

GRAPHICAL SECTION PART 1

FOR RFI TEST REPORT SERIAL NO:

RFI/MPTB3/RP45398JD01A

Test Of: PipeHawk plc.
Ground Probing Radar

To: FCC Part 15: 2002,
Section 15.509

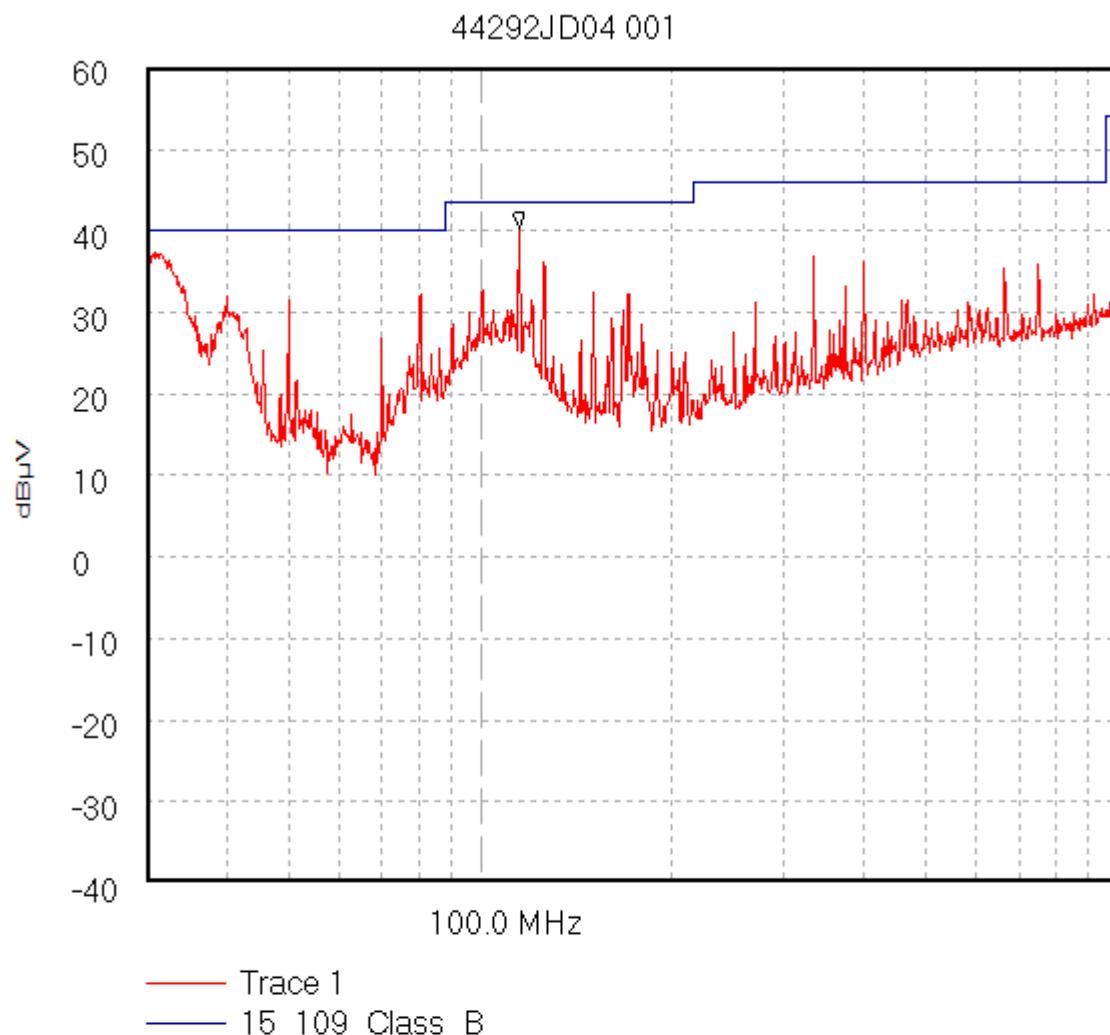
Test Of: PipeHawk plc.
Ground Probing Radar
To: FCC Part 15: 2002, Section 15.509

Graphical Test Results

Graph Reference Number	Title
GPH\44292JD04\001	Radiated Spurious Emissions EUT powered up in standby mode (30.0 MHz to 1.0 GHz)
GPH\44292JD04\002	Radiated Spurious Emissions EUT powered up in standby mode (1.0 GHz to 2.0 GHz)
GPH\44292JD04\003	Radiated Spurious Emissions EUT powered up in standby mode (2.0 GHz to 4.0 GHz)
GPH\44292JD04\004	Radiated Spurious Emissions Cross Polar Antenna (30.0 MHz to 960.0 MHz)
GPH\44292JD04/HC/008	Radiated Spurious Emissions Cross Polar Antenna (0.960 GHz to 2.0 GHz)
GPH\44292JD04/HC/005A	Radiated Spurious Emissions Cross Polar Antenna (2.0 GHz to 4.0 GHz)
GPH\44292JD04/HC/009	Radiated Spurious Emissions Cross Polar Antenna (4.0 GHz to 6.0 GHz)
GPH\44292JD04/HC/010	Radiated Spurious Emissions Cross Polar Antenna (6.0 GHz to 8.0 GHz)
GPH\44292JD04/HC/011	Radiated Spurious Emissions Cross Polar Antenna (8.0 GHz to 12.5 GHz)

Test Of: PipeHawk plc.
Ground Probing Radar
To: FCC Part 15: 2002, Section 15.509

GPH\44292JD04\001
Radiated Emissions.
EUT powered up in standby.

