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International Police Technologies Inc.

Application
For Certification
Transmitter TR9 Transmitter

(FCC ID: QGITR9)

June 18, 2002

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1.0 GENERAL DESCRIPTION

1.1 Related Submittals Grants

This is single application of the *TR9* Transmitter for Certification under Part 15 Subpart C. There are no other simultaneous applications.

1.2 Product Description

The *TR9* Transmitter is a hand-held transmitter with attached antenna. The intended use of the *TR9* Transmitter is to generate and transmit a RF encoded binary data signal or modulated with an internal or external microphone. The *TR9* Transmitter powered at 4VDC from the internal rechargeable battery.

The *TR9* Transmitter operates in frequency range from 903.37 to 921.37MHz in eight frequency channels:

- channel 0 – 903.37MHz;
- channel 1 – 906.37MHz;
- channel 2 – 907.87MHz;
- channel 3 – 909.37MHz;
- channel 4 – 912.37MHz;
- channel 5 – 915.37MHz;
- channel 6 – 919.877MHz;
- channel 7 – 921.37MHz.

The *TR9* Transmitter Antenna is ¼ wave rubber duck antenna, SMA-type connector.

1.3 Test Methodology

Emission measurements were performed according to the procedures in ANSI C63.4-1992. All field strength radiated emissions measurements were performed in the semi-anechoic chamber, and for each scan, the procedure for maximizing emissions in Appendices D and E were followed. All field strength radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

1.4 Test Facility

The test site facility used to collect the radiated and conducted measurement data is located at 7250 Hudson Blvd., Suite 100, Oakdale, Minnesota. This test facility has been fully described in a report dated on January 2000 submitted to your office. Please reference the site registration number: 90706, dated May 19, 2000.

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2.0 SYSTEM TEST CONFIGURATION

2.1 Justification

N/A

2.2 EUT Exercising Software

N/A

2.3 Special Accessories

There are no special accessories necessary for compliance of these products.

2.4 Equipment Modification

No modifications were installed during the testing.

2.5 Support Equipment List and Description

N/A

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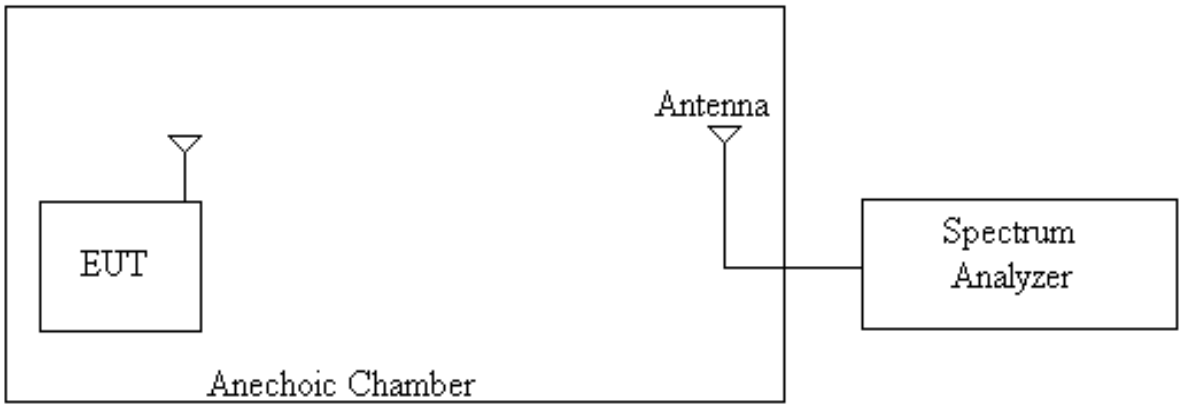
2.6 Test Setup and Test Configuration Block Diagrams

The EUT was setup as tabletop equipment.
The EUT was powered at 4VDC from the internal rechargeable battery.

Field Strength Measurements



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3.0 TEST RESULTS

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs, data tables and graphical representations of the emissions are included.

The EUT is intended for operation under the requirements of Part 15 Subpart C. Specific test requirements include the following:

47 CFR 15.249(a)(b)	Field Strength of Fundamental
47 CFR 15.249(a)(b), 15.205	Field Strength of Harmonics
47 CFR 15.249(c), 15.209	Out of Band Spurious Emissions

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3.1 Field Strength of Fundamental and Harmonics Emissions, FCC 15.249(a)(b), 15.205

Field Strength of Fundamental and Harmonics Emissions measurements were made in the start, center, and end frequency of the frequency range (Channel 0, Channel 4, and Channel 7). The Harmonics emissions were tested up to 10th harmonic. The follow Fundamental frequencies and their Harmonics emissions were tested:

903.37MHz
912.37MHz
921.37MHz

The Tables ## 3-1-1, 3-1-2, and 3-1-3 and Graphs ## 3-1-1 to 3-1-14 below show the Field Strength of Fundamental Radiation and Harmonics Emissions in the Restricted Bands of Operation according to FCC 15.205 (Graphs show Harmonicas Emissions for Channel 0).
No emissions above the floor noise were detected above the 6th harmonic.

Note: Emission level shown on the Graphs does not include the Antenna and Cable correction factors and Pre-amplifier gain.

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Radiated Emissions **Date:** 06/12-17/2002
Company: International Police Technologies Inc.
Model: TR9, Transmitter
Test Engineer: Norman Shpilsher
Special Config. Info: Channel 0. Frequency range 902 to 928MHz
Standard: FCC Part 15.249, 15.205
Test Site: 3 m Anechoic Chamber
Note: Measurements were taking using a CISPR Quasi-Peak Detector for frequencies below 1GHz with 100kHz Resolution Bandwidth
For frequencies above 1GHz measurements were taking using a Peak Detector with 1MHz Resolution Bandwidth
No emissions were found above ambient at 7th and higher harmonics.

Table # 3-1-1

Frequency	Antenna			Total	Reading	Net at 3m.	Limit	Margin	Comments
MHz	Polarity	Hts(m)	Dir (°)	Factor(dB/m)	$dB_{\mu}V$	$dB_{\mu}V/m$	$dB_{\mu}V/m$	dB	
903.35	V	122	341	25.03	68.35	93.38	93.98	-0.60	Fund.
903.35	H	143	15	25.03	63.42	88.45	93.98	-5.53	Fund.
1806.74	V	107	125	-2.90	55.51	52.61	N/A	N/A	2nd harm.
1806.74	H	223	130	-2.90	55.61	52.71	N/A	N/A	2nd harm.
2709.98	V	136	55	0.75	47.08	47.83	53.98	-6.15	3rd harm.
2709.98	H	188	194	0.75	47.61	48.36	53.98	-5.62	3rd harm.
3613.31	V	133	297	4.90	44.66	49.56	53.98	-4.42	4th harm.
3613.31	H	134	47	4.90	46.39	51.29	53.98	-2.69	4th harm.
4516.82	V	166	93	6.94	42.05	48.99	53.98	-4.99	5th harm.
4516.82	H	160	132	6.94	43.87	50.81	53.98	-3.17	5th harm.
5420.10	V	154	71	9.23	33.69	42.92	53.98	-11.06	6th harm.
5420.33	H	131	18	9.23	36.23	45.46	53.98	-8.52	6th harm.

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Radiated Emissions **Date:** 06/12-17/2002
Company: International Police Technologies Inc.
Model: TR9, Transmitter
Test Engineer: Norman Shpilsher
Special Config. Info: Channel 4. Frequency range 902 to 928MHz
Standard: FCC Part 15.249, 15.205
Test Site: 3 m Anechoic Chamber
Note: Measurements were taking using a CISPR Quasi-Peak Detector for frequencies below 1GHz with 100kHz Resolution Bandwidth
For frequencies above 1GHz measurements were taking using a Peak Detector with 1MHz Resolution Bandwidth
No emissions were found above ambient at 7th and higher harmonics.

Table # 3-1-2

Frequency	Antenna			Total	Reading	Net at 3m.	Limit	Margin	Comments
MHz	Polarity	Hts(m)	Dir (°)	Factor(dB/m)	$dB_\mu V$	$dB_\mu V/m$	$dB_\mu V/m$	dB	
912.31	V	120	301	25.12	68.11	93.23	93.98	-0.75	Fund.
912.30	H	149	15	25.12	59.57	84.69	93.98	-9.29	Fund.
1824.68	V	105	133	-2.90	55.42	52.52	N/A	N/A	2nd harm.
1824.68	H	225	124	-2.90	55.75	52.85	N/A	N/A	2nd harm.
2737.06	V	134	58	0.80	47.11	47.91	53.98	-6.07	3rd harm.
2737.06	H	177	202	0.80	47.29	48.09	53.98	-5.89	3rd harm.
3649.39	V	123	288	4.96	45.94	50.90	53.98	-3.08	4th harm.
3649.39	H	145	54	4.96	46.21	51.17	53.98	-2.81	4th harm.
4561.72	V	169	105	7.01	41.84	48.85	53.98	-5.13	5th harm.
4561.72	H	155	143	7.01	42.15	49.16	53.98	-4.82	5th harm.
5474.15	V	159	84	9.29	33.54	42.83	53.98	-11.15	6th harm.
5474.15	H	130	23	9.29	35.29	44.58	53.98	-9.40	6th harm.

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Radiated Emissions **Date:** 06/12-17/2002
Company: International Police Technologies Inc.
Model: TR9, Transmitter
Test Engineer: Norman Shpilsher
Special Config. Info: Channel 0. Frequency range 902 to 928MHz
Standard: FCC Part 15.249, 15.205
Test Site: 3 m Anechoic Chamber
Note: Measurements were taking using a CISPR Quasi-Peak Detector for frequencies below 1GHz with 100kHz Resolution Bandwidth
For frequencies above 1GHz measurements were taking using a Peak Detector with 1MHz Resolution Bandwidth
No emissions were found above ambient at 7th and higher harmonics.

Table # 3-1-3

Frequency	Antenna			Total	Reading	Net at 3m.	Limit	Margin	Comments
MHz	Polarity	Hts(m)	Dir (°)	Factor(dB/m)	$dB_{\mu}V$	$dB_{\mu}V/m$	$dB_{\mu}V/m$	dB	
921.31	V	120	301	25.21	67.07	92.28	93.98	-1.70	Fund.
921.31	H	141	16	25.21	60.41	85.62	93.98	-8.36	Fund.
1842.68	V	111	128	-2.90	55.99	53.09	N/A	N/A	2nd harm.
1842.68	H	244	145	-2.90	56.12	53.22	N/A	N/A	2nd harm.
2764.08	V	142	56	0.85	47.02	47.87	53.98	-6.11	3rd harm.
2764.08	H	177	199	0.85	47.48	48.33	53.98	-5.65	3rd harm.
3685.35	V	142	301	5.02	44.53	49.55	53.98	-4.43	4th harm.
3685.35	H	148	47	5.02	45.84	50.86	53.98	-3.12	4th harm.
4606.71	V	152	95	7.07	43.17	50.24	53.98	-3.74	5th harm.
4606.71	H	162	148	7.07	43.61	50.68	53.98	-3.30	5th harm.
5528.09	V	155	75	9.65	33.71	43.36	53.98	-10.62	6th harm.
5528.09	H	130	22	9.65	36.15	45.80	53.98	-8.18	6th harm.

