

- NOTES:
1. ALL ELECTRICAL SIGNAL NAMES AND COMPONENTS ARE LISTED IN THE CROSS REFERENCE TABLES.
 2. UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS
ALL CAPACITANCE VALUES ARE IN MICROFARADS
ALL INDUCTANCE VALUES ARE IN MICROHENRIES
 3. INTEGRATED CIRCUIT TYPE NUMBERS SHOWN ARE THOSE NORMALLY EQUIPPED. EQUIVALENT TYPES MAY BE SUBSTITUTED AT TIME OF MANUFACTURE WITH APPROVAL OF ALCATEL COMPONENT APPLICATION ENGINEERING.


CAUTION
ESS
 UNIT CONTAINS ELECTROSTATIC SENSITIVE ITEMS.
 MAINTAIN ANTISTATIC PROTECTION.

DRAWING

ABBREV=ALCATEL
 TITLE=11963AC
 LAST_MODIFIED=Fri Mar 5 12:52:05 2004

PBA_FAMILY=3EM11964
 VAR_TABLE1=AAAC 1850-1910
 VAR_TABLE2=ABAA 1930-1990

ED	REL DATE	02	040324	01	040124		
CHANGE NOTE	EMR13915		EMR13194				
APPRA AUTHO	DUANE MORTENSEN		DUANE MORTENSEN				
ORIGINATOR	JAKE HOLLAND		JAKE HOLLAND				
ALCATEL	MDR-8000 UD-36AS			SCHEMATIC 1.8 GHZ RF RCVR			
				3EM 11963 ACAA ECZZA		1/10	

1AA 00014 0000 (9711) B - CONCEPT (PSD 13.6)

THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).

A

A

B

B

C

C

D

D

E

E

F

F

Put your block diagram here. Use components from the library A_blockdia.

Do not put circuitry on this page--start on page 3.

