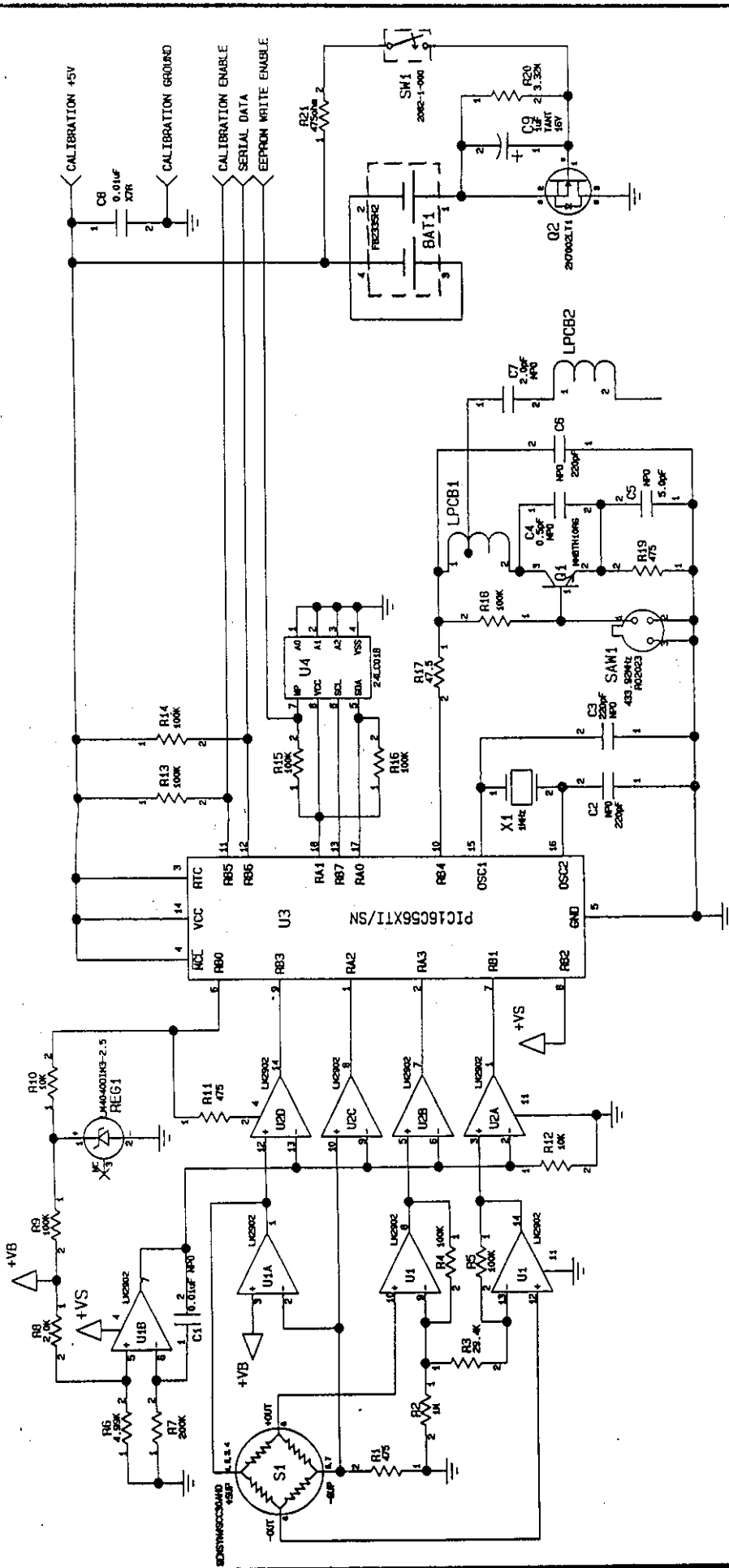


| | | | |
|----------------------------------|-------------------------------|---|---------------|
| COMPANY: EPIC TECHNOLOGIES, INC. | | DRAWING DESCRIPTION: DIRECT PRESSURE READOUT TRANSMITTER, 433.52MHZ | |
| ENGINEER: CHRIS MAROE | WHERE USED/POB NO.: 1700 0153 | DATE: 28MAR84 | SIZE: B |
| APPROVALS: AGS | CHECKED: CAM | DATE: 28MAR84 | SCALE: NONE |
| PROTOTYPE REV: 01 | BY: AGS | CHK: CAM | SHEET: 1 OF 1 |
| EDNA | DATE: 28MAR84 | | |



