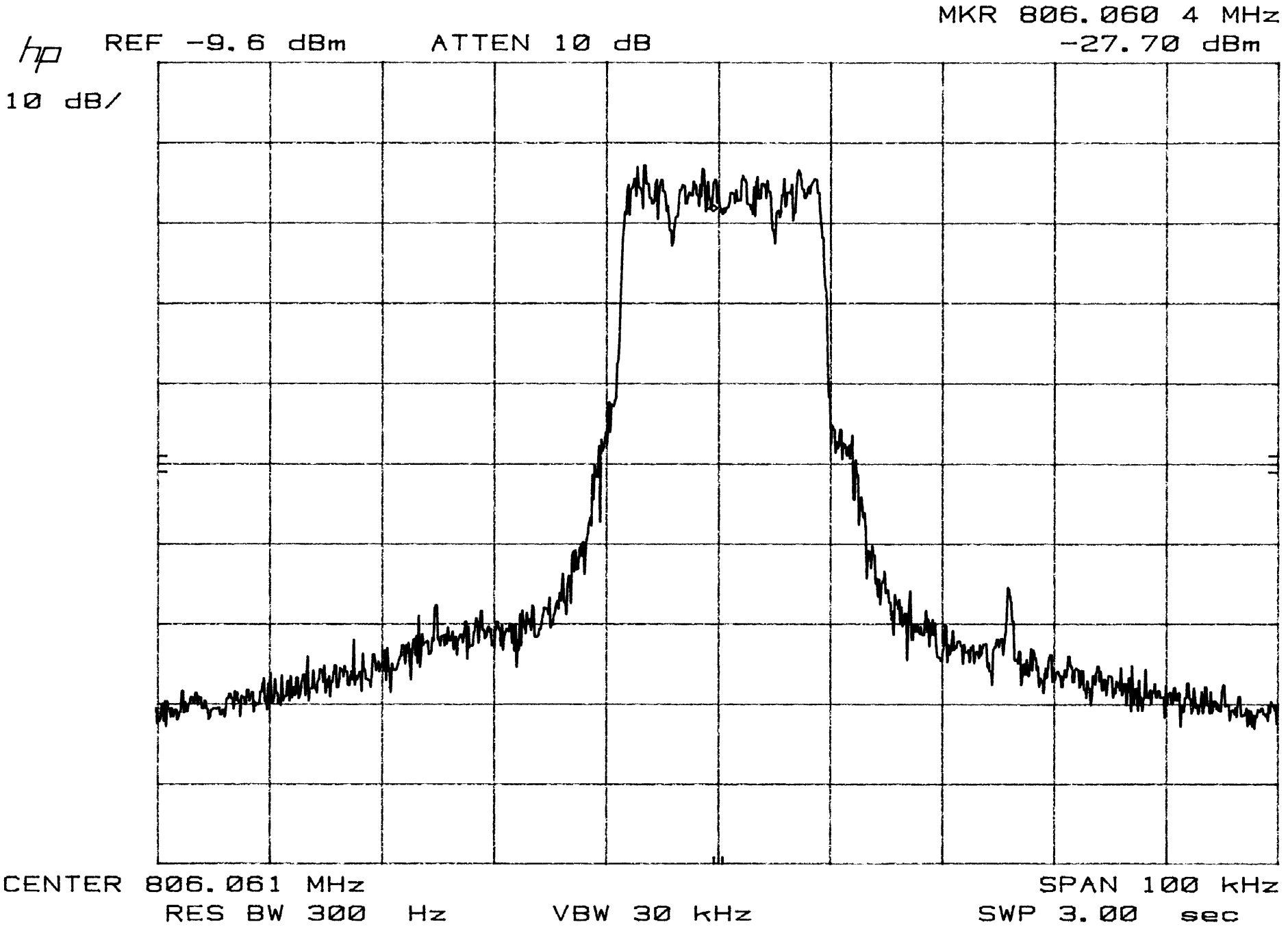