DRAWING

ABBREV=ALCATEL
TITLE=11963AC
LAST_MODIFIED=Wed Feb 25 15:30:22 CST 2004

1.8 GHZ RF RCVR

Block Diagram

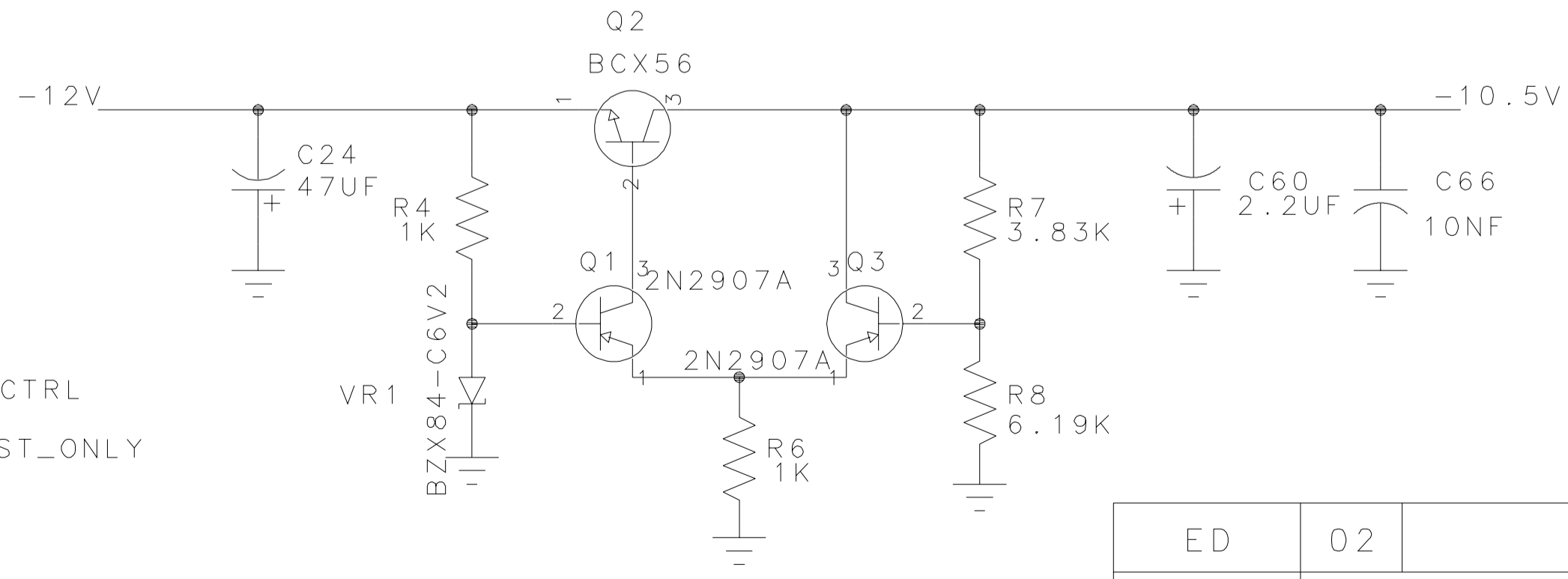
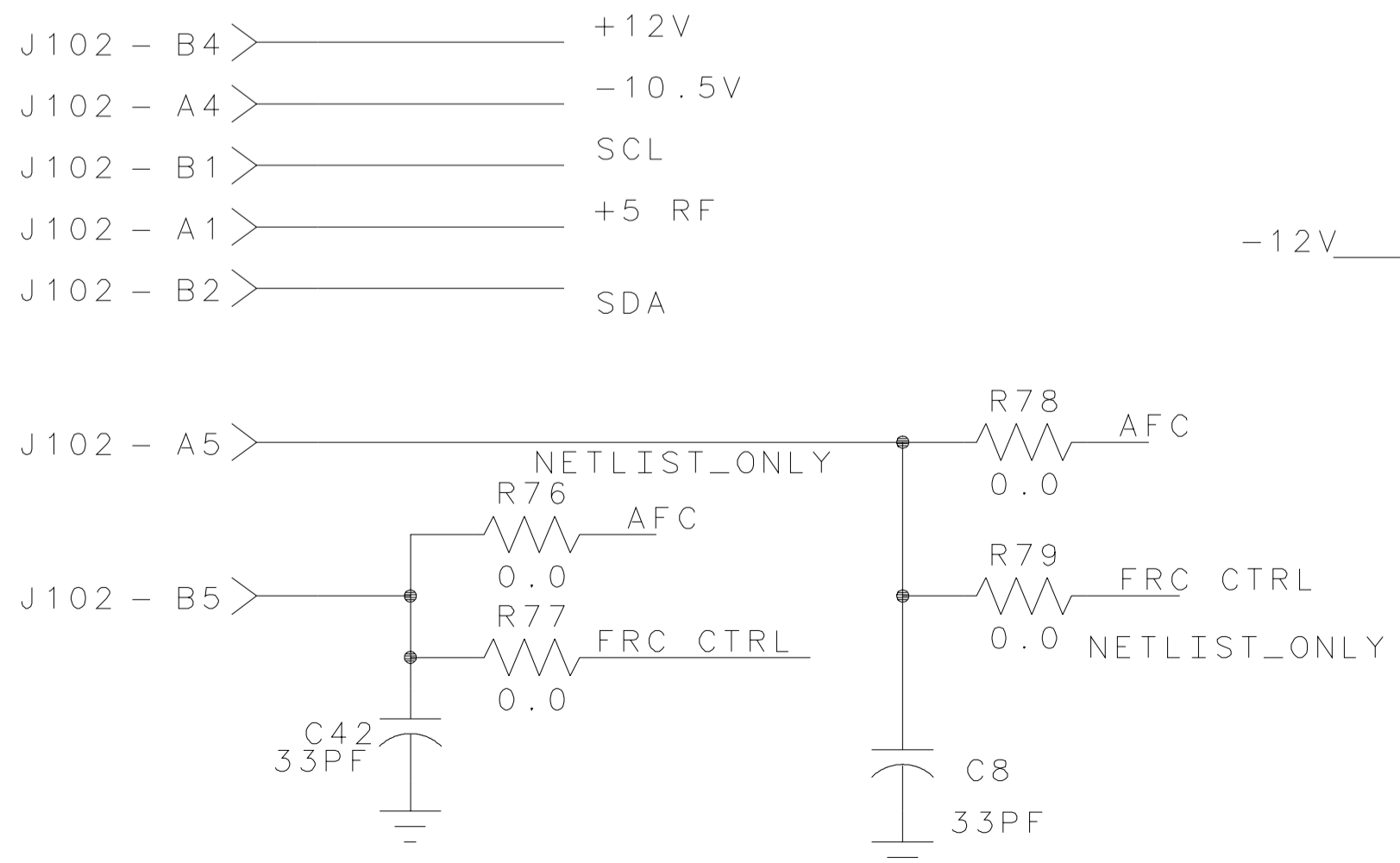
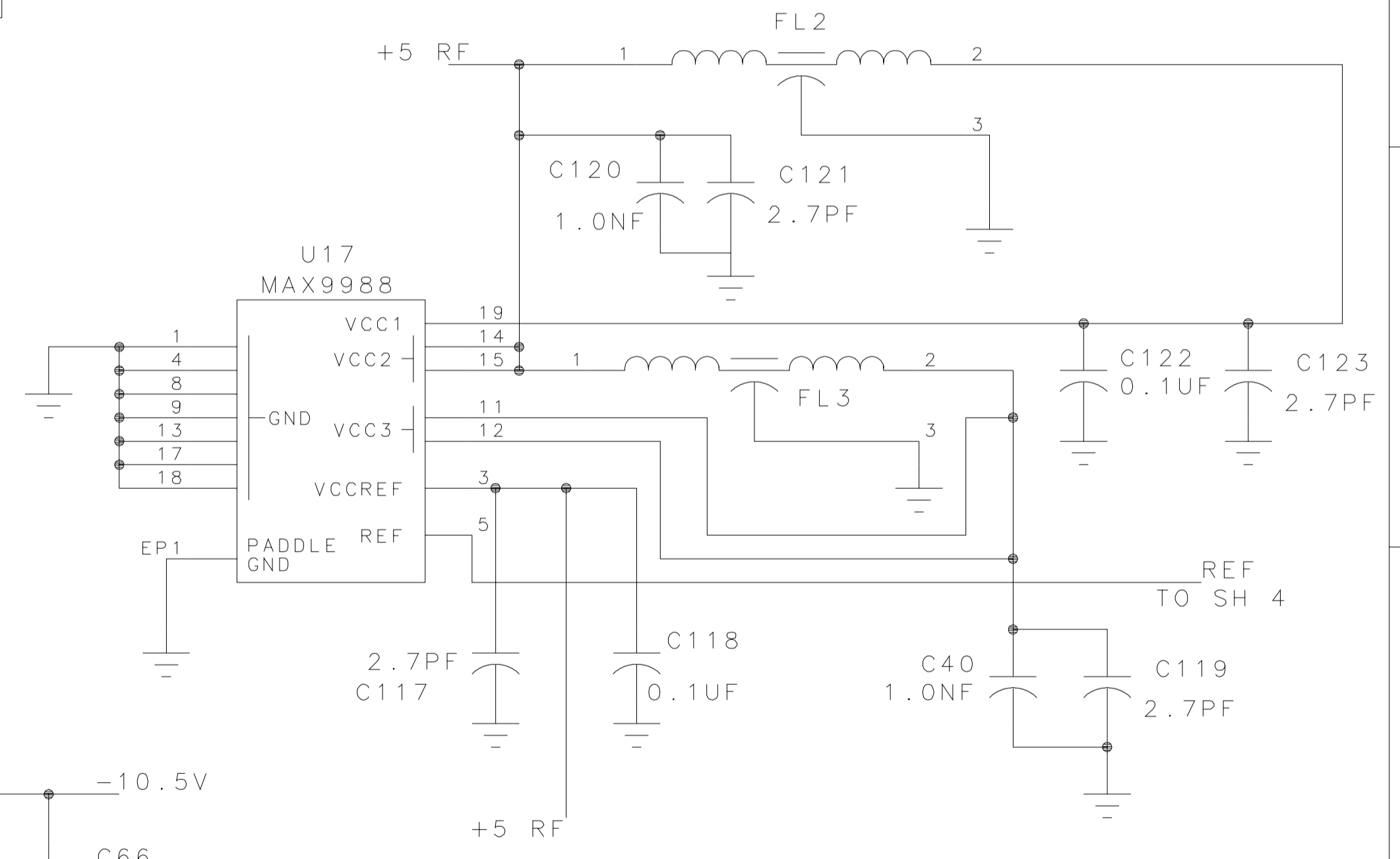
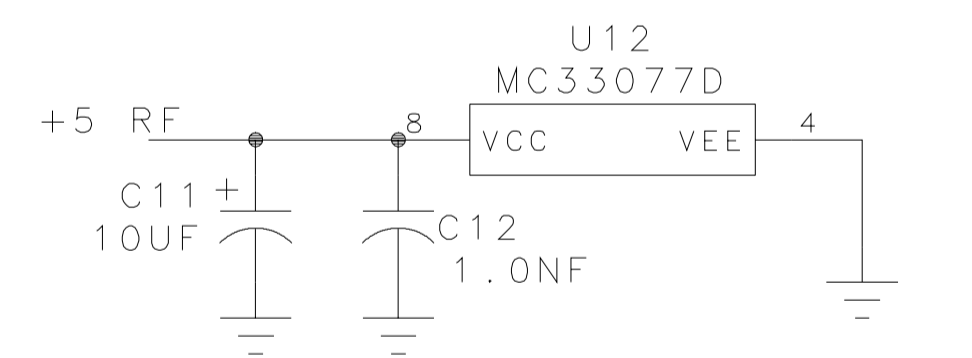