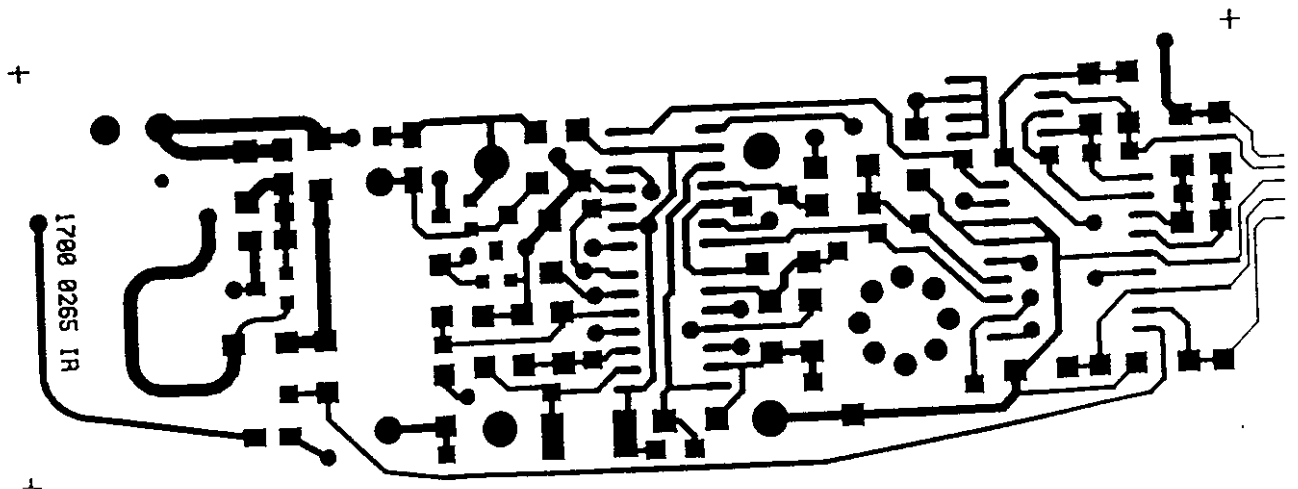
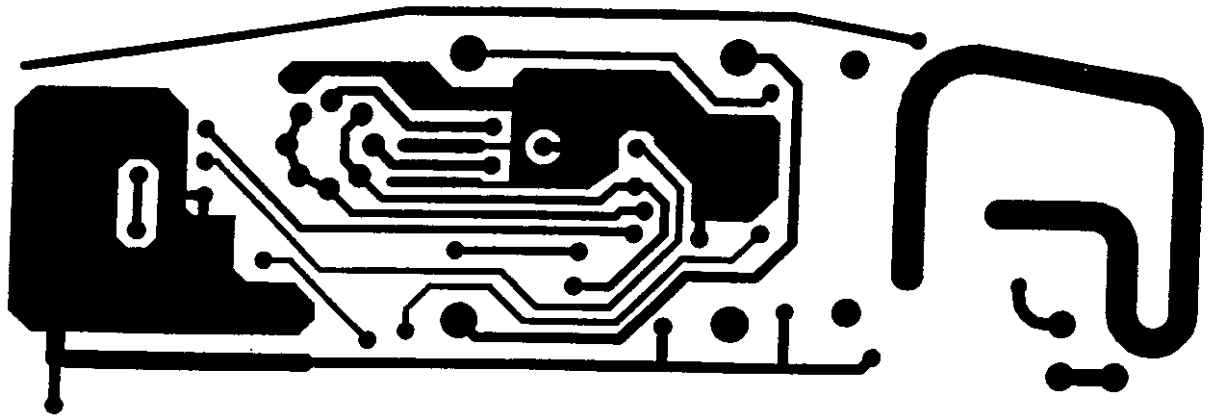
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| | | | | | |
|--|--|---------------------------|--|----------------------------------|--|
| COMPANY: EPIC TECHNOLOGIES, INC. | | ENGINEER: CHRIS MINNDE | | WHERE USED/PCB NO.: 1700 0152 | |
| DRAWING DESCRIPTION: DIRECT PRESSURE READOUT TRANSMITTER, 433.92MHZ | | APPROVALS | | DATE | |
| SIZE B | | DRAWN AGS | | 28MAR84 | |
| DRAWING NO. 1003 5309 | | CHECKED CAM | | 28MAR84 | |
| SCALE NONE | | BY CHK | | DATE | |
| SHEET 1 OF 1 | | REV 01 | | ED# | |
| | | PROTOTYPE | | 28MAR84 | |

