | 005  | 458-091     | STANDOFF,SWG #6 CLEAR 3/32L    | N      | 4        | I      | EA | B      | N      |
| KITPL     | 009  | 784-007     | SOLDER,WIRE FLUX .020 DIA SN63 | N      | 0        | I      | EA | B      | N      |

\*\*\* END OF REPORT \*\*\*

|                     |                                                                                                                                 |                              |                            |               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|---------------|
| PARTS LIST          |  DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532           | PL 2241-2005-1             | PAGE 1 OF 2   |
| TITLE PWA, SPLITTER |                                                                                                                                 | CONTRACT<br>NUMBER           |                            | REV -<br>DATE |
| REVISIONS           |                                                                                                                                 |                              |                            |               |
| LTR                 | DESCRIPTION                                                                                                                     | DATE                         | APPD                       |               |
| B                   | DCR 723016 :<br><br>M. THORP 96-3-22                                                                                            | 96-4-17<br>96-4-10<br>96-4-8 | L. L. L. L.<br>J. M. M. M. |               |
|                     |                                                                                                                                 |                              |                            |               |

11:35:00  
FUNCTION: BILI

CUBIC COMMUNICATIONS, INC.  
SINGLE LEVEL BILL  
OPTION: M

PAGE: 2  
04/17/1996

PARENT: 2241-2005-1                    DESC: PWA,SPLITTER  
RV: B                    UM: EA                    RUN LT: 7                    FIXED LT: 0  
PLNR: USA                    LT: Y                    PLN POL: N                    DRWG: D2241-2005

PT USE    SEQN    COMPONENT  
STARTING:

| PT    |      |             |                                  |  | C |          | Q | M  | L      |
|-------|------|-------------|----------------------------------|--|---|----------|---|----|--------|
| USE   | SEQN | COMPONENT   | DESCRIPTION                      |  | T | QUANTITY | T | UM | B T    |
| KITPL | 001  | 2241-2105-7 | PWB,SPLITTER                     |  | P |          | 1 | I  | EA B Y |
| KITPL | 002  | 072-108     | CAP, DISC, 1 KV, .250LS , 68     |  | N |          | 2 | I  | EA B N |
| KITPL | 003  | 072-105     | CAP, DISC, 1 KV, .250LS ,180     |  | N |          | 1 | I  | EA B N |
| KITPL | 004  | 070-035     | CAP,CER .33 UF                   |  | N |          | 2 | I  | EA B N |
| KITPL | 005  | 111-064     | RELAY, PCMT,POWERCUBE,5 A,SPDT 4 |  | N |          | 1 | I  | EA B N |
| KITPL | 006  | 322-019     | CONN,HEADER,.100,RA LK 3 PIN GLD |  | N |          | 1 | I  | EA B N |
| KITPL | 007  | 458-091     | STANDOFF,SWG #6 CLEAR 3/32L      |  | N |          | 4 | I  | EA B N |
| KITPL | 009  | 784-007     | SOLDER,WIRE FLUX .020 DIA SN63   |  | N |          | 0 | I  | EA B N |