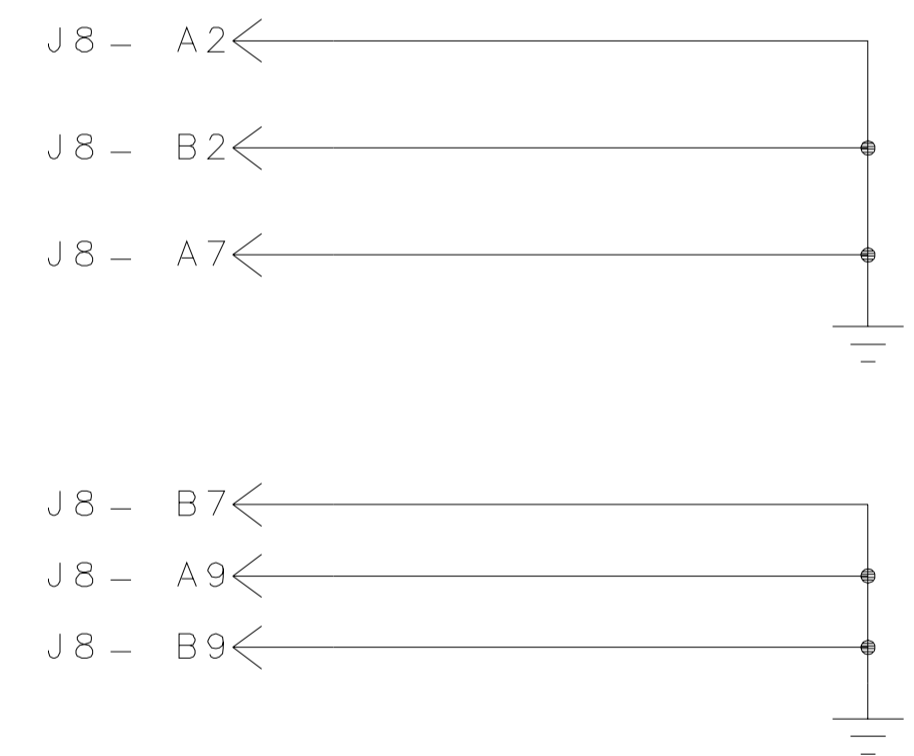
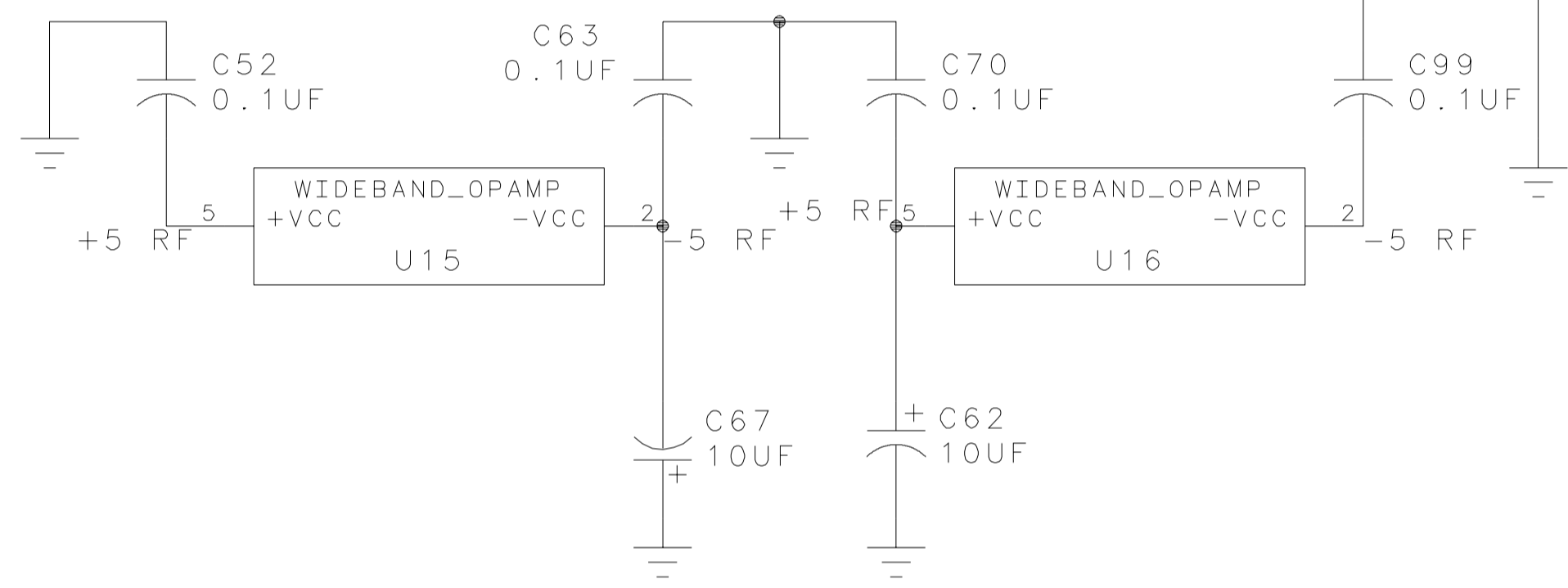
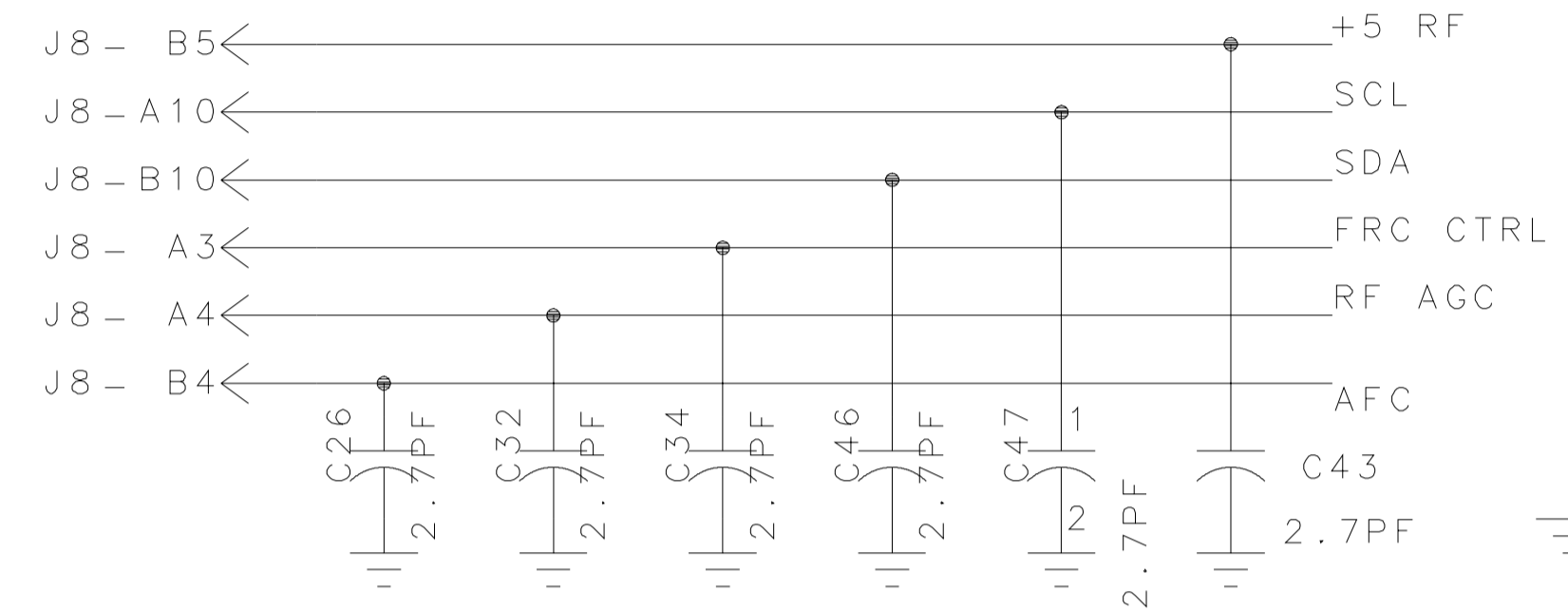
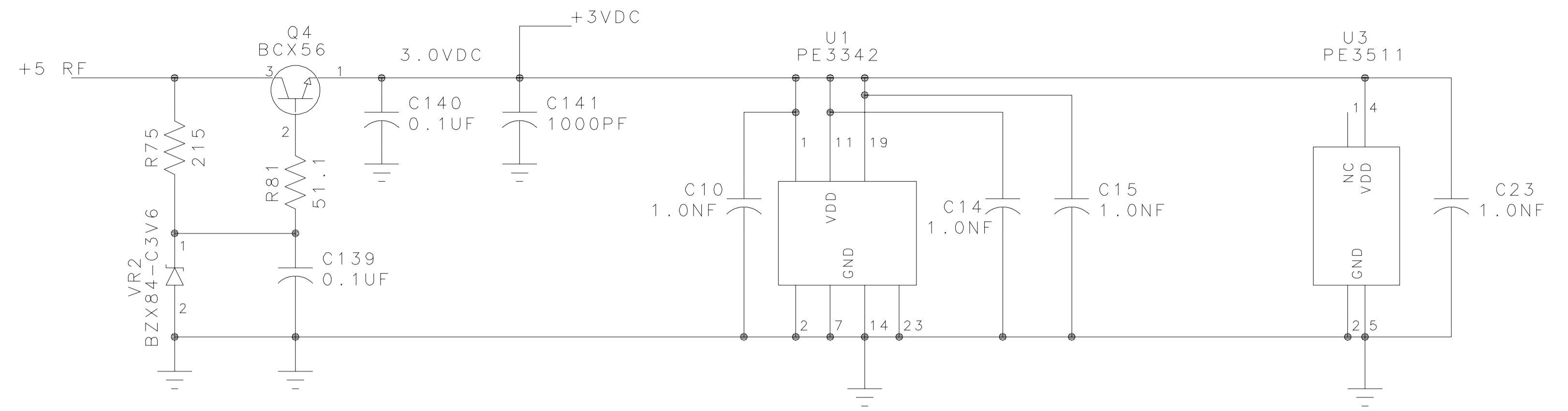
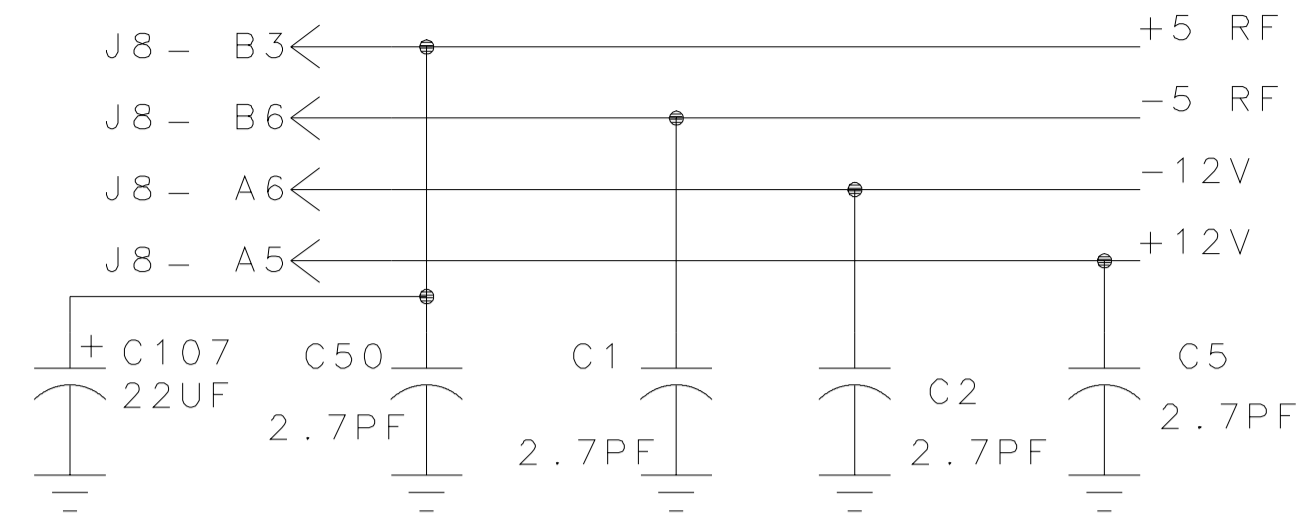
ED	02						
ALCATEL						3EM 11963 ACAA ECZZA	2

