

EXHIBIT 4

Block Diagram

&

Schematics

DIVISIONE: R I C E R C A

BMPEPGM1 *** ESPLOSIONE SINGOLO LIVELLO *** ELAB.DEL: 06/03/98

COD.ART.: 6386651050 E86 ST.BASE - INSIEME ELETTRON.USA PAG.: 1

PROG: 0310 DATA ISRT: 04/06/97 TIPO RICH: DT. 06/03/98 QTA': 1

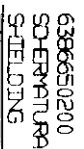
PREC.D'USO: NON LAVABILE IN FREON - SENSIBILE A CARICHE STATICHE

DIMOSTRATIVO	PREF	DESCRIZIONE	D
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6386651050D	01	MONTAGGIO E86 ST.BASE - INS.EL.USA	
6386651050F	02	DESCRIZ. E86 ST.BASE - INS.EL.USA	

PH	COMPONENTE US	PREF	DESCRIZIONE	D	UM	QTA'
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	6386650150	0001	E86 ST.BASE - CIRCUITI LOGICI USA			1,0
	6386650200	0002	E86 ST.BASE - SCHERMATURA			1,0
	6386650600	0003	E86 ST.BASE - FREQUENZA INTERM.USA			1,0
	6386650700	0004	E86 ST.BASE - FRONT END USA			1,0
	6386650800	0005	E86 ST.BASE - FILTRO RADIO FREQ.USA			1,0