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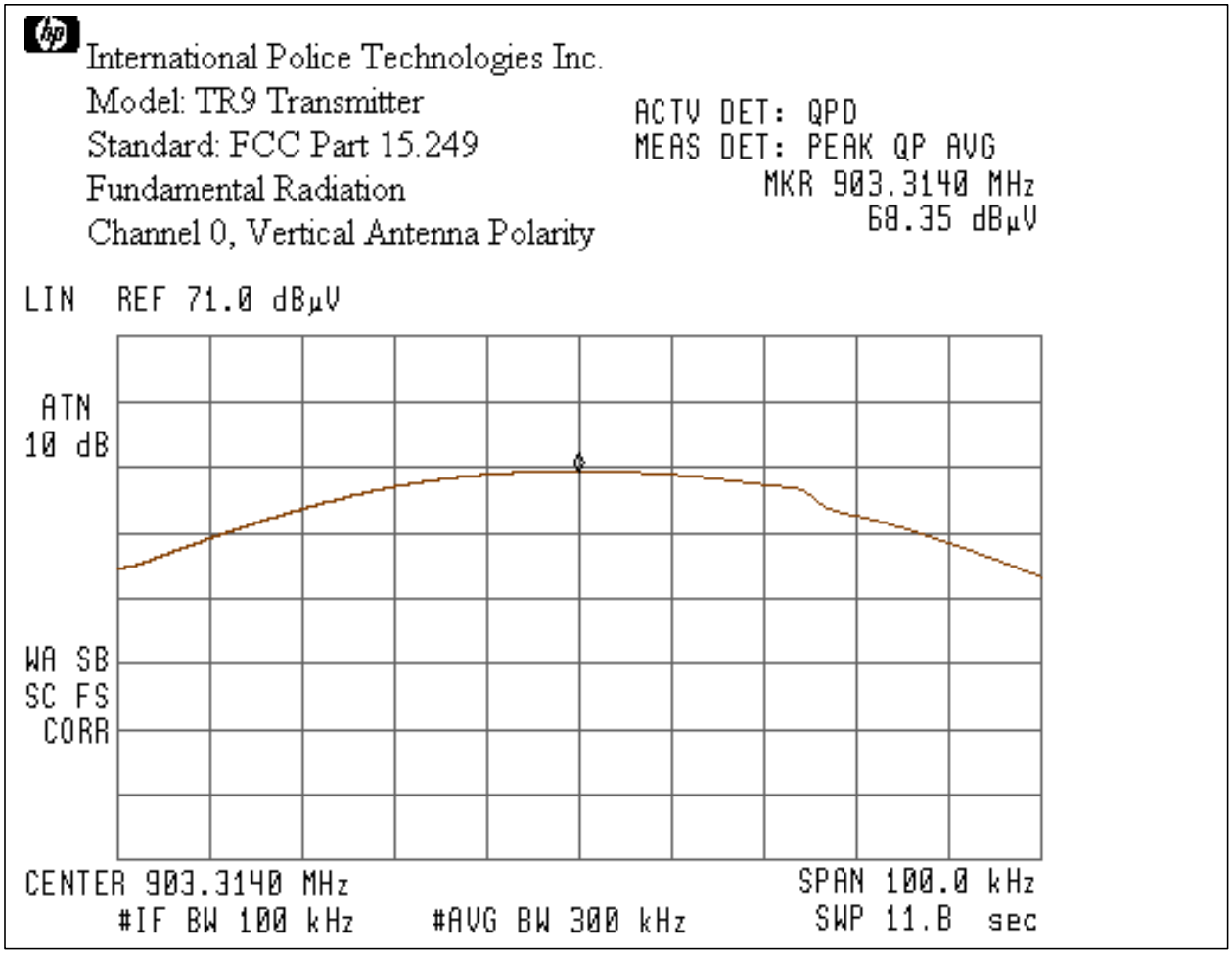
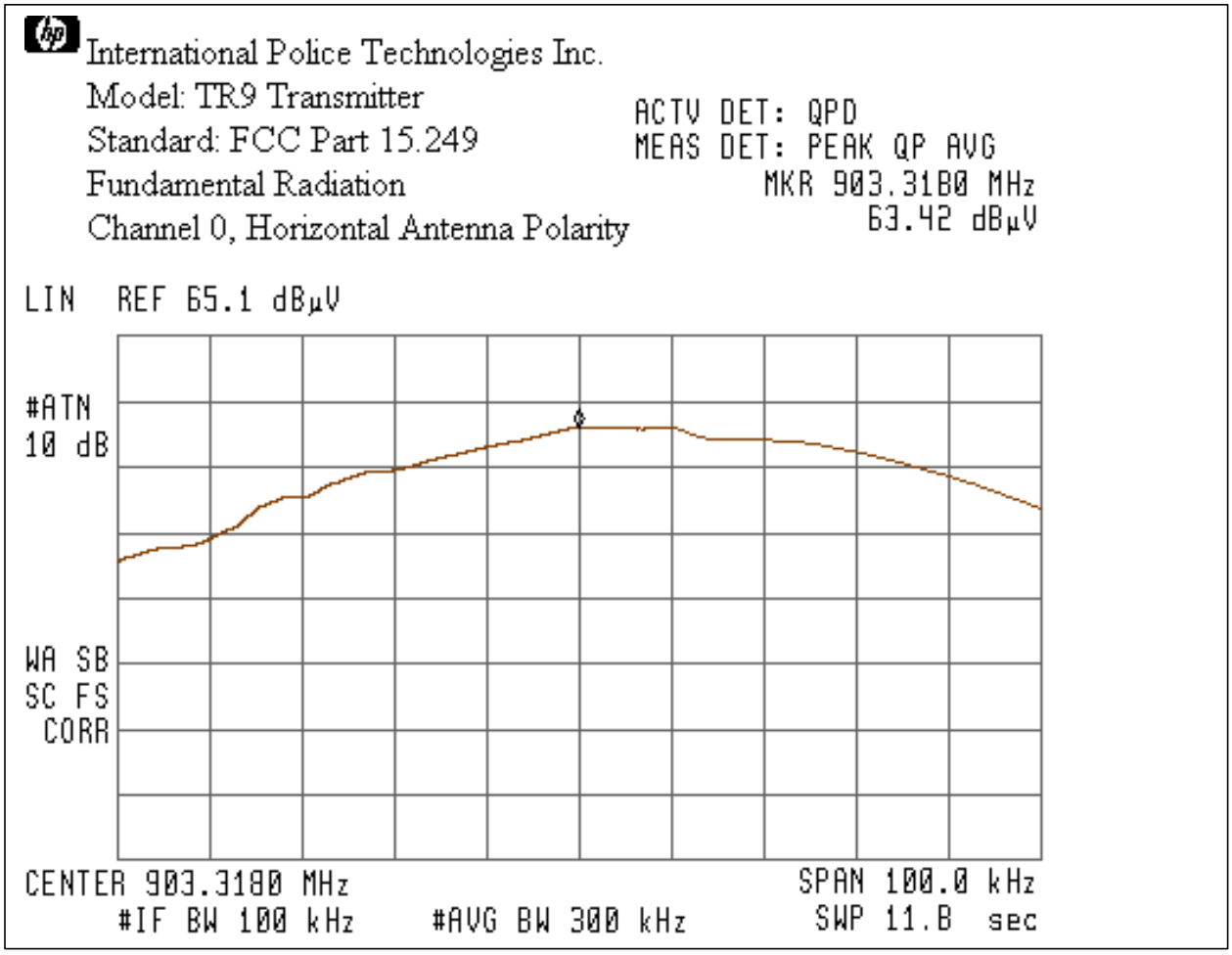
Graph # 3-1-1


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Fundamental Radiation
Channel 0, Vertical Antenna Polarity
ACTV DET: QPD
MEAS DET: PEAK QP AVG
MKR 903.3140 MHz
68.35 dBµV
LIN REF 71.0 dBµV
ATN
10 dB
WA SB
SC FS
CORR
CENTER 903.3140 MHz
SPAN 100.0 kHz
#IF BW 100 kHz
#AVG BW 300 kHz
SWP 11.8 sec

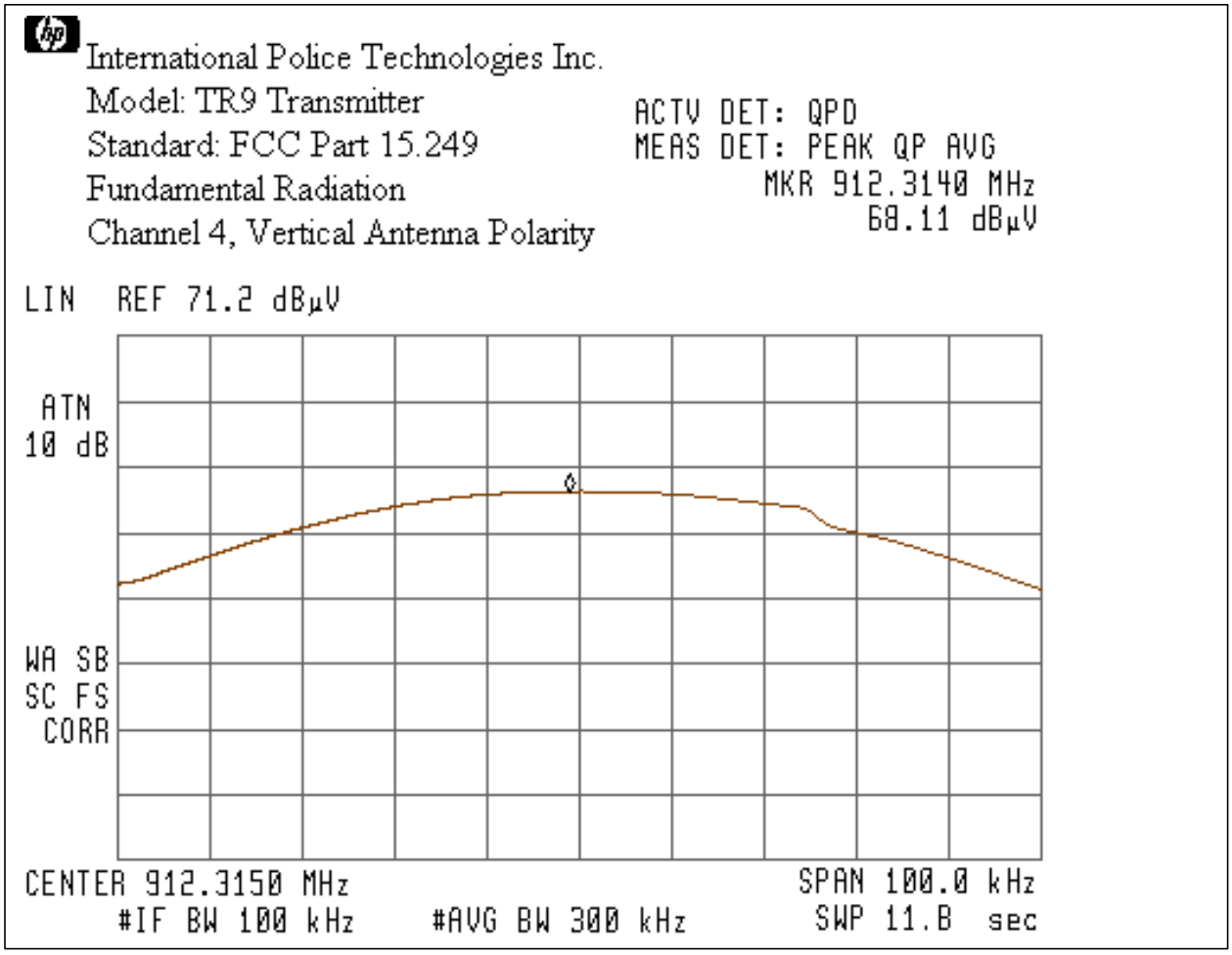
A

Graph # 3-1-2


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Fundamental Radiation
Channel 0, Horizontal Antenna Polarity
ACTV DET: QPD
MEAS DET: PEAK QP AVG
MKR 903.3180 MHz
63.42 dBµV
LIN REF 65.1 dBµV
#ATN
10 dB
WA SB
SC FS
CORR
CENTER 903.3180 MHz
SPAN 100.0 kHz
#IF BW 100 kHz
#AVG BW 300 kHz
SWP 11.8 sec

A

Graph # 3-1-3


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Fundamental Radiation
Channel 4, Vertical Antenna Polarity
ACTV DET: QPD
MEAS DET: PEAK QP AVG
MKR 912.3140 MHz
68.11 dBµV
LIN REF 71.2 dBµV
ATN
10 dB
WA SB
SC FS
CORR
CENTER 912.3150 MHz
SPAN 100.0 kHz
#IF BW 100 kHz
#AVG BW 300 kHz
SWP 11.8 sec