1AA 00014 0000 (9711) B - CONCEPT (PSD 13.6)

ALCATEL CONFIDENTIAL & PROPRIETARY INFORMATION. CONTAINS TRADE SECRET INFORMATION WHICH IS THE PROPERTY OF ALCATEL AND MUST NOT BE MADE AVAILABLE TO, OR COPIED OR USED BY ANYONE OUTSIDE ALCATEL WITHOUT ITS WRITTEN AUTHORIZATION.

THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).

14A 00014 0000 (9711) B - CONCEPT (PSD 13.6)

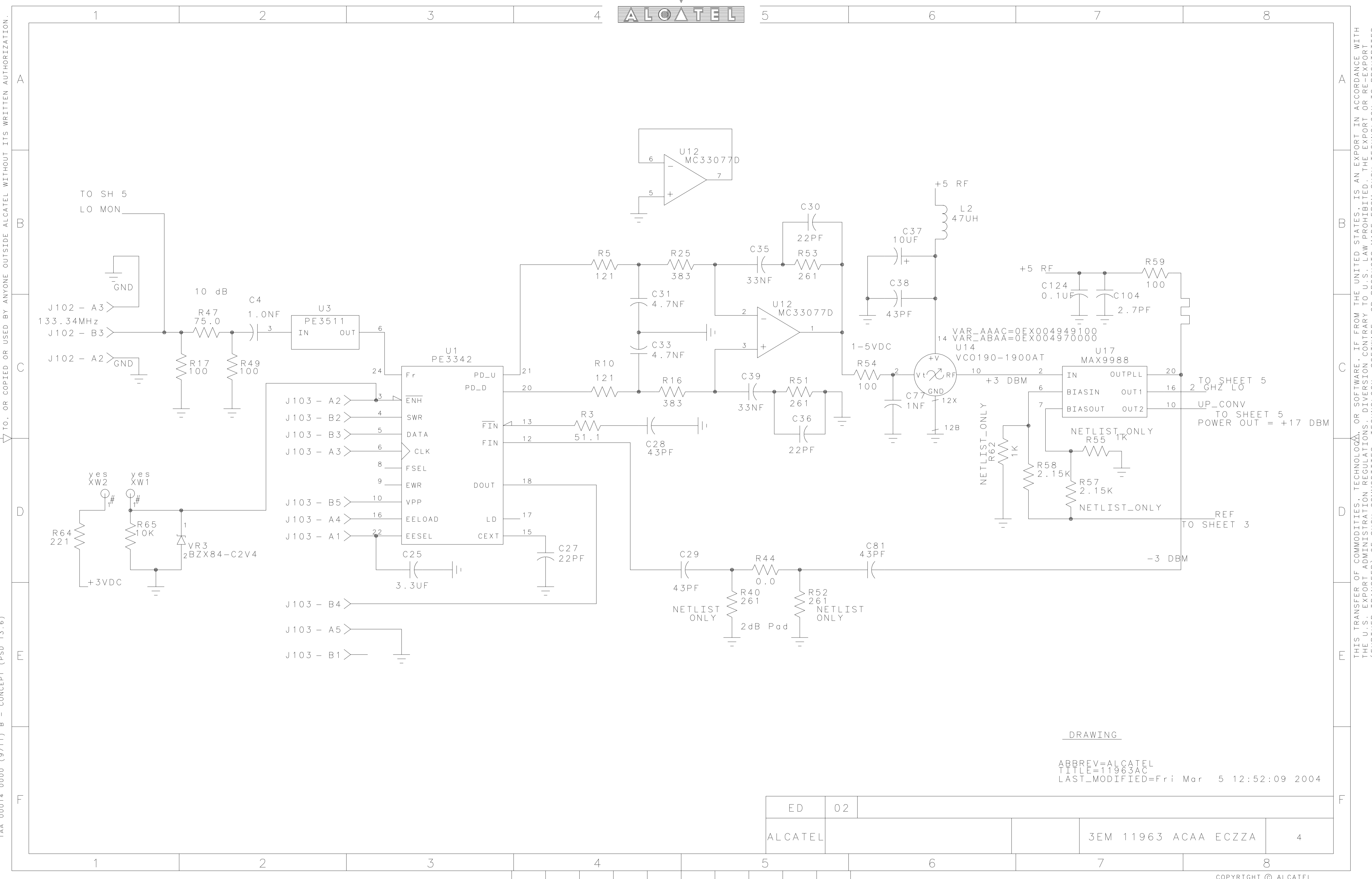


DRAWING

ABBREV=ALCATEL
 TITLE=11963AC
 LAST_MODIFIED=Fri Mar 5 12:52:07 2004

ED	02			
ALCATEL		3EM 11963 ACAA ECZZA		3

THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).