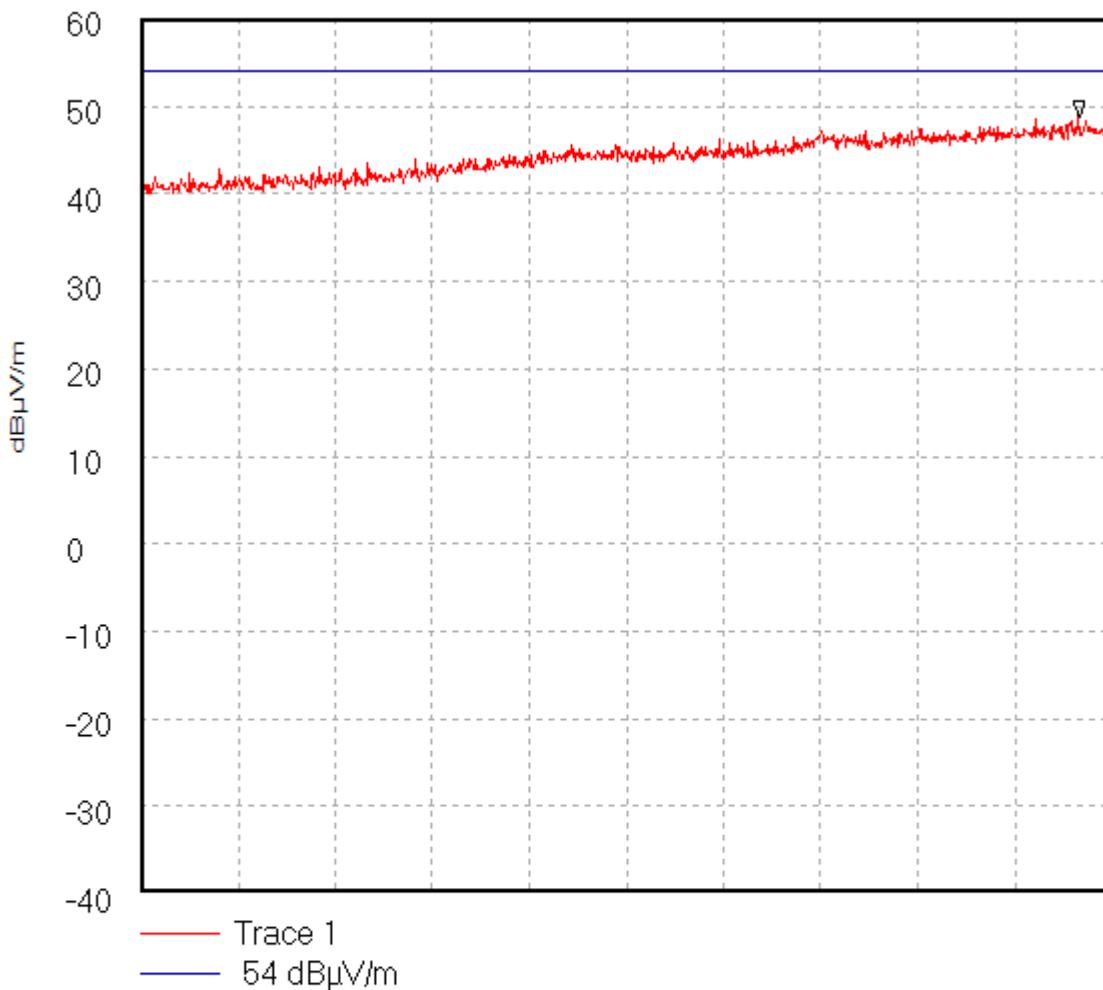


Start 30.0 MHz; Stop 1.0 GHz - Log Scale
Ref 60 dB μ V; Ref Offset 0.0 dB; 10 dB/div
RBW 120.052 kHz; VBW 100.0 kHz; Att 0 dB; Swp 220.0 mS
Peak 115.051272 MHz, 40.38 dB μ V
Limit/Mask: 15_109_Class_B;
Transducer Factors: A490
10/04/2003 10:34:25

Test Of: PipeHawk plc.
Ground Probing Radar
To: FCC Part 15: 2002, Section 15.509

GPH\44292JD04\002
Radiated Emissions.
EUT powered up in standby.