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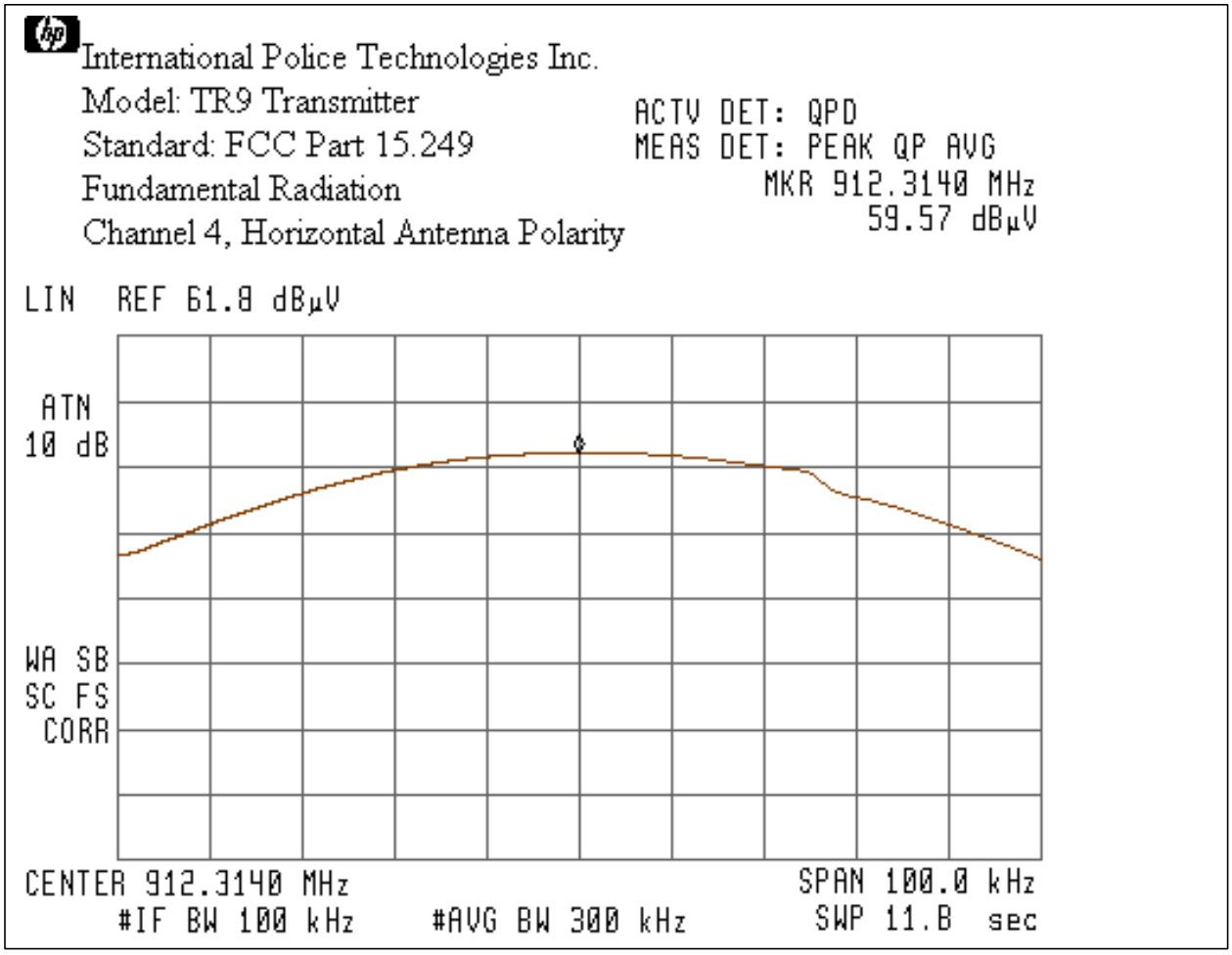
Graph # 3-1-4


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Fundamental Radiation
Channel 4, Horizontal Antenna Polarity
ACTV DET: QPD
MEAS DET: PEAK QP AVG
MKR 912.3140 MHz
59.57 dBµV
LIN REF 61.8 dBµV
ATN
10 dB
WA SB
SC FS
CORR
CENTER 912.3140 MHz
SPAN 100.0 kHz
#IF BW 100 kHz
#AVG BW 300 kHz
SWP 11.8 sec

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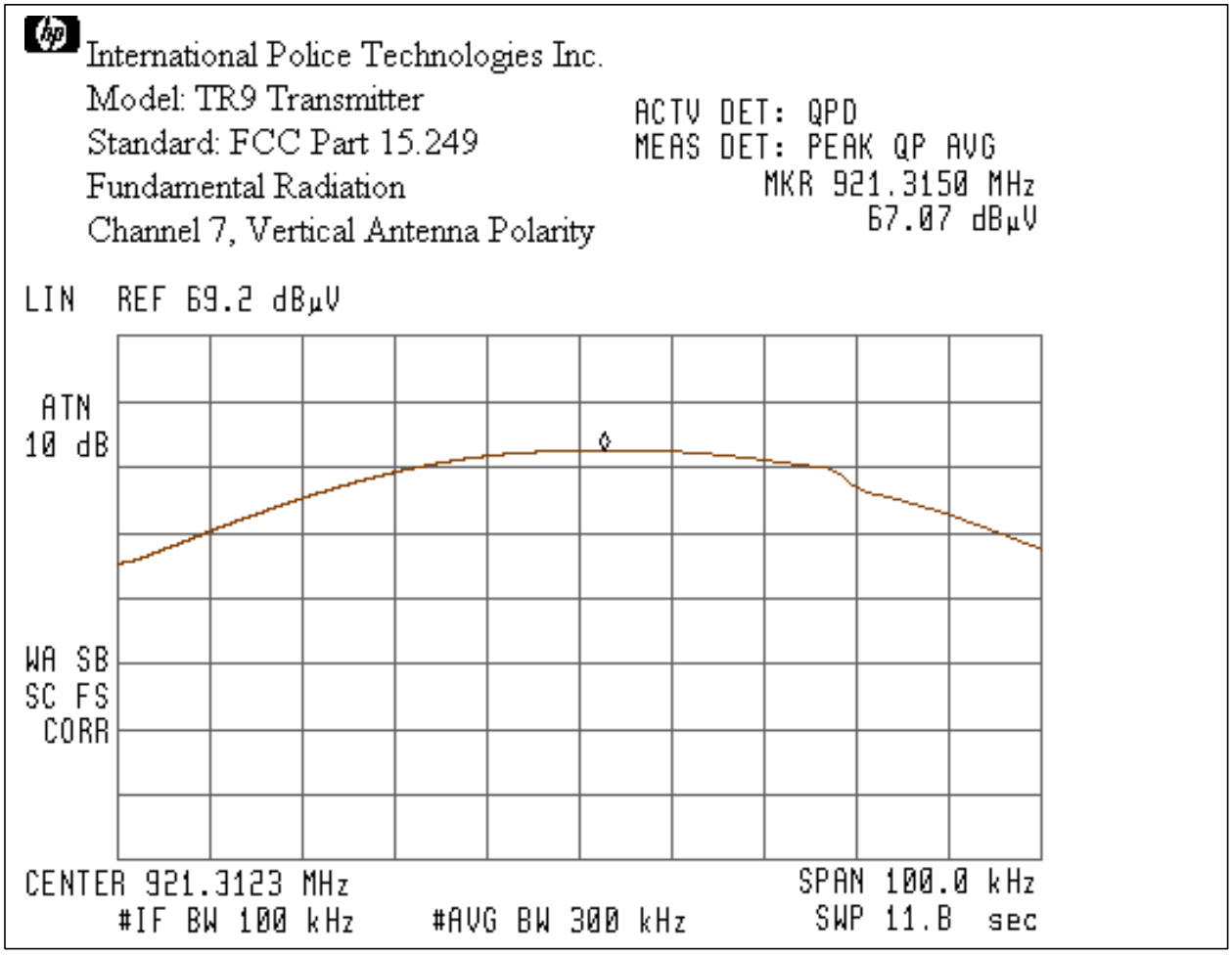
Graph # 3-1-5


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Fundamental Radiation
Channel 7, Vertical Antenna Polarity
ACTV DET: QPD
MEAS DET: PEAK QP AVG
MKR 921.3150 MHz
67.07 dBµV
LIN REF 69.2 dBµV
ATN
10 dB
WA SB
SC FS
CORR
CENTER 921.3123 MHz
SPAN 100.0 kHz
#IF BW 100 kHz
#AVG BW 300 kHz
SWP 11.8 sec