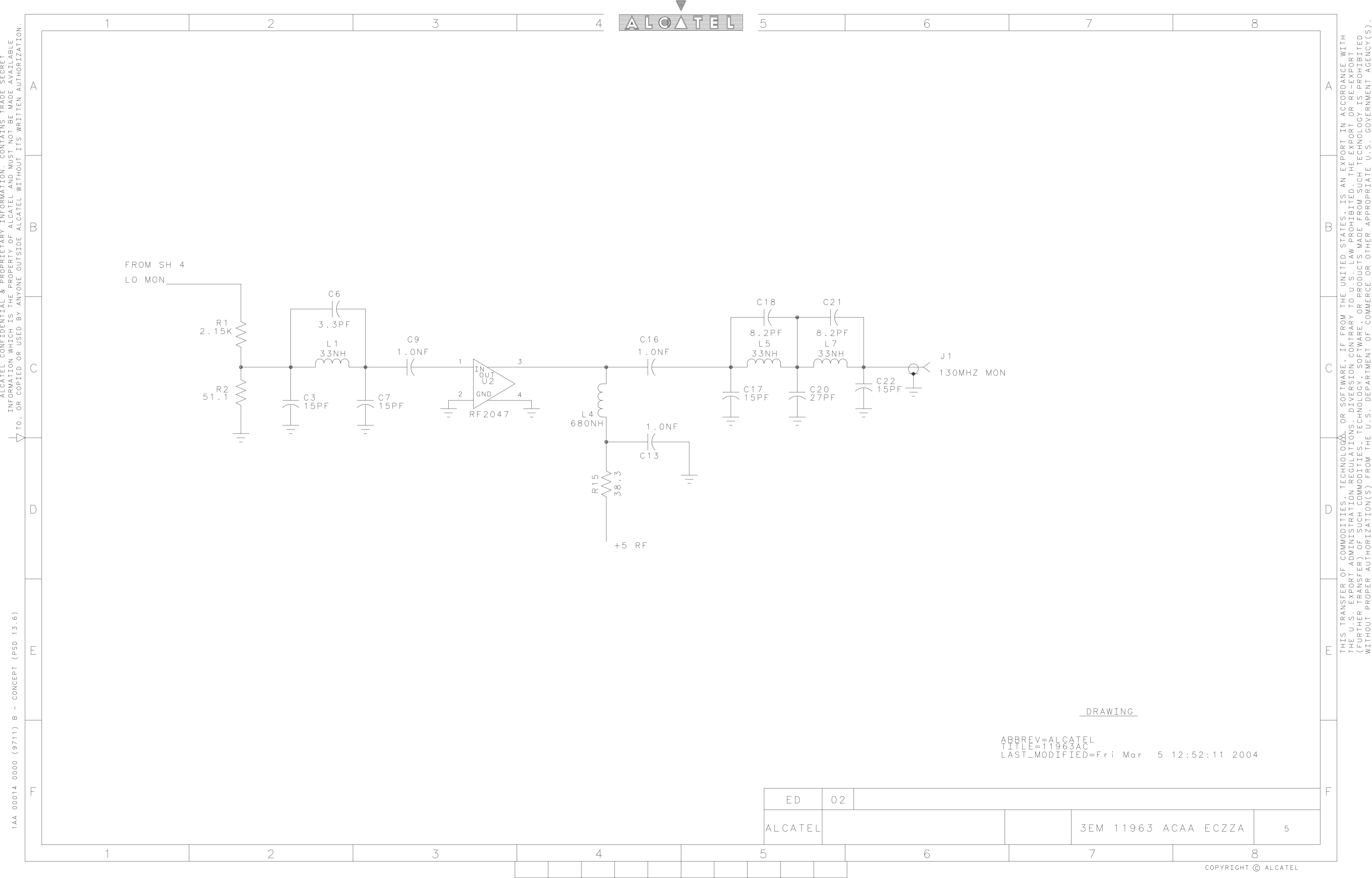


14A 00014 0000 (9711) B - CONCEPT (PSD 13.6)

THIS TRANSFER OF COMMODITIES, TECHNOLOGY OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).

DRAWING
ABBREV=ALCATEL
TITLE=11963AC
LAST_MODIFIED=Fri Mar 5 12:52:09 2004

ED	02			
ALCATEL			3EM 11963 ACAA ECZZA	4



DRAWING

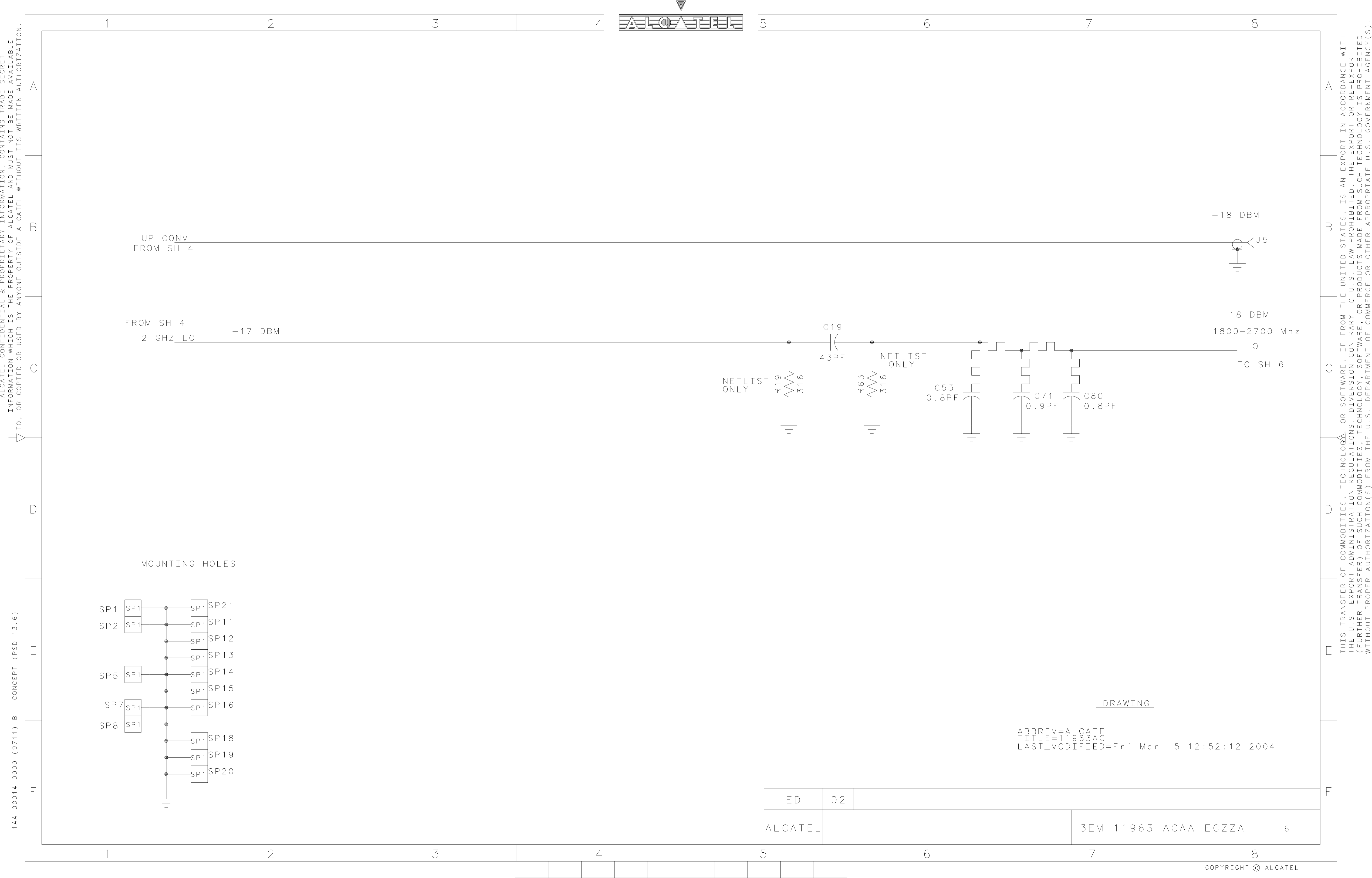
ABBREV=ALCATEL
 TITLE=11963AC
 LAST_MODIFIED=Fri Mar 5 12:52:11 2004