44292JD04 002



Start 1.0 GHz; Stop 2.0 GHz

Ref 60 dB μ V/m; Ref Offset 0.0 dB; 10 dB/div

RBW 1.0 MHz; VBW 1.0 MHz; Att 0 dB; Swp 20.0 mS

Peak 1.966667 GHz, 48.7 dB μ V/mDisplay Line: 54 dB μ V/m;

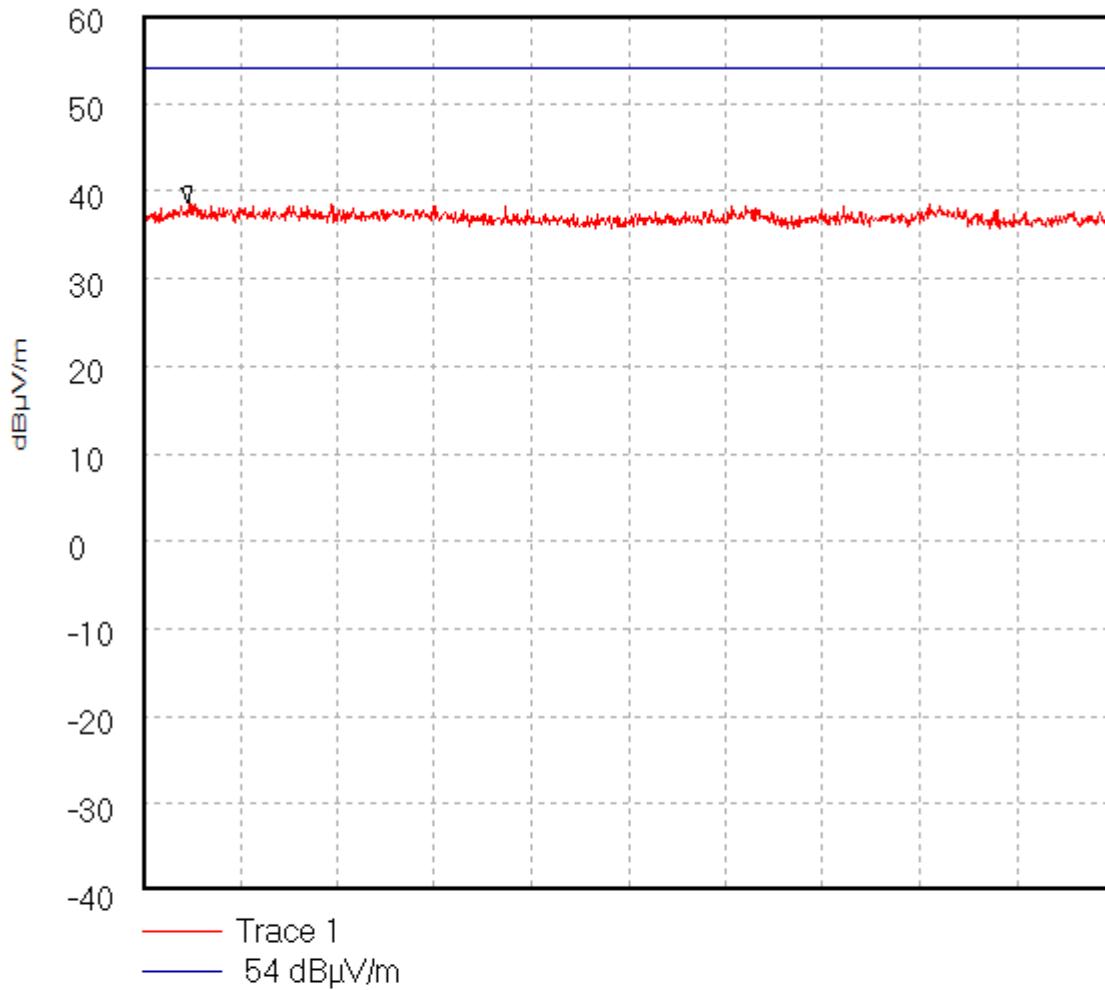
Transducer Factors: 1 to 2

10/04/2003 10:37:54

Test Of: PipeHawk plc.
Ground Probing Radar
To: FCC Part 15: 2002, Section 15.509

GPH\44292JD04\003
Radiated Emissions.
EUT powered up in standby.

