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Telex Communications INC.

PART NO:

879436

Lincoln, Nebraska USA

APPROVALS:

DR BY: DDN

CHKD BY: TY

APPD BY: RB

PROD: _____

REV LEVEL:

B

DATE: 10/17/00

DATE: 07/26/01

DATE: 07/26/01

DATE: _____

TITLE: **PCB ASSY, ROSE II XMIT BELT PACK RF SMT**

ITEM	NEW	879440-				TYPE	DESCRIPTION	PART NO.	DESIGNATOR
		-1	-2	-3	-4				
		U.S. "A" 680-704MHZ U.S. "B" 722-746MHZ GERMAN "D" 798- U.K. "E" 841-862MHZ							
1		5	5	5	5	CAP	1UF TANT A	102877012T	C101,C109,C116,C118,C124
2		1	1	1	1	CAP	.0015UF 0805	7233859T	C102
3		7	7	7	7	CAP	10UF TANT A	102877047T	C103,C104,C122,C132,C136,C159,C160
4		1	1	1	1	CAP	4.7UF TANT A	102877067T	C105
5		6	6	6	6	CAP	100PF 0603	723482130T	C106,C112,C121,C146,C153,C158
6		2	2	2	2	CAP	.1UF 0805	72338530T	C107,C133
7		1	1	1	1	CAP	.047UF 0805	72338526T	C108
8		1	1	1	1	CAP	2.2UF TANT A	102877042T	C110
9		1	1	1	1	CAP	.22UF TANT A	102877008T	C111
10		1	1	1	1	CAP	470PF 0603	723482138T	C113
11		1	1	1	1	CAP	.0068UF 0805	72338517T	C114
12		1	1	1	1	CAP	.015UF 0805	72338520T	C115
13		1	1	1	1	CAP	.01UF 0603	102881703T	C117
14		16	16	16	16	CAP	.001UF 0603	102881717T	C119,C120,C125,C126,C130,C134,C135, C138,C141,C142,C143,C145,C147, C149,C152,C154
15		1	1	1	1	CAP	10UF TANT B	102877065T	C123
16		3	3	3	3	CAP	.1UF 0603	723489101T	C127,C128,C129
17		1	1	1	1	CAP	10PF 0603	723482116T	C131
18		1	1	1	1	CAP	5.6PF 0603	723482113T	C137
19						CAP	3.9PF 0603	723482110T	
		2	2	-	2				C139,C157
		-	-	1	-				C139
20		1	1	1	1	CAP	12PF 0603	723482117T	C140
21		1	1	1	1	CAP	1.5PF 0603	723482103T	C144
22						CAP	3.3PF 0603	723482109T	
		3	3	-	-				C148,C150,C156
		-	-	2	2				C148,C150
23		1	1	-	-	CAP	1PF 0603	723482101T	C155
24		-	-	1	1	CAP	2.7PF 0603	723482107T	C156
25		1	1	1	1	DIODE	BAW56	102253000T	D101
26		1	1	1	1	DIODE	BAV99	760481T	D102
27		1	-	-	-	VCO	680-704 MHz	7603004T	HY101
28		-	1	-	-	VCO	722-746 MHz	7603006T	HY101
29		-	-	1	-	VCO	798-822 MHz	7603009T	HY101
30		-	-	-	1	VCO	841-862 MHz	76030010T	HY101
31		5	5	5	5	IND	.22UH 0805	72350828T	L102,L103,L104,L107.L108
32						IND	8NH 0805	72350812T	
		2	2	2	-				L105,L110
		-	-	-	3				L105,L109,L110
33		1	1	1	1	IND	22NH 0805	72350816T	L106

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TITLE: **PCB ASSY, ROSE II XMIT BELT PACK RF SMT**