ED	02			
ALCATEL			3EM 11963 ACAA ECZZA	5

1AA 00014 0000 (9711) B - CONCEPT (PSD 13.6)

ALCATEL CONFIDENTIAL & PROPRIETARY INFORMATION. CONTAINS TRADE SECRET INFORMATION WHICH IS THE PROPERTY OF ALCATEL AND MUST NOT BE MADE AVAILABLE TO, OR COPIED OR USED BY ANYONE OUTSIDE ALCATEL WITHOUT ITS WRITTEN AUTHORIZATION.

THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).



+18 DBM

18 DBM
1800-2700 Mhz
LO
TO SH 6

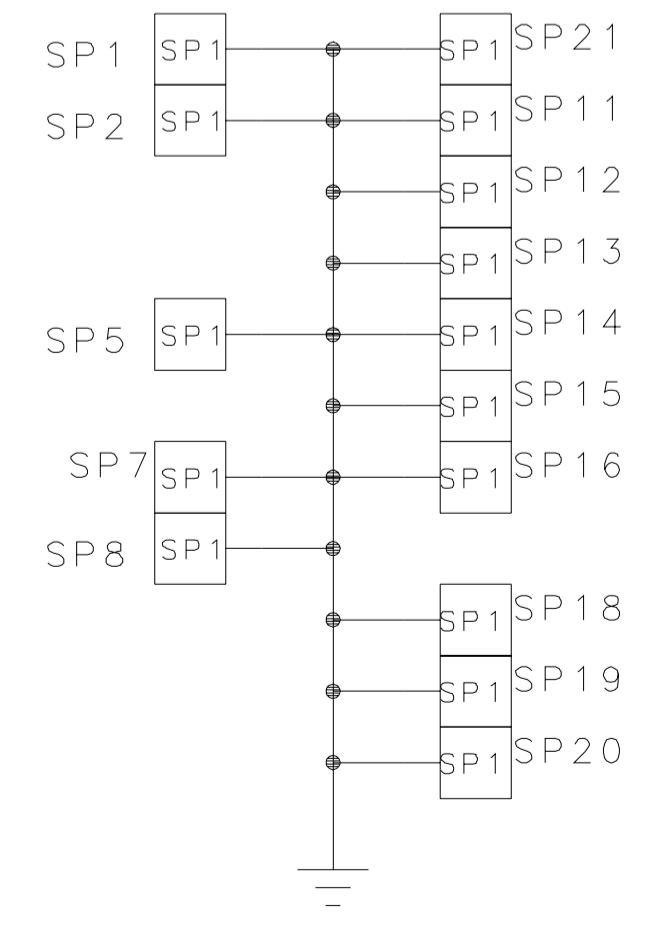
UP_CONV
FROM SH 4

FROM SH 4
2 GHz LO +17 DBM

NETLIST ONLY

NETLIST ONLY

MOUNTING HOLES



DRAWING

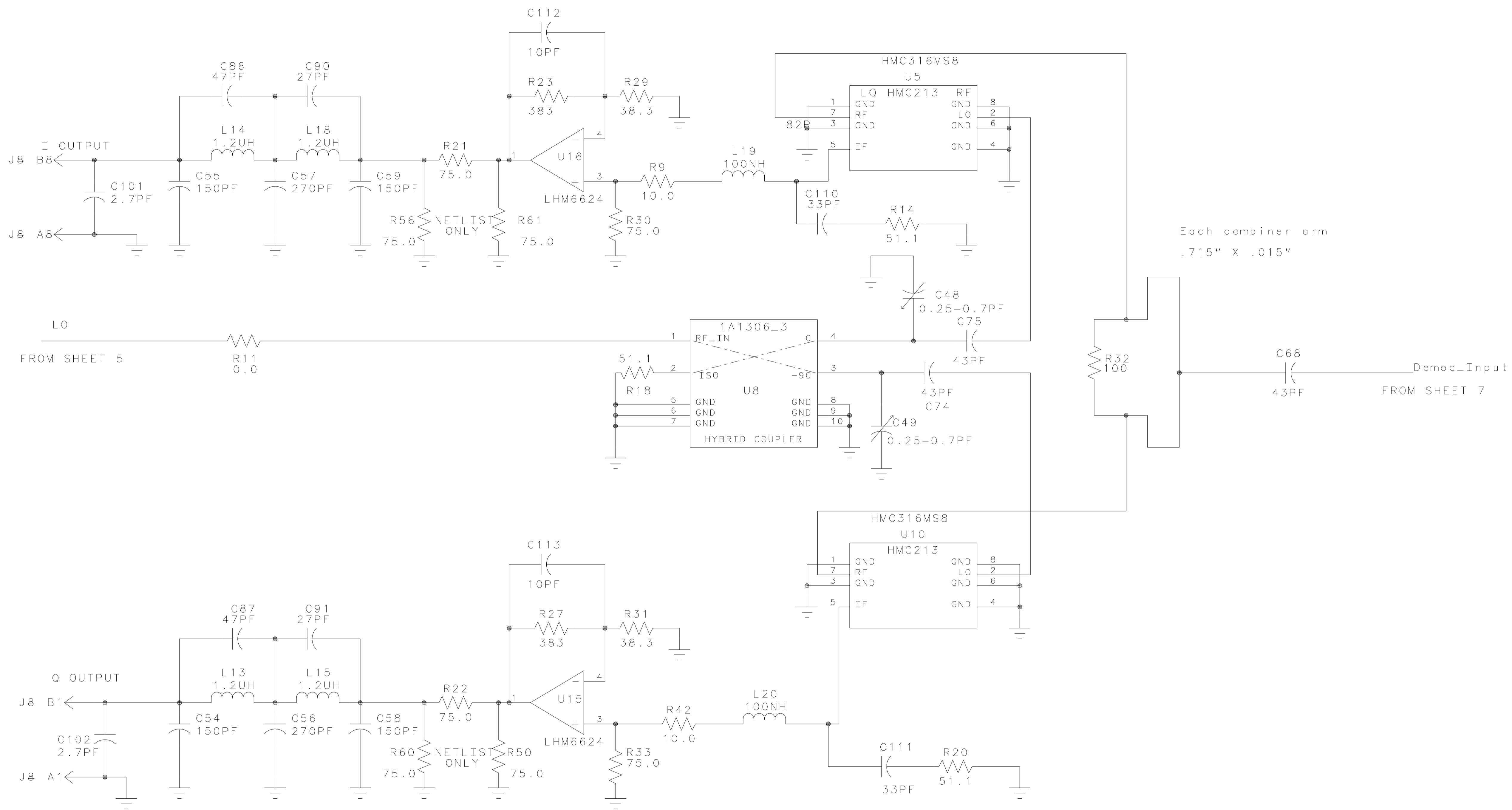
ABBREV=ALCATEL
TITLE=11963AC
LAST_MODIFIED=Fri Mar 5 12:52:12 2004