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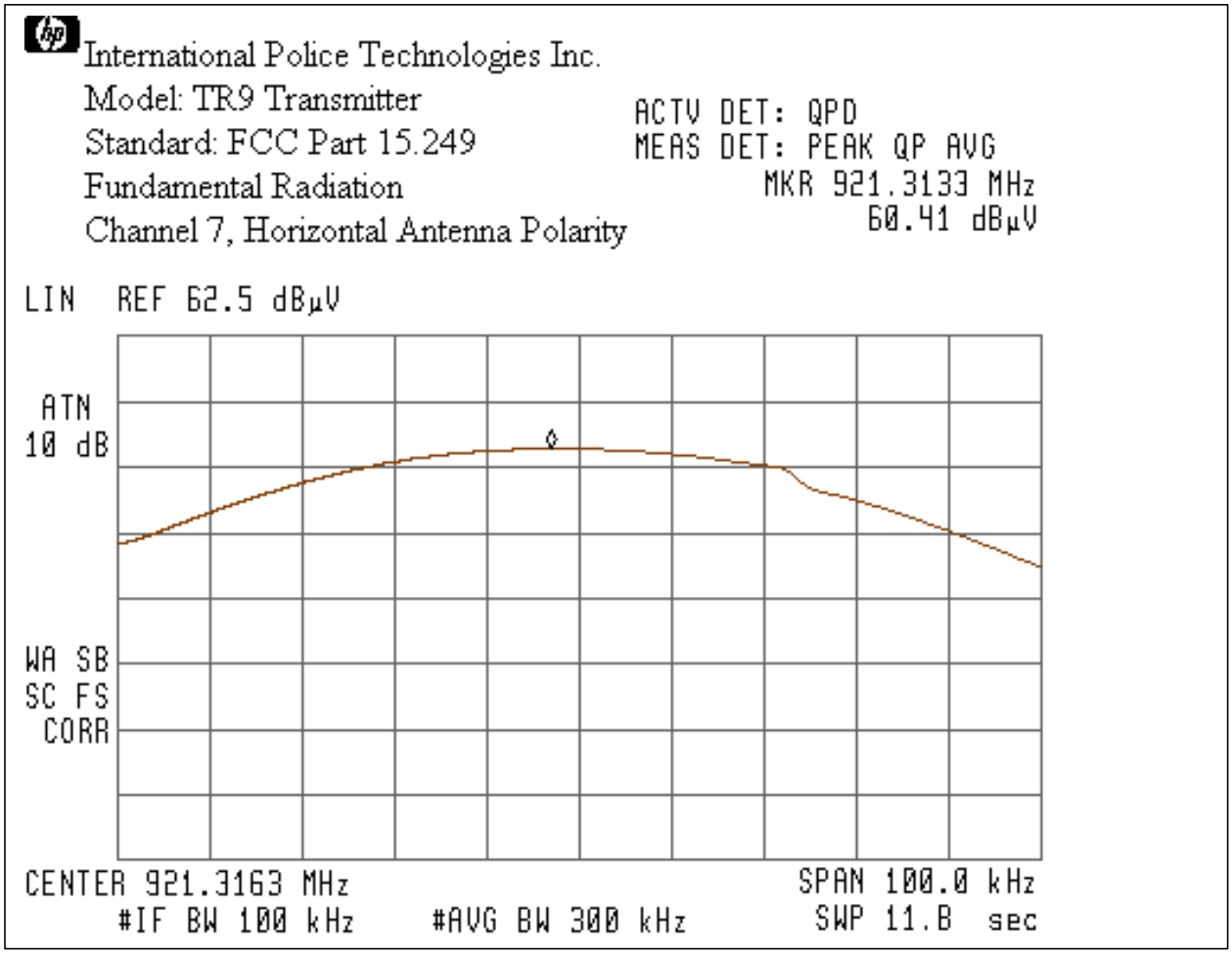
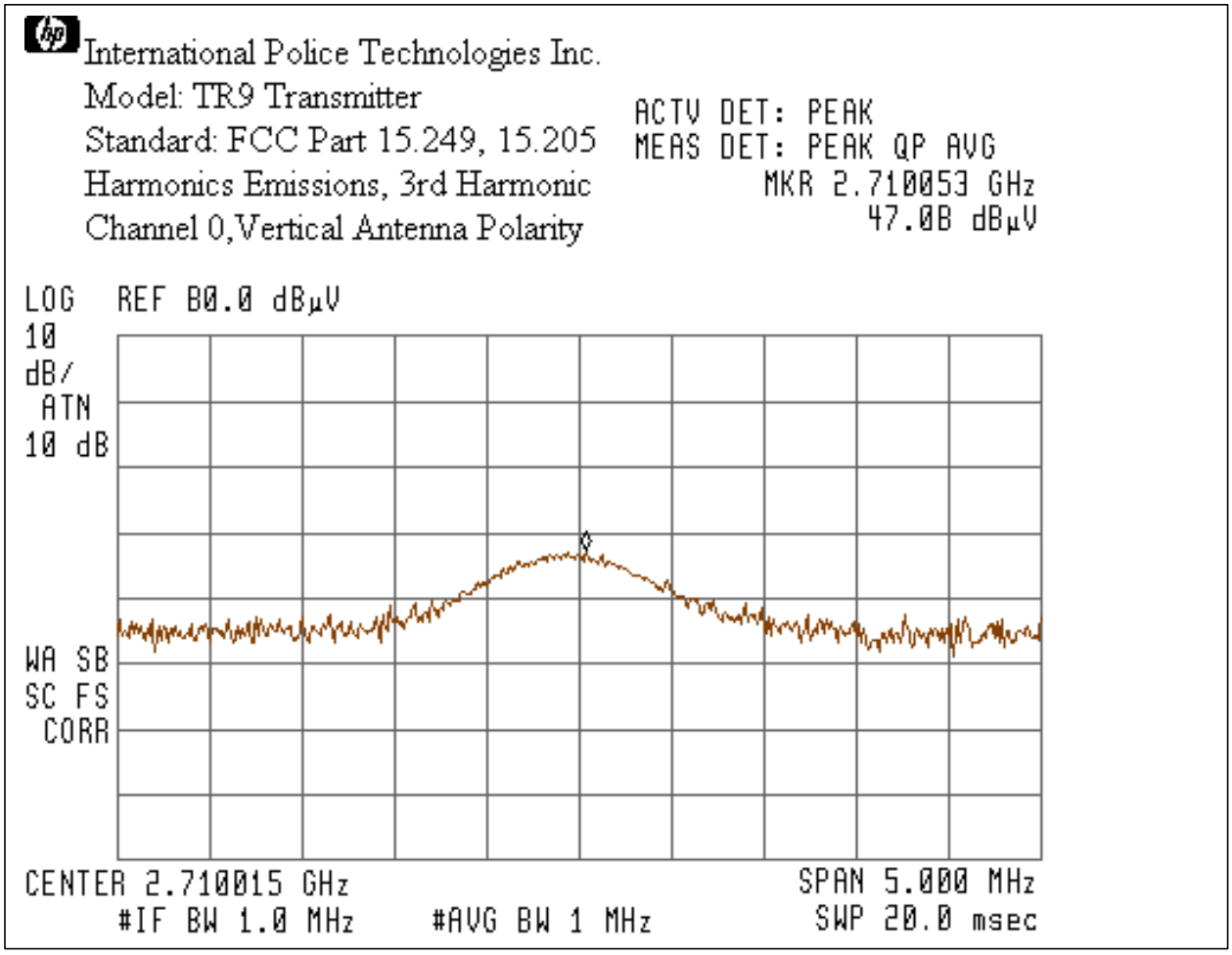
Graph # 3-1-6


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Fundamental Radiation
Channel 7, Horizontal Antenna Polarity
ACTV DET: QPD
MEAS DET: PEAK QP AVG
MKR 921.3133 MHz
60.41 dBµV
LIN REF 62.5 dBµV
ATN
10 dB
WA SB
SC FS
CORR
CENTER 921.3163 MHz
SPAN 100.0 kHz
#IF BW 100 kHz
#AVG BW 300 kHz
SWP 11.8 sec

A

Graph # 3-1-7


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 3rd Harmonic
Channel 0,Vertical Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 2.710053 GHz
47.0B dBµV
LOG REF 80.0 dBµV
10
dB/
ATN
10 dB
WA SB
SC FS
CORR
CENTER 2.710015 GHz
SPAN 5.000 MHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SWP 20.0 msec

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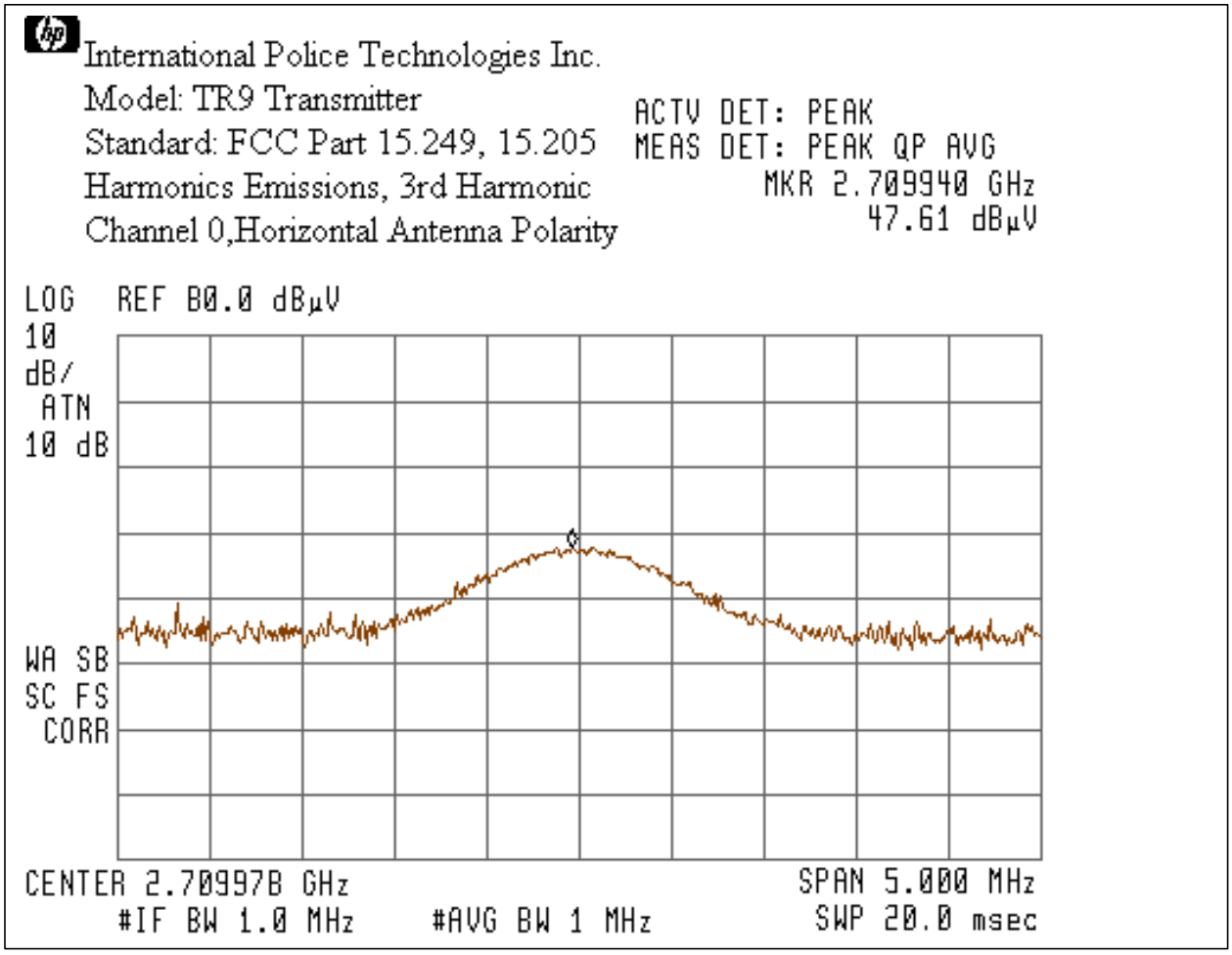
Graph # 3-1-8


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 3rd Harmonic
Channel 0,Horizontal Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 2.709940 GHz
47.61 dBµV
LOG REF 80.0 dBµV
10 dB/
ATN 10 dB
WA SB
SC FS
CORR
CENTER 2.709978 GHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SPAN 5.000 MHz
SWP 20.0 msec

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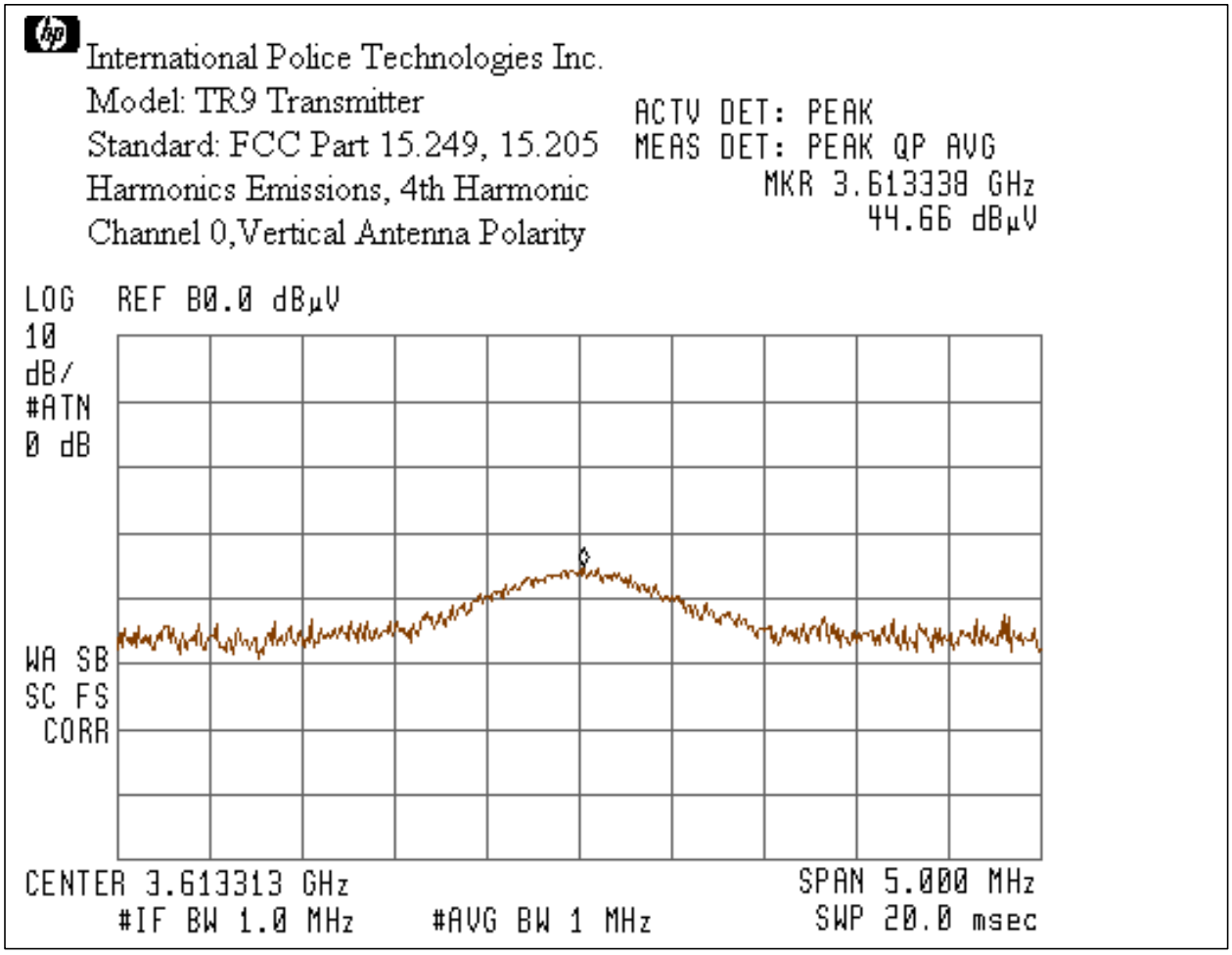
Graph # 3-1-9