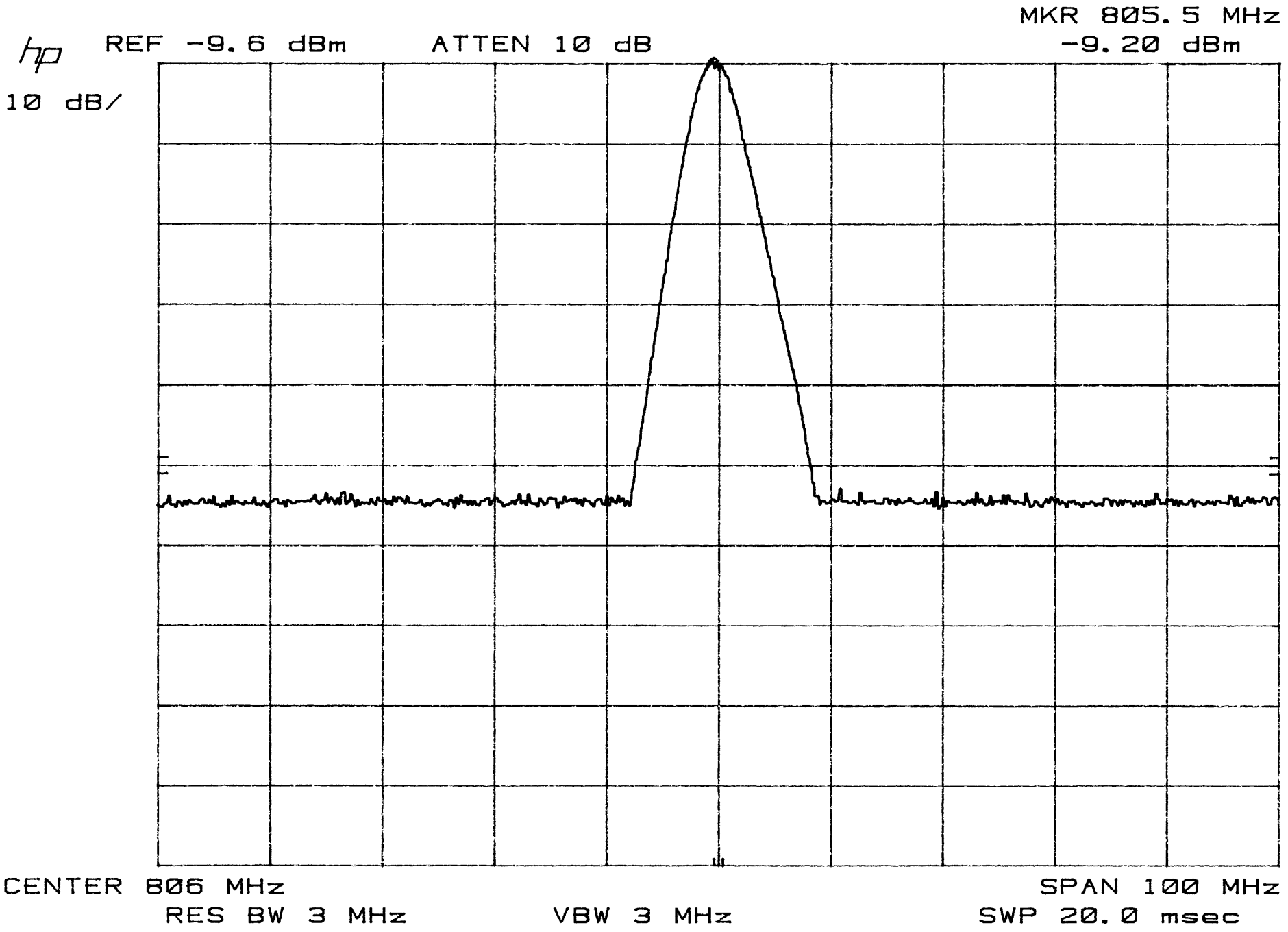
iDEN input