	U.S. "A" 680-704MHZ	U.S. "B" 722-746MHZ	GERMAN "D" 798-	U.K. "E" 841-862MHZ				
	879440-							
	-1	-2	-3	-4				
34	1	-	-	-	IND	18NH 0805	72350815T	L109
35	-	1	-	-	IND	15NH 0805	72350814T	L109
36	-	-	1	-	IND	12NH 0805	72350813T	L109
37	3	3	3	3	TRANS	MMBT3906	54716200	Q101,Q104,Q107
38	4	4	4	4	TRANS	BFG540X	760209T	Q102,Q103,Q106,Q108
39	1	1	1	1	TRANS	MMBT3904	54671200T	Q105
40	1	1	1	1	RES	33.2 OHM 0603	723481050T	R101
41	1	1	1	1	RES	26.7K 0603	723481341T	R102
42	1	1	1	1	RES	6.65K 0603	723481279T	R103
43					RES	100 OHM 0603	723481100T	
	2	2	-	-				R104,R132
	-	-	3	3				R104,R132,R142
44	1	1	1	1	RES	3.32K 0603	723481250T	R105
45	9	9	9	9	RES	10K 0603	723481300T	R106,R107,R113,R114,R116,R117,R136, R137,R140
46	1	1	1	1	RES	12.1K 0603	723481308T	R108
47	3	3	3	3	RES	4.75K 0603	723481265T	R109,R111,R127
48	3	3	3	3	RES	2.21K 0603	723481233T	R110,R112,R119
49	3	3	3	3	RES	20K 0603	723481329T	R115,R120,R121
50								
51	1	1	1	1	RES	30.1K 0603	723481346T	R122
52					RES	47.5 OHM 0603	723481065T	
	4	4	-	-				R123,R128,R130,R141
	-	-	3	3				R123,R128,R130
53	1	1	1	1	RES	56.2K 0603	723481372T	R124
54	1	1	1	1	RES	200K 0603	723481429T	R125
55	1	1	1	1	RES	536 OHM 0603	723481170T	R126
56	1	1	1	1	RES	221 OHM 0603	723481133T	R129
57	1	1	1	1	RES	22.1K 0603	723481333T	R131
58	1	1	1	1	RES	22.1 OHM 0603	723481033T	R133
59	1	1	1	1	RES	6.81K 0603	723481280T	R134
60	1	1	1	1	RES	150 OHM 1206	102404117T	R135
61	1	1	1	1	RES	47.5K 0603	723481365T	R138
62	2	2	2	2	RES	10 OHM 0603	723481000T	R139,R144
63	-	-	1	1	RES	26.7 OHM 0603	723481041T	R141
64	1	1	-	-	RES	130 OHM 0603	723481111T	R142
65	1	1	1	1	RES	1K 0603	723481200T	R145
66	1	1	1	1	IC	SA571	53277002T	U101
67	1	1	1	1	IC	LM358	53227104T	U102
68	1	1	1	1	IC	LM833	16030833SMT	U103
69	1	1	1	1	IC	TC55RP500	760296T	U104
70	1	1	1	1	IC	TRF2050	760242T	U105

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Lincoln, Nebraska USA

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DR BY: DDN

CHKD BY: TY

APPD BY: RB

PROD: ___

REV LEVEL:

B

DATE: 10/17/00

DATE: 07/26/01

DATE: 07/26/01

DATE: ___

TITLE:

PCB ASSY, ROSE II XMIT BELT PACK RF SMT

	U.S. "A" 680-704MHZ	U.S. "B" 722-746MHZ	GERMAN "D" 798-	U.K. "E" 841-862MHZ				
	879440-							
	-1	-2	-3	-4				
71	1	1	1	1	POT	20K	72352010T	VR101
72	1	1	1	1	POT	10K	7235209T	VR102
73	1	1	1	1	PC BOARD BP RF TRANSMIT		750552	
74	A/R	A/R	A/R	A/R	PASTE	SOLDER PASTE	BE738	
75	1	1	1	1	CAP	.001UF 1206	102881327T	C151
76	1	1	1	1	RES	4.75K 1206	102404265T	R143
77	-	-	1	-	CAP	4.7PF 0603	723482111T	C157
78	1	1	1	1	RES	18.2K 0603	723481325T	R118
79	3	3	3	3	RES	100K 0603	723481400T	R146, R147, R148

This drawing, written description or specification is a proprietary product of TELEX, Lincoln, NE, and shall not be released, disclosed, nor duplicated without the written permission of TELEX.		Telex Communications INC.				PART NO: 879438	
		Lincoln, Nebraska USA					
APPROVALS:		DR BY: TJY	CHKD BY: TY	APPD BY: RB	PROD: ___	REV LEVEL:	A
		DATE: 12/20/00	DATE: 07/26/01	DATE: 07/26/01	DATE: ___		
TITLE:		PCB ASSY, ROSE II TRANSMIT BELTPACK DISPLAY SMT					
ITEM	NEW	QTY	TYPE	DESCRIPTION	PART NO.	DESIGNATOR	
1		1	CAP	.1UF 0603	723489101T	C201	
2		1	IC	PCF 8566 VS040	760303T	U201	
3		1	XMIT BP	DISPLAY PCB	750553		
4		A/R	SOLDER	PASTE	BE738		

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Telex Communications INC.