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 4th Harmonic
Channel 0,Vertical Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 3.613338 GHz
44.66 dBµV
LOG
10
dB/
#ATN
0 dB
REF 80.0 dBµV
WA SB
SC FS
CORR
CENTER 3.613313 GHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SPAN 5.000 MHz
SWP 20.0 msec

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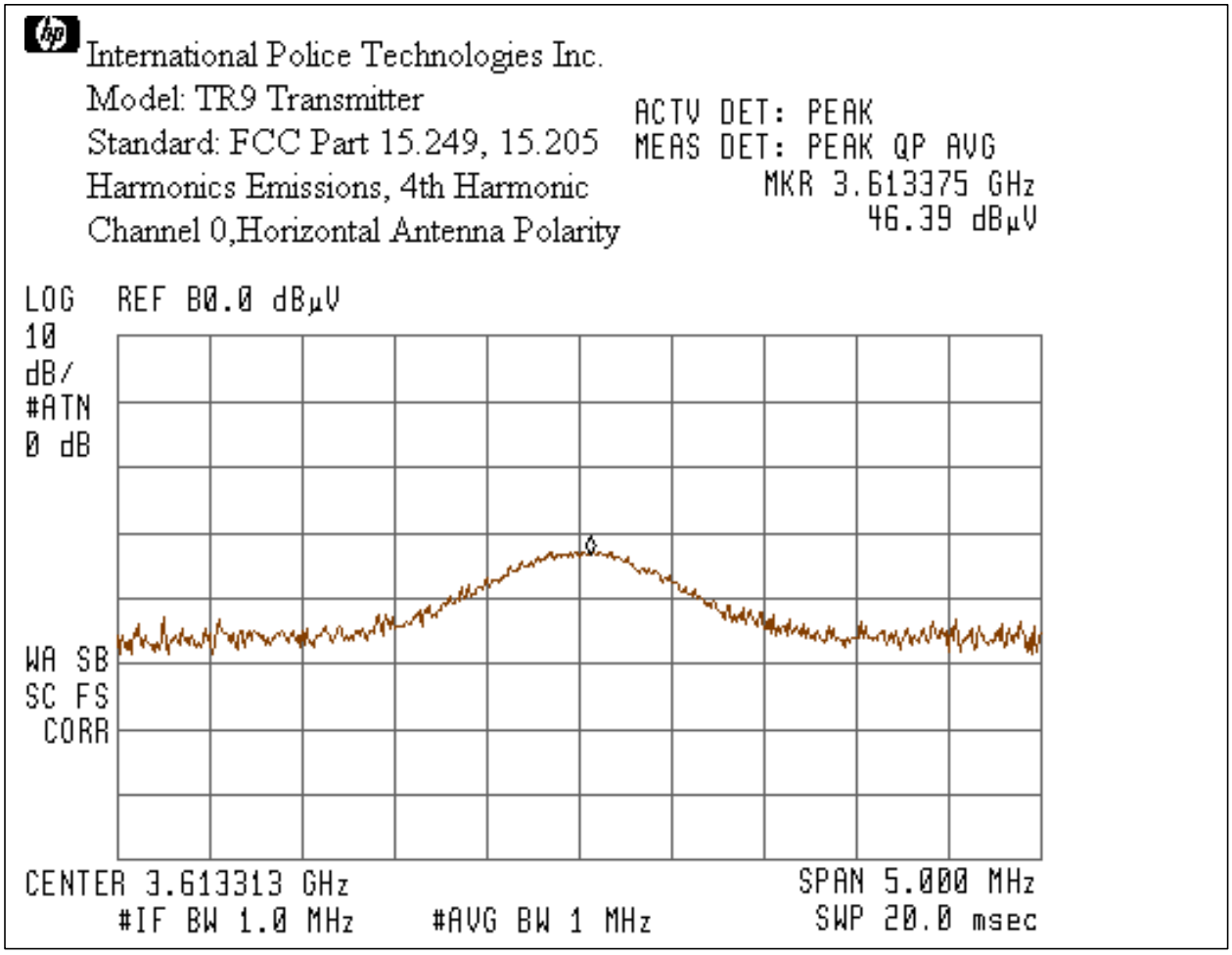
Graph # 3-1-10


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 4th Harmonic
Channel 0,Horizontal Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 3.613375 GHz
46.39 dBµV
LOG
10
dB/
#ATN
0 dB
REF 80.0 dBµV
WA SB
SC FS
CORR
CENTER 3.613313 GHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SPAN 5.000 MHz
SWP 20.0 msec

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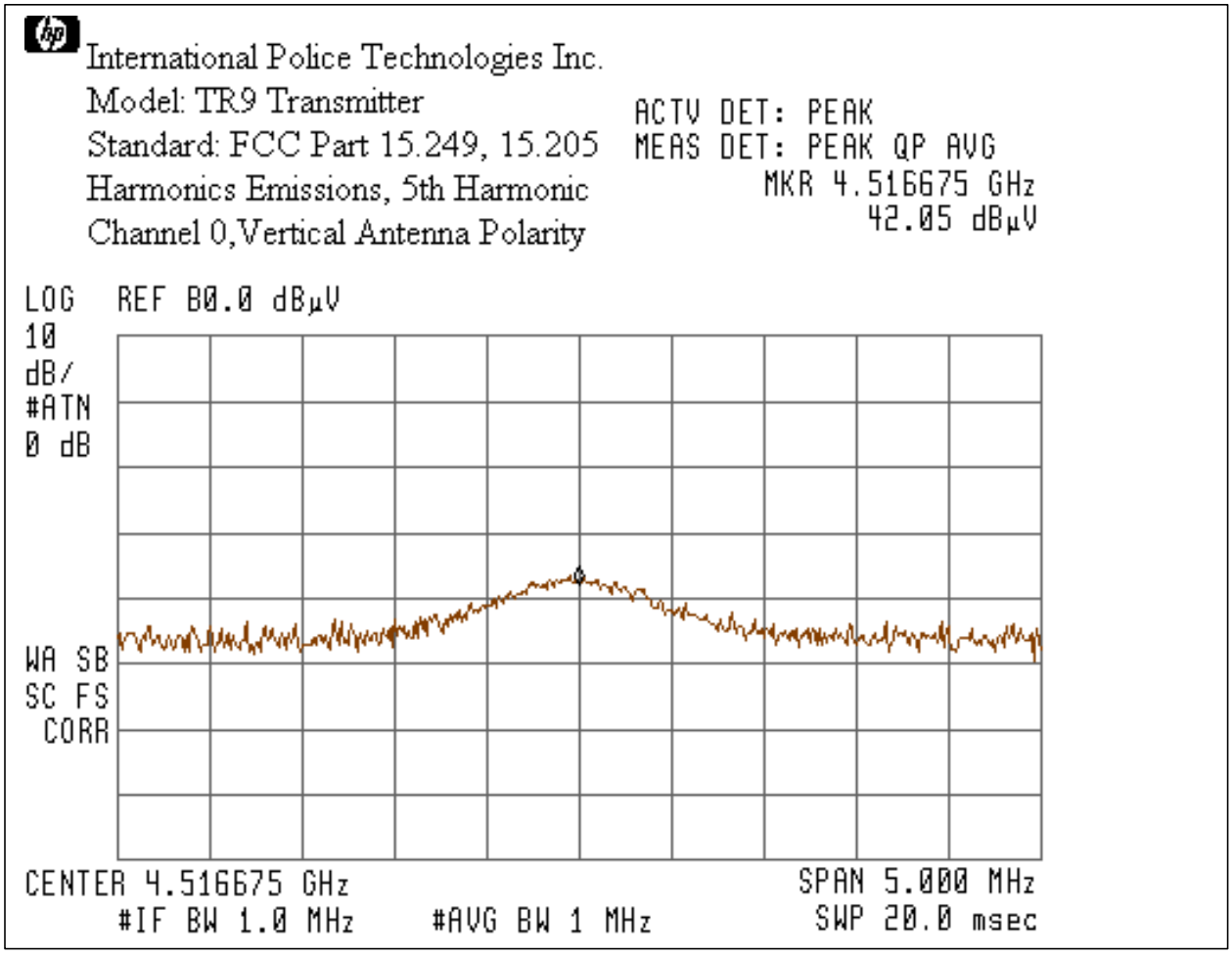
Graph # 3-1-11


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 5th Harmonic
Channel 0,Vertical Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 4.516675 GHz
42.05 dBµV
LOG
10
dB/
#ATN
0 dB
REF 80.0 dBµV
WA SB
SC FS
CORR
CENTER 4.516675 GHz
SPAN 5.000 MHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SWP 20.0 msec

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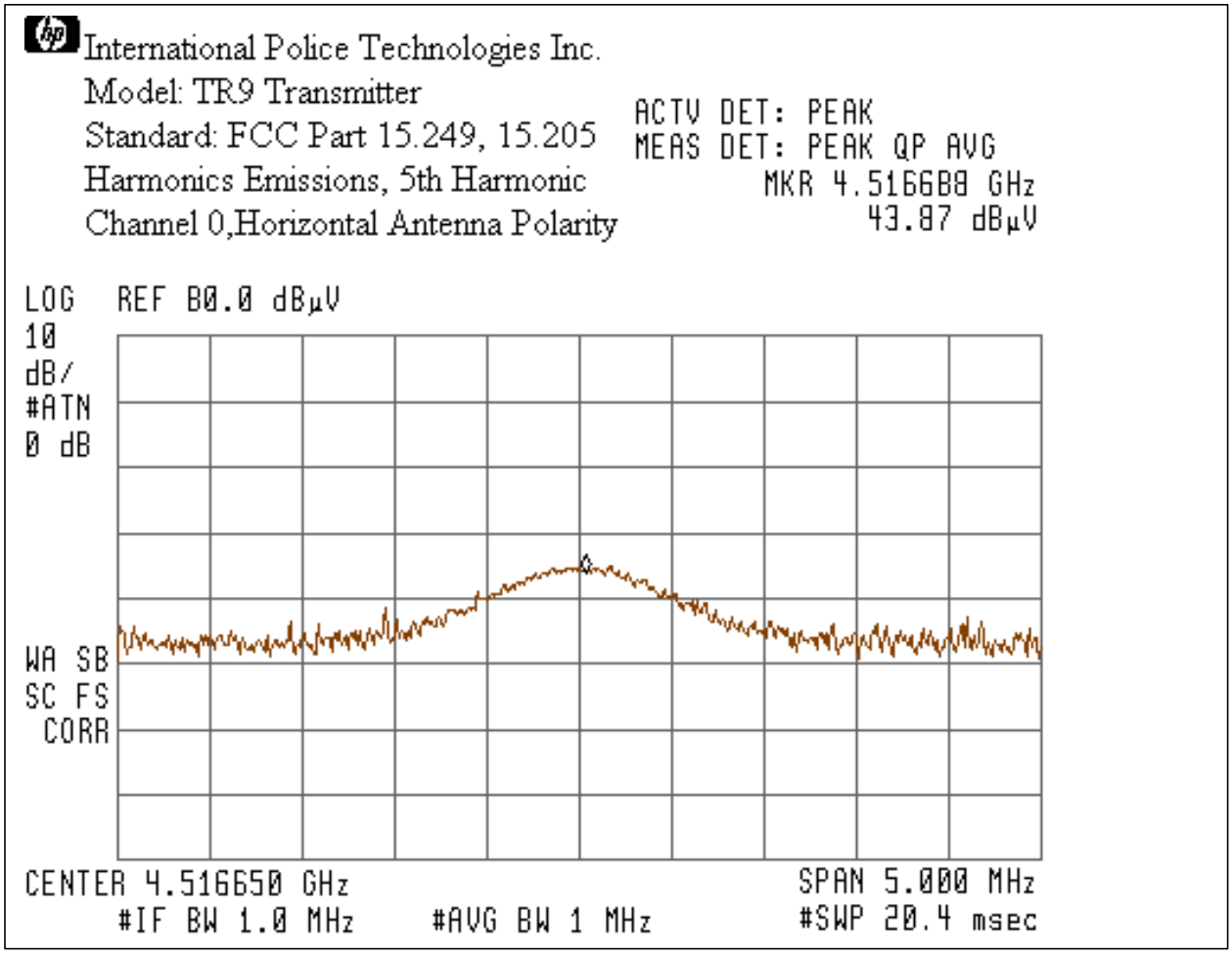
Graph # 3-1-12