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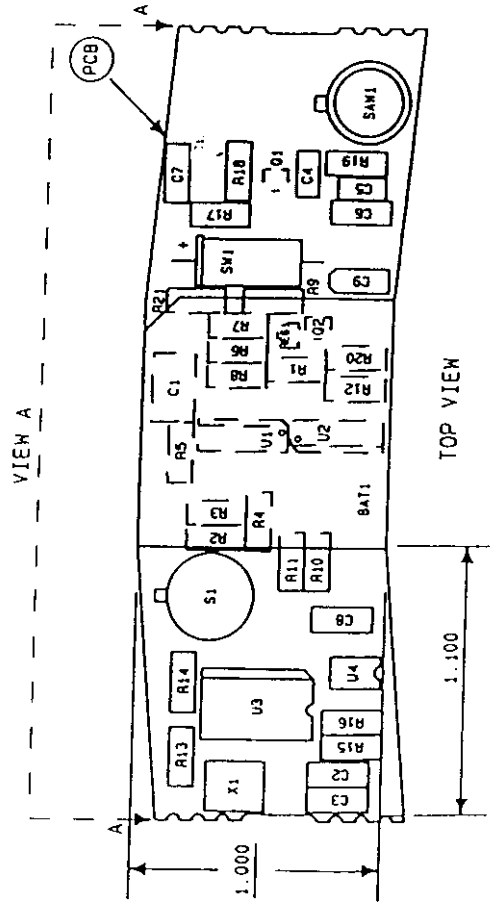
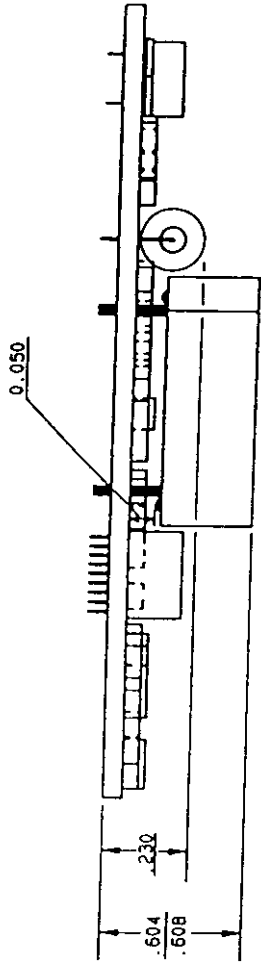
European 433 Transmitter: 200.0051 Solder Layout Diagram