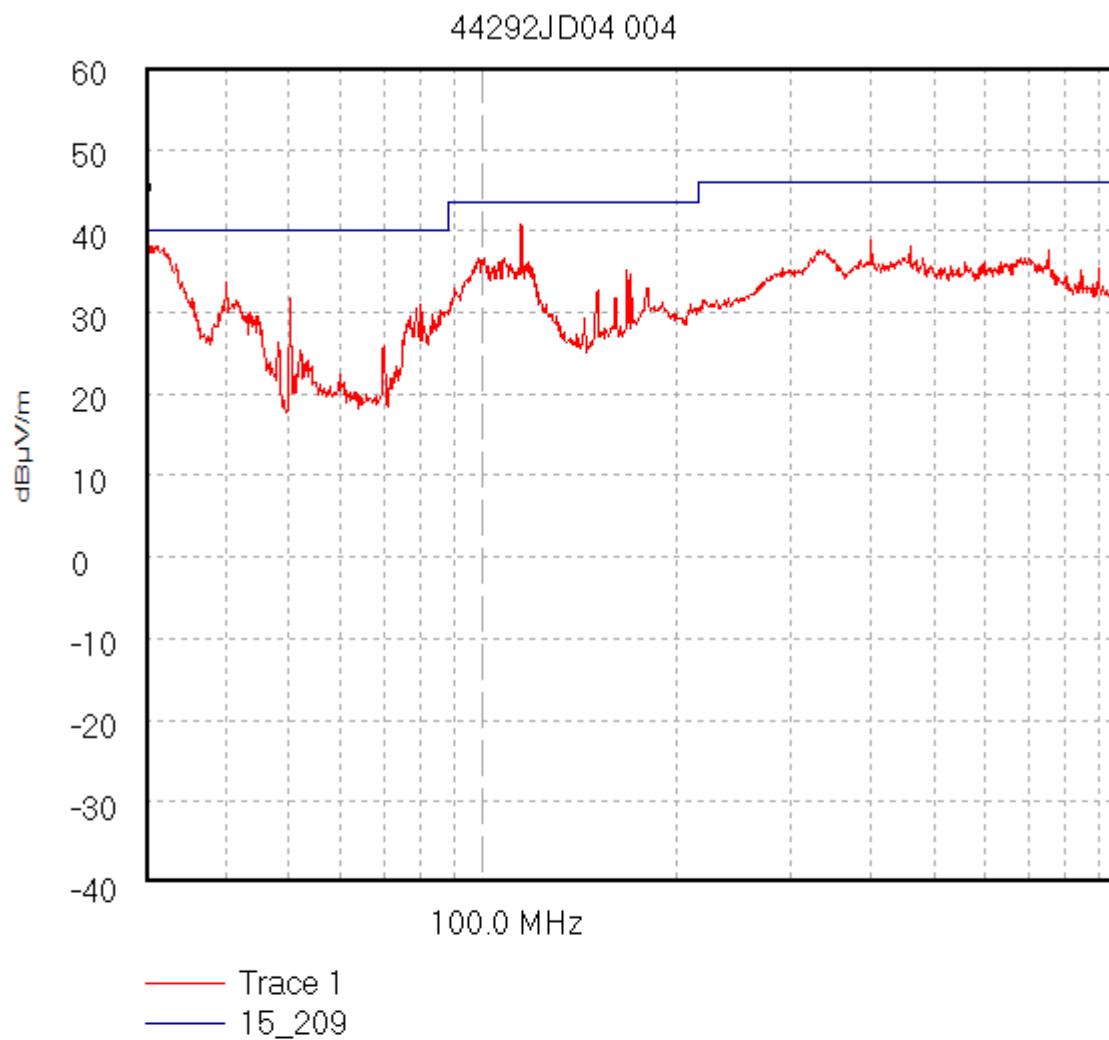
44292JD04 003



Start 2.0 GHz; Stop 4.0 GHz
Ref 60 dB μ V/m; Ref Offset 0.0 dB; 10 dB/div
RBW 1.0 MHz; VBW 1.0 MHz; Att 0 dB; Swp 20.0 mS
Peak 2.093333 GHz, 38.6 dB μ V/m
Display Line: 54 dB μ V/m; Limit Test Failed
Transducer Factors: 2 to 4
10/04/2003 10:45:27

Test Of: PipeHawk plc.
Ground Probing Radar
To: FCC Part 15: 2002, Section 15.509

GPH\44292JD04\004
Radiated Emissions.
Tx with X polar antenna.



