

Micro Systems		BILL OF MATERIALS		BOM 7084085-02	
Engineering, Inc.					
Proprietary Information		<i>Tach 20 DR-T (VDDR Version)</i>		Rev. R	
Letter	Revisions		Date	Approval	
P	DCN NO.02-1857		12/16/2002	MAP	
R	DCN NO.03-1059		1/23/2003	AMC	
NOTES:					
1. The assembly is electro-static discharge sensitive and requires special handling per SOP 8010001.					
2. Moisture sensitive device, issue to nitrogen storage.					
3. Issue to secondary processing station.					
4. The TACH20_DR-T Version VR "-00" and "-03" is defined in BOM 7084085-00.					
5. The TACH20_DR-T Version DR "-01" and "-04" is defined in BOM 7084085-01.					
6. The test coupon shall only be populated for TACH20_DR-T Version DRT "-01" where specific components are identified by "TC*".					
7. The Telemedicine circuitry is identified by reference designator 8xx series. These are required for the T-option (-00,-01,-02) versions and are not required for the non-T options (-03, -04, -05).					
LOT NO.				HYBRID VERSION	
PULL DATE				TOP ASSEMBLY REVISION	
AUDIT DATE				SUB ASSEMBLY REVISION	
RELEASE DATE				BOM REVISION	
ITEM	REFERENCE NUMBER	DESCRIPTION	Micro Systems Engineering PART NUMBER	VDDR-T (-02)	VDDR (-05)
SMT ASSEMBLY					
1	-	Substrate (Dycostrate)	1994085	1	1
2	-	Panel Label (3)	1330172-00	A/R	A/R
3	-	Product Label	1330172-03	A/R	A/R
4	-	Solder (3)	197050-012	A/R	A/R
5	-	High Temperature Tape Alternate	1600412-04 1600412-00	A/R	A/R
6	-	Adhesive, Non-conductive (Loctite 3615)	2060060	A/R	A/R
7	-	Underfill Material Alternate	2060061-02 2060061-01	A/R	A/R
8	-	Solder Wire	197053-004	A/R	A/R
9	-	Hand Solder Paste	197050-011	A/R	A/R
10	-	No Clean Flux	1970061	A/R	A/R
11	C803, C804	2.7 pF, 10%, 50V, 0402 Cer Cap	4162R70CFANTBC	2	0
12	C810	1.8 pF, 10%, 50V, 0402 Cer Cap	4161R80BFANTBC	1	0

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13	C813	4.7 pF, 5%, 50V, 0402 Cer Cap	4164R70CFANTBC	1	0
14	C812	10 pF, 5%, 50V, 0402 Cer Cap	41610R0DFANTBC	1	0
15	C466	33 pF, 5%, 50V, 0402 Cer Cap Alternate	20233R0JHANTBA 20233R0JHANTBC	1	1
16	C215	47 pF, 5%, 50V, 0402 Cer Cap Alternate	20247R0JHANTBA 20247R0JHANTBC	1	1
17	C802	68 pF, 5%, 16V, 0402 Cer Cap Alternate	20268R0JEANTBA 20268R0JEANTBC	1	0
18	C229, C230, C561	100 pF, 5%, 50V, 0402 Cer Cap Alternate Alternate	2021000JHARTBA 2021000JHANTBA 2021000JHARTBC	3	3
19	C216, C217	220 pF, 5%, 50V, 0402 Ceramic Cap Alternate	202200JHARTBA 2022200JHARTBC	2	2
20	C806, C808, C811, C807	330 pF, 5%, 50V, 0402 Cer Cap Alternate	2023300JHARTBA 2023300JHARTBC	4	0
21	C124	560 pF, 5%, 50V, 0402 Cer Cap Alternate	2025600JHARTBA 2025600JHARTBC	1	1
22	C231, C232, C231A, C232A	750 pF, 5%, 50V, 0402 Cer Cap Alternate	2027500JHARTBA 2027500JHARTBC	4	4
23	C128, C556	1 nF, 5%, 50V, 0402 CerCap Alternate	2021001JHARTBA 2021001JHARTBC	2	2
24	C233, C233A	1.5 nF, 5%, 50V, 0402 Cer Cap Alternate	2021501JHARTBA 2021501JHARTBC	2	2
25	C134, C135	2.2nF, 5%, 50V, 0402 Cer Cap Alternate	2022201JHARTBA 2022201JHARTBC	2	2
26	C603, C604, C236, C237,C238,	10 nF, 5%, 16V, 0402 Cer Cap Alternate	2021002JEARTBA 2021002JEARTBC	12	11
27	C125	22 nF, 5%, 25V, 0603 Cer Cap Alternate	2022202JFCRTBA 2022202JFCRTBC	1	1
28	C249	33 nF, 5%, 16V, 0603 Cer Cap Alternate	2023302JECRTBA 2023302JECRTBC	1	1
29	C118, C145, C146, C147, C151, C452, C353	47 nF, 5%, 16V, 0603 Cer Cap Alternate	2024702JECRTBA 2024702JECRTBC	7	7