PART NO:

879486

Lincoln, Nebraska USA

APPROVALS:	DR BY: TJY	CHKD BY: TY	APPD BY: RB	PROD: ____	REV LEVEL:	A
	DATE: 04/04/01	DATE: 07/27/01	DATE: 07/27/01	DATE: ____		

TITLE: **PCB ASSY, ROSE II BELT PACK XMIT AUDIO/SWITCH BOARD SMT**

ITEM	NEW	QTY	TYPE	DESCRIPTION	PART NO.	DESIGNATOR
1		1	CAP	10UF TANT A	102877047T	C1
2		1	CAP	100PF 0603	723482130T	C2
3		1	CAP	1UF TANT A	102877012T	C3
4		1	CAP	.47UF TANT A	102877010T	C4
5		3	CAP	100UF TANT D	102877051T	C5,C16,C17
6		1	CAP	22PF 0603	723482121T	C6
7		1	CAP	470PF 0603	723482138T	C7
8		3	CAP	.1UF 0805	72338530T	C8,C9,C10
9		2	CAP	.1UF 0603	723489101T	C11,C13
10		1	CAP	.001UF 0603	102881717T	C12
11		1	CAP	33PF 0603	723482124T	C14
12		1	CAP	18PF 0603	723482119T	C15
13		2	FERRITE	BLM21A601S 0805	7234282T	FB1,FB2
14		2	TRANS	MMBT5087	16025087SMT	Q1,Q2
15		1	TRANS	MTSF3N03	760199T	Q3
16		1	TRANS	MMBT3906	54716200	Q4
17		1	RES	3.01K 0603	723481246T	R1
18		1	RES	100 OHM 0603	723481100T	R2
19		1	RES	475 OHM 0603	723481165T	R3
20		2	RES	75K 0603	723481384T	R4,R7
21		12	RES	10K 0603	723481300T	R5,R21,R23,R29,R30,R31,R32,R24,R25,R26,R27,R28
22		1	RES	39.2K 0603	723481357T	R6
23		1	RES	121K 0603	723481408T	R8
24		2	RES	1.82K 0603	723481225T	R9,R12
25		4	RES	1K 0603	723481200T	R10,R13,R22,R33
26		1	RES	332 OHM 0603	723481150T	R11
27		1	RES	47.5 OHM 0603	723481065T	R14
28		1	RES	14.3K 0603	723481315T	R15
29		1	RES	5.62K 0603	723481272T	R16
30		1	RES	187K 0603	723481426T	R17
31		1	RES	215K 0603	723481432T	R18
32		1	RES	100K 0603	723481400T	R19
33		1	RES	47.5K 0603	723481365T	R20
34		4	SWITCH	TACT SWITCH	700182T	S3,S4,S5,S6
35		1	IC	NE5534	53293002T	U1
36		1	IC	LM833	16030833SMT	U2
37		2	IC	NDS9952A	760305T	U3,U4
38		1	IC	PIC16F872	760292T	U5
39		1	IC	24AA64	7602952T	U6
40		1	TRIMMER	5-20PF	7234103T	VC1
41		1	XMIT BP AUDIO PCB		750574	
42		A/R	SOLDER PASTE		BE738	
43		1	CAP	.0047UF 0603	732483111T	C18
44		1	CONN	JST SM3 4PIN SMT	539105002T	J6

WT-1000 ACTIVE DEVICES

DES	DEVICE	FUNCTION
1. Q1	MMBT5087	AF Amplifier
2. Q2	MMBT5087	AF Amplifier
3. Q3	MTSF3N03	Switch
4. Q4	MMBT3904	Switch
5. Q101	MMBT3906	DC Amplifier
6. Q102	BFG540X	RF Amplifier
7. Q103	BFG540X	RF Amplifier
8. Q104	MMBT3906	DC Amplifier
9. Q105	MMBT3904	Switch
10. Q106	BFG540X	RF Amplifier
11. Q107	MMBT3906	DC Amplifier
12. Q108	BFG540X	RF Amplifier
13. U1	NE5534	AF Amplifier
14. U2	LM833	Filter
15. U3	NDS9952	Switch
16. U4	NDS9952	Switch
17. U5	PIC16F872	Microprocessor
18. U6	24LC64	Memory
19. U101	SA571	Compandor
20. U102	LM358	Comparator
21. U103	LM833	Filter
22. U104	TC55RP500	Regulator
23. U105	TRF2050	PLL
24. U201	PCF8566	LCD Driver

WT-1000 ALIGNMENT PROCEDURE

1. Solder coaxial cable from E101 to ground to feed frequency counter, deviation meter and spectrum analyzer.
2. Connect audio source of 10mv at 1kHz to E3 (hot) and E4 (ground).
3. Connect 9VDC to battery contacts (because of autopolarity circuit + can be connected to either contact).
4. Adjust user gain control maximum clockwise and actuate user power switch.
5. After LCD displays group and channel, press menu button to display frequency.
6. Adjust VC1 for this frequency.
7. Adjust VR101 for 40kHz deviation.
8. Remove audio input and adjust VR102 so that the 31.25kHz sidebands are at -30dBc .