



Project: FOX TRANSMITTER
Assembly: 102-73161

MATERIAL BUILD RECORD

Department of
 Physics & Astronomy

DRA818 AMP (SPLIT PTT/PD)

Board: 102-73181.36

Schematic: 102-73181.36

| Idx # | Pg # | Comp S/N as needed | Component MIT | Part Type | Ref Des | Part Value | Flight Part Number | Kit by | Value Ver | Insp by | Lead Form | Insp by | Tinned by | Insp by | Appl by | Insp by |
|-------|------|--------------------|---------------|------------------------|---------|------------|--------------------|--------|-----------|---------|-----------|---------|-----------|---------|---------|---------|
| 8 | 1 | 2.9E Bot | 1.405 1.050 | CAP CER X7R 50V SM0603 | C1 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 8 | 1 | 2.4E Bot | 0.990 1.620 | CAP CER X7R 50V SM0603 | C17 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 8 | 1 | 2.1D Bot | 0.405 0.375 | CAP CER X7R 50V SM0603 | C2 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 8 | 1 | 2.8E Bot | 2.375 1.180 | CAP CER X7R 50V SM0603 | C20 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 8 | 1 | 2.8C Bot | 1.325 0.575 | CAP CER X7R 50V SM0603 | C21 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 8 | 1 | 2.2D Top | 2.225 1.075 | CAP CER X7R 50V SM0603 | C6 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 8 | 1 | 2.6E Bot | 0.765 1.045 | CAP CER X7R 50V SM0603 | C8 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 8 | 1 | 2.7E Bot | 1.285 0.875 | CAP CER X7R 50V SM0603 | C9 | .01UF | CL10B103KB8NNNC | | | | | | | | | |
| 9 | 1 | 2.6E Bot | 0.700 0.810 | CAP CER X7R 50V SM0603 | C11 | .1UF | CL10B104KB8NNNC | | | | | | | | | |
| 9 | 1 | 2.9E Bot | 2.020 1.080 | CAP CER X7R 50V SM0603 | C19 | .1UF | CL10B104KB8NNNC | | | | | | | | | |
| 9 | 1 | 2.1D Bot | 0.110 0.375 | CAP CER X7R 50V SM0603 | C3 | .1UF | CL10B104KB8NNNC | | | | | | | | | |
| 9 | 1 | 2.1D Bot | 2.283 1.020 | CAP CER X7R 50V SM0603 | C4 | .1UF | CL10B104KB8NNNC | | | | | | | | | |
| 10 | 1 | 2.2E Bot | 1.575 1.680 | CAP X7R/BX SM0603 | C16 | .47UF | C0603T474K5RACAUTO | | | | | | | | | |
| 10 | 1 | 2.2E Top | 1.530 1.525 | CAP X7R/BX SM0603 | C5 | .47UF | C0603T474K5RACAUTO | | | | | | | | | |
| 11 | 1 | 2.8C Bot | 1.570 0.545 | CAP NPO/BP SM0603 | C12 | 100PF | C0603C101M5GACTU | | | | | | | | | |
| 12 | 1 | 2.2E Top | 1.345 1.750 | CAP X7R/BX SM0603 | C15 | 1UF | CL10B105KA8NFNC | | | | | | | | | |
| 12 | 1 | 2.4E Bot | 1.170 1.600 | CAP X7R/BX SM0603 | C18 | 1UF | CL10B105KA8NFNC | | | | | | | | | |
| 13 | 1 | 2.3D Top | 1.120 1.805 | CAP NPO/BP SM0603 | C14 | 4.7PF | C0603C479D5GACTU | | | | | | | | | |