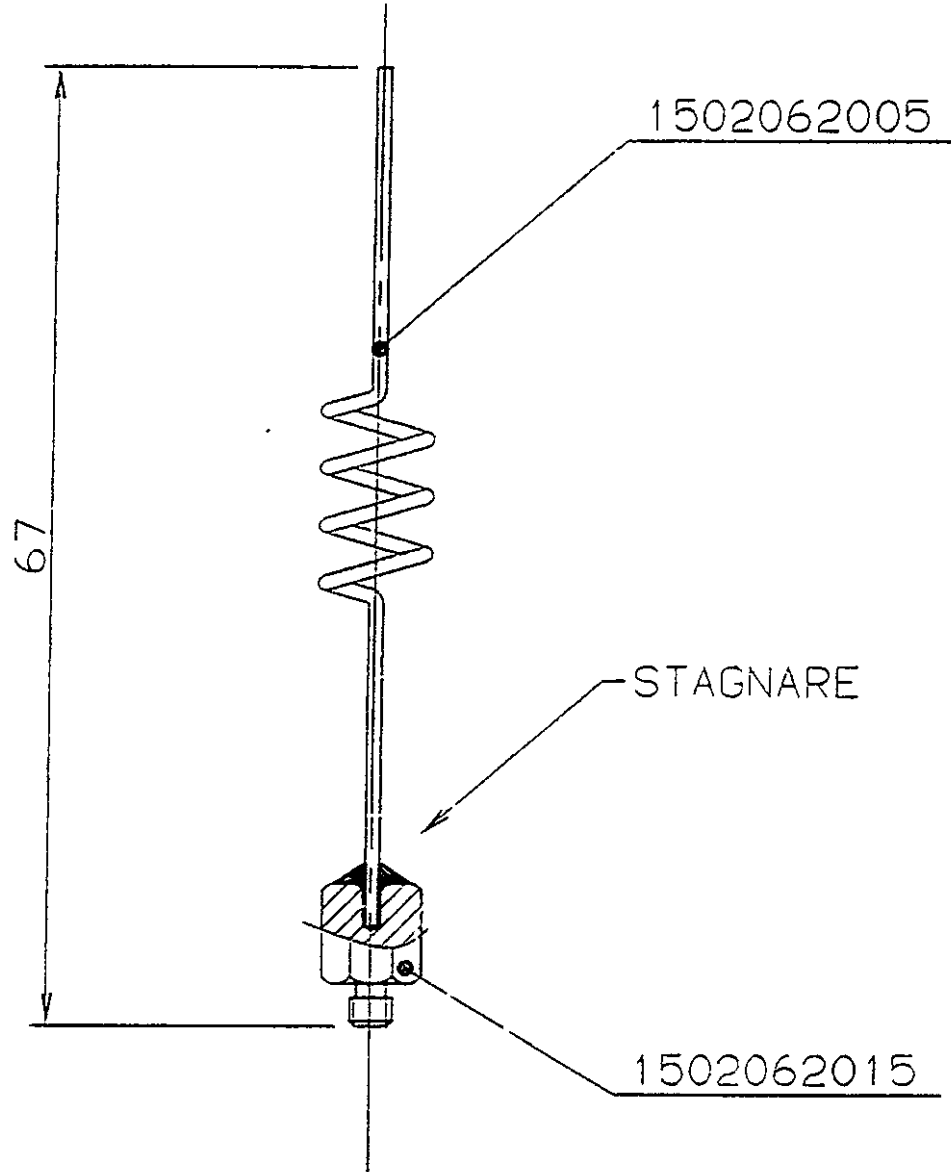
6386650150
CIRCUIT LOGIC
LOGIC CIRCUITS

6386650600
FREQ. INTERMEDIA
INTERM. FREQUENCY

[illegible]

DISEGNO ESEGUITO CON SISTEMA **CAD**

Non sono ammesse variazioni o modifiche manuali



04/03/98 MARPOSS

Dimensioni in decimetri per la scala libera

da 1 a 3	> 6	> 10	> 18	> 30	> 50	> 80	> 120	> 180	> 250
da 3 a 6	> 10	> 18	> 30	> 50	> 80	> 120	> 180	> 250	> 315
da 6 a 10	> 18	> 30	> 50	> 80	> 120	> 180	> 250	> 315	> 360
da 10 a 15	> 30	> 50	> 80	> 120	> 180	> 250	> 315	> 360	> 420
da 15 a 20	> 50	> 80	> 120	> 180	> 250	> 315	> 360	> 420	> 480
da 20 a 25	> 80	> 120	> 180	> 250	> 315	> 360	> 420	> 480	> 540
da 25 a 30	> 120	> 180	> 250	> 315	> 360	> 420	> 480	> 540	> 600
da 30 a 35	> 180	> 250	> 315	> 360	> 420	> 480	> 540	> 600	> 660
da 35 a 40	> 250	> 315	> 360	> 420	> 480	> 540	> 600	> 660	> 720
da 40 a 45	> 315	> 360	> 420	> 480	> 540	> 600	> 660	> 720	> 780
da 45 a 50	> 360	> 420	> 480	> 540	> 600	> 660	> 720	> 780	> 840
da 50 a 55	> 420	> 480	> 540	> 600	> 660	> 720	> 780	> 840	> 900
da 55 a 60	> 480	> 540	> 600	> 660	> 720	> 780	> 840	> 900	> 960
da 60 a 65	> 540	> 600	> 660	> 720	> 780	> 840	> 900	> 960	> 1020
da 65 a 70	> 600	> 660	> 720	> 780	> 840	> 900	> 960	> 1020	> 1080
da 70 a 75	> 660	> 720	> 780	> 840	> 900	> 960	> 1020	> 1080	> 1140
da 75 a 80	> 720	> 780	> 840	> 900	> 960	> 1020	> 1080	> 1140	> 1200
da 80 a 85	> 780	> 840	> 900	> 960	> 1020	> 1080	> 1140	> 1200	> 1260
da 85 a 90	> 840	> 900	> 960	> 1020	> 1080	> 1140	> 1200	> 1260	> 1320
da 90 a 95	> 900	> 960	> 1020	> 1080	> 1140	> 1200	> 1260	> 1320	> 1380
da 95 a 100	> 960	> 1020	> 1080	> 1140	> 1200	> 1260	> 1320	> 1380	> 1440

EDIZ. EDIT.	PROGR.	MODIFICHE / CHANGES		DATA/DATE	FIRMA NAME
TOLLER. MATER.		PROGETT. VOLTA A.	CADAM	DOVE NON INDICATO	
TREAT.		APPROVATO FERRARI A.		seuso/chafer X	
TREAT.		DATA 04/06/97		raggio/radius R=	
TREAT.		SCALE 2/1		FORM A4	
TREAT.		N. FOGLIO -	TOT -		

OGGETTO GRUPPO ANTENNA	SUBJECT
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DIVISIONE: R I C E R C A

BMPEPGM1

*** ESPLOSIONE SINGOLO LIVELLO ***

ELAB.DEL: 02/03/98

COD.ART.: 6386650150

E86 ST.BASE - CIRCUITI LOGICI USA

PAG.: 1

PROG: 0394

DATA ISRT: 12/06/97

TIPO RICH: DT. 02/03/98

QTA': 1

PREC.D'USO: NON LAVABILE IN FREON - SENSIBILE A CARICHE STATICHE

DIMOSTRATIVO	PREF	DESCRIZIONE	D
6386650100E	01	ELETTRICO E86 ST.BASE - CIRC.LOGICI B	
6386650100C	02	CABLAGGIO E86 ST.BASE - CIRC.LOGICI	

PH	COMPONENTE	US	PREF	DESCRIZIONE	D	UM	QTA'
4212510012	M C001	C	MCSMD	10 N 10% 50V X7R 0805			1,0
4212147003	M C002	C	MCSMD	4,7 P 5% 50V NPO 0805			1,0
4212315003	M C003	C	MCSMD	150 P 5% 50V NPO 0805			1,0
4212522012	M C004	C	MCSMD	22 N 10% 50V X7R 0805			1,0
4212510012	M C005	C	MCSMD	10 N 10% 50V X7R 0805			1,0
4212233003	M C006	C	MCSMD	33 P 5% 50V NPO 0805			1,0
4212233003	M C007	C	MCSMD	33 P 5% 50V NPO 0805			1,0
4212510012	M C008	C	MCSMD	10 N 10% 50V X7R 0805			1,0
4212347003	M C009	C	MCSMD	470 P 5% 50V NPO 0805			1,0
4212710021	M C010	C	1M BP 16V Z5U 1206	*NON USARE*			1,0
4212310003	M C011	C	MCSMD	100 P 5% 50V NPO 0805			1,0
4212310003	M C012	C	MCSMD	100 P 5% 50V NPO 0805			1,0
4212510012	M C013	C	MCSMD	10 N 10% 50V X7R 0805			1,0
4212310003	M C014	C	MCSMD	100 P 5% 50V NPO 0805			1,0
4212310003	M C015	C	MCSMD	100 P 5% 50V NPO 0805			1,0
4212610022	M C016	C	MCSMD	100 N 8P 50V Z5U 0805			1,0
4212610022	M C017	C	MCSMD	100 N 8P 50V Z5U 0805			1,0
4212610022	M C018	C	MCSMD	100 N 8P 50V Z5U 0805			1,0
4212710021	M C019	C	1M BP 16V Z5U 1206	*NON USARE*			1,0
4212610022	M C020	C	MCSMD	100 N 8P 50V Z5U 0805			1,0
4212610022	M C021	C	MCSMD	100 N 8P 50V Z5U 0805			1,0
4207122001	M C022	C	TSMD	2,2 M 20% 20V B=3528			1,0
4212710021	M C023	C	1M BP 16V Z5U 1206	*NON USARE*			1,0
4212610022	M C024	C	MCSMD	100 N 8P 50V Z5U 0805			1,0
4207122001	M C025	C	TSMD	2,2 M 20% 20V B=3528			1,0
4212710021	M C026	C	1M BP 16V Z5U 1206	*NON USARE*			1,0
4207122001	M C027	C	TSMD	2,2 M 20% 20V B=3528			1,0
4212710021	M C028	C	1M BP 16V Z5U 1206	*NON USARE*			1,0
4226094002	M IC01	I	COMP-S08	TLC393CD 2 COMP.CMOS			1,0

DIVISIONE: R I C E R C A

BMPEPGM1 *** ESPLOSIONE SINGOLO LIVELLO *** ELAB.DEL: 02/03/98

COD.ART.: 6386650150 E86 ST.BASE - CIRCUITI LOGICI USA PAG.: 2

PROG: 0394 DATA ISRT: 12/06/97 TIPO RICH: DT. 02/03/98 QTA': 1

PREC.D'USO: NON LAVABILE IN FREON - SENSIBILE A CARICHE STATICHE

PH	COMPONENTE	US	I	PREF	D E S C R I Z I O N E	D U M	QTA'
4226907301	M IC02	I	ASFUN-SOT23	MAX809LEUR	RST.LOW	1,0	
L250860004	IC03	FPGA	ACTEL 1020	PER E86	ST.BASE USA	1,0	
4224224908	M IC04	I	LDR/RC-S08	LTC490CS8	DIFF.PAIR	1,0	
4226524002	M IC05	I	REG-S08	78L05	5V 0,1A	1,0	
4226524002	M IC06	I	REG-S08	78L05	5V 0,1A	1,0	
4226524002	M IC07	I	REG-S08	78L05	5V 0,1A	1,0	
4140108202	M K001	J	76308-108	SOCKET	1X8S-DS BERG	1,0	
4140S04201	M K002	J	76308-104	SOCKET	1X4S-DS BERG	1,0	
4140106009	M K003	J	75160-802-6	PIN	1X6P-DS G BERG	1,0	
4140103004	N K004	J	75160-802-3	PIN	1X3P-DS G BERG	1,0	
4132100033	M LD01	O	LED GRE	LG3369-EH	2MA D=3 SH.	1,0	
4132100033	M LD02	O	LED GRE	LG3369-EH	2MA D=3 SH.	1,0	
4132100033	M LD03	O	LED GRE	LG3369-EH	2MA D=3 SH.	1,0	
4132100034	M LD04	O	LED YEL	LY3369-EH	2MA D=3 SH.	1,0	
4132100032	M LD05	O	LED RED	LS3369-EH	2MA D=3 SH.	1,0	
4214610002	M P001	P	CMSMD	100 K 20%	PC H 3314G	1,0	
4222010200	M Q001	Q	NPN-SOT23	BCX70J	45V 100MA	1,0	
4222010200	M Q002	Q	NPN-SOT23	BCX70J	45V 100MA	1,0	
4222010200	M Q003	Q	NPN-SOT23	BCX70J	45V 100MA	1,0	
4222010200	M Q004	Q	NPN-SOT23	BCX70J	45V 100MA	1,0	
4222160201	M Q005	Q	MFP-SOT23	IRLML6302	20V 0,6A	1,0	
4201547009	M R001	R	SMD	47	K 5% TC200 0,1W 0805	1,0	
4201710009	M R002	R	SMD	1	M 5% TC200 0,1W 0805	1,0	
4201610009	M R003	R	SMD	100	K 5% TC200 0,1W 0805	1,0	
4201433009	M R004	R	SMD	3,3	K 5% TC200 0,1W 0805	1,0	
4201533009	M R005	R	SMD	33	K 5% TC200 0,1W 0805	1,0	
4201533009	M R006	R	SMD	33	K 5% TC200 0,1W 0805	1,0	
4201510009	M R007	R	SMD	10	K 5% TC200 0,1W 0805	1,0	
4201610009	M R008	R	SMD	100	K 5% TC200 0,1W 0805	1,0	
4201510009	M R009	R	SMD	10	K 5% TC200 0,1W 0805	1,0	
4201710009	M R010	R	SMD	1	M 5% TC200 0,1W 0805	1,0	
4201433009	M R011	R	SMD	3,3	K 5% TC200 0,1W 0805	1,0	
4201547009	M R012	R	SMD	47	K 5% TC200 0,1W 0805	1,0	
4201533009	M R013	R	SMD	33	K 5% TC200 0,1W 0805	1,0	
4201568009	M R014	R	SMD	68	K 5% TC200 0,1W 0805	1,0	
4201568009	M R015	R	SMD	68	K 5% TC200 0,1W 0805	1,0	
4201568009	M R016	R	SMD	68	K 5% TC200 0,1W 0805	1,0	
4201610009	M R017	R	SMD	100	K 5% TC200 0,1W 0805	1,0	

DIVISIONE: R I C E R C A

BMPEPGM1

*** ESPLOSIONE SINGOLO LIVELLO ***

ELAB.DEL: 02/03/98

COD.ART.: 6386650150

E86 ST.BASE - CIRCUITI LOGICI USA

PAG.: 3

PROG: 0394

DATA ISRT: 12/06/97

TIPO RICH: DT. 02/03/98

QTA': 1

PREC.D'USO: NON LAVABILE IN FREON - SENSIBILE A CARICHE STATICHE

PH	COMPONENTE	US	PREF	DESCRIZIONE			D UM	QTA'
4201610009	M R018	R SMD	100	K 5%	TC200 0,1W 0805			1,0
4201610009	M R019	R SMD	100	K 5%	TC200 0,1W 0805			1,0
4201610009	M R020	R SMD	100	K 5%	TC200 0,1W 0805			1,0
4201710009	M R021	R SMD	1	M 5%	TC200 0,1W 0805			1,0
4201447009	M R022	R SMD	4,7	K 5%	TC200 0,1W 0805			1,0
4201415009	M R023	R SMD	1,5	K 5%	TC200 0,1W 0805			1,0
4201415009	M R024	R SMD	1,5	K 5%	TC200 0,1W 0805			1,0
4201415009	M R025	R SMD	1,5	K 5%	TC200 0,1W 0805			1,0
4201415009	M R026	R SMD	1,5	K 5%	TC200 0,1W 0805			1,0
4201415009	M R027	R SMD	1,5	K 5%	TC200 0,1W 0805			1,0
4201412009	M R028	R SMD	1,2	K 5%	TC200 0,1W 0805			1,0
4201510009	M R029	R SMD	10	K 5%	TC200 0,1W 0805			1,0
4201527009	M R030	R SMD	27	K 5%	TC200 0,1W 0805			1,0
4201447009	M R031	R SMD	4,7	K 5%	TC200 0,1W 0805			1,0
4201418009	M R032	R SMD	1,8	K 5%	TC200 0,1W 0805			1,0
4201633009	M R033	R SMD	330	K 5%	TC200 0,1W 0805			1,0
4201633009	M R034	R SMD	330	K 5%	TC200 0,1W 0805			1,0
4201610009	M R035	R SMD	100	K 5%	TC200 0,1W 0805			1,0
4201510009	M R036	R SMD	10	K 5%	TC200 0,1W 0805			1,0
4201410009	M R037	R SMD	1	K 5%	TC200 0,1W 0805			1,0
4201422009	M R038	R SMD	2,2	K 5%	TC200 0,1W 0805			1,0
4201422009	M R039	R SMD	2,2	K 5%	TC200 0,1W 0805			1,0
4201312009	M R040	R SMD	120	R 5%	TC200 0,1W 0805			1,0
4201333009	M R041	R SMD	330	R 5%	TC200 0,1W 0805			1,0
4201333009	M R042	R SMD	330	R 5%	TC200 0,1W 0805			1,0
4201310010	M R043	R SMD	100	R 5%	TC200 1/4W 1206			1,0
4201310010	M R044	R SMD	100	R 5%	TC200 1/4W 1206			1,0
4201310010	M R045	R SMD	100	R 5%	TC200 1/4W 1206			1,0
4128300002	S SW01	DIP-SWITCH	4 POS.	206-4-ST				1,0
4127400102	M XT01	X	4 MHZ	(A SPEC.)	HC49/U			1,0
6830326300	0001	CS E86 ST.BASE - CIRCUITI LOGICI				B		1,0