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30	C250	68 nF, 5%, 16V, 0603 Cer Cap Alternate	2026802JECRTBA 2026802JECRTBC	1	1
31	C219, C220, C221, C144, C167, 211	100 nF, 5%, 16V, 0603 Cer Cap(3) Alternate	2021003JECRTBA 2021003JECRTBC	6	6
32	C557, C562, C563, C564	330 nF, 5%, 16V, 0805 Cer Cap Alternate	2023303JEFRTBA 2023303JEFRTBC	4	4
33	C607, C608, C609, C610, C226,	470 nF, 10%, 16V, 0805, Cer Cap Alternate	2024703KEFRTBA 2024703KEFRTBC	8	8
34	C141, C143	1 μ F, 10%, 16V, Tantalum Cap	2091004KDVTRBA	2	2
35	C142	3.3 μ F, 10%, 10V Tantalum Cap	2093304KCVTRBA	1	1
36	C106, C113, C140, C605	10 μ F, 10%, 10V Tantalum Cap Alternate	2091005KCVTRBM 2091005KCVTRBA	4	4
37	C214	10 μ F, 10%, 16V Tantalum Cap	2091005KDWTRBM	1	1
38	C755	47 μ F, 10%, 10V Tantalum Cap	2094705KCWTRBM	1	1
39	CS401	Capacitive Sensor, SMT, (2) (1600404) Alternate	1509036 1509006	1	1
40	D101	BAR43-C Schottky Diode, SMT	1520010	1	1
41	D704	1N5817 Diode, SMT	1520002	1	1
42	D705	MD1568 Diode (1150069-003), SMT Alternate	1520003 1520003-01	1	1
43	D702, D703	MD1566 Diode (1150091), SMT Alternate	1520012-01 1520012	2	2
44	DN601	Diode Array, 5 up, SMT Alternate	1150110-02 1150110	1	1
45	D801	BBY51-03W	1520007	1	0
46	F1	1608FF-2A Fuse, SMT	1600406	1	1
47	L801, L802, L803	39 nH, 5%	1450078	3	0
48	M701, M702	IGBT/Larch MCM (2)	1509007-02	2	2
49	P6, P11	Constantan Tabs	1210109-01	2	2
50	J2, J3	Jumpers (0603 for 780V)	203R050ZISWA6C	2	2

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51	R733	47 ohm, 5%, 0402 Resistor	20347R0JKSWA2C	1	1
52	R103	50 ohm, 1%, 0402 Resistor	20350R0FESWA2B	1	1
53	R801	100 ohm, 1%, 0402 Resistor	2031000FKSWA2C	1	0
54	R539, R146, R748	1 K, 1% 0402 Resistor	2031001FKSWA2C	3	3
55	R804, R806	2.2 K, 1% 0402 Resistor	2032201FKSWA2C	2	0
56	R447	10 K, 5%, 0402 resistor	2031002JKSWA2C	1	1
57	R535	16 K, 5% 0402 Resistor	2031602JKSWA2C	1	1
58	R211A, R212A, R429, R537, R704	100 K, 1% 0402 Resistor	2031003FKSWA2C	5	5
59	R802, R805,	130 K, 1% 0402 Resistor	2031303FKSWA2C	2	0
60	R211, R212	200 K, 1%, 0402 Resistor	2032003FKSWA2C	2	2
61	R803, R807	220 K, 1%, 0402 Resistor	2032203FKSWA2C	2	0
62	R601, R602, R731, R745, R209	1 M, 1%, 0402 Resistor	2031004FKSWA2C	5	5
63	R224, R223B	2 M, 1%, 0402 Resistor	2032004FKSWA2C	2	2
64	R222, R227	3.0 M, 1%, 0402 Resistor	2033004FKSWA2B	2	2
65	R205, R206, R223A	5.0 M, 1%, 0402 Resistor	2035004FESWA2B	3	3
66	R228	5.5 M, 1%, 0402 Resistor	2035504FESWA2B	1	1
67	R121, R430	8 M, 2%, 0402 Resistor	2038004GESWA2B	2	2
68	R207, R208, R207A, R208A	10 M, 1%, 0402 Resistor	2031005FKSWA2B	4	4
69	R225	12.1 M, 1%, 0402 Resistor	2031215FKSWA2B	1	1
70	R734	12 M, 1%, 800V, 1206 Resistor Alternate	1390092-03 1390092-04	1	1
71	R114, R115, R217, R218	13 M, 1%, 0402 Resistor	2031305FKSWA2B	4	4
72	R120A, R120B	18 M, 1%, 0402 Resistor	2031805FKSWA2B	2	2
73	R226, R218A, R119	20 M, 5%, 0402 Resistor	2032005JKSWA2B	3	3

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74	RN1	AOT Daughter board (2)	1889299-01	1	1
75	RN2	AOT Daughter board (2)	1889276-01	1	1
76	S401	Reed Switch	1420122	1	1
77	SAW801	403.55 MHz	1600411	1	0
78	QN601	4-up MOSFET Array (2)	1509015	1	1
79	Q707	IRFCE20 N-Ch. MOSFET (2) (1480061)	1509008-01	1	1
79	Q705	PCF25N05D N-Ch. MOSFET (2) Alternate	1509009 1509009-01	1	1
80	Q801, Q802	BFP181W	1490014	2	0
81	Q706	BSS_138 MOSFET	1490008	1	1
82	Q803	TP0101	1490015	1	0
83	T701	Power Transformer (2)	1450077	1	1
84	T702, T703	Pulse Transformer (2)(3) Alternate	1450073-01 1450073	2	2
85	U1	DCAC, CSP (2) Alternate	1535016-003 1535016-103	1	1
86	U2	SIRIUS VER_2G, CSP (2) Alternate	1533063-014 1533063-114	1	1
87	U3	256K x 16 SRAM, CSP (2)	1509013	1	1
88	U4	DCDC, CSP (2)	1535015-003	1	1
89	U5	Pinatubo, BGA (2)	1503110-002	1	1
FINAL ASSEMBLY					
90	P3-P5, P13	Constantan Tabs	1210112-01	4	4
91	R777	Dump Resistor	1390129	1	1
92	P1, P1A, P2, P2A, P9, P10, P12, P14	Kovar Feed through (Nailhead Pins)	1210111	8	8
93	L401	Flat Coil	1450076-02	1	1
94	-	Frame (3)	339138	1	1
95	-	High Temperature Tape	1600412-03	A/R	A/R



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