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 5th Harmonic
Channel 0,Horizontal Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 4.516688 GHz
43.87 dBµV
LOG
10
dB/
#ATN
0 dB
REF 80.0 dBµV
WA SB
SC FS
CORR
CENTER 4.516650 GHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SPAN 5.000 MHz
#SWP 20.4 msec

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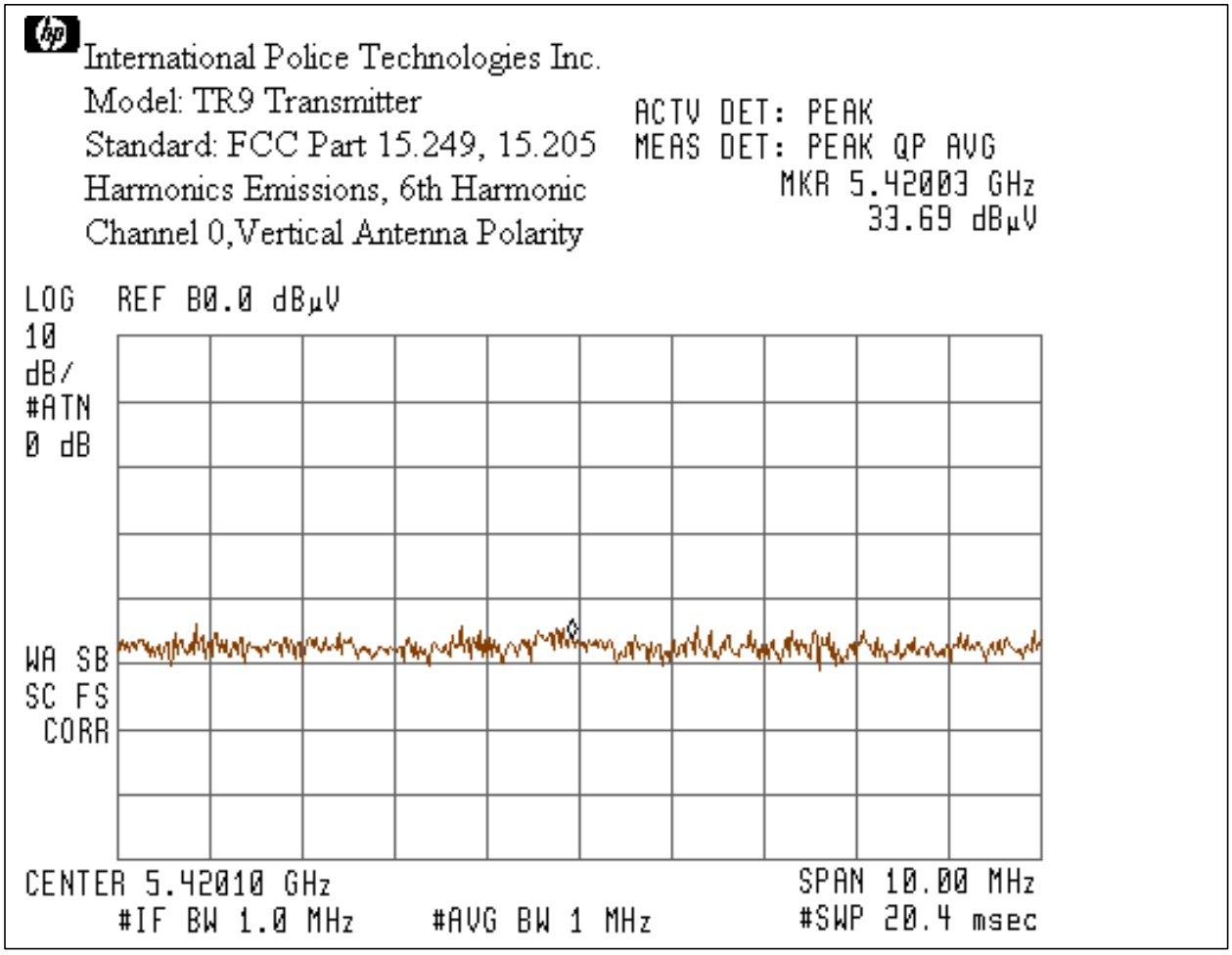
Graph # 3-1-13


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 6th Harmonic
Channel 0,Vertical Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 5.42003 GHz
33.69 dBµV
LOG
10
dB/
#ATN
0 dB
REF 80.0 dBµV
WA SB
SC FS
CORR
CENTER 5.42010 GHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SPAN 10.00 MHz
#SWP 20.4 msec

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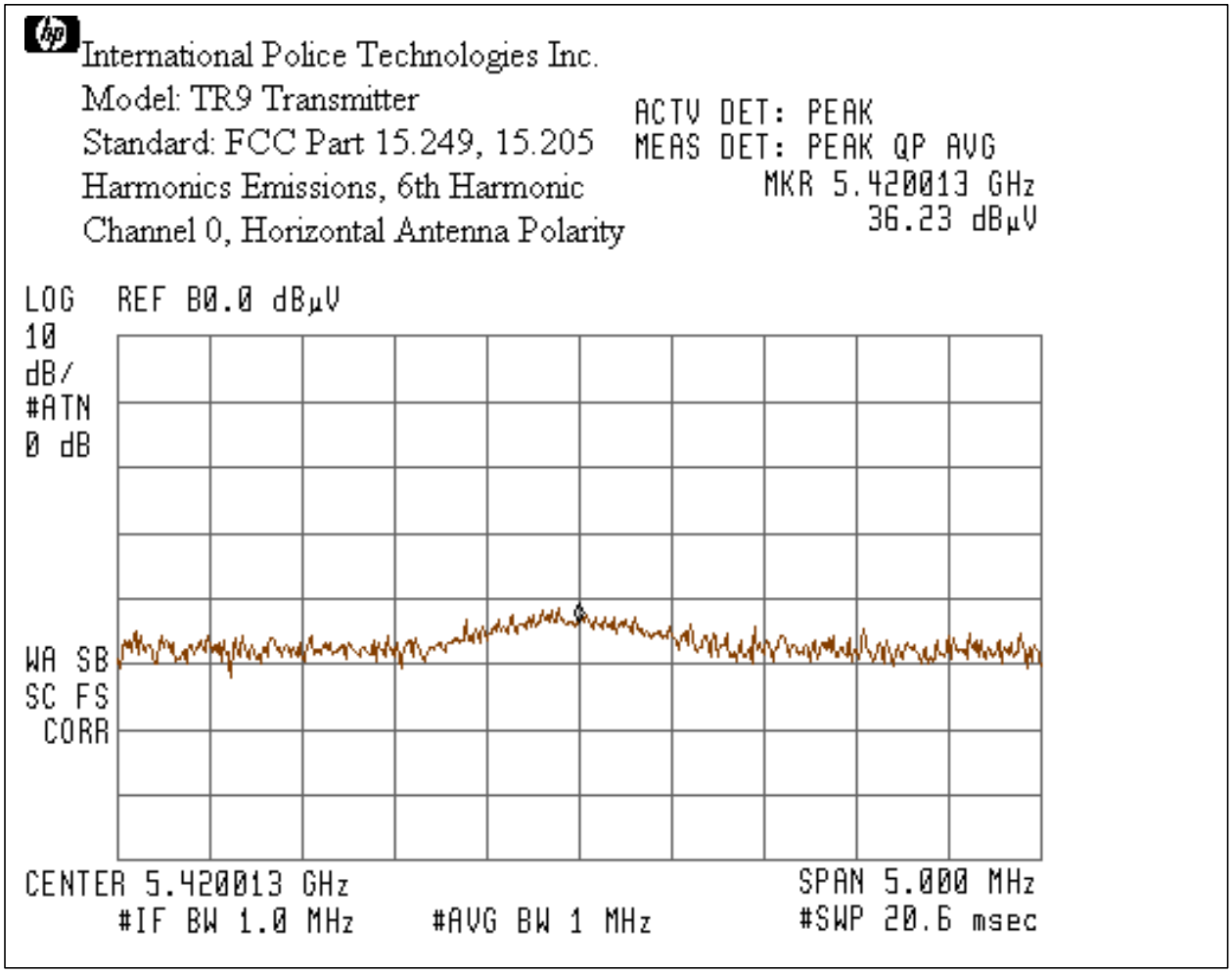
Graph # 3-1-14


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249, 15.205
Harmonics Emissions, 6th Harmonic
Channel 0, Horizontal Antenna Polarity
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 5.420013 GHz
36.23 dBµV
LOG
10
dB/
#ATN
0 dB
REF 80.0 dBµV
WA SB
SC FS
CORR
CENTER 5.420013 GHz
#IF BW 1.0 MHz
#AVG BW 1 MHz
SPAN 5.000 MHz
#SWP 20.6 msec

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3.2 Out of Band Spurious Emissions, FCC 15.249(c), 15.209

Out-of-band measurements were made for frequencies:
- 902MHz
- 928MHz.

Output frequencies of the EUT was set to:
- 903.37MHz (Channel 0)
- 921.37MHz (Channel 7)

The Table # 3-2-1and Graphs ## 3-2-1 and 3-2-2 show the Out of Band Spurious Emissions.

Note: Emission level shown in the Graphs does not include the Antenna, Cable and Pre-amplifier correction factors.

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Radiated Emissions: Out of Band Emissions **Date:** 06-17-2002

Company: International Police Technologies Inc.
Model: TR9, Transmitter
Test Engineer: Norman Shpilsher
Special Config. Info: Frequency range 902 to 928MHz
Standard: FCC Part 15.249, 15.209
Test Site: 3 m Anechoic Chamber
Note: The table shows the worst case radiated emissions
All measurements were taken using a CISPR Quasi-peak detector

Table # 3-2-1

Frequency MHz	Reading dBµV	Total Factor dB/m	Net at 3m. dBµV/m	15.249 Attenuation dB	15.249 Limit dBµV/m	15.249 Margin dB	15.209 Limit dBµV/m	15.209 Margin dB
Channel 0								
903.33								
902.00	10.9	25.0	35.9	58.5	50.0	-8.5	46	-10.1
Channel 7								
921.34								
928.00	8.6	25.3	33.9	59.5	50.0	-9.5	46	-12.1

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Graph # 3-2-1


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Out of Band Emissions
Channel 0, 902MHz Band Edge
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKRΔ -1.328 MHz
-58.52 dB
LOG REF 80.0 dBµV
10
dB/
ATN
10 dB
DL
10.9
dBµV
WA SB
SC FS
CORR
START 902.000 MHz
STOP 903.500 MHz
#IF BW 10 kHz
#AVG BW 300 kHz
SWP 45.0 msec