MKR 806.060 4 MHz
-27.70 dBm
REF -9.6 dBm
ATTEN 10 dB
10 dB/
CENTER 806.061 MHz
SPAN 100 kHz
RES BW 300 Hz
VBW 30 kHz
SWP 3.00 sec

iDEN input


MKR 805.5 MHz
-9.20 dBm
REF -9.6 dBm
ATTEN 10 dB
10 dB/
CENTER 806 MHz
SPAN 100 MHz
RES BW 3 MHz
VBW 3 MHz
SWP 20.0 msec

1.0 Introduction

This report is designed to show compliance with the FCC Part 2.1091 Radio Frequency Radiation Exposure Evaluation for mobile and unlicensed devices. The test procedures and limits, as described in American National Standards Institute C95.1-1992, were employed. A description of the product and operating configuration, the various provisions of the rules, the methods for determining compliance, and a detailed summary of the results are included within this test report.

2.0 Description of Equipment

The ORA Electronics Model IDR 3000 is a 2 watts RF IDEN amplifier used only with Motorola iDEN telephones with frequency Uplink range from 806 to 821 MHz(2 watts output) and Downlink range from 851-866 MHz(30mW output).

The amplifier is used with antenna with the following specification:

1. Antenna Type: Monopole Omni
2. Frequency Range: 800- 870 MHz
3. Gain: 6 dBi

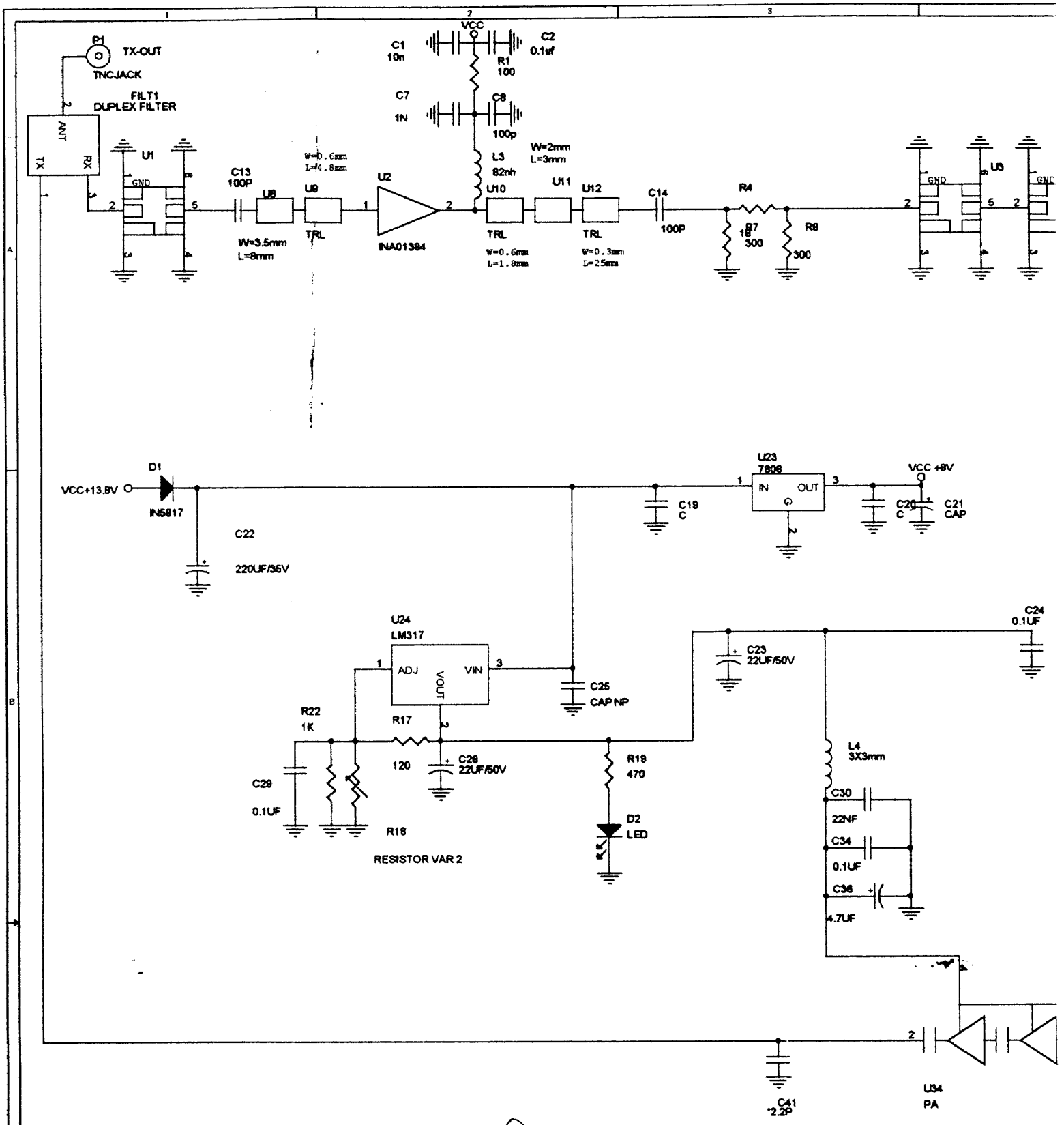
3.0 Test Summary

The IDEN amplifier was tested by Intertek Testing Services as documented herein, and the energy emitted by the EUT was found to be below the recommended levels of Maximum Permissible Exposure for Uncontrolled Environments in FCC 1.1310 (ANSI C95.1:L 1992).

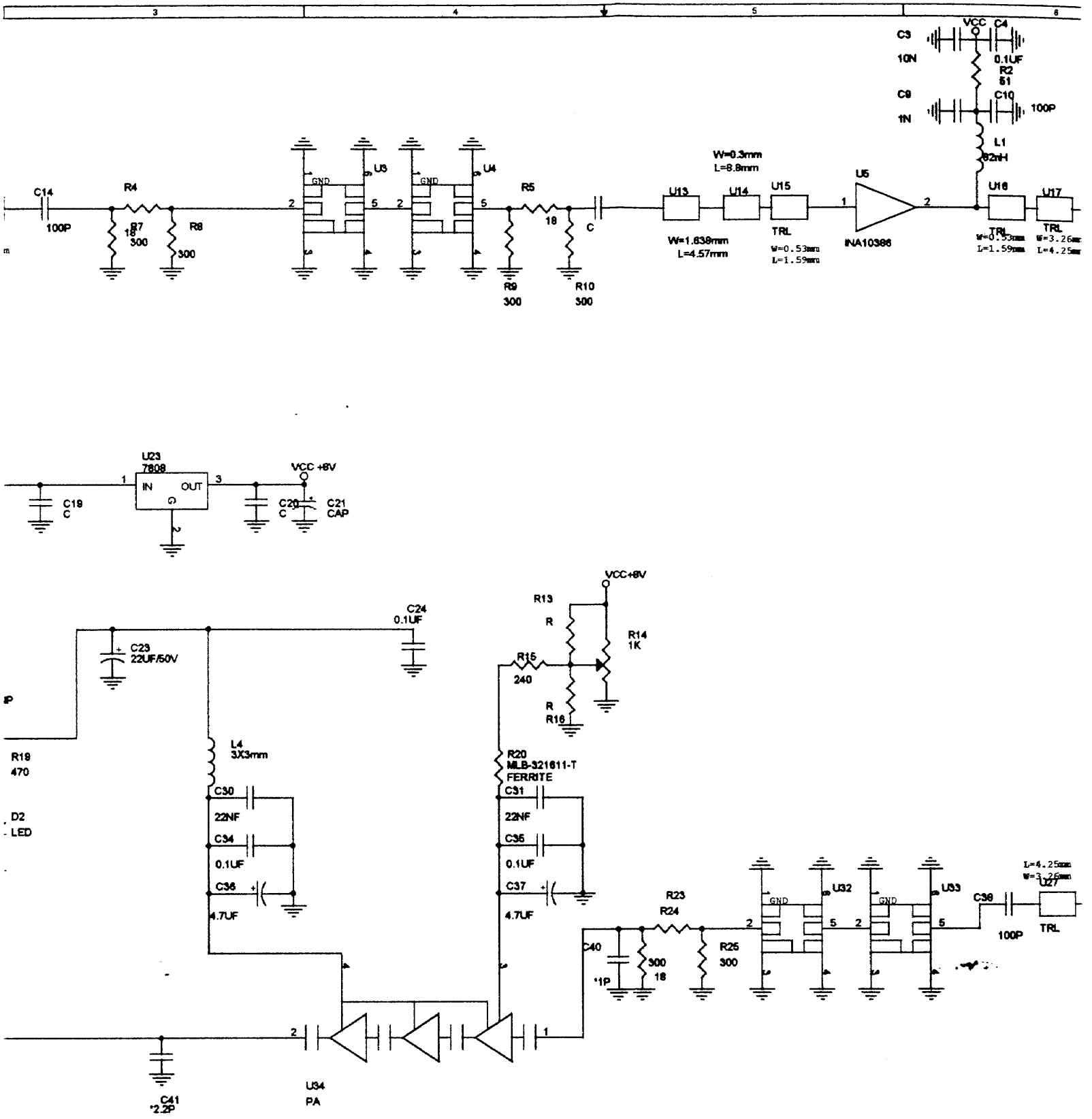
Therefore, in reference to the limits set forth in FCC 1.1310 use of the equipment is deemed to be safe with respect to human exposure to Radio Frequency Electromagnetic Fields, when used in a normal fashion.

