



FCC ID:OCTOEM-MSR1
EXHIBIT 10a
Tx BILL of MATERIALS



FCC ID:OCTOEM-MSR1
EXHIBIT 10b
Rx BILL of MATERIALS

mnc-hf Main Board Assembly - IDS011200B					
Item	Description	Qty	Reference	Supplier	Part Code
1	Capacitor 100nF Nickel Barrier 25V d.c. X7R 0805	1	C6	Farnell	644-249
2	Capacitor 100nF Nickel Barrier 16V d.c. X7R 0603	17	C7-8 C11 C18-19 C22 C26 C27 C30 C37-40 C43 C44 C62 C64	Farnell	499-675
3	Capacitor 100pF Nickel Barrier 100V d.c. NPO 1206	1	C67	Farnell	499-274
4	Capacitor 100pF Nickel Barrier 50V d.c. NPO 0603	2	C41-42	Farnell	722-080
5	Capacitor 100uF 10V d.c. TAJ Series Case Size D	3	C9-10 C45	Farnell	498-695
6	Capacitor 10nF Nickel Barrier 50V d.c. X7R 0603	5	C52 - 56	Farnell	722-236
7	Capacitor 10pF Nickel Barrier 50V d.c. NPO 0603	3	C24 C29 C35	Farnell	499-110
8	Capacitor 10uF 10V d.c. TAJ Series Case Size B	4	C4 C20 C59	Farnell	498-660
9	Capacitor 1uF 16V d.c. Y5V 0805	2	C3 C51	RS Components	264-4450
10	Capacitor 2.2uF 16V 0805	2	C12 C14	RS Components	312 3156
11	Capacitor 2.2uF Nickel Barrier 16V d.c. Y5V, 1206	3	C21 C28 C61	Farnell	578-265
12	Capacitor 2200pF 2% Polyphenylene ECHU(B) Series	2	C48-49	Farnell	550-450
13	Capacitor 22pF Nickel Barrier 50V d.c. NPO 0603	2	C1-2	Farnell	498-543
14	Capacitor 330pF Nickel Barrier 100V d.c. NPO 0805	1	C50	Farnell	499-183
15	Capacitor 39pF Nickel Barrier 50V d.c. NPO 0603	3	C5 C33 C36	Farnell	722-030
16	Capacitor 4.7uF 10V d.c. TAJ Series Case Size A	1	C16	Farnell	498-658
17	Capacitor 4.7uF 16V 1206	1	C32	RS Components	312-3099
18	Capacitor 4700pF 2% Polyphenylene ECHU(B) Series	2	C46-47	Farnell	550-462
19	Capacitor 470pF Nickel Barrier 50V d.c. X7R 0603	3	C25 C31 C63	Farnell	722-157
20	Capacitor 5.6pF 5% 50V COG 0805	1	C23	RS Components	211-3063
21	Capacitor 680nF Nickel Barrier 16V d.c. X7R 1206	1	C34	Farnell	644-286
22	Capacitor 680pF Nickel Barrier 50V d.c. X7R 0603	1	C13	Farnell	722-169
23	Capacitor Tantalum 4.7uF 10V Case A	1	C17	Farnell	967-040
24	Connector - 10 Way Minic Module Ribbon	1	J4	Minic	
25	Connector - 6 Way Straight Header (SMT Version)	1	J3	Farnell	889-398
26	Crystal - 13.56MHz HC49/4H	1	Y1	Fordahl	13.56MHz HC49/4H
27	Diode - Schottky BAT54S (PS) SOT-23, SC-59	1	D3	Farnell	437-608
28	Diode - Schottky MBR0520LT1 SOD-123	1	D1	Farnell	708-136
29	Diode - Schottky SS23 2.0A 30V SMB	1	D4	Farnell	646-910
30	Diode - Switching BAV70LT1 SOT-23	2	D2 D8	Farnell	934-112
31	IC - Amplifier MAX4213ESA SO8NB	1	U6	MAXIM	MAX4213ESA
32	IC - Analogue Switch MAX320CUA	1	U8	MAXIM	MAX320CUA
33	IC - Analogue Switch MAX322CUA	1	U29	MAXIM	MAX322CUA
34	IC - Ceramic Band Pass CFECV13.1ME21 13.10MHz 13.1BP	1	U35	Anglia	CFECV13.1ME21
35	IC - Microcontroller AT90S8515-8AC QFP44-2	1	U4	GDT	AT90S8515-8AC
36	IC - Op Amp LM6142BIM SO8NB	1	U7	Farnell	954-061
37	IC - Pico Gate TC3W03FU uMAX SO 8	1	U1	HB Electronics	TC3W03FU
38	IC - Receiver IC SA636DK S5020	1	U27	Philips	SA636DK
39	IC DC-DC Boost Converter: LT1307B CMS8, SSOP-8	1	U10	Micro Call	LT1307B CMS8
40	IC - Reset IC, MAX809SEURT 3/SOT-23	1	U3	Farnell	702-584
41	Inductor - 100uH DS1608C-104+A35	1	L1	Coilcraft	DS1608C-104
42	Inductor - 18uH 1818LS-183J-BC	2	L4-5	Coilcraft	1818LS-183J-BC
43	Inductor - 2.2uH +/-20% CM32 Series, Surface Mount	2	L3 L6	Farnell	557-020
44	Inductor - 330uH 836AN-0129Z	1	L2	Distributed Micro Technology	836AN-0129Z
45	LED - Red Untinted Diffused Lens, AllnGap 0805	0	D7	Farnell	947-933
46	PCB - Main Board DM012_F1 Outline A	1		Lyncolec	DM012_F1_A
47	Regulator - LP2982IM5-50 +5V 50mA, LDO 5/SOT-23	1	U25	Farnell	790-709
48	Regulator - MIC5205-5.0BM5 SOT-25+5V 200mA low noise	1	U5	RS Components	217-4939
49	Regulator - MIC5205BM5 150mA +2V to +16V 5/SOT-23	1	U2	Farnell	794-820
50	Resistor 0R 0603 Thick Film Chip	2	R20 R32	Farnell	772-227
51	Resistor 0R 0805 Thick Film Chip	0	R45	Farnell	722-239
52	Resistor 100K 1% 0603 Thick Film Chip	4	R1 R44 R50 R57	Farnell	911-471
53	Resistor 100R 1% 0603 Thick Film Chip	1	R39	Farnell	911-112
54	Resistor 100R 1% 0805 Thick Film Chip	1	R66	Farnell	911-732
55	Resistor 10K 1% 0603 Thick Film Chip	14	R2 R5 R26 R28 R37 R38 R43 R46 R47 R51 R58 R61 R63 R67	Farnell	911-355
56	Resistor 120K 1% 0603 Thick Film Chip	1	R56	Farnell	911-483
57	Resistor 150K 1% 0603 Thick Film Chip	2	R33 R52	Farnell	911-495
58	Resistor 150R 1% 0603 Thick Film Chip	2	R10 R64	Farnell	911-136
59	Resistor 160K 1% 0603 MCR Series Chip Resistor	1	R49	FLINT	MCR03EZPF164