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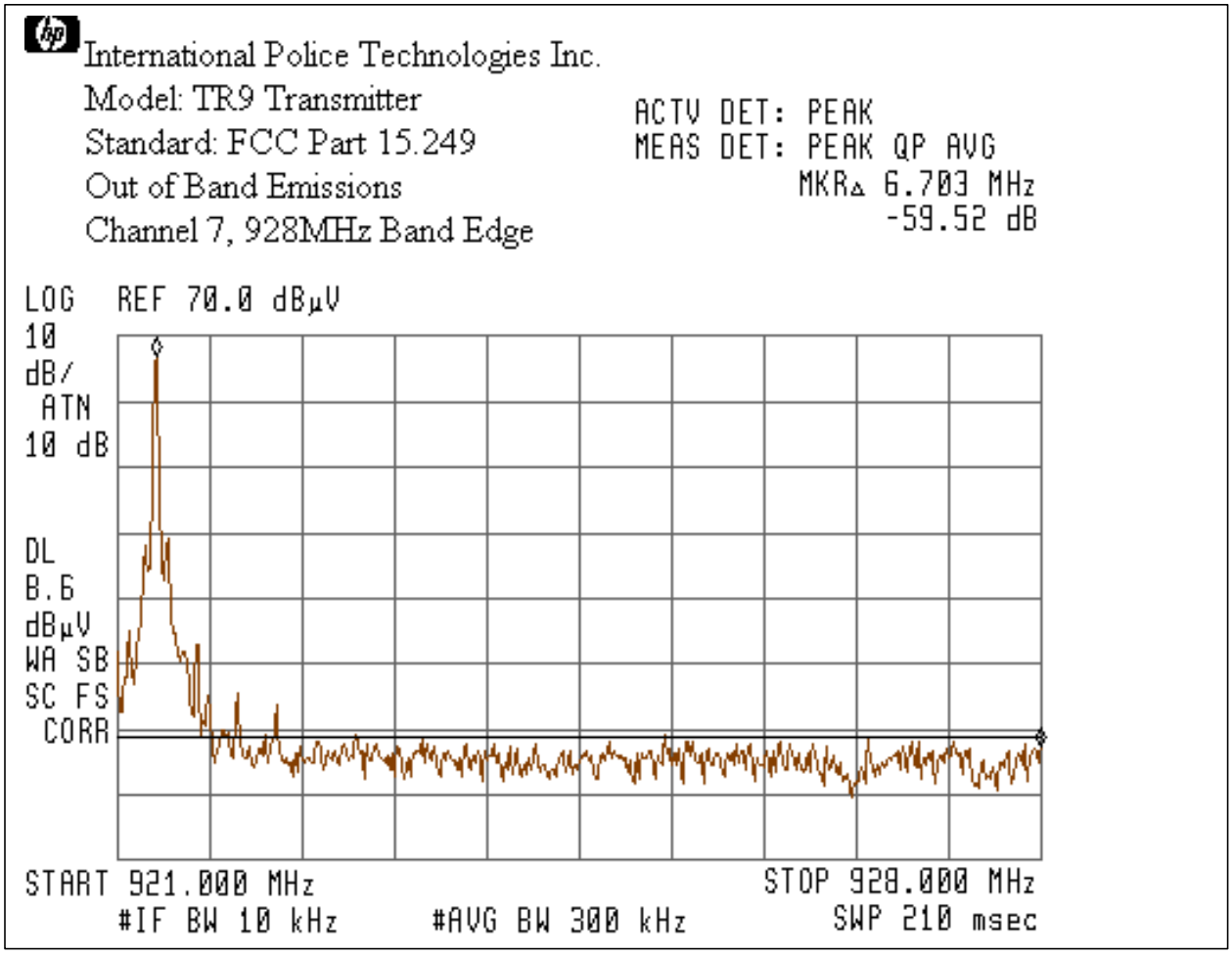
Graph # 3-2-2


International Police Technologies Inc.
Model: TR9 Transmitter
Standard: FCC Part 15.249
Out of Band Emissions
Channel 7, 928MHz Band Edge
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKRΔ 6.703 MHz
-59.52 dB
LOG REF 70.0 dBµV
10
dB/
ATN
10 dB
DL
B.6
dBµV
WA SB
SC FS
CORR
START 921.000 MHz
STOP 928.000 MHz
#IF BW 10 kHz
#AVG BW 300 kHz
SWP 210 msec

A

3.3 Test Procedure

Field Strength Measurements

The EUT was placed on a non-conductive table 0.8m above the ground plane inside the Anechoic Chamber. The table was centered on a motorized turntable, which allows 360-degree rotation. The measurement antenna was positioned at 3m distance. The Bicono-Log antenna was used in frequency range from 30MHz to 1GHz. The Horn antenna with the pre-amplifier was used in frequency range above 1GHz. The radiated emissions were maximized by configuring the EUT, by rotating the EUT, by changing antenna polarization, and by changing antenna height from 1 to 4m. Method of the direct Field Strength Calculation is shown in Section 3.4.

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3.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured emissions reading on the EMI Receiver.
The basic equation with a sample calculation is as follows:
FS = RA + AF + CF - AG

Where: FS = Field Strength in dB(μV/m)
RA = Receiver Amplitude in dB(μV)
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB(m^{-1})
AG = Amplifier Gain in dB

Assume a receiver reading of 48.1 dB(μV) is obtained. The antenna factor of 7.4 dB(m^{-1}) and cable factor of 1.6 dB is added and amplifier gain of 16.0 dB is subtracted giving field strength of 41.1 dB(μV/m).

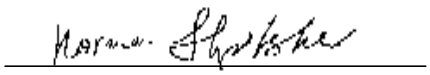
RA = 48.1 dB(μV)
AF = 7.4 dB(m^{-1})
CF = 1.6 dB
AG = 16.0 dB
FS = RF + AF + CF - AG
FS = 48.1 + 7.4 + 1.6 – 16.0
FS = 41.1 dB(μV/m)

In the tables the Cable correction factors are included to the Antenna Factors.

Tested by:

Norman Shpilsher
EMC Project Engineer
Intertek Testing Services NA, Inc.

Signature



Signature

Date: June 18, 2002

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4.0 TEST EQUIPMENT

Receivers/Spectrum Analyzers

DESCRIPTION	SERIAL NO.	LAST CAL DATE	CAL DUE	TICK IF USED
HP85462A Receiver RF Section	3325A00106	07/01	07/02	X
HP85460A RF Filter Section	3330A00109	07/01	07/02	X
Advantest Spectrum Analyzer R3271A	55050084	06/02	06/03	
HP 83017A Microwave Amplifier	3123A00475	09/01	09/02	X

Antennas

DESCRIPTION	SERIAL NO.	LAST CAL DATE	CAL DUE	TICK IF USED
Schaffner-Chase Bicono-Log Antenna	2468	11/01	11/02	X
A.H. Systems SAS-200/562B Loop antenna	215	11/01	11/02	
EMCO Horn antenna 3115	9507-4513	09/01	09/02	X
EMCO Horn antenna 3115	6579	12/01	12/02	
EMCO Horn antenna 3116	9904-2423	10/01	10/02	

Artificial Mains Networks/Absorbing Clamps

DESCRIPTION	SERIAL NO.	LAST CAL DATE	CAL DUE	TICK IF USED
FCC LISN-2	316	01/02	01/03	
FCC-LISN-50-25-2	2014	04/02	04/03	

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EXHIBIT I

TEST SET UP PHOTOS

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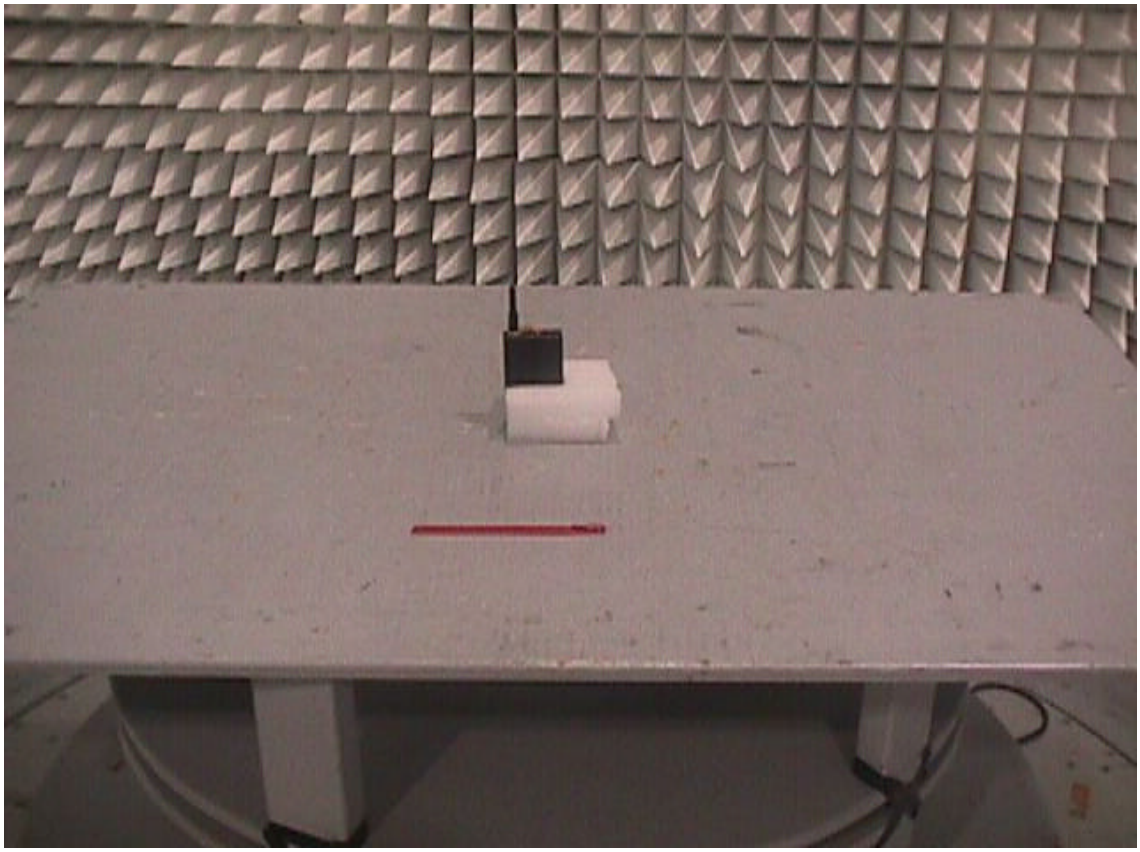

Radiated Emissions Test Configuration

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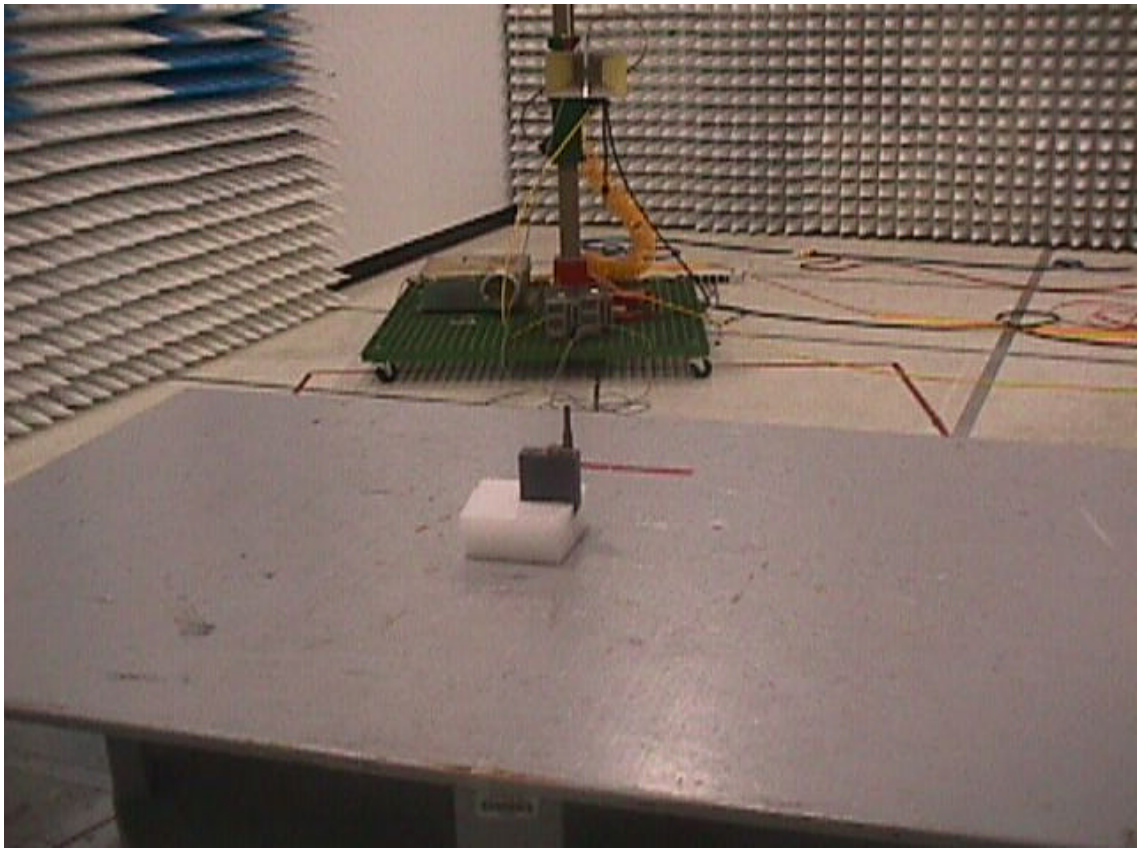