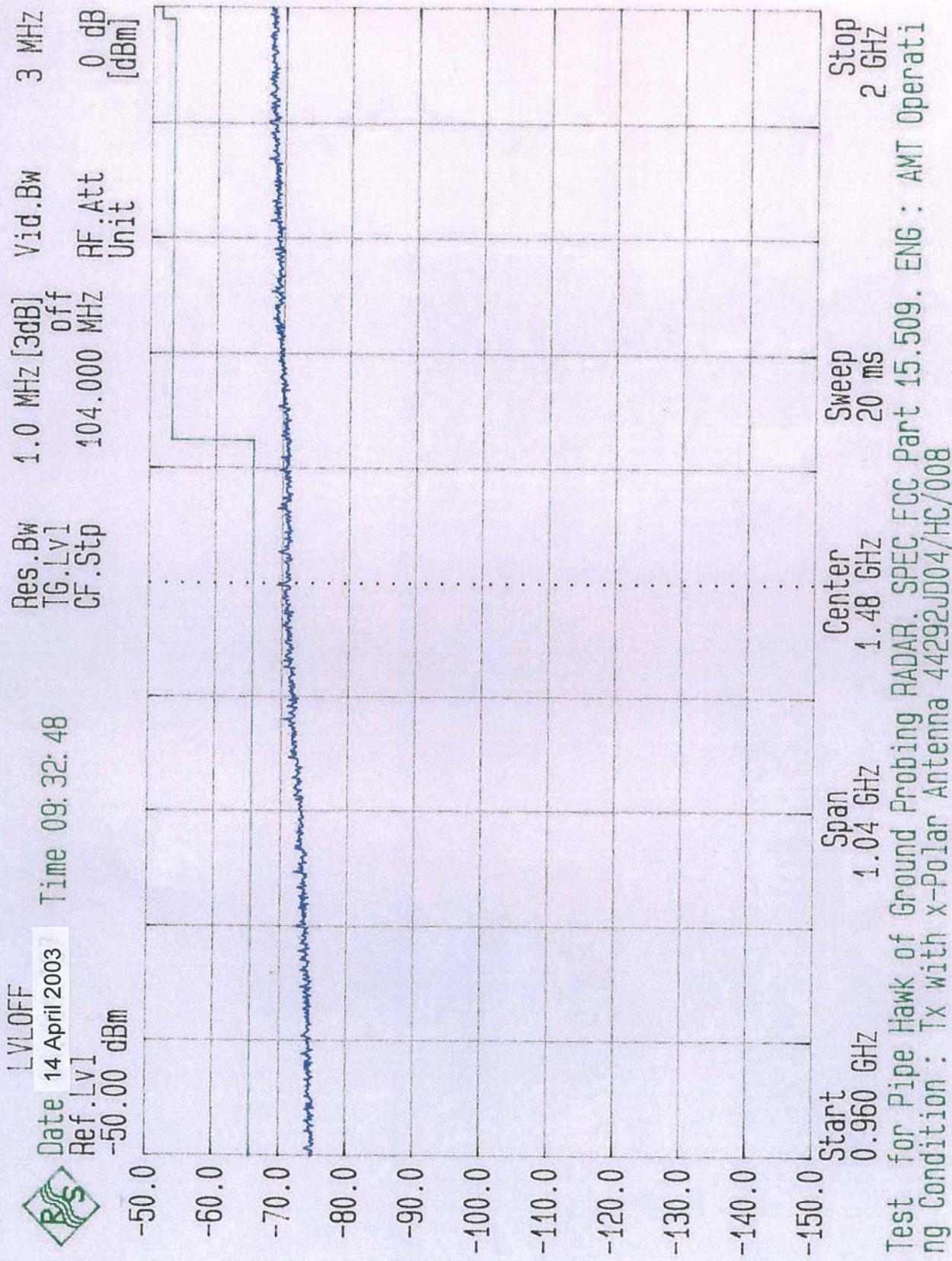
Start 30.0 MHz; Stop 960.0 MHz - Log Scale
Ref 60 dB μ V/m; Ref Offset 0.0 dB; 10 dB/div
RBW 120.052 kHz; VBW 100.0 kHz; Att 0 dB; Swp 240.0 mS
Peak 30.0 MHz, 43.63 dB μ V/m
Limit/Mask: 15_209;
Transducer Factors: A490
10/04/2003 11:34:56

Test Of: **PipeHawk plc.**
Ground Probing Radar
To: **FCC Part 15: 2002, Section 15.509**

This page has been left intentionally blank.