Drawing No. IDS011200B

Date: 2 July 1999

Author: D.W.White

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Item	Description	Qty	Reference
63	Resistor 200K 1% 0603 MCR Series Chip Resistor	1	R24
64	Resistor 20K 1% 0603 MCR Series Chip Resistor	1	R25
65	Resistor 24R 1% 1206 Nickel Barrier WCR Series	1	R19
66	Resistor 3K9 1% 0603 Thick Film Chip	1	R62
67	Resistor 470K 1% 0603 Thick Film Chip	0	R11(Do Not Fit)
68	Resistor 47K 1% 0603 Thick Film Chip	1	R8
69	Resistor 47R 1% 0805 Thick Film Chip	1	R15
70	Resistor 4K7 1% 0603 Thick Film Chip	3	R4 R12 R65
71	Resistor 51K 1% 0603 MCR Series Chip Resistor	2	R6 R7
72	Resistor 680R 1% 0603 Thick Film Chip	2	R3 R13
73	Resistor 7K5 1% 0603 MCR Series Chip Resistor	1	R29
74	Resistor 820K 1% 0603 Thick Film Chip	1	R53
75	Resistor 910K 1% 0603 MCR Series Chip Resistor	1	R48
76	RF Screening Can MSRcan.vsd	2	Fit to outline
77	Test points	0	TP1-6
78	Transistor - BCW31T1 General Purpose NPN Sot-23	1	Q4
79	Transistor - IRLML6302 Digital FET SOT-23	2	Q1-2
80	Transistor - MMUN2215LT1 SOT-23	1	Q5
81	Transistor - ZVN3306F Digital FET SOT-23	1	Q3
The highlighted items are free issued by id Systems			