Note:

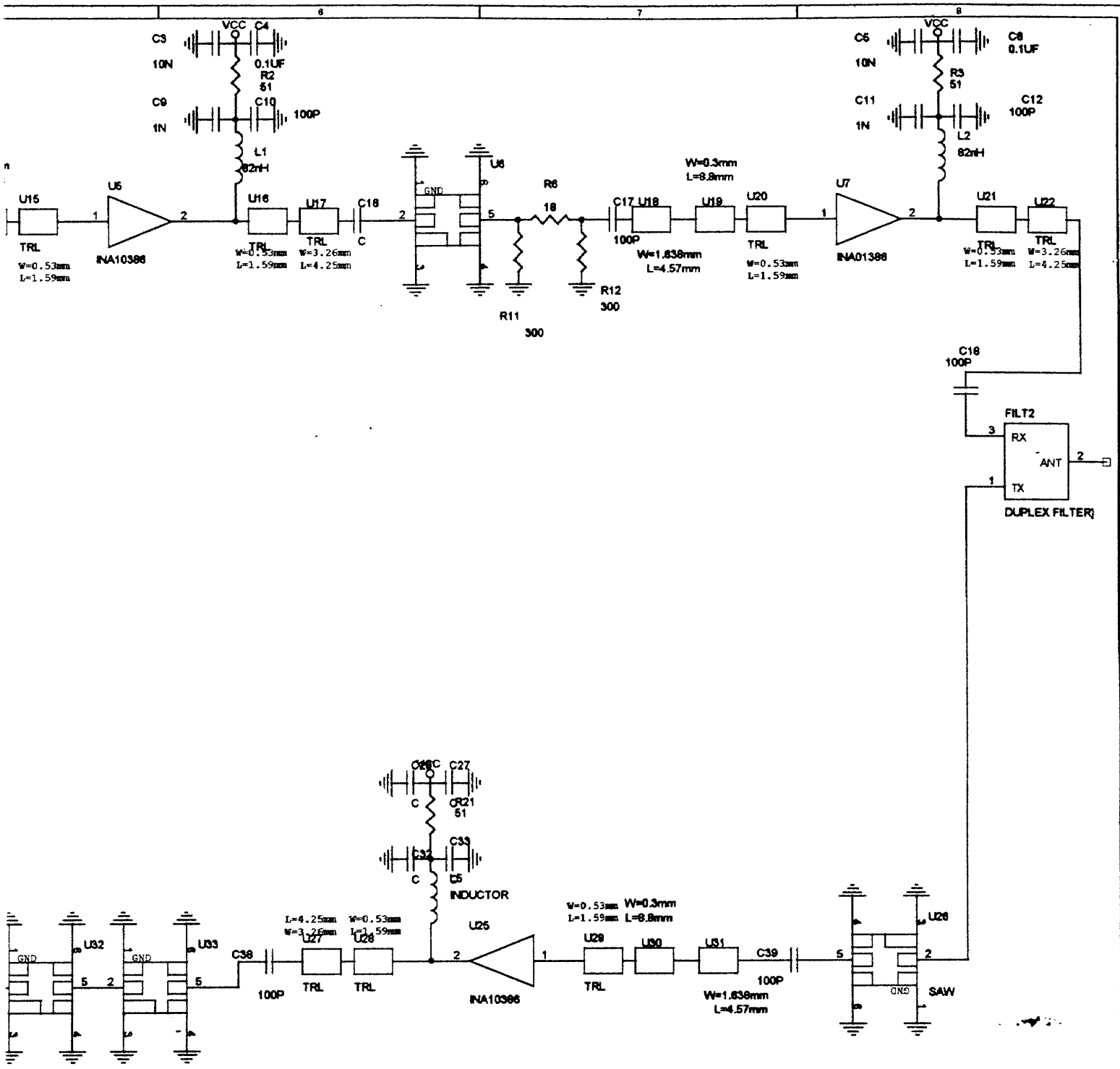
The IDEN amplifier was tested with the antenna having 6 dBi gain and the emitted power density was found 10 dB below the limit (at 0.2m distance). Therefore, the amplifier can be used with any antenna having the gain less than 16 dBi.