CONFIDENTIAL

NOTES

1. CENTRIFUGAL SWITCH (SW1) TO BE BONDED TO PCBA WITH RTV (MS-1023).
2. COVER PRESSURE SENSOR PORT PRIOR TO CONFORMAL COATING.
3. CONFORMAL COAT BOARD PER PS-1003 AND IPC-CC-830 TYPE UR (POLYURETHANE) CLASS 2. REMOVE COVER PRIOR TO FINAL ASSEMBLY.
4. 100% BURN IN: 24 HOURS. CYCLE TEMPERATURE FROM -40°C TO 100°C. WITH 1 HOUR SOAK AT EXTREME TEMPERATURES. APPLY +5.5VDC ±0.25VDC TO TRANSMITTER CALIBRATION SUPPLY LINES.
5. ASSEMBLY CONFORMANCE PER WORKMANSHIP MANUAL
6. EXERCISE SPECIAL CAUTION IN HANDLING PRESSURE SENSORS, AND ASSEMBLIES CONTAINING THESE PARTS. SPECIAL BINNING IS ADVISED TO AVOID JUMBLING PARTS, WHICH CAN BECOME A SOURCE OF REJECTS OR EARLY FIELD FAILURE. IF DROPPED, REPLACE THESE PARTS OR SCRAP THE ASSEMBLY.
7. FOR SCHEMATIC SEE
8. NO CHANGES OR DUPLICATIONS PERMISSIBLE WITHOUT WRITTEN PERMISSION
9. ALL DIMENSIONS IN INCHES.
10. TOLERANCE UNLESS OTHERWISE SPECIFIED:
 .XX ± 0.10
 .XXX ± 0.005



ALL DIMENSIONS IN DECIMALS AND UNITS ARE IN CONCORDANCE WITH THE REQUIREMENTS OF THE MIL-STD-883C METHOD 2000.10, UNLESS OTHERWISE SPECIFIED.

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| REV. | DESCRIPTION | DATE | INIT. |
|------|-------------|-----------|-------|
| 0 | Original | 25-Jan-98 | CL |

SMARTIRE™
 Smartire Systems Inc.
 #150-11311 Water Pock, Richmond, British Columbia V6V 2J1

Drawn: _____ Checked: _____ Designer: _____ Manager: _____

Title: _____

PCB Assembly, Smartire, All rights reserved.

| |
|-------------------------------|
| SmarTire Systems Inc. |
| Acceptance -Bill of Materials |

Checklist

| Item | Signature - Engineering Manager | Signature - Production Manager |
|---|---------------------------------|--------------------------------|
| BOM contains all required components | | |
| All components are acceptable as per Specification Sheets or engineering drawings | | |
| All suppliers are acceptable | | |
| Kits; Marketing manager signature | | |

210.0108.03 BOM

210.0108.03--PCB ASSY, 433MHZ, progID=3

Revision 1 Release 1
 Material cost (\$Can)=\$0.00

| Stock code | Qty/Cost | Part Description | Rev/Rel | Part designations | Supplier |
|--------------------|----------|---|---------|--|----------|
| <u>210.0112.03</u> | 1 | PROGRAMMED EPROM-TIRE ID-3 | / | PROGRAMMED EPROM - SEE MANUFACTURING SPEC 248.0030 | EPICTEC |
| <u>215.0039</u> | 1 | PCB BARE 433 TRANSMITTER EPIC :1003 5360/1700 0265 | 0/ 0 | PCB 1 | |
| <u>222.0007</u> | 4 | RESISTOR 475R 1% 1/8W 1206 ROHM:MCR18EZHMFX4750 | / | R1 R11 R19 R21 | |
| <u>222.0008</u> | 1 | RESISTOR 1M 1% 1/8W 1206 | / | R2 | |
| <u>222.0009</u> | 1 | RESISTOR 29K4 1% 1/8W 1206 ROHM:MCR18EZHMFX2942 | / | R3 | |
| <u>222.0010</u> | 7 | RESISTOR 100K 1% 1/8W 1206 ROHM:MCR18EZHMFX1003 | / | R4 R5 R9 R13 R14 R15 R16 R18 | |
| <u>222.0011</u> | 1 | RESISTOR 4K99 1% 1/8W 1206 ROHM:MCR18EZHMFX4991 | / | R6 | |
| <u>222.0012</u> | 1 | RESISTOR 200K 1% 1/8W 1206 ROHM:MCR18EZHMFX2003 | / | R7 | |
| <u>222.0013</u> | 1 | RESISTOR 2K0 1% 1/8W 1206 ROHM:MCR18EZHMFX2001 | / | R8 | |
| <u>222.0014</u> | 2 | RESISTOR 10K 1% 1/8W 1206 KOA:RK73H2BT1002F | / | R10 R12 | |
| <u>222.0015</u> | 1 | RESISTOR 47R5 1% 1/8W 1206 ROHM:MCR18EZHMFX4752 | / | R17 | |
| <u>222.0016</u> | 1 | RESISTOR 3M32 1% 1/8W 1206 KOA:RK73H2BT3324F | / | R20 | |
| <u>230.0036</u> | 1 | CAP 1mfd 10% 16V TAN 1206 NEMCO:PCT1/16AK | / | C9 | UTECH E |
| <u>230.0054</u> | 1 | CAP 220PF 10% 50V NPO 1206 AVX:12065A221KATMA | / | C6 | |
| <u>230.0055</u> | 2 | CAP 100PF 10% 100V NPO 1206 AVX:12065A101JATMA | / | C2 C3 | |
| <u>230.0056</u> | 1 | CAP 10NF 10% 50V X7R 1206 AVX:12065C103KATMA | / | C8 | |