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|-------|------|--------------------|---------------|----------------------------------|---------|------------|--------------------|--------|-----------|---------|-----------|---------|-----------|---------|---------|---------|
| 14 | 2 | 2.8E Top | 2.370 1.095 | CAP TANTALUM SMP_M3528 | C10 | 4.7UF | 293D475X9020B2TE3 | | | | | | | | | |
| 14 | 2 | 2.6E Top | 0.585 1.335 | CAP TANTALUM SMP_M3528 | C7 | 4.7UF | 293D475X9020B2TE3 | | | | | | | | | |
| 15 | 2 | 2.4A Bot | 0.180 0.545 | DIODE SOD123 | D6 | 1N4148 | 1N4148W-7-F | | | | | | | | | |
| 16 | 2 | 2.9D Bot | 1.330 1.205 | SCHOTTKY DIODE SOD123FL | DS2 | 1N5819W | 1N5819W | | | | | | | | | |
| 17 | 2 | 2.5B Top | 0.080 1.425 | SCHOTTKY DIODE .4V SOD123FL | DS1 | BAT46W | BAT46W-7-F | | | | | | | | | |
| 18 | 2 | 2.4B Top | 0.335 1.430 | LED RED DIFF 19MCD LED_T1-3/4 | D3 | LTL-4223 | LTL-4223 | | | | | | | | | |
| 18 | 2 | 2.4B Top | 0.335 1.150 | LED RED DIFF 19MCD LED_T1-3/4 | D4 | LTL-4223 | LTL-4223 | | | | | | | | | |
| 18 | 2 | 2.3B Top | 0.335 0.870 | LED RED DIFF 19MCD LED_T1-3/4 | D5 | LTL-4223 | LTL-4223 | | | | | | | | | |
| 19 | 2 | 2.7D Bot | 1.015 1.295 | DIODE 1A DO214AC | D1 | US1J | US1J-13-F | | | | | | | | | |
| 23 | 2 | Top | 1.400 3.900 | CONN HEADER CONN_NOTE | HDR1 | PBC03SADN | PBC03SADN | | | | | | | | | |
| 23 | 2 | Top | 2.100 3.900 | CONN HEADER CONN_NOTE | HDR2 | PBC03SADN | PBC03SADN | | | | | | | | | |
| 23 | 2 | Top | 2.800 3.900 | CONN HEADER CONN_NOTE | HDR3 | PBC03SADN | PBC03SADN | | | | | | | | | |
| 23 | 2 | Top | 3.500 3.900 | CONN HEADER CONN_NOTE | HDR4 | PBC03SADN | PBC03SADN | | | | | | | | | |
| 24 | 2 | 2.4A Top | 0.335 1.650 | JUMPER HEADER HDRB_2 | JP1 | PBC02SAAN | PBC02SAAN | | | | | | | | | |
| 24 | 2 | 2.5B Top | 0.335 1.840 | JUMPER HEADER HDRB_2 | JP2 | PBC02SAAN | PBC02SAAN | | | | | | | | | |
| 24 | 2 | 2.3A Top | 0.375 0.595 | JUMPER HEADER HDRB_2 | JP3 | PBC02SAAN | PBC02SAAN | | | | | | | | | |
| 24 | 2 | 2.1F Top | 0.760 1.380 | JUMPER HEADER HDRB_2 | JP4 | PBC02SAAN | PBC02SAAN | | | | | | | | | |
| 27 | 2 | 2.7C Top | 1.205 0.295 | RES THK-FLM SMR0805-41 | R8 | 1.00K | M55342K06B1E00TW | | | | | | | | | |



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|-------|------|--------------------|---------------|-------------------------|---------|------------|--------------------|--------|-----------|---------|-----------|---------|-----------|---------|---------|---------|
| 27 | 3 | 2.7C Top | 1.105 0.295 | RES THK-FLM SMR0805-41 | R9 | 1.00K | M55342K06B1E00TW | | | | | | | | | |
| 28 | 3 | 2.4C Bot | 1.540 1.160 | RES THK-FLM SM0603 | R11 | 1.21K | M55342K12B1E21TW | | | | | | | | | |
| 28 | 3 | 2.4B Bot | 1.785 1.180 | RES THK-FLM SM0603 | R12 | 1.21K | M55342K12B1E21TW | | | | | | | | | |
| 28 | 3 | 2.8C Bot | 2.065 0.655 | RES THK-FLM SM0603 | R14 | 1.21K | M55342K12B1E21TW | | | | | | | | | |
| 28 | 3 | 2.4B Top | 0.160 1.795 | RES THK-FLM SM0603 | R2 | 1.21K | M55342K12B1E21TW | | | | | | | | | |
| 29 | 3 | 2.3D Bot | 1.135 1.785 | RES THK-FLM SM0805 | R4 | 100K | M55342K06B100ETW | | | | | | | | | |
| 31 | 3 | 2.1E Top | 1.730 1.680 | POTENTIOMETER R/A 3296Z | R16 | 10K | 3296Z-1-103LF | | | | | | | | | |
| 32 | 3 | 2.2F Top | 1.160 1.405 | RES THK-FLM SM0805 | R15 | 10K | M55342K06B10E0TW | | | | | | | | | |
| 33 | 3 | 2.7B Top | 2.270 0.375 | RES THK-FLM SM1206 | R21 | 130. | D55342K07B130DTW | | | | | | | | | |
| 33 | 3 | 2.8B Bot | 2.075 0.290 | RES THK-FLM SM1206 | R22 | 130. | D55342K07B130DTW | | | | | | | | | |
| 34 | 3 | 2.2F Top | 0.955 1.405 | RES THK-FLM SM0805 | R37 | 4.7K | M55342K06B4E75TW | | | | | | | | | |
| 35 | 3 | 2.9C Top | 2.340 0.705 | RES THK-FLM SM0603 | R13 | 4.99K | M55342K12B4E99TW | | | | | | | | | |
| 36 | 3 | 2.8B Top | 2.075 0.305 | RES THK-FLM SM1206 | R20 | 45.3 | D55342K07B45D3TW | | | | | | | | | |
| 37 | 3 | 2.3A Top | 0.250 0.655 | RES THK-FLM SM0603 | R3 | 470 | M55342K12B475DTW | | | | | | | | | |
| 37 | 3 | 2.4A Top | 0.165 1.015 | RES THK-FLM SM0603 | R6 | 470 | M55342K12B475DTW | | | | | | | | | |
| 38 | 3 | 2.2E Top | 1.545 1.660 | RES THK-FLM SM0603 | R1 | 47K | M55342K12B47E5TW | | | | | | | | | |
| 38 | 3 | 2.2C Bot | 0.990 0.675 | RES THK-FLM SM0603 | R10 | 47K | M55342K12B47E5TW | | | | | | | | | |
| 38 | 3 | 2.7D Bot | 1.325 0.250 | RES THK-FLM SM0603 | R17 | 47K | M55342K12B47E5TW | | | | | | | | | |