Radiated Emissions Test Configuration

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EXHIBIT II

FCC ID LABEL LOCATION

(See ID Label/Location Info. Attachments)

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EXHIBIT III

EXTERNAL PHOTOS

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External Photo

A

EXHIBIT IV

INTERNAL PHOTOS

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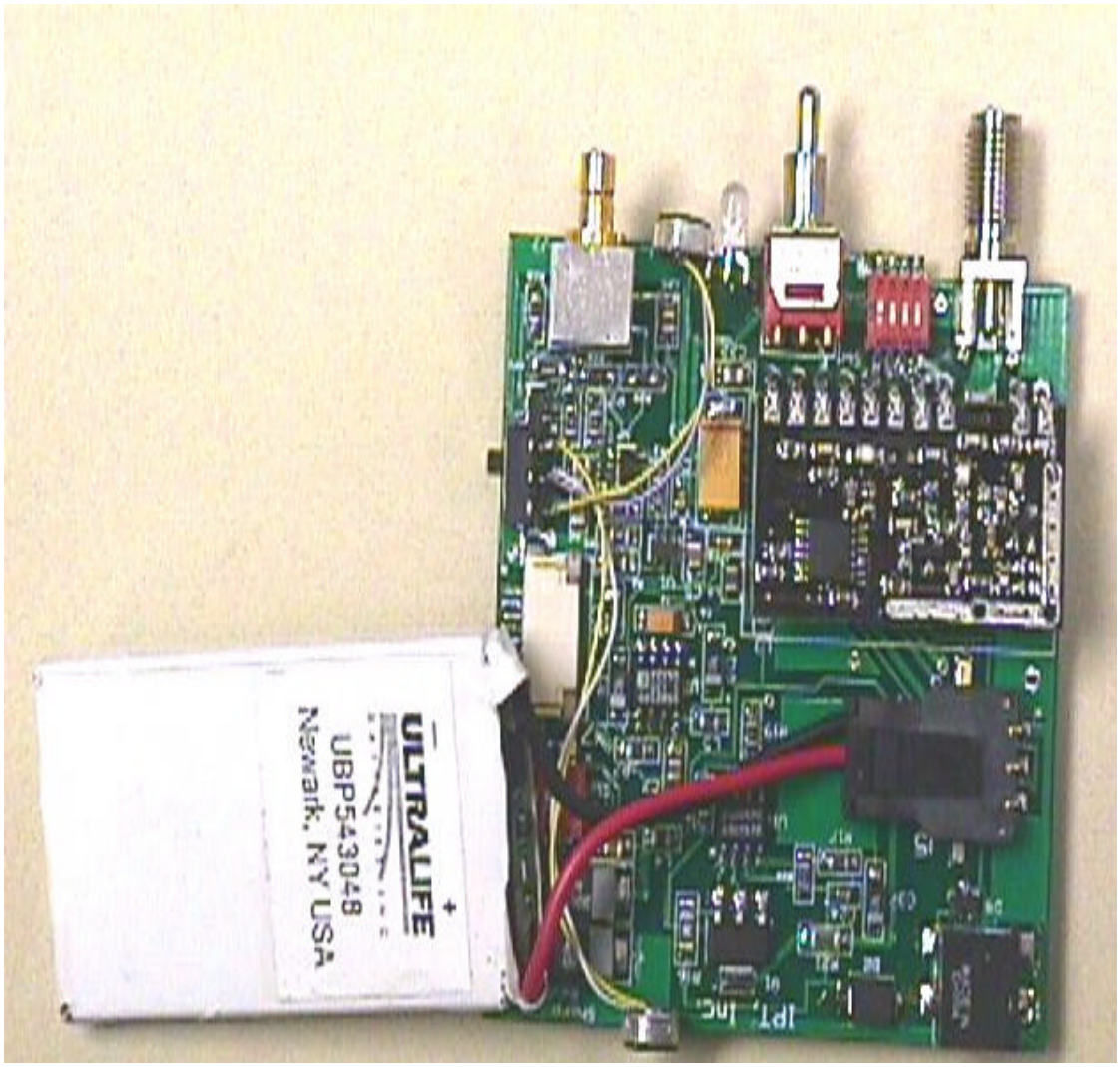

Internal Photo

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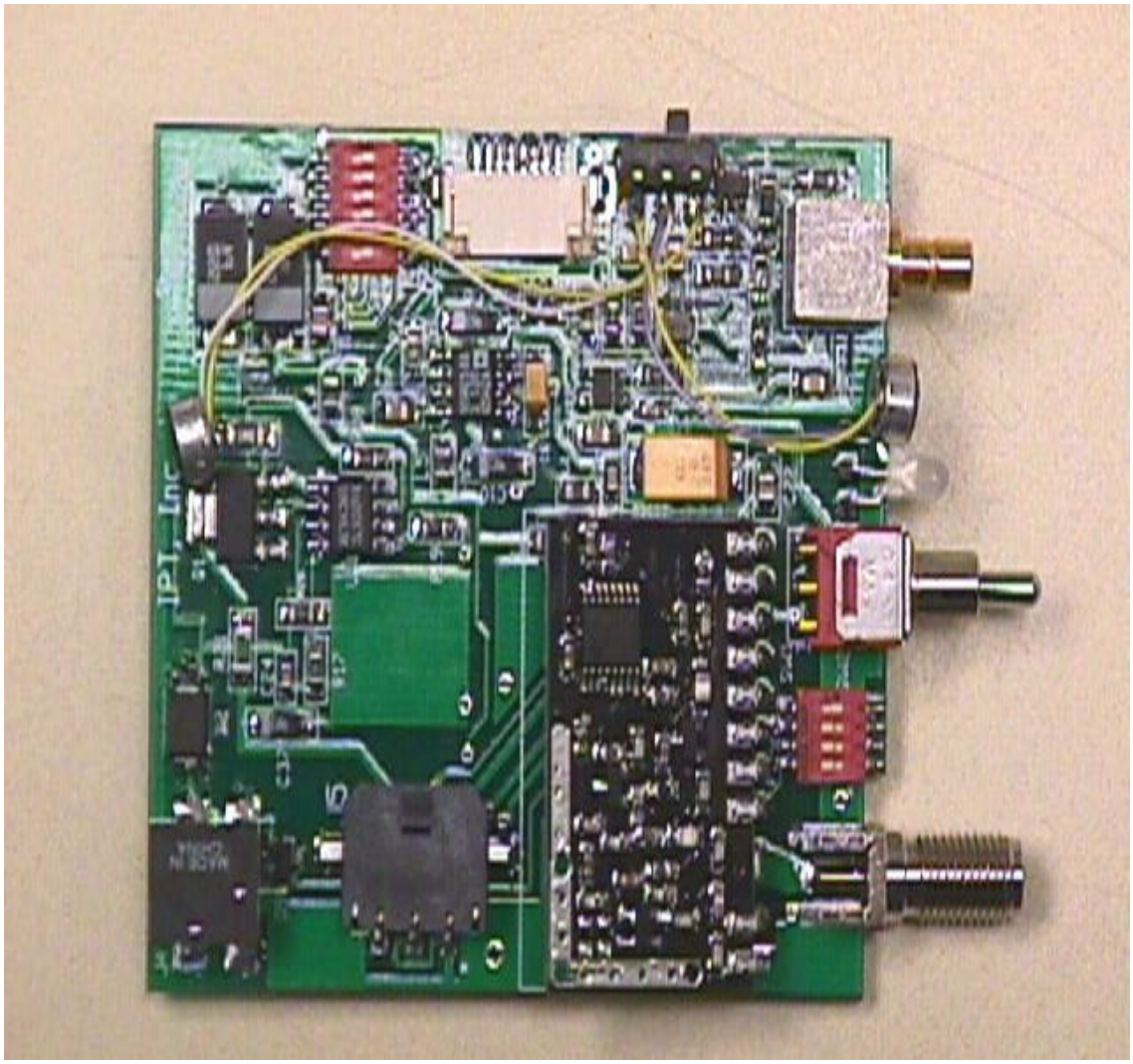
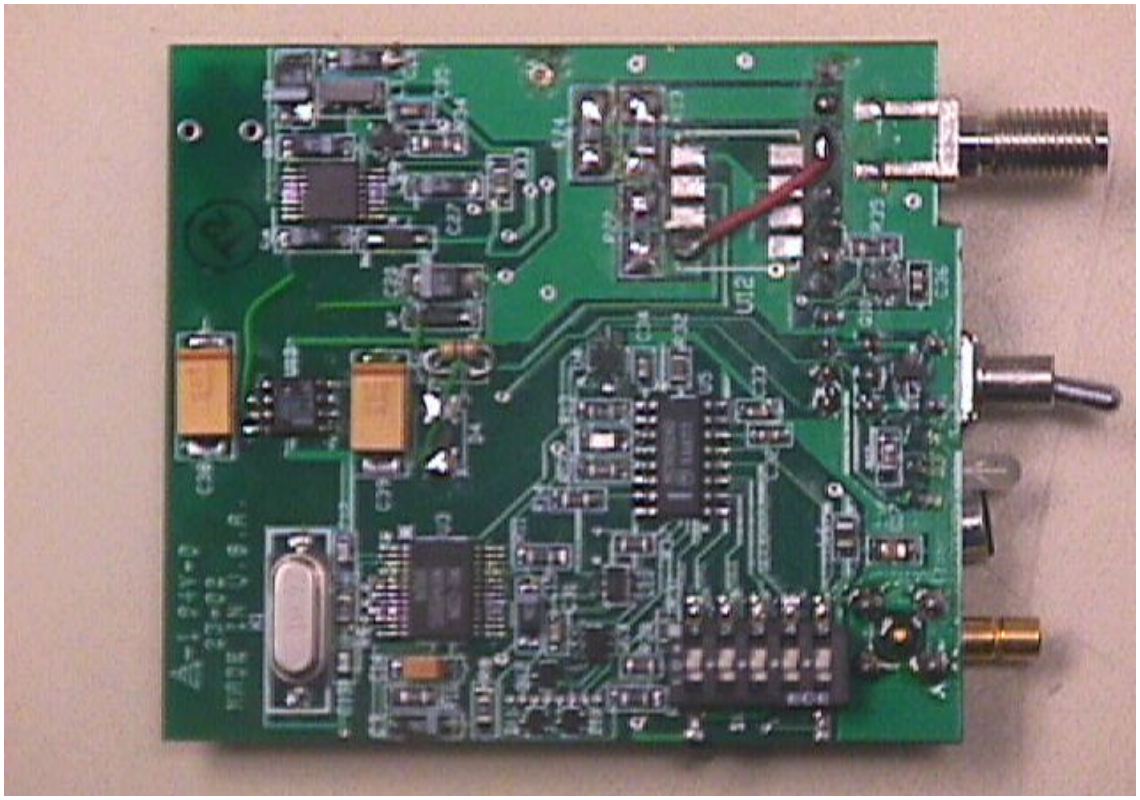


Internal Photo

A



Internal Photo

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EXHIBIT V

ELECTRICAL SCHEMATICS AND BLOCK DIAGRAM

(See Block Diagram and Schematic Attachments)

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EXHIBIT VI

USER MANUAL AND OPERATIONAL DESCRIPTION

(See User Manual and Operational Description Attachments)