| | | | | | |
|-----------------|---|--|---|---|---------|
| <u>231.0024</u> | 1 | CAP .5P +/- .25P 50V NPO CR 805 ROHM:MCH21 5 A R50 C K | / | C4 | UTECH E |
| <u>231.0028</u> | 1 | CAP 5P6 +/- .25P 50V CR NPO 0805 CALCHIP:GMC 21 CG 5R6 C 50NT | / | C5 | UTECH E |
| <u>231.0049</u> | 1 | CAP 2P0 +/- .25P 50V NPO CER 805 | / | C7 | EPICTEC |
| <u>234.0001</u> | 1 | CAP 10N 10% 50V NPO 1812 | / | C1 | |
| <u>242.0012</u> | 1 | TRANSISTOR 10RG RF SOT23 NAT SEMI: MMBTH10RG | / | Q1 | PIONEER |
| <u>242.0015</u> | 1 | TRANSISTOR FET 2N7002 SOT-23 SILICONIX:2N7002-T1 | / | Q2 | |
| <u>243.0024</u> | 2 | IC 2902 LOW PWR OP AMP NATIONAL:LM2902 | / | U1 U2 | |
| <u>243.0025</u> | 1 | IC 4040 VOLTREF 2.5V SOT-23 NATIONAL:LM4040DIM3-2.5 | / | REG1-NO SUBSTITUTIONS PERMITTED, | FAI |
| <u>249.0014</u> | 1 | IC 16CR58 MPU-ROM 2K MICROCHIP:PIC16CR58A-04 I /SO | / | -USE NATIONAL PART ONLY U3 - PROGRAMMED BY MICROCHIP | |
| <u>255.0042</u> | 1 | RESONATOR 1MHz CERAMIC AVX/KYOCERA:KBR-1000YTR | / | X1 | |
| <u>255.0044</u> | 1 | SENSOR, PRESSURE, 30 PSIA TO5 SENSYM:SCC30AH/SZ75336 | / | S1 | |
| <u>255.0046</u> | 1 | RESONATOR SAW 433.92Mhz TO-39B RFM:RO2101 | / | SAW1 | |
| <u>261.0015</u> | 1 | SWITCH CENTRIFUGAL .650"C-C FLYING D ENT:2082-1-000 | / | SW1 | |
| <u>263.0063</u> | 1 | BATTERY 2325 3V LITHIUM RAYOVAC:FB2325H2 | / | BAT-1 | |
| <u>999.9990</u> | 0 | REVISION CONTROL NOTES | / | CREATED 9-FEB-98 CL REV 0 REL 1 ECO 139 REV 1 REL 1 RP 30-MAR-98 -DELETE 231.0042 ADD 231.0028 -(CHANGE C5 FROM 5P TO 5P6) | |