NON-POPULATED and NON-PARTS (do not fill in this sheet)

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|----|-------|------|--------------------|---------------|------------------------|----------|---------------|-------------------------------------|--------|-----------|---------|-----------|---------|-----------|---------|---------|---------|
| 1 | 66 | 5 | 1.6F Top | -3.950 -1.450 | Documentation Artifact | BRD6 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 2 | 67 | 5 | 1.6F Top | 3.950 -1.450 | Documentation Artifact | BRD5 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 3 | 68 | 5 | 1.6F Bot | 0.145 0.885 | Documentation Artifact | BRD3 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 4 | 69 | 5 | 1.6F Bot | 1.685 1.525 | Documentation Artifact | BRD4 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 5 | 70 | 5 | 1.10E Top | -3.850 4.260 | Documentation Artifact | BRD11 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 6 | 71 | 5 | 1.10F Top | -3.850 4.260 | Documentation Artifact | BRD10 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 7 | 72 | 5 | 1.7F Top | 0.000 0.000 | Documentation Artifact | BRD7 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 20 | 73 | 5 | 1.6F Bot | 0.950 0.305 | Documentation Artifact | ESD1 | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 21 | 74 | 5 | 2.2A Top | 0.495 1.770 | Pad | GP1 | PAD | VP: Not a Physical Part | | | | | | | | | |
| 21 | 75 | 5 | 2.2A Top | 0.755 0.425 | Pad | GP2 | PAD | VP: Not a Physical Part | | | | | | | | | |
| 22 | 76 | 5 | 2.6E Bot | 0.265 0.115 | Pad | GP3 | PAD | VP: Not a Physical Part | | | | | | | | | |
| 25 | 77 | 5 | Top | -3.375 0.850 | Documentation Artifact | LAYERING | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 26 | 78 | 5 | 2.1C Top | 0.550 0.750 | Pad | PLO | PAD | VP: Not a Physical Part | | | | | | | | | |
| 30 | 79 | 5 | 2.6D Top | 0.000 0.000 | Invalid Flight Part(1) | RF_DB | 102-73181-29 | Invalid Flight Part (see schematic) | | | | | | | | | |
| 40 | 80 | 5 | Top | -0.150 0.000 | Documentation Artifact | RULER_V | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 41 | 81 | 5 | Top | 0.000 -0.300 | Documentation Artifact | RULER_H | DRAWING FRAME | VP: Documentation Artifact | | | | | | | | | |
| 43 | 82 | 5 | 2.5D Top | 1.975 0.205 | Pad | TP1 | PAD | VP: Not a Physical Part | | | | | | | | | |
| 43 | 83 | 5 | 2.5E Top | 1.895 0.330 | Pad | TP10 | PAD | VP: Not a Physical Part | | | | | | | | | |

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