ED	02			
ALCATEL			3EM 11963 ACAA ECZZA	6

14A 00014 0000 (9711) B - CONCEPT (PSD 13.6)

ALCATEL CONFIDENTIAL & PROPRIETARY INFORMATION. CONTAINS TRADE SECRET INFORMATION WHICH IS THE PROPERTY OF ALCATEL AND MUST NOT BE MADE AVAILABLE TO, OR COPIED OR USED BY ANYONE OUTSIDE ALCATEL WITHOUT ITS WRITTEN AUTHORIZATION.

THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).



Each combiner arm
.715" X .015"

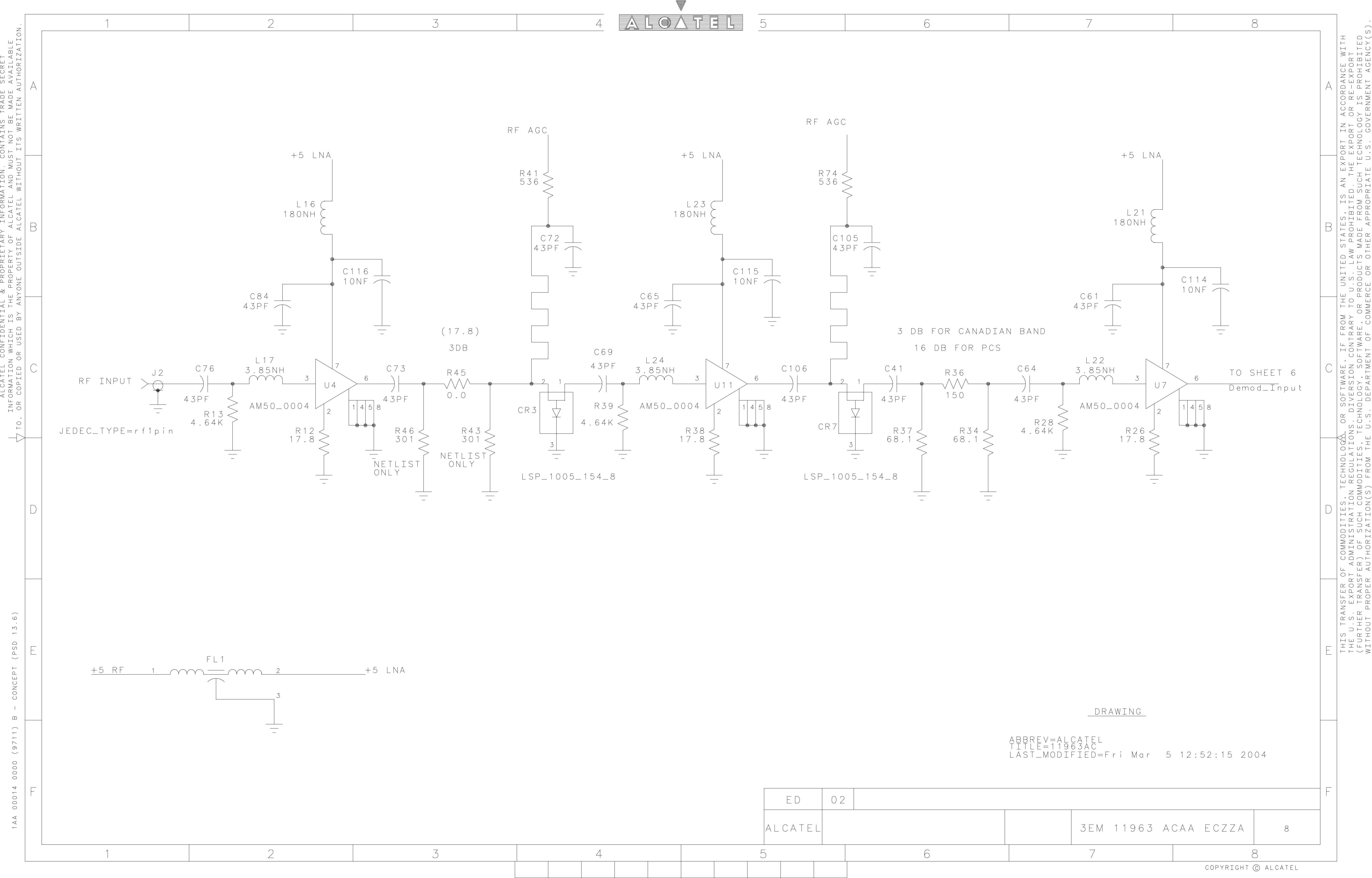
DRAWING

ABBREV=ALCATEL
TITLE=11963AC
LAST_MODIFIED=Fri Mar 5 12:52:13 2004

ED	02			
ALCATEL			3EM 11963 ACAA ECZZA	7

1AA 00014 0000 (9711) B - CONCEPT (PSD 13.6)

THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).



1AA 00014 0000 (9711) B - CONCEPT (PSD 13.6)

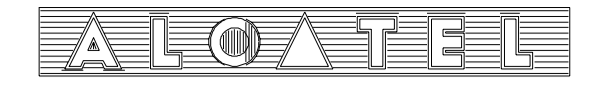
THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).

ABBREV=ALCATEL
 TITLE=11963AC
 LAST_MODIFIED=Fri Mar 5 12:52:15 2004

DRAWING

ED	02			
ALCATEL			3EM 11963 ACAA ECZZA	8

1 2 3 4



5 6 7 8

*** Signal Cross-Reference ***
--- for the entire design ---

A
B
C
D
E
F

A
B
C
D
E
F

1.8 GHZ RF RCVR

CROSS REFERENCE

ED	02						
ALCATEL						3EM 11963 ACAA ECZZA	9

1 2 3 4 5 6 7 8

*** Unit Cross-Reference ***
--- for the entire design ---

C1	CAP	3A2
C2	CAP	3B2
C3	CAP	5C2
C4	CAP	4C2
C5	CAP	3A2
C6	CAP	5C2
C7	CAP	5C3
C8	CAP	3F2
C9	CAP	5C3
C10	CAP	3A6
C11	CAPP	3D3
C12	CAP	3D4
C13	CAP	5D4
C14	CAP	3A6
C15	CAP	3A7
C16	CAP	5C4
C17	CAP	5C5
C18	CAP	5C5
C19	CAP	6C5
C20	CAP	5C5
C21	CAP	5C5
C22	CAP	5C6
C23	CAP	3A8
C24	CAPP	3E3
C25	CAP	4D3
C26	CAP	3C1
C27	CAP	4D4
C28	CAP	4D4
C29	CAP	4D4
C30	CAP	4B5
C31	CAP	4C4
C32	CAP	3C2
C33	CAP	4C4
C34	CAP	3C2
C35	CAP	4B5
C36	CAP	4C5
C37	CAPP	4B6
C38	CAP	4B6
C39	CAP	4C5
C40	CAP	3E8
C41	CAP	8C6
C42	CAP	3F1
C43	CAP	3C3
C46	CAP	3C2
C47	CAP	3C2
C48	VCAP	7B6
C49	VCAP	7C5
C50	CAP	3A1
C52	CAP	3C3
C53	CAP	6C6
C54	CAP	7E2
C55	CAP	7B2
C56	CAP	7E3
C57	CAP	7B3
C58	CAP	7E3
C59	CAP	7B3
C60	CAPP	3E5
C61	CAP	8C7
C62	CAPP	3C5
C63	CAP	3C4
C64	CAP	8C7
C65	CAP	8C4
C66	CAP	3E6
C67	CAPP	3C4

C68	CAP	7C7
C69	CAP	8C4
C70	CAP	3C5
C71	CAP	6C7
C72	CAP	8B4
C73	CAP	8C3
C74	CAP	7C6
C75	CAP	7C6
C76	CAP	8C2
C77	CAP	4C6
C80	CAP	6C7
C81	CAP	4D6
C84	CAP	8C2
C86	CAP	7A2
C87	CAP	7D2
C90	CAP	7A3
C91	CAP	7D3
C99	CAP	3C6
C101	CAP	7B2
C102	CAP	7E1
C104	CAP	4C7
C105	CAP	8B6
C106	CAP	8C5
C107	CAPP	3A1
C110	CAP	7B5
C111	CAP	7E5
C112	CAP	7A4
C113	CAP	7D4
C114	CAP	8B8
C115	CAP	8B5
C116	CAP	8B3
C117	CAP	3E6
C118	CAP	3E7
C119	CAP	3E8
C120	CAP	3D7
C121	CAP	3D7
C122	CAP	3D8
C123	CAP	3D8
C124	CAP	4B7
C139	CAP	3B5
C140	CAP	3A5
C141	CAP	3A5
CR3	DIODE_2ANODE	8C4
CR7	DIODE_2ANODE	8C5
FL1	EMI_FILTER_T	8E2
FL2	EMI_FILTER_T	3C7
FL3	EMI_FILTER_T	3D7
J1	RF_CONNECTOR	5C6
J2	RF_CONNECTOR	8C1
J5	RF_CONNECTOR	6B8
J8	V20H0	3A1 3B1 3C1 3C1 3D1 3D1 7B1 7E1 7E1
J102	V10R1	3E1 3E1 3F1 4C1
J103	V10R1	4C2 4D2 4D2 4E2 4E2 4E2
L1	IND	5C2
L2	IND	4B6
L4	IND	5C4
L5	IND	5C5
L7	IND	5C5
L13	IND	7E2
L14	IND	7B2
L15	IND	7E3
L16	IND	8B2
L17	IND	8C2
L18	IND	7B3
L19	IND	7B5
L20	IND	7E5

L21	IND	8B7
L22	IND	8C7
L23	IND	8B5
L24	IND	8C4
Q1	PNP_R	3E4
Q2	PNP_R	3E4
Q3	PNP_R	3E4
Q4	PNP_R	3A5
R1	RES	5C2
R2	RES	5C2
R3	RES	4C4
R4	RES	3E4
R5	RES	4B4
R6	RES	3F4
R7	RES	3E5
R8	RES	3F5
R9	RES	7B4
R10	RES	4C4
R11	RES	7C2
R12	RES	8C2
R13	RES	8C2
R14	RES	7B5
R15	RES	5D4
R16	RES	4C4
R17	RES	4C2
R18	RES	7C4
R19	RES	6C5
R20	RES	7E6
R21	RES	7B3
R22	RES	7E3
R23	RES	7A4
R25	RES	4B4
R26	RES	8C7
R27	RES	7D4
R28	RES	8C7
R29	RES	7A4
R30	RES	7B4
R31	RES	7D4
R32	RES	7C6
R33	RES	7E4
R34	RES	8C6
R36	RES	8C6
R37	RES	8C6
R38	RES	8C5
R39	RES	8C4
R40	RES	4E5
R41	RES	8B4
R42	RES	7E4
R43	RES	8C3
R44	RES	4D5
R45	RES	8C3
R46	RES	8C3
R47	RES	4C2
R49	RES	4C2
R50	RES	7E4
R51	RES	4C5
R52	RES	4E5
R53	RES	4B5
R54	RES	4C6
R55	RES	4D7
R56	RES	7B3
R57	RES	4D7
R58	RES	4D7
R59	RES	4B7
R60	RES	7E3
R61	RES	7B4
R62	RES	4D6

R63	RES	6C6
R64	RES	4D1
R65	RES	4D1
R74	RES	8B5
R75	RES	3A4
R76	RES	3F2
R77	RES	3F2
R78	RES	3E3
R79	RES	3F3
R81	RES	3A5
SP1	SINGLE_PIN	6E1
SP2	SINGLE_PIN	6E1
SP5	SINGLE_PIN	6E1
SP7	SINGLE_PIN	6E1
SP8	SINGLE_PIN	6F1
SP11	SINGLE_PIN	6E2
SP12	SINGLE_PIN	6E2
SP13	SINGLE_PIN	6E2
SP14	SINGLE_PIN	6E2
SP15	SINGLE_PIN	6E2
SP16	SINGLE_PIN	6E2
SP18	SINGLE_PIN	6F2
SP19	SINGLE_PIN	6F2
SP20	SINGLE_PIN	6F2
SP21	SINGLE_PIN	6E2
U1	PE3342	3A6 4C3
U2	RF_AMPLIFIER_2	5C3
U3	PE3511	3A8 4C2
U4	RF_LNA	8C2
U5	HMC213	7A5
U7	RF_LNA	8C7
U8	1A1306_3	7C5
U10	HMC213	7D5
U11	RF_LNA	8C5
U12	MC33077	3D4 4B5 4C5
U14	VC0190	4C6
U15	WIDEBAND_OPAMP	3C4 7E4
U16	WIDEBAND_OPAMP	3C5 7B4
U17	MAX9988	3D6 4C7
VR1	ZENER_SOT23	3F4
VR2	ZENER_SOT23	3B4
VR3	ZENER_SOT23	4D2
XW1	SQ_1_420	4D1
XW2	SQ_1_420	4D1

1.8 GHZ RF RCVR

CROSS REFERENCE

END OF DOCUMENT

ED	02						
ALCATEL						3EM 11963 ACAA ECZZA	10

THIS TRANSFER OF COMMODITIES, TECHNOLOGY, OR SOFTWARE, IF FROM THE UNITED STATES, IS AN EXPORT IN ACCORDANCE WITH THE U.S. EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED. THE EXPORT OR RE-EXPORT (FURTHER TRANSFER) OF SUCH COMMODITIES, TECHNOLOGY, SOFTWARE, OR PRODUCTS MADE FROM SUCH TECHNOLOGY IS PROHIBITED WITHOUT PROPER AUTHORIZATION(S) FROM THE U.S. DEPARTMENT OF COMMERCE OR OTHER APPROPRIATE U.S. GOVERNMENT AGENCY(S).

1AA 00014 0000 (9711) B - CONCEPT (PSD 13.6)