LVL OFF
Date 14 April 2003
Ref. LVL

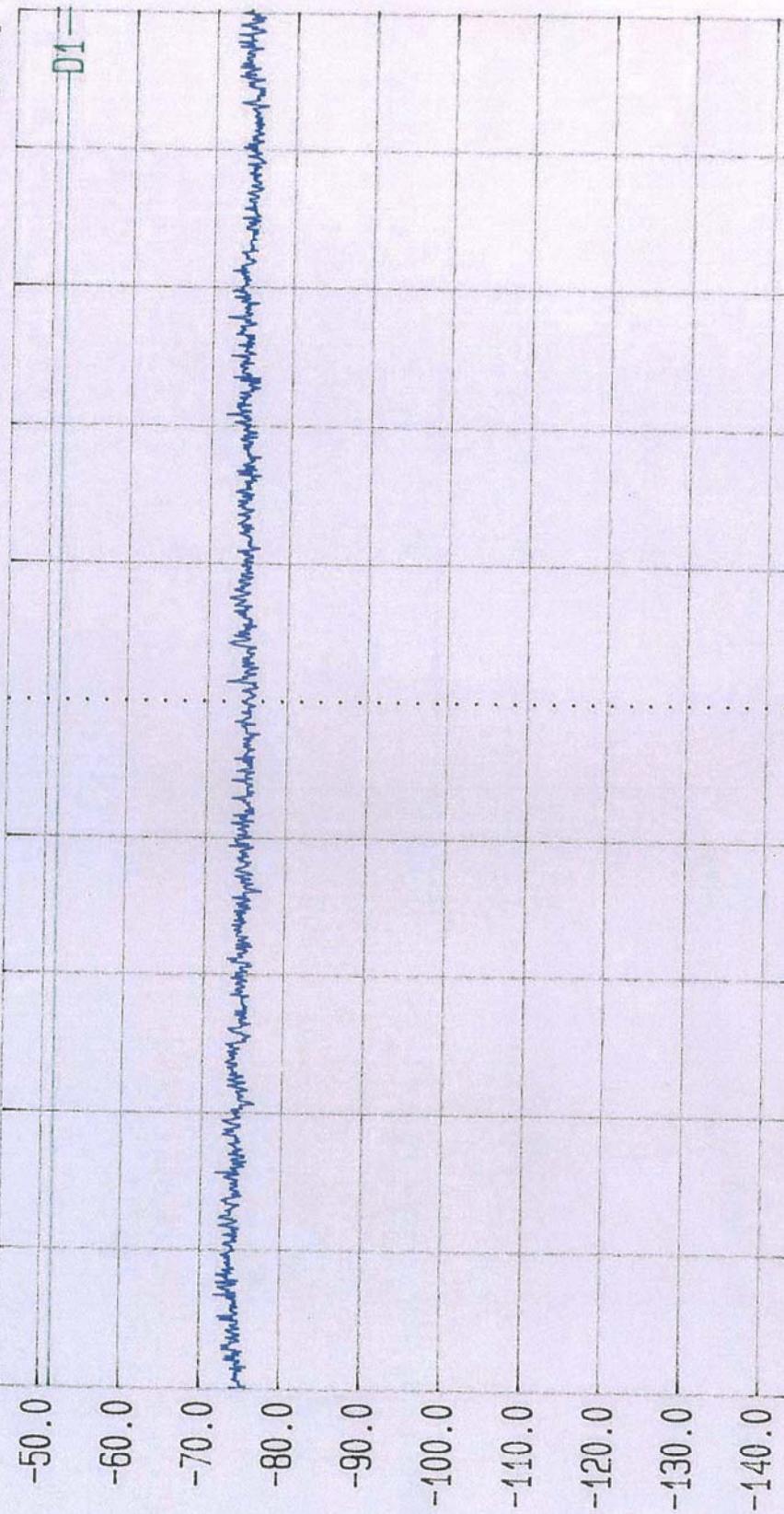




LVLOFF
Date 14 April 2003

Ref. LV1
-45.00 dBm

Res. BW 1 MHz [imp] 1 MHz [imp]
TG_Lv1 off off
CF_Stp 200.000 MHz RF Att 0 dB
CF_Stp Unit [dBm]



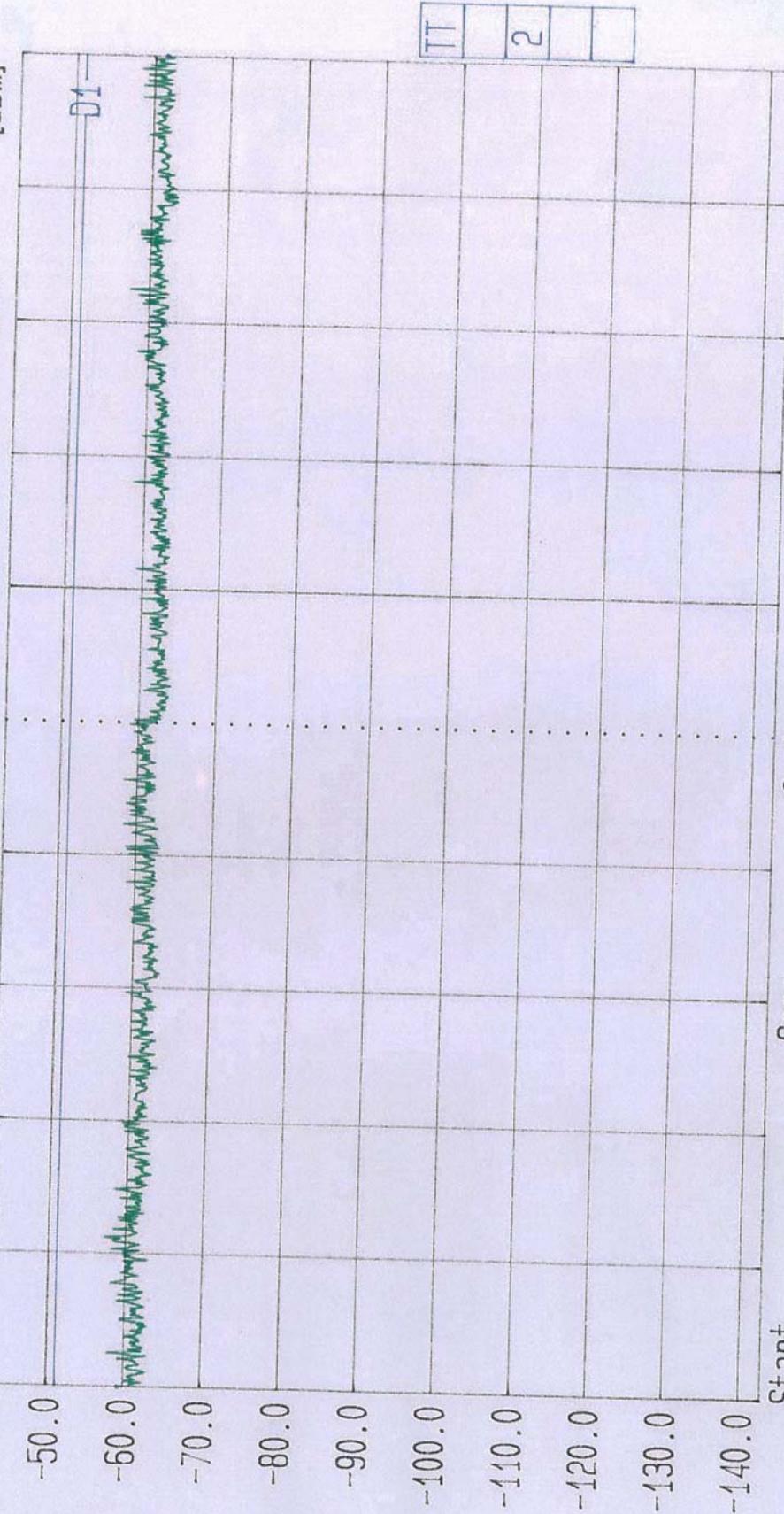
Start 2 GHz Span 2.000 GHz Center 3.000 GHz Sweep 20 ms Stop 4.000 GHz
Test for Pipe Hawk of Ground Probing RADAR. SPEC : FCC Part 15.509. ENG : AMT Operat
ing Condition : Tx with x-Polar Antenna 44292JD04/HC/005a