\*\*\* END OF REPORT \*\*\*

|                                                    |                                                                                                      |                                               |                    |                                                          |                                                             |           |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------|----------------------------------------------------------|-------------------------------------------------------------|-----------|
| PARTS LIST                                         |                                                                                                      | DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532 | DRAWING NUMBER<br>2241-2007-1                            | REV<br>H                                                    | PAGE 1 OF |
| TITLE<br>PRINTED WIRING ASSEMBLY,<br>FILTER DRIVER |                                                                                                      |                                               | CONTRACT NUMBER    |                                                          | DATE: 96-06-03                                              |           |
| REVISIONS                                          |                                                                                                      |                                               |                    |                                                          |                                                             |           |
| LTR                                                | DESCRIPTION                                                                                          |                                               |                    | DATE                                                     | APPROVED                                                    |           |
| -                                                  | INITIAL RELEASE<br><br>SHELLEY MUNDT 96-06-03                                                        |                                               |                    | 96-05-31<br>96-05-31<br>96-06-03                         | C.DAVIDSON<br>T.COCHRAN<br>L.GUICHARD                       |           |
| A                                                  | DCR 723763B: REPLACES REV - WITH CHANGE.<br><br>SHELLEY MUNDT 97-01-29                               |                                               |                    | 97-02-11<br>97-02-25<br>97-02-21<br>97-02-04             | M.NORMAN<br>C.DAVIDSON<br>T.COCHRAN<br>W.FRAME              |           |
| B                                                  | DCR 726714: FN5, R41 WAS R47; FN9 Q16 WAS Q18. ADDED FN35.                                           |                                               |                    | 97-05-28                                                 | C.DAVIDSON                                                  |           |
| C                                                  | DCR 726724: DWG CHG ONLY.<br><br>SHELLEY MUNDT 97-05-28                                              |                                               |                    | 97-06-03<br>97-05-29<br>97-05-28                         | L.GUICHARD<br>T.COCHRAN<br>N.NADER                          |           |
| D                                                  | DCR 727276: DWG AFFECTED ONLY.<br><br>SHELLEY MUNDT 97-09-23                                         |                                               |                    | 97-10-02<br>97-10-08<br>97-10-01<br>97-09-29<br>97-11-20 | C.DAVIDSON<br>T.COCHRAN<br>N.NADER<br>M.THORP<br>L.GUICHARD |           |
| E                                                  | DCR 727358, DCR 727489: ADDED C29,C30,C32; U10 477-247<br>WAS 506-118.<br><br>SHELLEY MUNDT 98-04-06 |                                               |                    | 98-04-13<br>98-04-17<br>98-04-09<br>98-04-15             | C.DAVIDSON<br>L.GUICHARD<br>KIM DO<br>T.COCHRAN             |           |
| F                                                  | DCR 727702: DWG CHG ONLY.                                                                            |                                               |                    | 98-12-17                                                 | C.DAVIDSON                                                  |           |
| G                                                  | DCR 727568: REPLACES REV F WITH CHANGE.                                                              |                                               |                    | 98-12-17                                                 | SHELLEY MUNDT 98-12-01                                      |           |
| H                                                  | DCR 727822: REPLACES REV G WITH CHANGE.<br>SHELLEY MUNDT 98-12-01                                    |                                               |                    | 98-12-15                                                 | SHELLEY MUNDT 98-12-01                                      |           |
|                                                    |                                                                                                      |                                               |                    |                                                          |                                                             |           |

|                                                                                                                                                                                                                                                                                                                     |                                               |                    |                               |          |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------|-------------------------------|----------|-----------|
| PARTS LIST                                                                                                                                                                                                                                                                                                          | DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532 | DRAWING NUMBER<br>2241-2007-1 | REV<br>H | PAGE 2 OF |
| <p>NOTES: UNLESS OTHER SPECIFIED</p> <ol style="list-style-type: none"><li>1. ELECTROSTATIC DISCHARGE CONTROL PROGRAM FOR PROTECTION OF ELECTRICAL AND ELECTRONIC PARTS, ASSEMBLIES AND EQUIPMENT SHALL BE IN ACCORDANCE WITH MIL-STD-1686 AND DOD-HBK-263.</li><li>2. VENDOR ITEM: SEE SPEC CONTROL DWG.</li></ol> |                                               |                    |                               |          |           |

14:32:39  
FUNCTION: ASBL

CUBIC COMMUNICATIONS, INC.  
SINGLE LEVEL BILL OF MATERIAL

PAGE: 1  
12/03/1998

PRINT OPTION: TEXT ADDED TO PRINT  
EXCLUSIONS: CT: RBCTU, WC[x], REVS

PARENT: 2241-2007-1

DESC: PWA,FILTER DRIVER

DRWG: D2241-2007

UM: EA

MB: M

REV: H

OPTION: P

EFFECTIVITY DATE: 120398

EFFECTIVE REV: H

| PT | USE   | SEQN | COMPONENT    | DESCRIPTION                     | M C Q REV | B T T IN OUT | QUANTITY | UM | EFFECTIVITY | IN     | OUT | LTOS | PCNT |
|----|-------|------|--------------|---------------------------------|-----------|--------------|----------|----|-------------|--------|-----|------|------|
|    | DWGFL | 001  | D2241-2007   | PWA,FILTER DRIVER BOARD         | M X I     |              | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |
|    | DWGFL | 002  | PL2241-2007  | PWA,FILTER DRIVER BOARD         | M X I     |              | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |
|    | DWGFL | 003  | D2241-2407   | SCHEMATIC,FILTER DRIVER         | M X I     |              | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |
|    | DWGFL | 004  | SPEC LIST 1  | SPEC,MARKING                    | M X I     |              | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |
|    | DWGFL | 005  | SPEC LIST 17 | SPEC,ESD                        | M X I     |              | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |
|    | DWGFL | 006  | MIL-STD-2000 | STD REQ FOR SOLDERED ELECTRICAL | M X I     |              | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |
|    | KITPL | 001  | 2241-2007-1X | PWA,FILTER DRIVER MEX           | M N I     |              | 1        | EA | 010190      | 123199 |     | 0    | 0.0  |
|    | KITPL | 032  | 672-004      | WIRE,20 AWG,TINNED BUSS BARE    | B N I     |              | 0        | IN | 010190      |        |     | 0    | 0.0  |

\* \* \* \* \* END OF REPORT \* \* \* \* \*

PRINT OPTION: TEXT ADDED TO PRINT  
EXCLUSIONS: CT: RBCTU, WC[x], REVS

PARENT: 2241-2007-1X

DESC: PWA, FILTER DRIVER MEX

DRWG: D2241-2007

UM: EA

MB: M

REV: H

OPTION: P

EFFECTIVITY DATE: 120398

EFFECTIVE REV: H

| PT    | USE | SEQN         | COMPONENT | DESCRIPTION                                                                                                                                                                                                       | M C Q  | REV   | B T T | IN | OUT | QUANTITY | UM | EFFECTIVITY | IN     | OUT | LTOS | PCNT | SCRAP |
|-------|-----|--------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|-------|----|-----|----------|----|-------------|--------|-----|------|------|-------|
| DWGPL | 001 | D2241-2007   |           | PWA,FILTER DRIVER BOARD                                                                                                                                                                                           | M X I  |       |       |    |     | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| DWGPL | 002 | PL2241-2007  |           | PWA,FILTER DRIVER BOARD                                                                                                                                                                                           | M X I  |       |       |    |     | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| DWGPL | 003 | D2241-2407   |           | SCHEMATIC,FILTER DRIVER                                                                                                                                                                                           | M X I  |       |       |    |     | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| DWGPL | 004 | SPEC LIST 1  |           | SPEC,MARKING                                                                                                                                                                                                      | M X I  |       |       |    |     | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| DWGPL | 005 | SPEC LIST 17 |           | SPEC,ESD                                                                                                                                                                                                          | M X I  |       |       |    |     | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| DWGPL | 006 | MIL-STD-2000 |           | STD REQT FOR SOLDERED ELECTRICAL                                                                                                                                                                                  | M X I  |       |       |    |     | 0        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 003 | 2241-2107-7  |           | PWB,FILTER DRIVER                                                                                                                                                                                                 | B N I  |       |       |    |     | 1        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 006 | 027-078      |           | IND,Z BEAD CHOKE,<br>L1,L2                                                                                                                                                                                        | 6.0 T  | M N I |       |    |     | 2        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 008 | 045-158      |           | RES,CARBON FILM,1/4W 5% 1.5 OHMS<br>R64,R65                                                                                                                                                                       | B N I  |       |       |    |     | 2        | EA | 010190      |        |     | 0    | 0.0  |       |
| KITPL | 010 | 045-102      |           | RES,CARBON FILM,1/4W 5% 1.0K OHMS<br>R7,R8,R9,R10,R17,R18,R19,R20,R27,R28,R29,R30,R37,R38,R39,<br>R40,R47,R48,R49,R50,R63                                                                                         | B N I  |       |       |    |     | 21       | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 012 | 045-103      |           | RES,CARBON FILM,1/4W 5% 10K OHMS<br>R1,R2,R3,R4,R5,R6,R11,R12,R13,R14,R15,R16,R21,R22,R23,R24,<br>R25,R26,R31,R32,R33,R34,R35,R36,R41,R42,R43,R44,R45,R46,R53,<br>R54,R55,R66,R67,R68,R69,R70,R71,R72,R73,R74,R75 | B N I  |       |       |    |     | 43       | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 014 | 045-241      |           | RES,CARBON FILM,1/4W 5% 240 OHMS<br>R51,R52                                                                                                                                                                       | B N I  |       |       |    |     | 2        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 020 | 046-510      |           | RES,CARBON FILM,1/2W 5% 51 OHMS<br>R56,R60                                                                                                                                                                        | B N I  |       |       |    |     | 2        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 026 | 052-231      |           | RES,VAR 1/4 SQ TOP ADJ 12T,10K OHMS<br>R58,R62                                                                                                                                                                    | B N I  |       |       |    |     | 2        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 030 | 069-012      |           | CAP,TANTALUM 10V 20%<br>C26                                                                                                                                                                                       | 220 UF | B N I |       |    |     | 1        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 034 | 069-225      |           | CAP,TANTALUM 25V 10%<br>C24,C25                                                                                                                                                                                   | 47 UF  | B N I |       |    |     | 2        | EA | 010190      | 123199 |     | 0    | 0.0  |       |
| KITPL | 040 | 073-151      |           | CAP,ELECTROLYTIC,63V<br>C23                                                                                                                                                                                       | 100 UF | B N I |       |    |     | 1        | EA | 010190      | 123199 |     | 0    | 0.0  |       |

PARENT: 2241-2007-1X

DESC: PWA, FILTER DRIVER MEX

DRWG: D2241-2007

UM: EA

MB: M

REV: H

OPTION: P

EFFECTIVITY DATE: 120398

EFFECTIVE REV: H

| PT    |      |           |                                                                                           | M C Q REV    |             | EFFECTIVITY   | SCRAP |
|-------|------|-----------|-------------------------------------------------------------------------------------------|--------------|-------------|---------------|-------|
| USE   | SEQN | COMPONENT | DESCRIPTION                                                                               | B T T IN OUT | QUANTITY UM | IN OUT LTOS   | PCNT  |
| KITPL | 044  | 081-103   | CAP,SEMI-STABLE CERAMIC .01 UF<br>C2,C4,C6,C8,C10,C12,C14,C16,C17,C18,C19,C20,C21,C27,C28 | B N I        | 15 EA       | 010190 123199 | 0 0.0 |
| KITPL | 046  | 081-104   | CAP,SEMI-STABLE CERAMIC .1 UF<br>C1,C3,C5,C7,C9,C11,C13,C15,C22,C29,C30                   | B N I        | 11 EA       | 010190 123199 | 0 0.0 |
| KITPL | 050  | 081-472   | CAP,SEMI-STABLE CERAMIC .0047 UF<br>C31                                                   | B N I        | 1 EA        | 010190        | 0 0.0 |
| KITPL | 060  | 322-003   | CONN,HEADER,.100 ST LK 2 PIN GLD<br>J5,J11                                                | B N I        | 2 EA        | 010190 123199 | 0 0.0 |
| KITPL | 062  | 322-004   | CONN,HEADER,.100 ST LK 3 PIN GLD<br>J1,J6,J7                                              | B N I        | 3 EA        | 010190 123199 | 0 0.0 |
| KITPL | 064  | 322-006   | CONN,HEADER,.100 ST LK 5 PIN GLD<br>J2,J4,J17                                             | B N I        | 3 EA        | 010190 123199 | 0 0.0 |
| KITPL | 066  | 322-010   | CONN,HEADER,.100 ST LK 9 PIN GLD<br>J3,J12,J13                                            | B N I        | 3 EA        | 010190 123199 | 0 0.0 |
| KITPL | 070  | 322-069   | CONN,HEADER MINIFIT JR 6 PIN<br>J8                                                        | B N I        | 1 EA        | 010190 123199 | 0 0.0 |
| KITPL | 074  | 322-189   | CONN,HEADER,STRAIGHT 34 PIN<br>J14,J15                                                    | B N I        | 2 EA        | 010190 123199 | 0 0.0 |
| KITPL | 080  | 325-042   | CONN,IDC,HEADER ST PCMT 14 PIN<br>J16                                                     | B N I        | 1 EA        | 010190 123199 | 0 0.0 |
| KITPL | 090  | 344-413   | CONN,JACK SMB PC MT SMB<br>J9,J10                                                         | B N I        | 2 EA        | 010190 123199 | 0 0.0 |
| KITPL | 100  | 475-151   | DIODE .41V@ 1MA<br>CR1,CR2,CR3,CR4,CR5,CR6                                                | B N I        | 6 EA        | 010190 123199 | 0 0.0 |
| KITPL | 104  | 476-157   | TRANSISTOR SILICONIX ONLY,N CHANNEL<br>Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q13,Q15                    | B N I        | 10 EA       | 010190        | 0 0.0 |
| KITPL | 106  | 476-253   | TRANSISTOR<br>Q9,Q10,Q11,Q12,Q14,Q16,Q17,Q18,Q19,Q20                                      | B N I        | 18 EA       | 010190 123199 | 0 0.0 |

14:32:45  
FUNCTION: ASBL

CUBIC COMMUNICATIONS, INC.  
SINGLE LEVEL BILL OF MATERIAL

PAGE: 3  
12/03/1998

PARENT: 2241-2007-1X

DESC: PWA, FILTER DRIVER MEX

DRWG: D2241-2007

UM: EA

MB: M

REV: H

OPTION: P

EFFECTIVITY DATE: 120398

EFFECTIVE REV: H

| PT | USE   | SEQN | COMPONENT | DESCRIPTION                     |              | M | C | Q | REV |     | EFFECTIVITY | SCRAP |        |        |      |      |
|----|-------|------|-----------|---------------------------------|--------------|---|---|---|-----|-----|-------------|-------|--------|--------|------|------|
|    |       |      |           |                                 |              | B | T | T | IN  | OUT | QUANTITY    | UM    | IN     | OUT    | LTOS | PCNT |
|    | KITPL | 108  | 477-096   | IC, COMPARATOR, QUAD            | , LINEAR     | B | N | I |     |     | 10          | EA    | 010190 | 123199 | 0    | 0.0  |
|    |       |      |           | U1, U2, U3, U4, U5              |              |   |   |   |     |     |             |       |        |        |      |      |
|    | KITPL | 109  | 477-264   | IC, OP AMP DUAL                 | LINEAR       | B | N | I |     |     | 1           | EA    | 010190 | 123199 | 0    | 0.0  |
|    |       |      |           | U7                              |              |   |   |   |     |     |             |       |        |        |      |      |
|    | KITPL | 110  | 477-356   | IC, MUX, 8 CHAN ANALOG          | , CMOS       | B | N | I |     |     | 1           | EA    | 010190 | 123199 | 0    | 0.0  |
|    |       |      |           | U6                              |              |   |   |   |     |     |             |       |        |        |      |      |
|    | KITPL | 112  | 477-247   | IC, INVERTER, HEX               | CMOS         | B | N | I |     |     | 1           | EA    | 010190 |        | 0    | 0.0  |
|    |       |      |           | U10                             |              |   |   |   |     |     |             |       |        |        |      |      |
|    | KITPL | 116  | 505-034   | IC, CONV DC/DC, 20 WATTS        | 28 IN 12 OUT | B | N | I |     |     | 1           | EA    | 010190 | 123199 | 0    | 0.0  |
|    |       |      |           | FS1                             |              |   |   |   |     |     |             |       |        |        |      |      |
|    | KITPL | 118  | 506-118   | IC, QUAD 2 INPUT MUX, TRI-STATE | OUT          | B | N | I |     |     | 3           | EA    | 010190 | 123199 | 0    | 0.0  |
|    |       |      |           | U8, U9, U11                     |              |   |   |   |     |     |             |       |        |        |      |      |
|    | KITPL | 119  | 675-517   | SLEEVING, TEFLON                | #24          | B | N | I |     |     | 0           | IN    | 010190 |        | 0    | 0.0  |
|    | KITPL | 120  | 779-031   | ADHESIVE, SEALANT, CLR RTV      | 3OZ TUBE     | B | N | I |     |     | 0           | EA    | 010190 |        | 0    | 0.0  |

\* \* \* \* \* END OF REPORT \* \* \* \* \*

|                                                      |                                                                                                                                                               |                                               |                    |                               |                            |                |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------|-------------------------------|----------------------------|----------------|
| PARTS LIST                                           |                                                                                                                                                               | DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532 | DRAWING NUMBER<br>2241-2015-1 | REV<br>F                   | PAGE 1 OF 3    |
| TITLE<br>PRINTED WIRING ASSEMBLY,<br>POWER AMPLIFIER |                                                                                                                                                               |                                               | CONTRACT NUMBER    |                               |                            | DATE: 97-02-27 |
| REVISIONS                                            |                                                                                                                                                               |                                               |                    |                               |                            |                |
| LTR                                                  | DESCRIPTION                                                                                                                                                   |                                               |                    | DATE                          | APPROVED                   |                |
| E                                                    | DCR724003 REPLACES REV D WITH CHANGE.<br>CHANGED ITEM 38 FROM 045-243 TO 045-472.<br>JIM BRAY 97-09-09                                                        |                                               |                    | 9-12-97<br>9-26-97            | C. Brundage<br>J. Brundage |                |
| F                                                    | DCR727185 REPLACES REV E WITH CHANGE. CHANGED ITEM 35<br>FROM 045-103 TO 045-202, ITEM 36 FROM 045-301 TO 045-470.<br>ADD R41 (045-241).<br>JIM BRAY 97-09-09 |                                               |                    | 1/10/98<br>2/10/98            | J. Brundage<br>J. Brundage |                |
|                                                      |                                                                                                                                                               |                                               |                    |                               |                            |                |

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PAGE - 2

PART NUMBER : 2241-2015-1

TITLE: PWA,POWER AMP PA5050A

CAGE CODE: 59532

REV : F

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>                | <u>VENDOR P/N</u>  | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u> |
|------------|------------|--------------------|-----------------------------------|--------------------|-------------|------------------------------------|
| 001        | 0          | D2241-2015         | PWA,POWER AMPLIFIER               |                    |             |                                    |
| 002        | 0          | PL2241-2015        | PWA,POWER AMPLIFIER               |                    |             |                                    |
| 003        | 1          | 2241-2115-7        | PWB,POWER AMP PA5050A             |                    |             |                                    |
| 010        | 2          | 014-228            | XFMR,DRIVER OUTPUT                | RF2000-4-C         | M30049      | T1,T3                              |
| 012        | 2          | 014-226            | XFMR,WIDE BAND RF,1T:2T           | CCI DRAWING        | M59532      | T2,T4                              |
| 014        | 1          | 014-229            | XFMR,PWR COMBINER                 | RF2043-B           | M30049      | T5                                 |
| 016        | 1          | 014-230            | XFMR,PWR SPLITTER                 | RF400-B            | M30049      | T6                                 |
| 020        | 2          | 027-235            | IND,RF CHOKE                      | AR-305             | M30049      | L1,L2                              |
| 026        | 2          | 040-229            | RES,MF 1/8 W 1% 10.0K OHMS        | RNC55H1002FM       | M91637      | R2,R14                             |
| 027        | 2          | 040-370            | THERMISTOR 10K OHM                | AL03006-5818-97-G1 | M91833      | RT1,RT2                            |
| 028        | 1          | 045-103            | RES,CARBON FILM,1/4W 5% 10K OHMS  | 4701701C-4103J     | M06994      | R37                                |
| 029        | 1          | 045-202            | RES,CARBON FILM,1/4W 5% 2.0K OHMS | 4701701C-4202J     | M06994      | R35                                |
| 031        | 1          | 045-105            | RES,CARBON FILM,1/4W 5% 1.0M OHMS | 4701701C-4105J     | M06994      | R34                                |
| 032        | 1          | 045-271            | RES,CARBON FILM,1/4W 5% 270 OHMS  | 4701701C-4271J     | M06994      | R8                                 |
| 034        | 1          | 044-103            | RES,CARBON FILM,1/8W 5% 10K OHMS  | 4701701C-8103J     | M06994      | R30                                |
| 036        | 3          | 045-241            | RES,CARBON FILM,1/4W 5% 240 OHMS  | 4701701C-4241J     | M06994      | R12,R20,R41                        |
| 037        | 1          | 045-470            | RES,CARBON FILM,1/4W 5% 47 OHMS   | 4701701C-4470J     | M06994      | R36                                |
| 038        | 1          | 045-472            | RES,CARBON FILM,1/4W 5% 4.7K OHMS | 4701701C-4472J     | M06994      | R38                                |
| 039        | 1          | 045-333            | RES,CARBON FILM,1/4W 5% 33K OHMS  | 4701701C-4333J     | M06994      | R33                                |
| 040        | 8          | 046-470            | RES,FIXED CARBON 1/2W 5% 47 OHMS  | 4701701C-2470J     | M06994      | R21,R22,R23,R24,R25,R26,R27,R28    |
| 041        | 2          | 046-332            | RES,CARBON FILM,1/2W 5% 3.3K OHMS | 29SJ500-3.3K       | M50811      | R32,R39                            |

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PART NUMBER : 2241-2015-1

TITLE: PWA,POWER AMP PA5050A

CAGE CODE: 59532

REV : F

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>                 | <u>VENDOR P/N</u> | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u>                 |
|------------|------------|--------------------|------------------------------------|-------------------|-------------|----------------------------------------------------|
| 043        | 2          | 048-123            | RES,CARBON FILM 2W,5% 12K OHMS     | CF2W12KJ          | MOPEN       | R31,R40                                            |
| 044        | 2          | 052-230            | RES,VAR 1/4 SQ TOP ADJ 12T 2K OHMS | 3262W-1-202       | M32997      | VR1,VR2                                            |
| 050        | 2          | 060-102            | RES,FILM 1/8W 2% RLR05 1K OHMS     | RLR05C1001GS      | M91637      | R3,R15                                             |
| 058        | 4          | 060-301            | RES,FILM 1/8W 2% RLR05 300 OHMS    | RLR05C3000GS      | M91637      | R5,R6,R16,R17                                      |
| 060        | 1          | 069-044            | CAP,TANTALUM CHIP 35V 1.0 UF       | 293D105X9035B2T   | M52769      | C35                                                |
| 070        | 1          | 073-151            | CAP,ELECTROLYTIC,63V               | ECE-A1JGE101      | M61058      | C3                                                 |
| 072        | 1          | 073-165            | CAP,ELECTROLYTIC,63V,AX 470 UF     | TA470M63          | M90201      | C6                                                 |
| 074        | 1          | 073-166            | CAP,ELECTROLYTIC,50V,RAD 220 UF    | ECE-A1HGE221      | M61058      | C1                                                 |
| 076        | 2          | 073-168            | CAP,ELECTROLYTIC,16V,AX 1000 UF    | TA1000M16         | M90201      | C7,C14                                             |
| 078        | 2          | 073-169            | CAP,ELECTROLYTIC,50V,DC RAD 10 UF  | 515D106M050JA6A   | M52769      | C21,C22                                            |
| 080        | 1          | 090-024            | CAP,POLY 5% 50V 0.1 UF             | 168104J63A        | M90201      | C4                                                 |
| 082        | 2          | 090-025            | CAP,POLY 10% 100V 1 UF             | 160105K100H       | M90201      | C2,C13                                             |
| 090        | 13         | 094-104            | CAP,CER CHIP 10% 0.1 UF            | ATC200B104KP50    | M29990      | C9,C10,C11,C12,C15,C16,C17,C18,C19,C20,C31,C32,C33 |
| 100        | 3          | 475-023            | DIODE 1A,600V                      | 1N4005            | M04713      | CR2,CR3,CR5                                        |
| 104        | 1          | 475-126            | DIODE,SILICON REFERENCE 4.7 V      | 1N5230B           | M04713      | CR32                                               |
| 106        | 2          | 475-151            | DIODE .41V@ 1MA                    | 1N6263            | M12060      | CR31,CR33                                          |
| 112        | 1          | 477-503            | IC,VOLT COMP,LINEAR                | LM293D            | M01295      | U6                                                 |
| 120        | 2          | 504-046            | IC,LINE DRIVER HI-SPD&I,3ST DIP-8  | EL7134CN          | M4Y658      | U3,U5                                              |
| 122        | 0          | 779-003            | ADHESIVE,TAK-PAK KIT #382          | 00239             | M05972      |                                                    |

|                                                       |                                                          |                                                              |                               |                                                                   |                |
|-------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------|----------------|
| PARTS LIST                                            | DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC.            | CAGE CODE<br>59532                                           | DRAWING NUMBER<br>2241-2016-1 | REV<br>C                                                          | PAGE 1 OF 4    |
| TITLE<br>PRINTED WIRING ASSEMBLY,<br>POWER AMP DRIVER |                                                          | CONTRACT NUMBER                                              |                               |                                                                   | DATE: 97-05-07 |
| REVISIONS                                             |                                                          |                                                              |                               |                                                                   |                |
| LTR                                                   | DESCRIPTION                                              | DATE                                                         |                               | APPROVED                                                          |                |
| C                                                     | DCR 727287 REPLACES REV B WITH CHANGE. P/L NOT AFFECTED. | 97.9-12<br>9-22-97<br>97. 2.<br>97-9-10<br>JIM BRAY 97-08-04 |                               | <i>C. D. Anderson</i><br><i>L. D. Anderson</i><br><i>W. Nader</i> |                |
|                                                       |                                                          |                                                              |                               |                                                                   |                |

|            |                                               |                    |                               |          |           |
|------------|-----------------------------------------------|--------------------|-------------------------------|----------|-----------|
| PARTS LIST | DESIGN ACTIVITY<br>CUBIC COMMUNICATIONS, INC. | CAGE CODE<br>59532 | DRAWING NUMBER<br>2241-2016-1 | REV<br>C | PAGE 2 OF |
|------------|-----------------------------------------------|--------------------|-------------------------------|----------|-----------|

NOTES: UNLESS OTHER SPECIFIED

1. ELECTROSTATIC DISCHARGE CONTROL PROGRAM FOR PROTECTION  
OF ELECTRICAL AND ELECTRONIC PARTS, ASSEMBLIES AND EQUIPMENT  
SHALL BE IN ACCORDANCE WITH MIL-STD-1686 AND DOD-HBK-263.
2. VENDOR ITEM: SEE SPEC CONTROL DWG.

PART NUMBER : 2241-2016-1

TITLE: PWA,POWER AMP DRIVER

CAGE CODE: 59532

REV: C

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>               | <u>VENDOR P/N</u>    | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u> |
|------------|------------|--------------------|----------------------------------|----------------------|-------------|------------------------------------|
| 001        | 0          | D2241-2016         | PWA,POWER AMP DRIVER             |                      |             |                                    |
| 002        | 0          | PL2241-2016        | PWA,POWER AMP DRIVER             |                      |             |                                    |
| 002        | 1          | 2241-2116-7        | PWB,POWER AMP DRIVER             | DELTA SIGMA 7-31-012 | M59532      |                                    |
| 009        | 1          | 014-228            | XFMR,DRIVER OUTPUT               | RF2000-4-C           | M30049      | T1                                 |
| 010        | 1          | 014-227            | XFMR,WIDE BAND RF 3T:1T          | RF400-9              | M30049      | T2                                 |
| 012        | 1          | 027-235            | IND,RF CHOKE                     | AR-305               | M30049      | L1                                 |
| 013        | 1          | 027-236            | IND,RF SNUBBER                   | CCI DRAWING          | M59532      | L2                                 |
| 014        | 1          | 045-471            | RES,CARBON FILM,1/4W 5% 470 OHMS | 29SJ250-470          | M50811      | R8                                 |
| 015        | 1          | 040-098            | RES,MF 1/8 W 0.1% 10.0K OHMS     | RN55C1002B           | 108753      | R2                                 |
| 016        | 1          | 060-103            | RES,FILM 1/8W 2% RLR05 10K OHMS  | RLR05C1002GS         | M91637      | R7                                 |
| 017        | 1          | 045-221            | RES,CARBON FILM,1/4W 5% 220 OHMS | 29SJ250-220          | M50811      | R9                                 |
| 018        | 1          | 045-241            | RES,CARBON FILM,1/4W 5% 240 OHMS | 4701701C-4241J       | M06994      | R14                                |
| 019        | 1          | 045-271            | RES,CARBON FILM,1/4W 5% 270 OHMS | 4701701C-4271J       | M06994      | R10                                |
| 020        | 1          | 040-370            | THERMISTOR 10K OHM               | AL03006-5818-97-G1   | M91833      | RT1                                |
| 021        | 4          | 046-470            | RES,FIXED CARBON 1/2W 5% 47 OHMS | 4701701C-2470J       | M06994      | R15,R16,R17,R18                    |
| 022        | 1          | 052-233            | RES,VAR 25-TURN 2K OHMS          | 3292W-1-202          | M32997      | VR1                                |
| 024        | 2          | 060-102            | RES,FILM 1/8W 2% RLR05 1K OHMS   | RLR05C1001GS         | M91637      | R1,R3                              |
| 025        | 1          | 060-222            | RES,FILM 1/8W 2% RLR05 2.2K OHMS | RLR05C2201GS         | M91637      | R4                                 |
| 026        | 2          | 060-301            | RES,FILM 1/8W 2% RLR05 300 OHMS  | RLR05C3000GS         | M91637      | R5,R6                              |
| 027        | 1          | 060-153            | RES,FILM 1/8W 2% RLR05 15K OHMS  | RLR05C1502GS         | M91637      | R11                                |
| 028        | 1          | 060-182            | RES,FILM 1/8W 2% RLR05 1.8K OHMS | RLR05C1801GS         | M91637      | R19                                |

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PART NUMBER : 2241-2016-1

TITLE: PWA,POWER AMP DRIVER

CAGE CODE: 59532

REV: C

CONTRACT NO.-

| <u>FND</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u>                | <u>VENDOR P/N</u> | <u>CAGE</u> | <u>REFERENCE DESIGNATORS/NOTES</u> |
|------------|------------|--------------------|-----------------------------------|-------------------|-------------|------------------------------------|
| 029        | 1          | 073-169            | CAP,ELECTROLYTIC,50V,DC RAD 10 UF | 515D106M050JA6A   | M52789      | C13                                |
| 030        | 1          | 073-165            | CAP,ELECTROLYTIC,63V,AX 470 UF    | TA470M63          | M90201      | C6                                 |
| 031        | 1          | 073-166            | CAP,ELECTROLYTIC,50V,RAD 220 UF   | ECE-A1HGE221      | M61058      | C1                                 |
| 032        | 1          | 073-151            | CAP,ELECTROLYTIC,63V              | ECE-A1JGE101      | M61058      | C3                                 |
| 033        | 1          | 073-168            | CAP,ELECTROLYTIC,16V,AX 1000 UF   | TA1000M16         | M90201      | C7                                 |
| 034        | 3          | 090-024            | CAP,POLY 5% 50V 0.1 UF            | 168104J63A        | M90201      | C4,C5,C11                          |
| 035        | 1          | 090-025            | CAP,POLY 10% 100V 1 UF            | 160105K100H       | M90201      | C2                                 |
| 036        | 5          | 094-104            | CAP,CER CHIP 10% 0.1 UF           | ATC200B104KP50    | M29990      | C8,C9,C10,C12,C14                  |
| 038        | 2          | 475-023            | DIODE 1A,600V                     | 1N4005            | M04713      | CR1,CR2                            |
| 041        | 1          | 477-093            | IC,OP AMP ,LINEAR                 | MC1741CP1         | M04713      | U2                                 |
| 042        | 1          | 504-046            | IC,LINE DRIVER HI-SPD&I,3ST DIP-8 | EL7134CN          | M4Y658      | U3                                 |
| 044        | 0          | 784-007            | SOLDER,WIRE FLUX .020 DIA SN63    | SN63WRMAP2        | MQPL        |                                    |