P1
TX-OUT
TNCJACK
FILT1
DUPLEX FILTER
ANT
TX
RX
U1
GND
C13
100P
U8
U9
TRL
W=3.5mm
L=8mm
W=0.6mm
L=4.8mm
U2
INA01384
VCC
C1
10n
C2
0.1uf
R1
100
C7
1N
C8
100p
L3
82nh
W=2mm
L=3mm
U10
TRL
W=0.6mm
L=1.8mm
U11
U12
TRL
W=0.3mm
L=2.5mm
C14
100P
R4
R7
300
R8
300
U3
GND
D1
VCC+13.8V
IN5817
C22
220UF/35V
U23
7808
IN
OUT
VCC +8V
C19
C
C20
C
C21
CAP
U24
LM317
ADJ
VOUT
VIN
C25
CAP NP
C23
22UF/50V
C24
0.1UF
R22
1K
R17
120
C26
22UF/50V
R19
470
D2
LED
C29
0.1UF
R16
RESISTOR VAR 2
L4
3X3mm
C30
22NF
C34
0.1UF
C36
4.7UF
C41
*2.2P
U34
PA

(1)


3
4
5
6
VCC
C4
0.1UF
C3
10N
R2
51
C9
1N
C10
100P
L1
82nH
W=0.3mm
L=8.8mm
C14
100P
R4
18
300
R8
300
U3
GND
U4
GND
R5
18
C
R9
300
R10
300
U13
W=1.638mm
L=4.57mm
U14
U15
TRL
W=0.53mm
L=1.59mm
U5
1
2
INA10386
U16
TRL
W=0.53mm
L=1.59mm
U17
TRL
W=3.26mm
L=4.25mm
U23
7808
1
IN
OUT
3
VCC +8V
C19
C
C20
C
C21
CAP
VCC+8V
R13
R
R14
1K
R15
240
R
R16
C24
0.1UF
C23
22UF/50V
#P
R19
470
D2
LED
L4
3X3mm
C30
22NF
C34
0.1UF
C36
4.7UF
R20
MLB-321611-T
FERRITE
C31
22NF
C35
0.1UF
C37
4.7UF
R23
R24
C40
*1P
300
18
R25
300
U32
GND
U33
GND
C38
100P
U27
TRL
L=4.25mm
W=3.26mm
2
1
U34
PA
C41
*2.2P

(2)


VCC
C3
10N
C4
0.1UF
R2
51
C9
1N
C10
100P
L1
82nH
U15
TRL
W=0.53mm
L=1.59mm
U5
INA10386
U16
TRL
W=0.53mm
L=1.59mm
U17
TRL
W=3.26mm
L=4.25mm
C16
C
GND
U6
R6
18
R11
300
R12
300
C17
100P
U18
W=1.638mm
L=4.57mm
U19
U20
TRL
W=0.53mm
L=1.59mm
W=0.3mm
L=8.8mm
U7
INA01386
VCC
C5
10N
C8
0.1UF
R3
51
C11
1N
C12
100P
L2
82nH
U21
TRL
W=0.53mm
L=1.59mm
U22
TRL
W=3.26mm
L=4.25mm
C18
100P
FILT2
RX
ANT
TX
DUPLEX FILTER
C26
C27
C
CR21
51
C33
C32
C
C5
INDUCTOR
U25
INA10386
U32
GND
U33
GND
C38
100P
U27
TRL
U28
TRL
L=4.25mm
W=3.26mm
W=0.53mm
L=1.59mm
W=0.53mm
L=1.59mm
W=0.3mm
L=8.8mm
U29
TRL
U30
U31
W=1.638mm
L=4.57mm
C39
100P
U26
GND
SAW

(3)