LVL0FF

Date 14 April 2003
Ref. [v]
-43.00 dBm

Time 05:48:28
Res.Bw 1.0 MHz [3dB]
CF.Stp 200.000 MHz
RF.Att Unit 5 dB
[dBm]



Stop 6 GHz

TEST FOR PIPEHAWK OF GROUND PROBING RADAR.

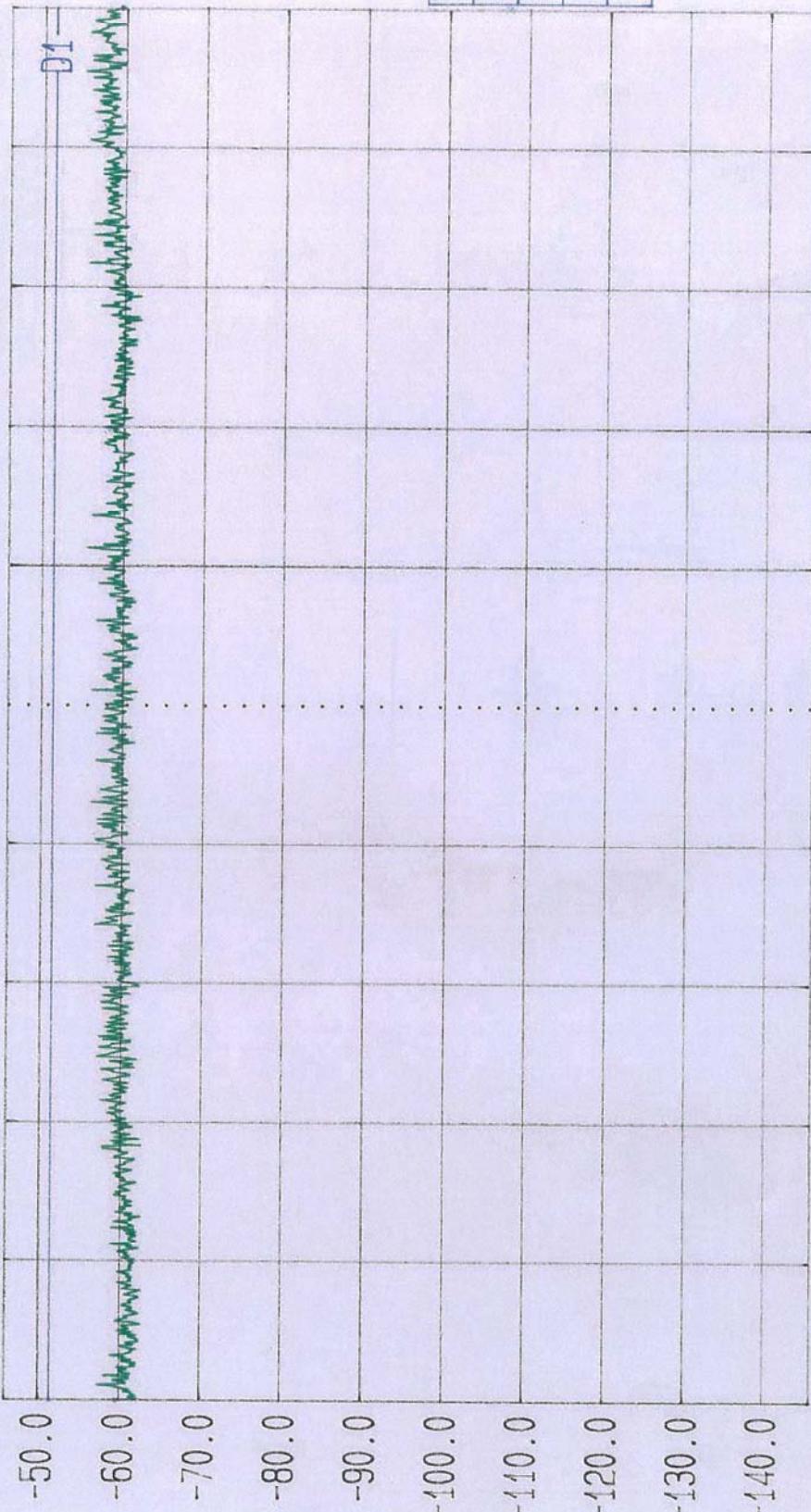
TX XPOLAR ANTENNA 4429 SPEC FCC PART 15.509. ENG: JPH OOPCOND:

JD04/HC/009



LVLOFF
Date 14 April 2003/
Ref. LV1
-46.00 dBm

Res.Bw 1.0 MHz [3dB] Vid.Bw 3 MHz
CF.Stp 200.000 MHz RF.Att 5 dB
Unit [dBm]



1
2
3

TEST FOR PIPEHAWK OF GROUND PROBING RADAR. SPEC FCC PART 15.509. ENG: JPH 00PCOND:
TX XPOLAR ANTENNA 4429 JD04/HC/010



LVLOFF

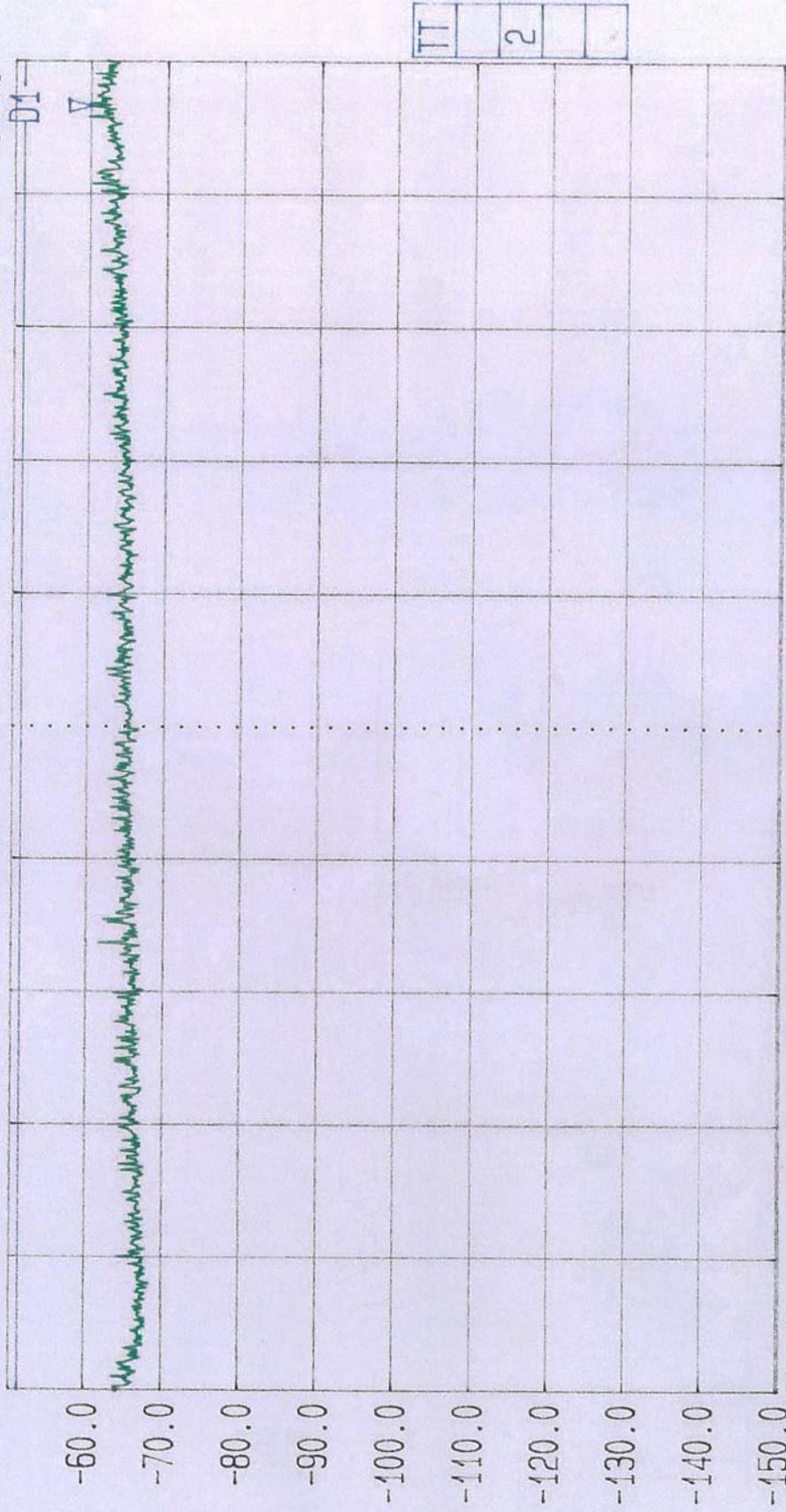
Date 14 April 2003

Time 06:11:10

Marker

-60.37 dBm
12.3450 GHz

-50.40 dBm

Res.Bw 1.0 MHz [3dB] Vid.Bw 3 MHz
Ref.Lv1 CF.Stp 450.000 MHz RF Att 10 dB
-50.40 dBm Unit [dBm]II
2
1

TEST FOR PIPEHAWK OF GROUND PROBING RADAR.
TX XPOLAR ANTENNA 4429 JDO4/HC/011

Start 8 GHz Span 4.5 GHz Center 10.25 GHz Sweep 20 ms Stop 12.5 GHz

SPEC FCC PART 15.509. ENG: JPH 00PCOND: