

## APPENDIX A - TEST REPORT

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## Data Report

**Workorder # 1800218**

Date **6/24/98**

**Client must complete box 1 and sign**

Please provide information as it should be presented in report

## Equipment Under Test (EUT)

Box 1

Model Number/Name (This form will appear in formal test report)

Please print upper/lower case, space, dashes, slashes, hyphens, etc., in the spaces provided

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| N | O | D | E |   | E | Q | U | I | P | M | E | N | T |   |   |   |   |   |   |   |   |   |  |   |   |   |   |
| S | O | L | I | D | - | S | T | A | T | E |   | T | R | A | N | S | M | I | T | T | E | R |  | ( | U | S | ) |

Serial Number **005** Part Number **3214823-001 & -002**

Clock, Oscillator, Highest Frequencies Utilized: (If >108 MHz additional test may be required)  
7.3828, 960 & 960 - 1950 MHz, 13.02, 13.2, 13.275, 26.04, 26.4 & 26.55 & 27.35 - 28.5 GHz

**EUT Test Configurations: FCC Part 2/101, 2.985, 2.987, 2.989, 2.991, 2.993 and 2.995 with unit operating at one CW test frequency, three simulated and one actual QPSK input frequencies, all at maximum rated output power (1 watt)**

Video Mode(s): **N/A**

**EUT mode of Operation: Steady-state with unit operating at one CW test frequency, three simulated and one actual QPSK input frequencies, all at max. rated output power (1 watt)**

I (Client Representative) Eric J. Santoro understand all information including the Model number/name above will appear on the formal test report as indicated and may effect test duration.

Representative: E.W.Paschetag  
Company: Bosch Telecom, Inc.  
Address: PO Box 742466  
Dallas, TX 75374

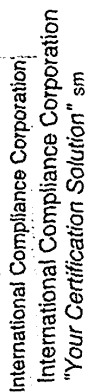
Telephone: (972) 997-3270  
Alternate: (972) 879-3252  
Fax: (972) 997-3181  
After hours: (972) 997-3270

If you will not witness testing, please indicate after hours or pager number.

To be completed by ICC

## Box 2

Worst-case Mode/Configuration: Tx 1w



**Dallas/Ft. Worth Headquarters:**  
802 N. Kealy  
Lewisville, TX 75057  
Tel: (972) 436-9600  
Fax: (972) 436-2667

## HARDWARE

Client: Bosch Telecom

W.O#: 180218

EUT: Node Transmitter

S/N: Unit #5

Date: 6/17/98

Place "\*" next to EUT and any item that is part of the EUT.

Please complete every column using N/A or unknown if needed.

[illegible]**\*\* FCC ID Status**

1. FCC DOC
2. FCC A Verification
3. FCC B Verification

4. NONE (If performing FCC testing, contact lab manager.)
5. Certification (Include FCC ID in parenthesis.)

DataWorkOrders\MasterTestData\Data\Hardware  
REV091797

ICC Forms Control # ET-018



Dallas/Ft. Worth Headquarters:  
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Lewisville, TX 75057  
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Cable List - Transmitter (Radiated Testing)

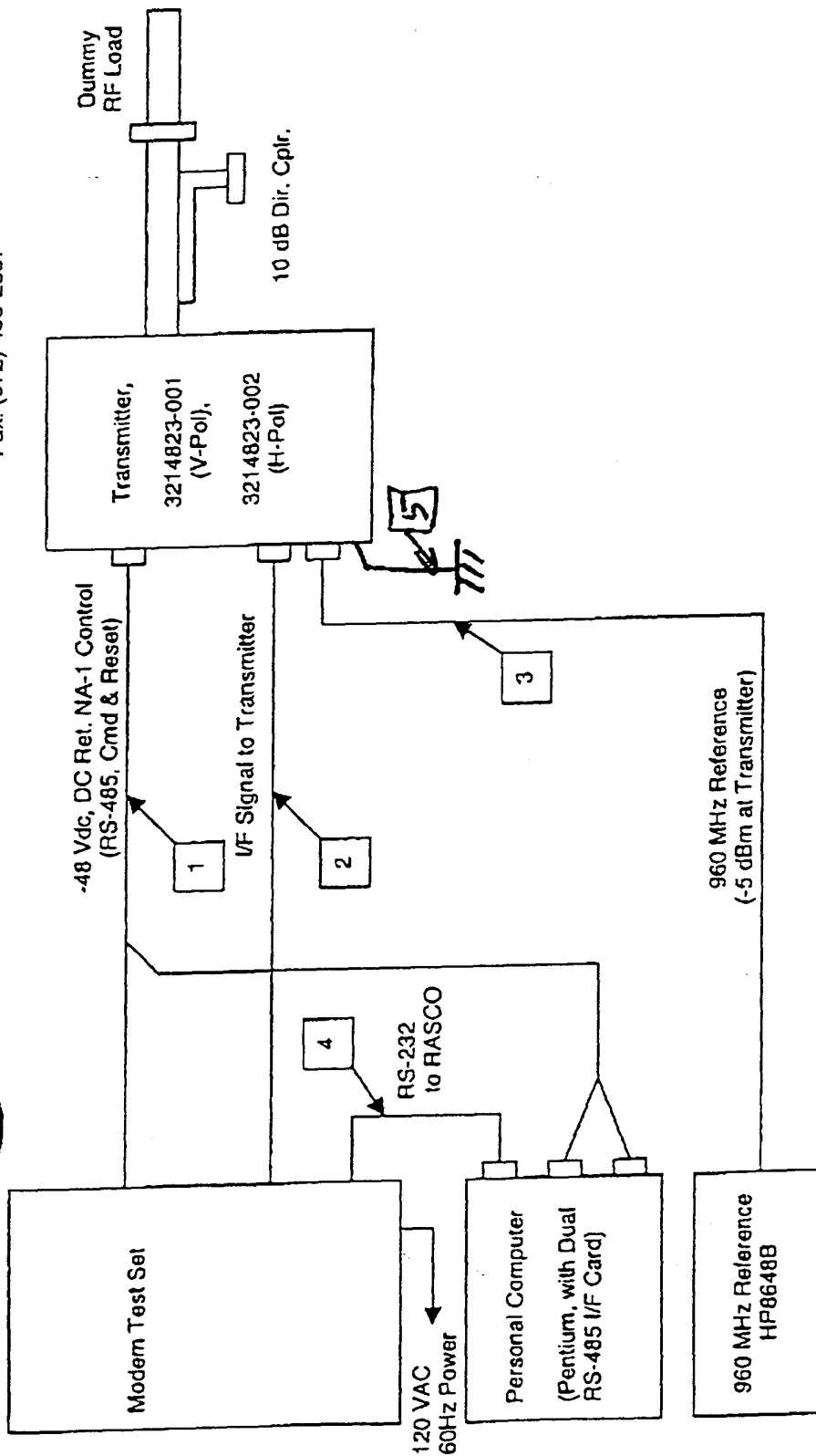
| Item | Cable Type       | Manufacturer | Model #     | Serial # | Termination | Length | Shield | Quantity | Hood Type    |
|------|------------------|--------------|-------------|----------|-------------|--------|--------|----------|--------------|
| 1    | Multicond.       | Bosch        | 3214944-002 | N/A      | EUT         | 8'-0"  | Yes    | 1        | Backshell    |
| 2,3  | Coaxial          | Florida Labs | 8000048-022 | N/A      | EUT         | 8'-0"  | Yes    | 2        | Type N       |
| 5,7  | Coaxial          | Times        | LMR-500-FR  | N/A      | N(I) Adptr. | 175'   | Yes    | 2        | Type N       |
| 6    | Multicond.       | Belden       | 1484A       | N/A      | J-Box       | 135'   | Yes    | 1        | Backshell    |
| 4    | Multicond.       | Belden       | 9843        | N/A      | J-Box       | 135'   | Yes    | 1        | Unterminated |
| 8    | Multicond.       | Unk.         | Unk.        | N/A      | RS-232 I/F  | 10'    | No     | 1        | None         |
| 9    | Single Conductor | Unk.         | Unk.        | N/A      | EUT         | 8'     | No     | 1        | None         |
|      | Resin Coaxial    | Valox        | 8 AWG       | N/A      | N/A         | N/A    | N/A    | N/A      | None         |

Cable List - Transmitter (Non-Radiated Testing)

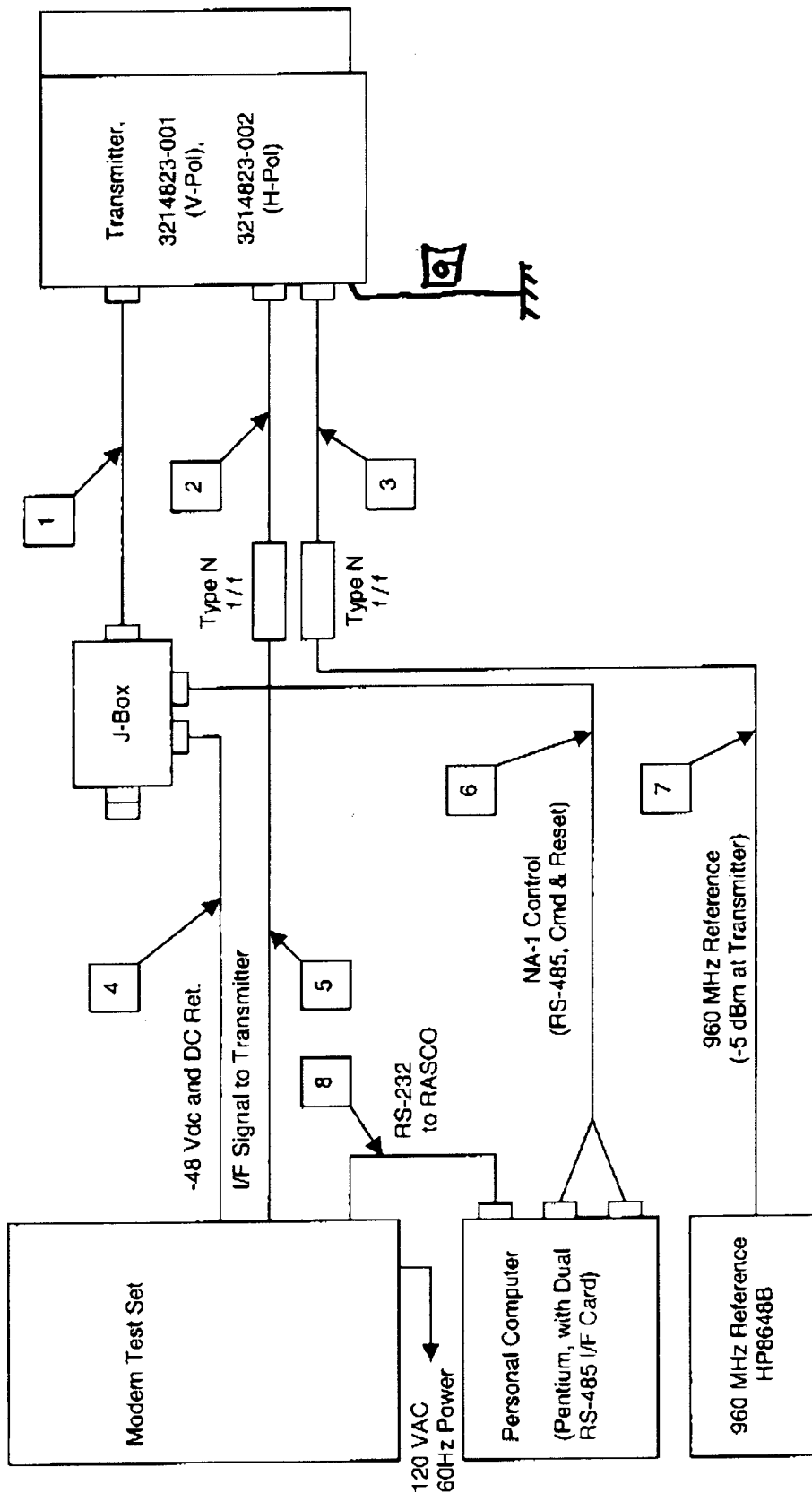
| Item | Cable Type       | Manufacturer | Model #       | Serial # | Termination | Length | Shield | Quantity | Hood Type |
|------|------------------|--------------|---------------|----------|-------------|--------|--------|----------|-----------|
| 1    | Multicond.       | Belden       | M9320 (4 ea.) | N/A      | EUT         | 15'    | Yes    | 1        | None      |
| 2,3  | Coaxial          | Florida Labs | 8000048-022   | N/A      | EUT         | 8'-0"  | Yes    | 2        | Type N    |
| 4    | Multicond.       | Unk.         | Unk.          | N/A      | RS-232 I/F  | 10'    | No     | 1        | None      |
| 5    | Single Conductor | Unk.         | Unk.          | N/A      | EUT         | 8'     | No     | 1        | None      |
|      | Resin Coaxial    | Valox        | 8 AWG         | N/A      | N/A         | N/A    | N/A    | N/A      | None      |



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Fax: (972) 436-2667



Test Arrangement for Operation of Transmitter During Antenna Conducted Emission Testing



Test Arrangement for Operation of Transmitter During Radiated Emission Testing

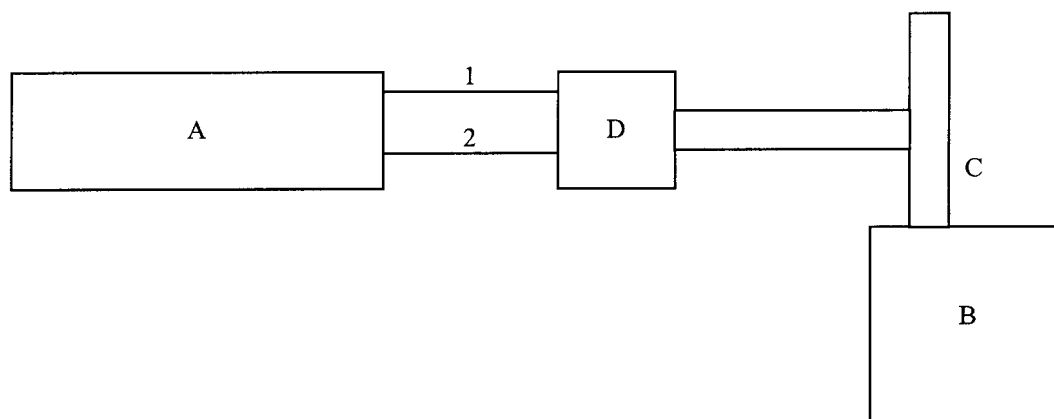
## **APPENDIX B - TEST DATA**

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**Model Node Equipment Solid-State Transmitter (US)**

**Bosch Telecom, Inc.**

**RF POWER SPECTRAL DENSITY**



**HARDWARE:**

A: HP Spectrum Analyzer Model 8563E, KTL # G2624

B: EUT - Bosch Transmitter Model TX005

C: Millimeter Products Inc.:

20 dB Directional Coupler P/N 559A-20/599, S/N DC9808

20 dB attenuator P/N 521A-20/599, S/N DC9807

6 dB attenuator , P/N 521A-6/599, S/N DC9810

D: HP Harmonic Mixer Model 11970A KTL # ICC878

**CABLE:**

1: Coaxial Cable KTL # CF24

2: Coaxial Cable KTL # CF20

**Note:**

Power measurements were made at the forward power port of the directional coupler with the 20 dB and 6 dB attenuators in line. The direct output of the directional coupler is terminated with a 50 ohm load.



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Lewisville, TX 75057

Tel: (972) 436-9600

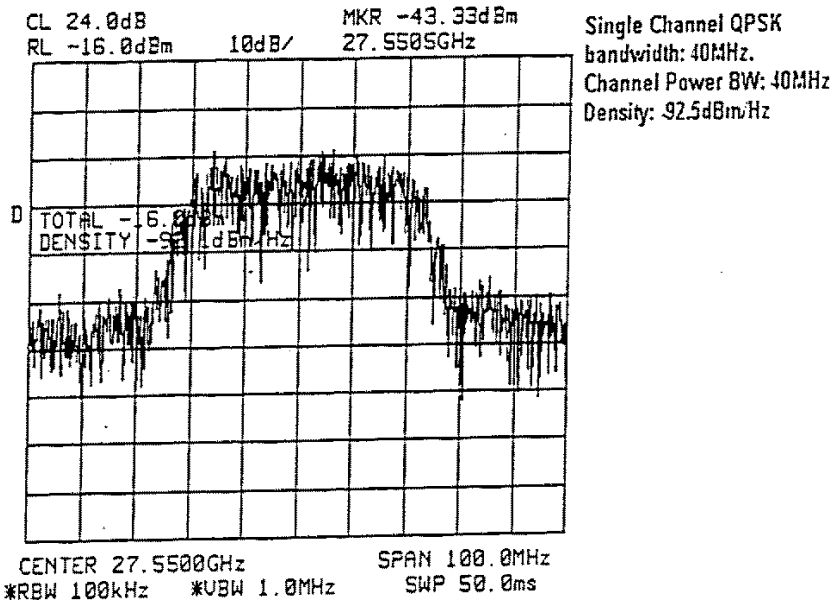
Fax: (972) 436-2667

TST9.PCX

HP 8563E <18>

10/27/98

03:17:14 PM





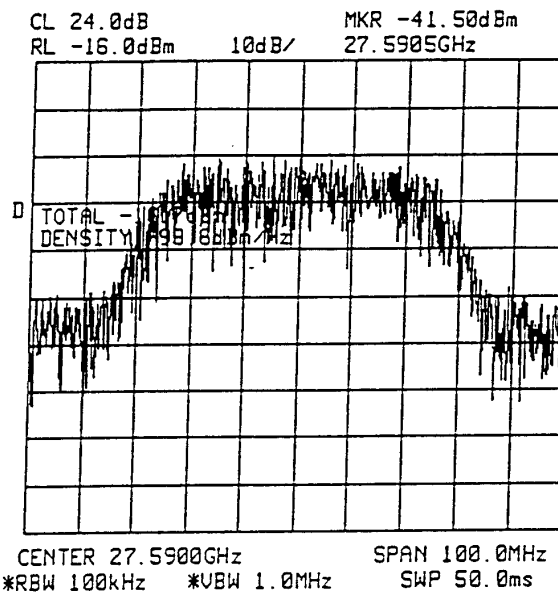
**Dallas/Ft. Worth Headquarters:**

802 N. Kealy  
Lewisville, TX 75057

Tel: (972) 436-9600

Fax: (972) 436-2667

TST10.PCX HP 8563E <18> 10/27/98 03:22:38 PM



Single Channel QPSK  
bandwidth: 50MHz  
Channel Power BW: 50MHz  
Density: 93.6dBm/Hz



Dallas/Ft. Worth Headquarters:

802 N. Kealy  
Lewisville, TX 75057

Tel: (972) 436-9600

Fax: (972) 436-2667

TST11.PCX

HP 8563E <18>

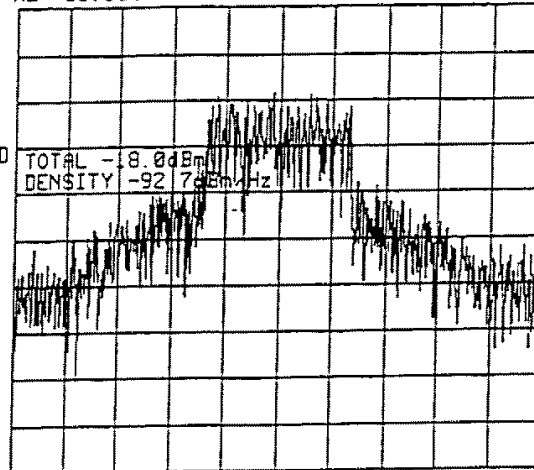
10/27/98

03:44:35 PM

CL 24.0dB  
RL -16.0dBm 10dB/

Multichannel QPSK  
bandwidth: 30MHz  
Channel Power BW: 30MHz  
Density: -92.7dBm/Hz

D TOTAL -18.0dBm  
DENSITY -92.7dBm/Hz



CENTER 27.7109GHz SPAN 100.0MHz  
\*RBW 100kHz \*VBW 1.0MHz SWP 50.0ms

**Model Node Equipment Solid-State Transmitter (US)**

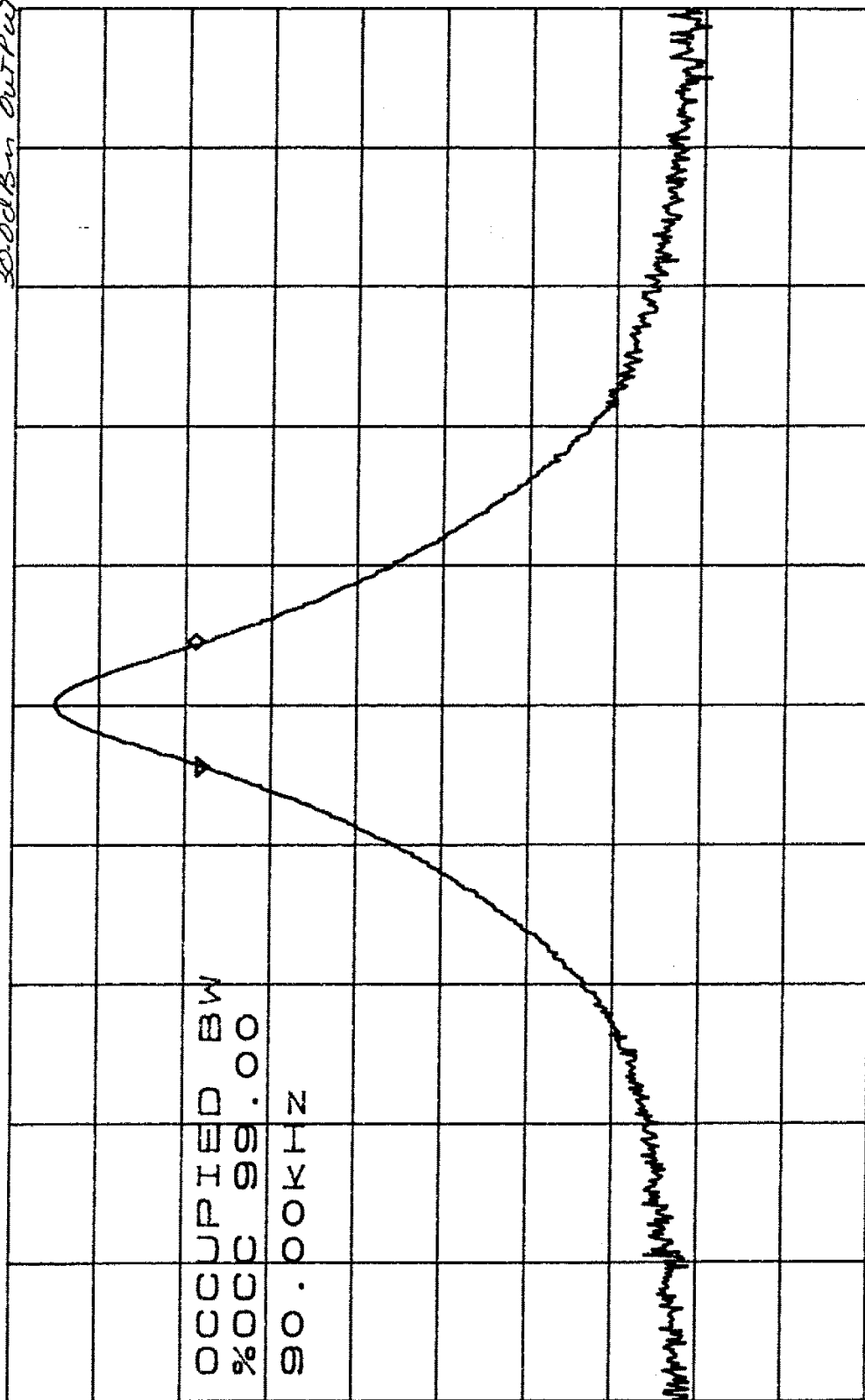
**Bosch Telecom, Inc.**

**MODULATION CHARACTERISTICS**



International Compliance Corporation

Client Name: BOSCH TELECOM  
 Model Number: **NODE TRANSMITTER**  
 Test Date: 6/16/98  
 Preliminary/Completed: Completed  
 Work Order #: 150218  
 Plot Number: 2  
 Polarization: N/A CW Signal  
 MKR: .33dB  
 measured thru 30dBm  
 30dBm Output



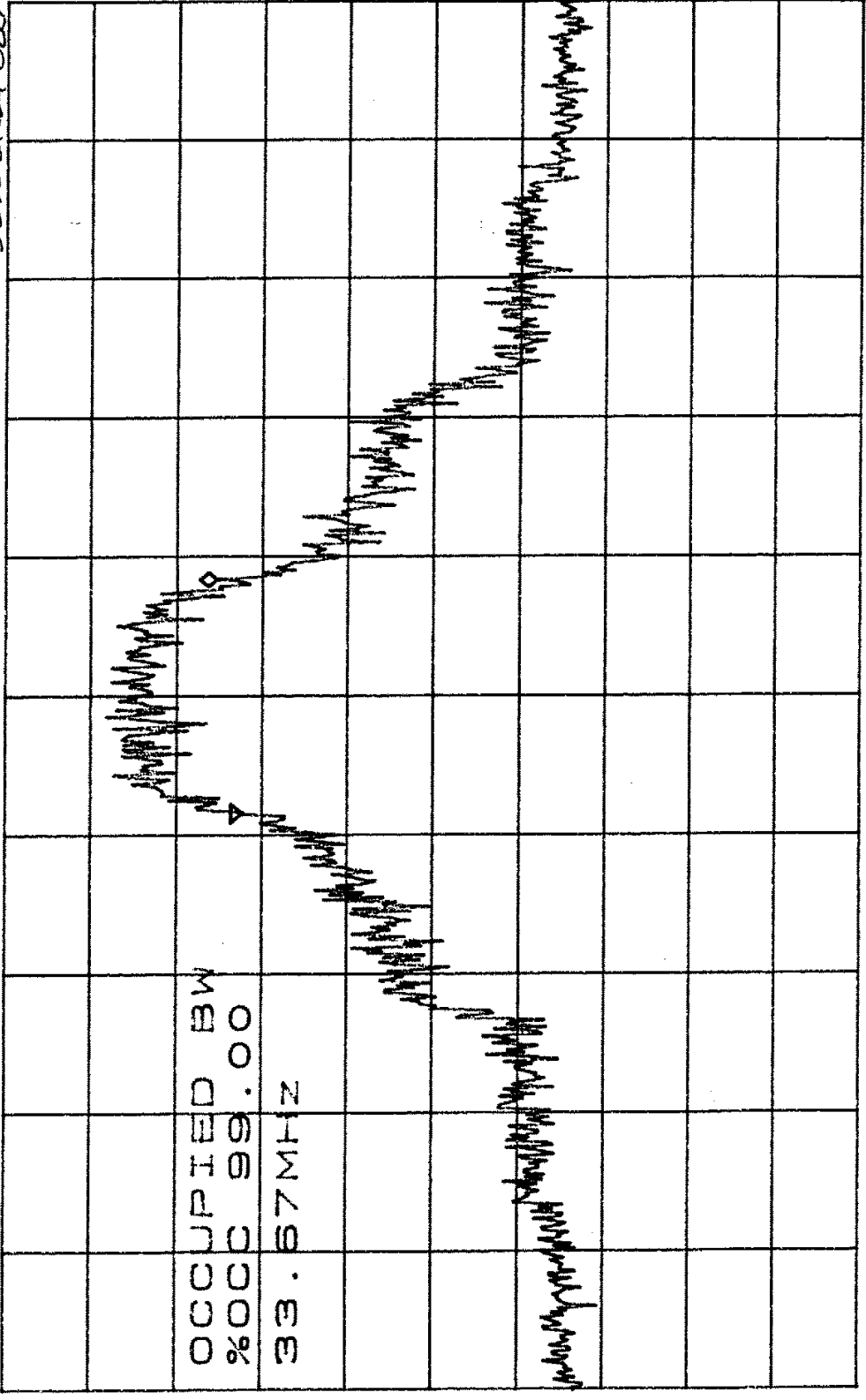
CENTER 27.5100000GHZ  
 \*RBW 30KHZ  
 VBW 30KHZ  
 SPAN 1.000MHZ  
 \*SWP 50.0ms



International Compliance Corporation

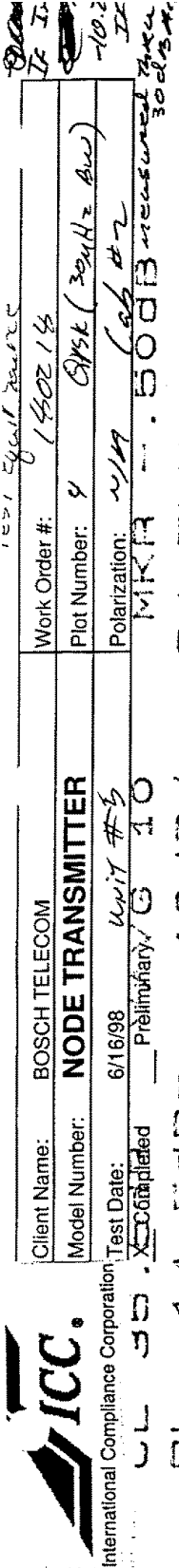
|               |                  |               |        |
|---------------|------------------|---------------|--------|
| Client Name:  | BOSCH TELECOM    | Work Order #: | 100010 |
| Model Number: | NODE TRANSMITTER | Plot Number:  | 3      |
| Test Date:    | 6/16/98          | Polarization: | 44     |
|               | united 5         |               | Lab #2 |

CL 320 Completed B Preliminary AVG 10 MKR 2.83dB  
RL -14.5dBm 10dB/ 33.7MHz 30.0dBm OUT PUT



OCCUPIED BW  
%OCC 99.00  
33.67MHz

CENTER 27.7100GHZ SPAN 200.0MHZ  
\*RBW 30KHZ VBW 30KHZ \*SWP 1.00SEC



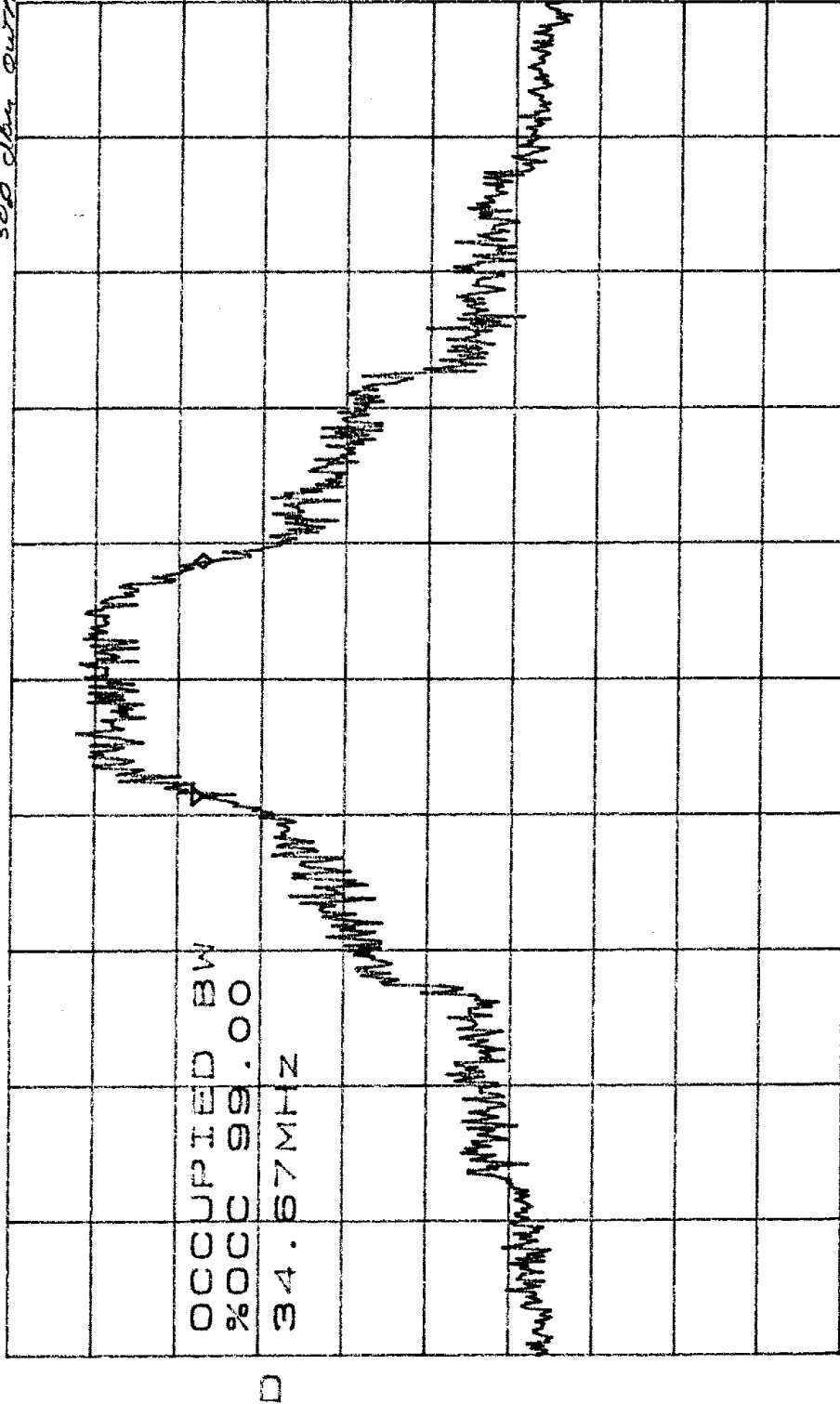
1001 Eagle Street

|                                                                                                                                            |               |                         |               |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|---------------|----------------------|
| <br><b>ICC.</b><br>International Compliance Corporation | Client Name:  | BOSCH TELECOM           | Work Order #: | 6140214              |
|                                                                                                                                            | Model Number: | <b>NODE TRANSMITTER</b> | Plot Number:  | 4                    |
|                                                                                                                                            | Test Date:    | 6/16/98                 | Polarization: | 2/19                 |
|                                                                                                                                            |               |                         |               | 6/16/98 (304Hz Band) |

|    |           |    |     |       |                    |
|----|-----------|----|-----|-------|--------------------|
| 50 | Completed | 10 | MKR | .50dB | measured thru 30dB |
|----|-----------|----|-----|-------|--------------------|

PL. --14.5dBm 10dB/ 34.7MHz

300 lbs Quarters

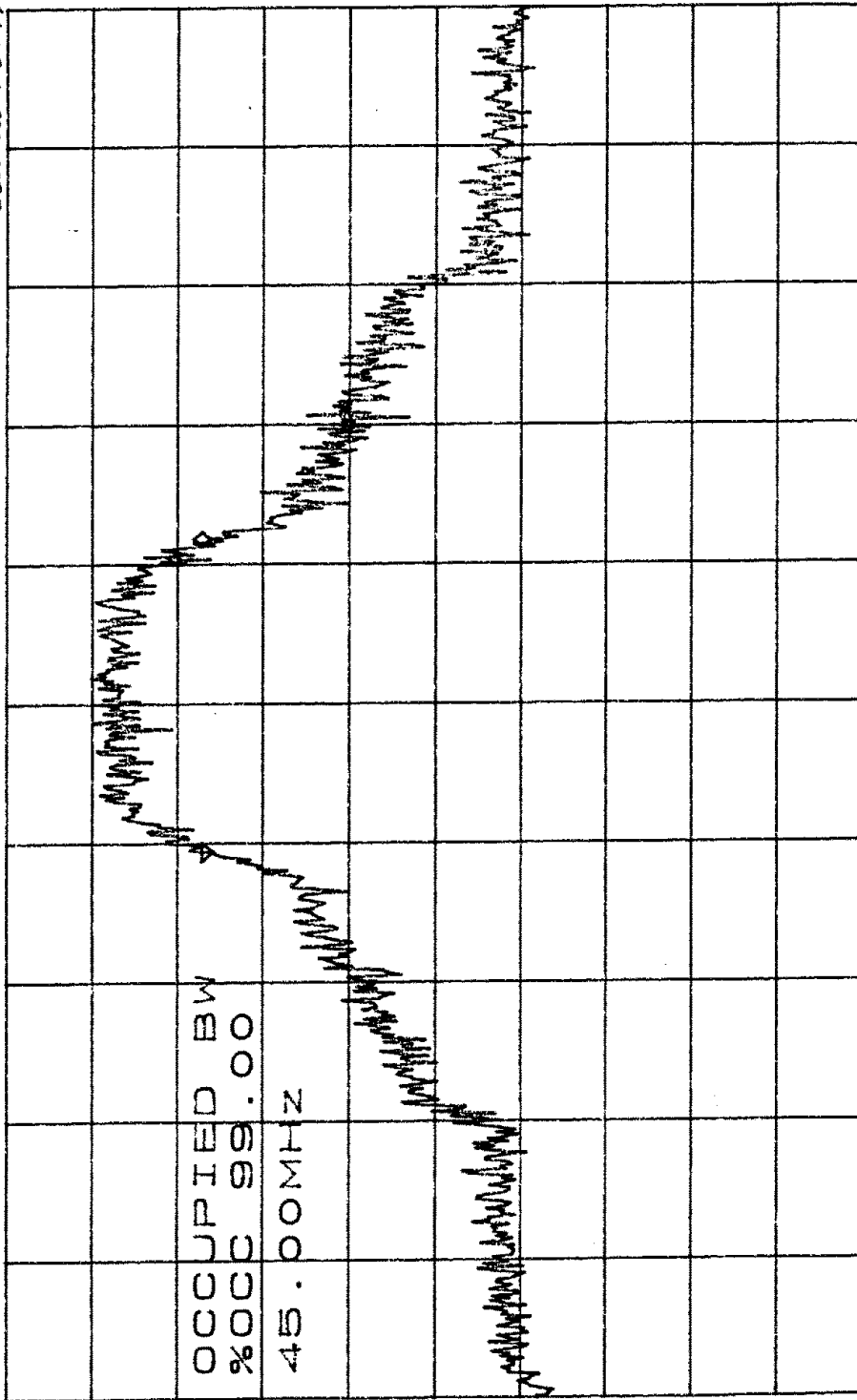


CENTER 27.7100GHZ  
\*FEB 100KHZ  
VSW 100KHZ  
SPAN 200.0MHZ  
\*SMD 50.0SES



|               |                  |               |        |                           |
|---------------|------------------|---------------|--------|---------------------------|
| Client Name:  | BOSCH TELECOM    | Work Order #: | 100000 | IF Input                  |
| Model Number: | NODE TRANSMITTER | Plot Number:  | 5      | QPSK/40MHz Bc             |
| Test Date:    | 6/16/98          | Polarization: | N/A    | Cable #2                  |
|               |                  |               |        | measured thru 30dB attenu |

CL 32323232 Preliminary: AVG 10 MKR .50dB  
PL -14.5dBm 10dB/ 45.0MHz 300dBm output



CENTER 27.55000GHZ SPAN 200.0MHz  
\*RBW 100kHz VBW 100kHz \*SWP 50.0ms

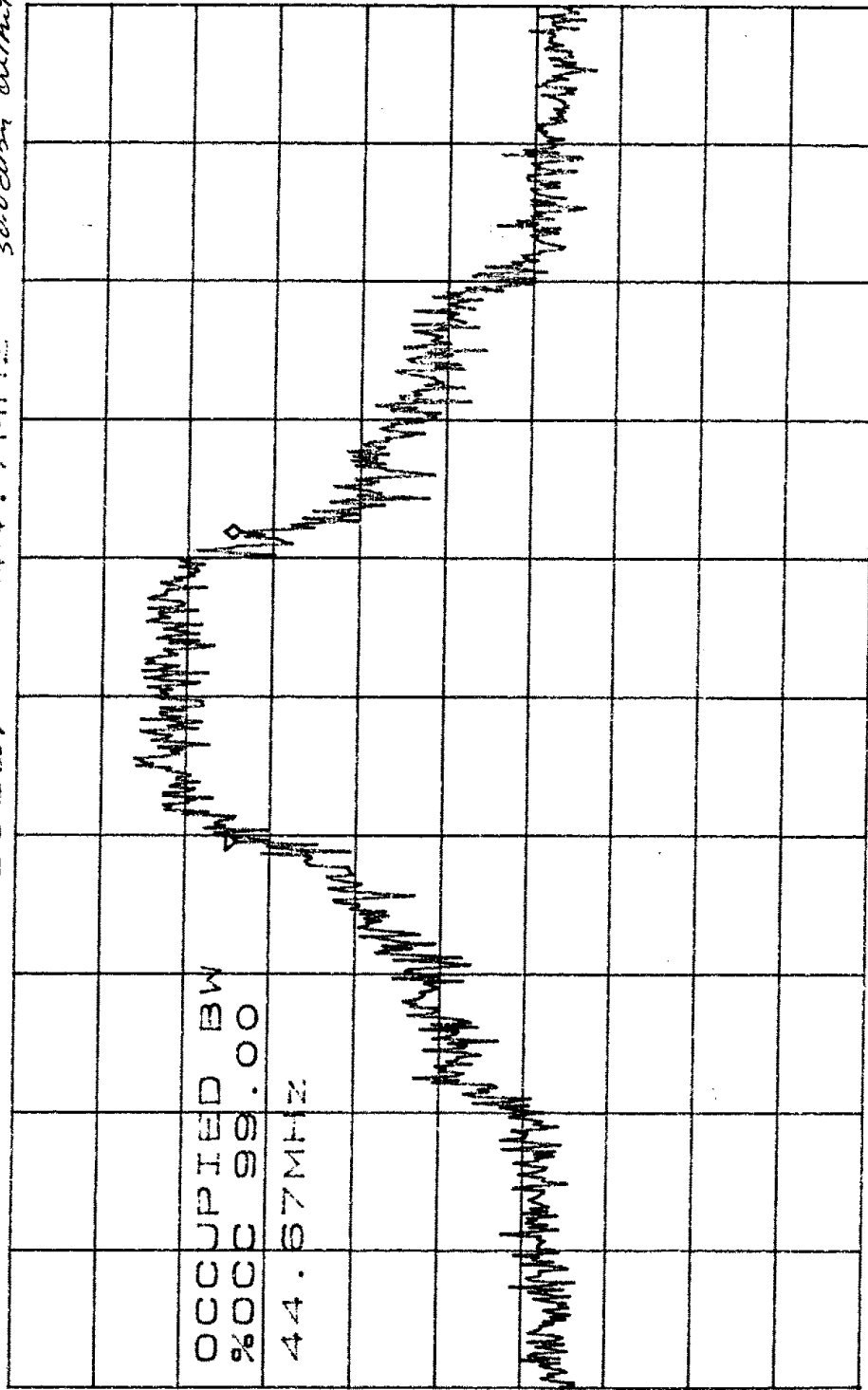


ational Compliance Corporation

|               |                  |               |                         |
|---------------|------------------|---------------|-------------------------|
| Client Name:  | BOSCH TELECOM    | Work Order #: | 120013                  |
| Model Number: | NODE TRANSMITTER | Plot Number:  | 6                       |
| Test Date:    | 6/16/98          | Polarization: | HA                      |
|               | Unit #5          |               | measured thru 30dB ATEN |

IF Input  
-4.5 dB

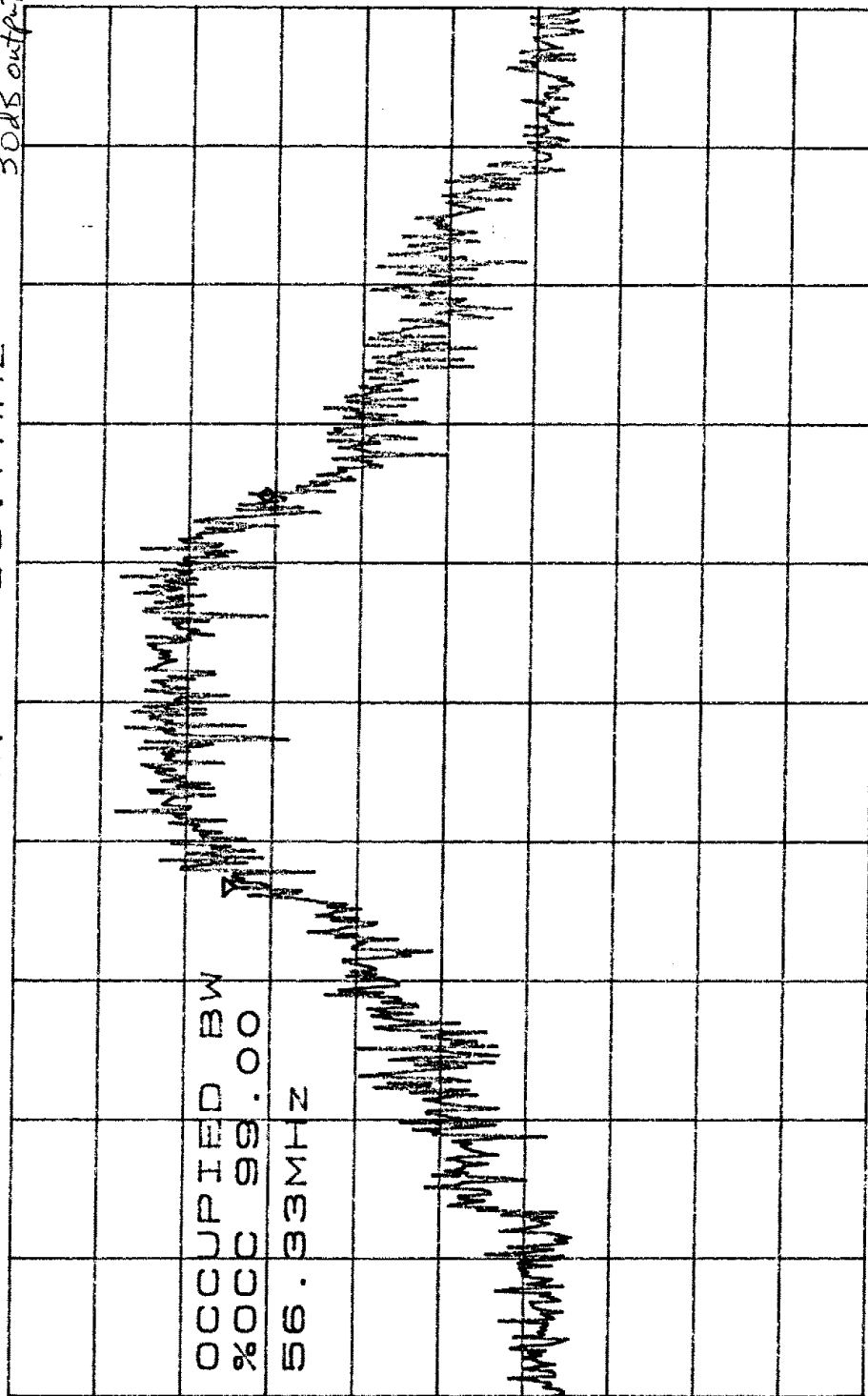
Preliminary, AVG 10 MKR ODB 300dB output  
 RL -14.5dBm 10dB/ 44.7MHz



CENTER 27.55000GHZ SPAN 200.0MHZ  
 \*RBW 30KHZ VBW 30KHZ \*SWP 1.00sec



|                    |                  |               |                  |
|--------------------|------------------|---------------|------------------|
| Client Name:       | BOSCH TELECOM    | Work Order #: | 180218           |
| Model Number:      | NODE TRANSMITTER | Plot Number:  | 7                |
| Test Date:         | 6/16/98          | Polarization: | N/A              |
| CL 35. X completed | Preliminary/G 10 | MRP           | Measured thru    |
| RL -14.5dBm        | 10dB/            | 56.7MHz       | 30dB attenuation |
|                    |                  |               | 30dB output      |



CENTER 27.59000GHZ SPAN 200.0MHZ  
 \*RBW 30KHZ VBW 30KHZ \*SWP 1.00sec



ICC.  
International Compliance Corporation

Client Name: BOSCH TELECOM

Model Number: **NODE TRANSMITTER**

Test Date: 6/16/98

Completed: ☒ Preliminary: ☐

Work Order #: 15-PZ14

Plot Number: 8

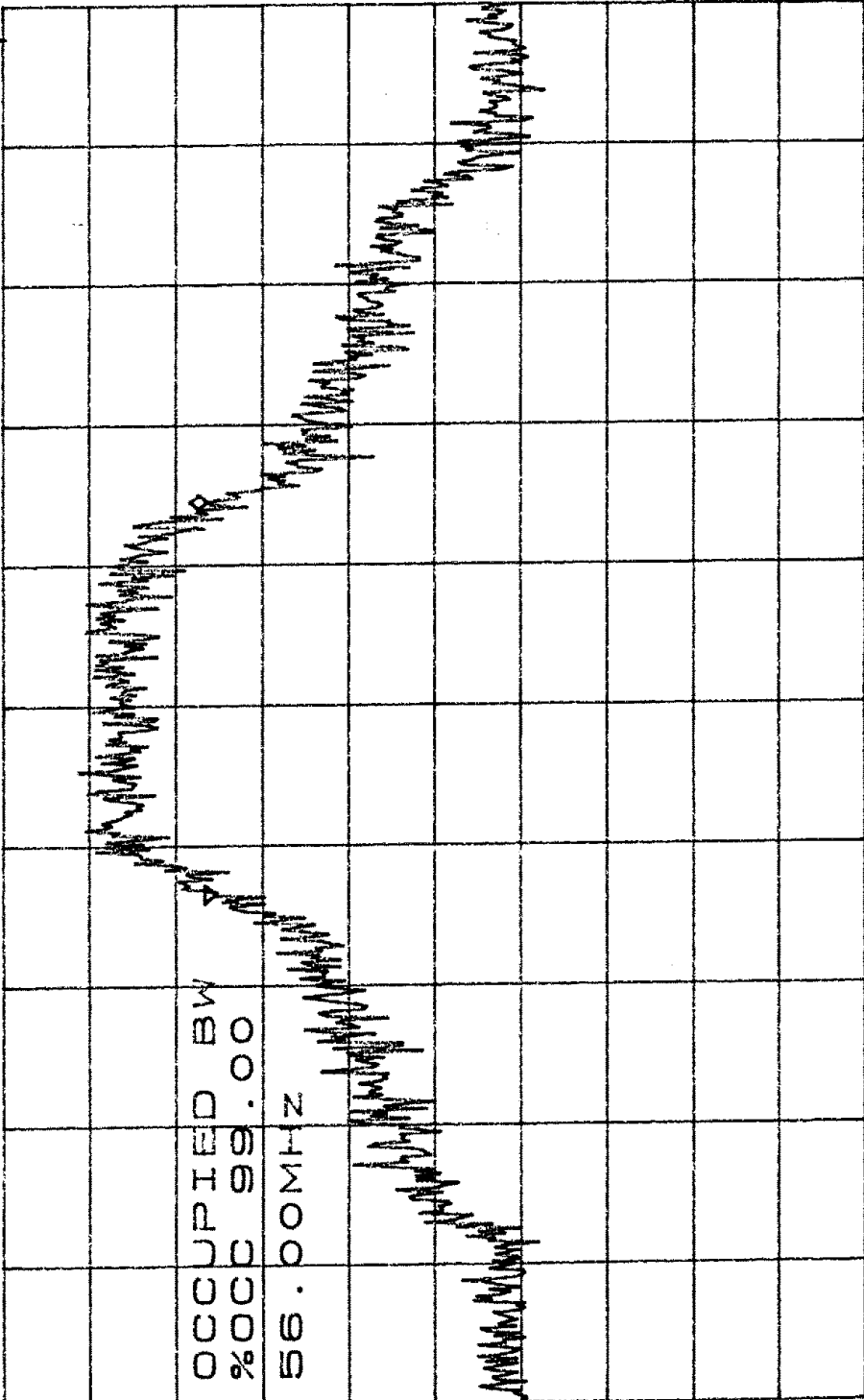
Polarization: N/A

12.7dBm IF

30dB Attenuation

30dB Output

RL -14.5dBm 10dB/



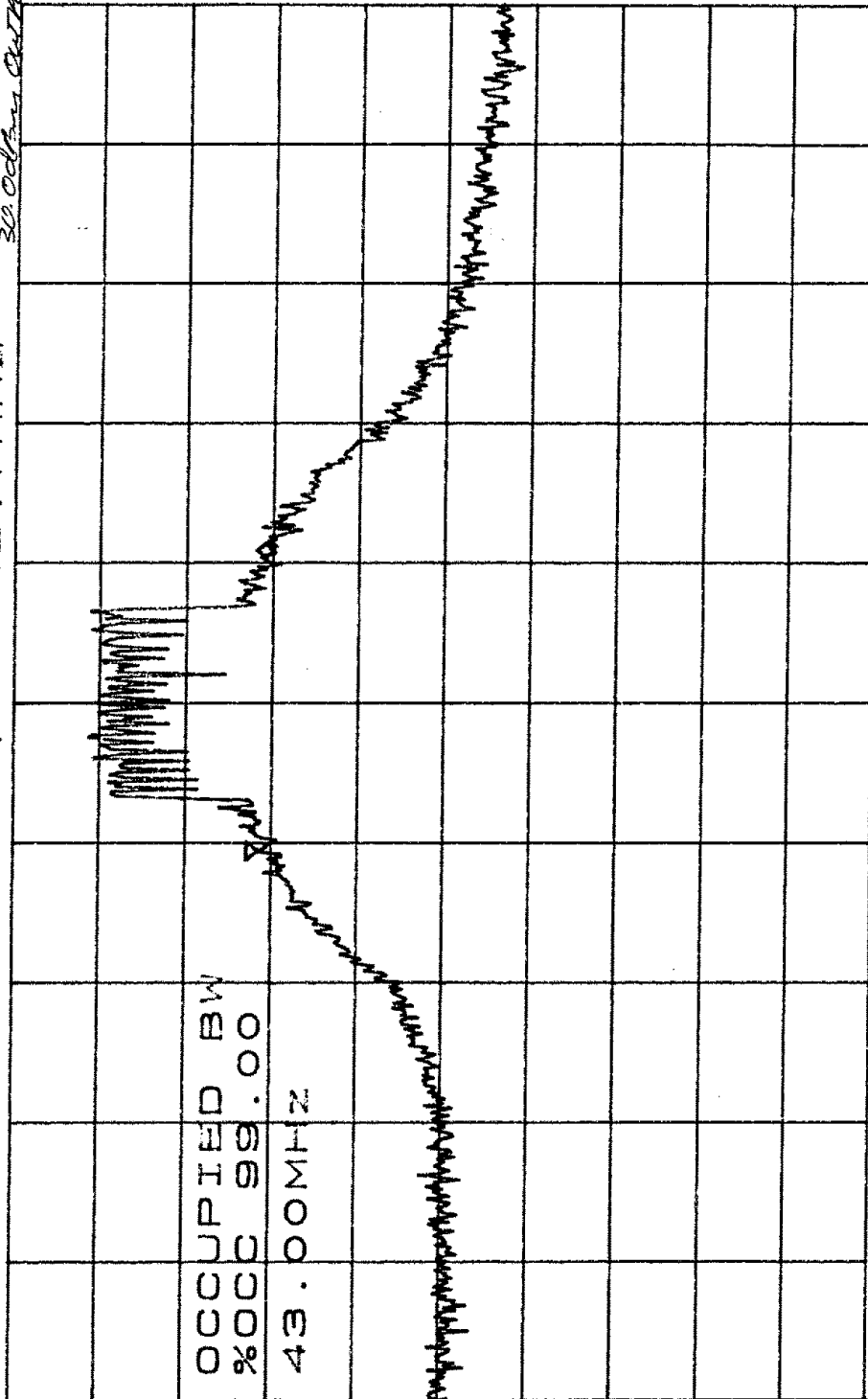
CENTER 27.59000GHZ SPAN 200.0MHZ

\*RBW 100KHZ VBW 100KHZ \*SWP 50.0ms



International Compliance Corporation

|                   |                  |                                 |        |
|-------------------|------------------|---------------------------------|--------|
| Client Name:      | BOSCH TELECOM    | Work Order #:                   | 180218 |
| Model Number:     | NODE TRANSMITTER | Plot Number:                    | 9      |
| Test Date:        | 6/16/98          | Polarization:                   | 41/4   |
| CL 35X 00000000   |                  | Bosch Telecom Test Set          |        |
| RL -14.5dBm       |                  | C6582 measured thru 30dB attenu |        |
| Preliminary VG 10 |                  | MKR -.83dB                      |        |
| 10dB/             |                  | 42.7MHz                         |        |
|                   |                  | 30.0dBm output                  |        |



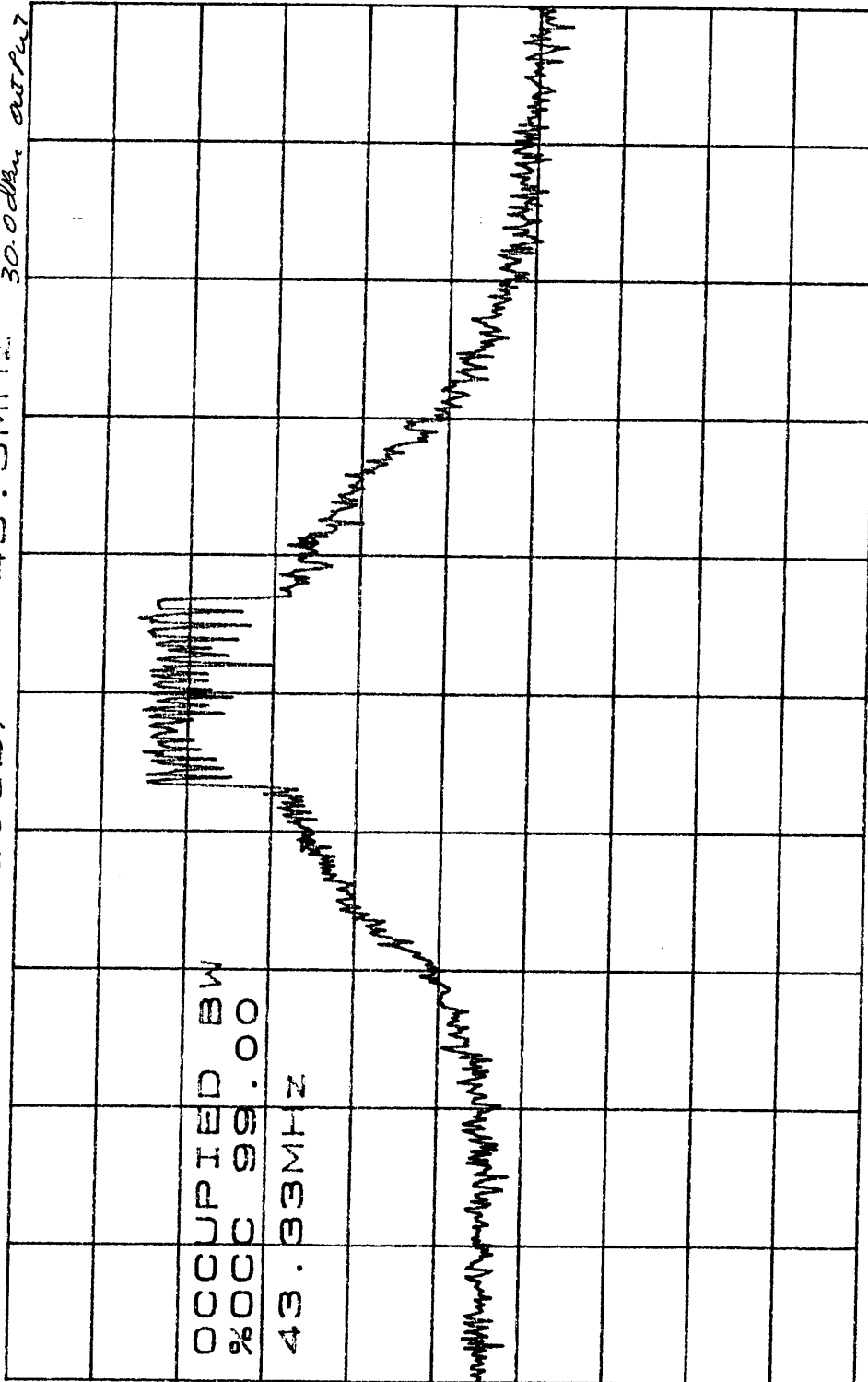
CENTER 27.7109GHZ SPAN 200.0MHZ  
\*RBW 100KHZ VBW 100KHZ \*SMP 50.0ms



International Compliance Corporation

|                     |                         |                   |                |
|---------------------|-------------------------|-------------------|----------------|
| Client Name:        | BOSCH TELECOM           | Work Order #:     | 180218         |
| Model Number:       | <b>NODE TRANSMITTER</b> | Plot Number:      | 10             |
| Test Date:          | 6/16/1998               | Polarization:     | N/A            |
| Tested By:          | UNIT #5                 | Measured Through: | 30dB Atten     |
| CL 35. X-Compliance | Preliminary             | UNIT #5           | 30dB Atten     |
| PR. -14.5dBm        | 10dB/                   | 43.3MHz           | 30.0dBm output |

*Handwritten:*  
IF 1000  
-20.9  
dBm

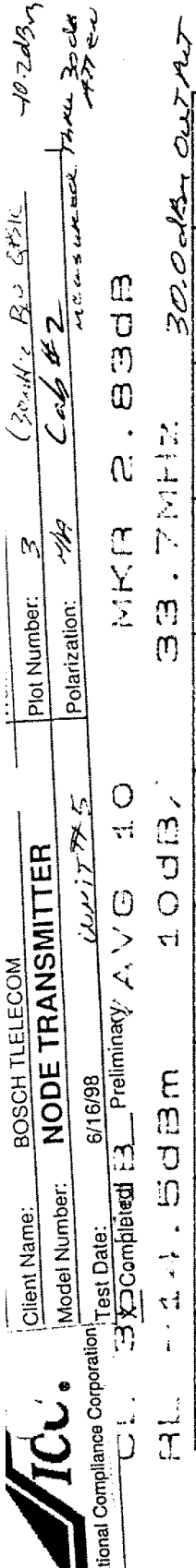


CENTER 27.7109GHZ  
\*RBW 30KHZ VBW 30KHZ  
SPAN 200.0MHZ  
\*SWP 1.00SEC

**Model Node Equipment Solid-State Transmitter (US)**

**Bosch Telecom, Inc.**

**OCCUPIED BANDWIDTH**



BOSCH TELECOM

**NODE TRANSMITTER**

Model Number:

**ational Compliance Corporation**

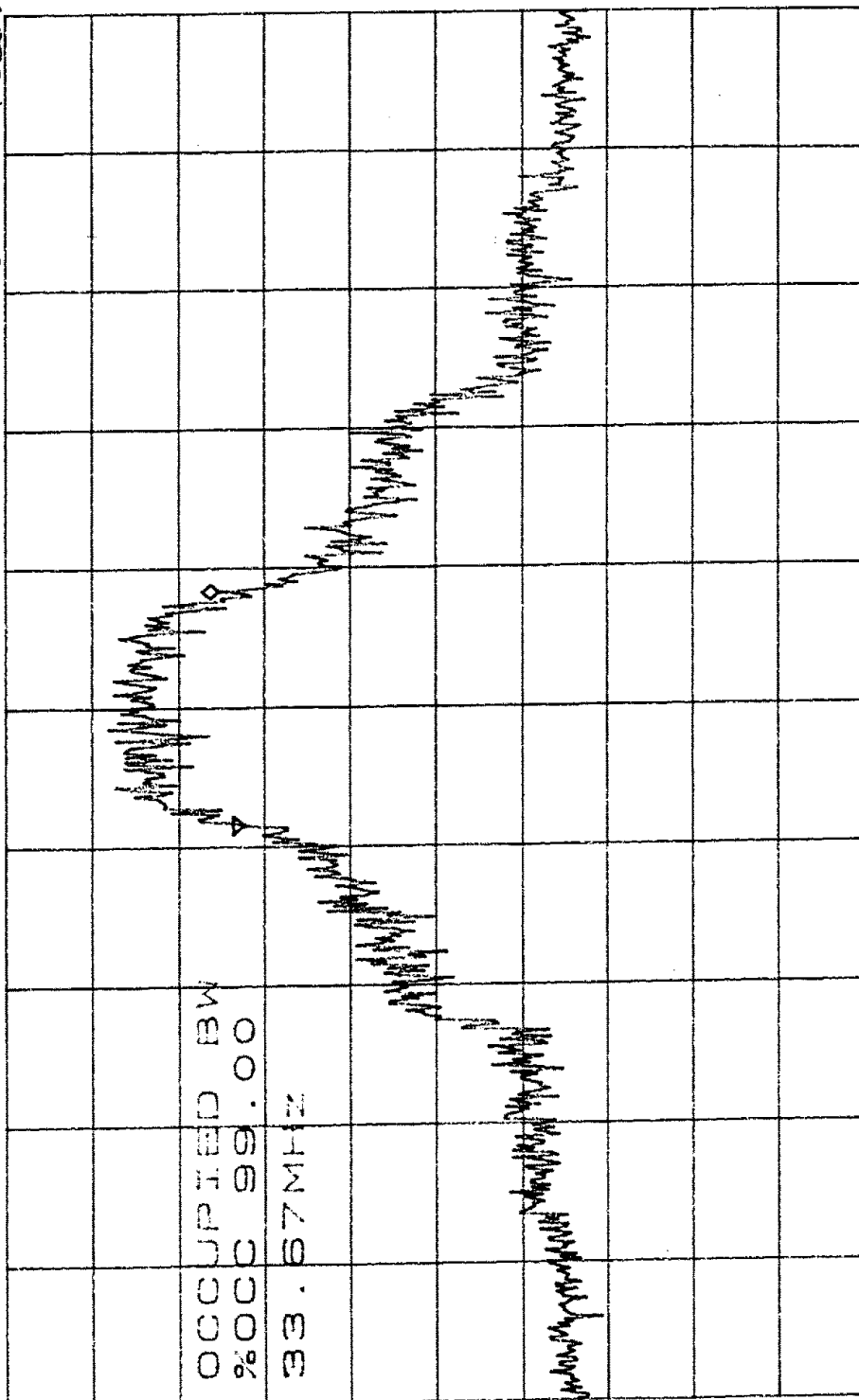
Test Date: 6/16/98

| Case No. | Completed | Preliminary | AVG |
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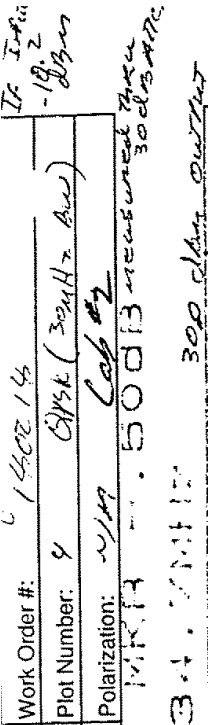
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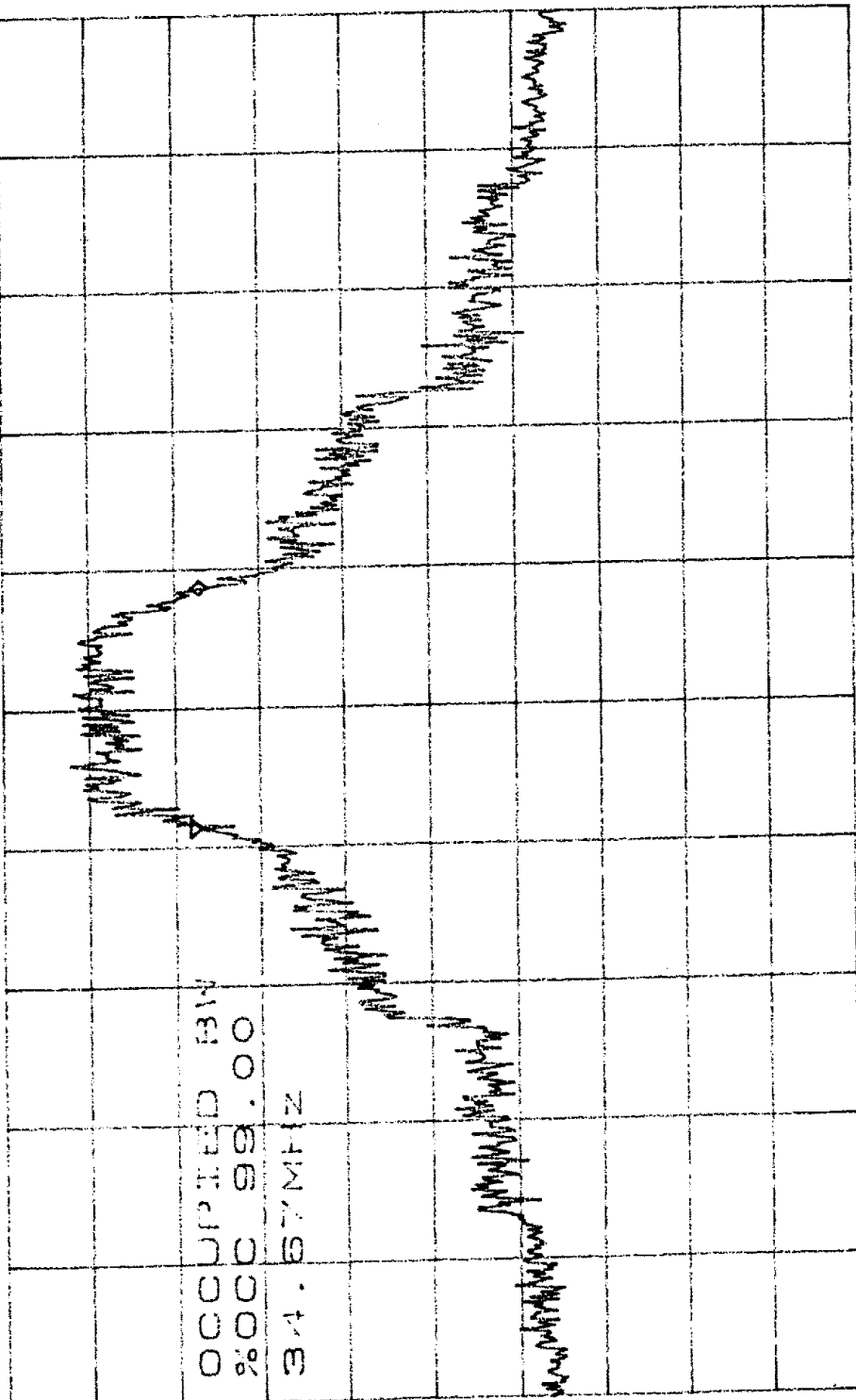
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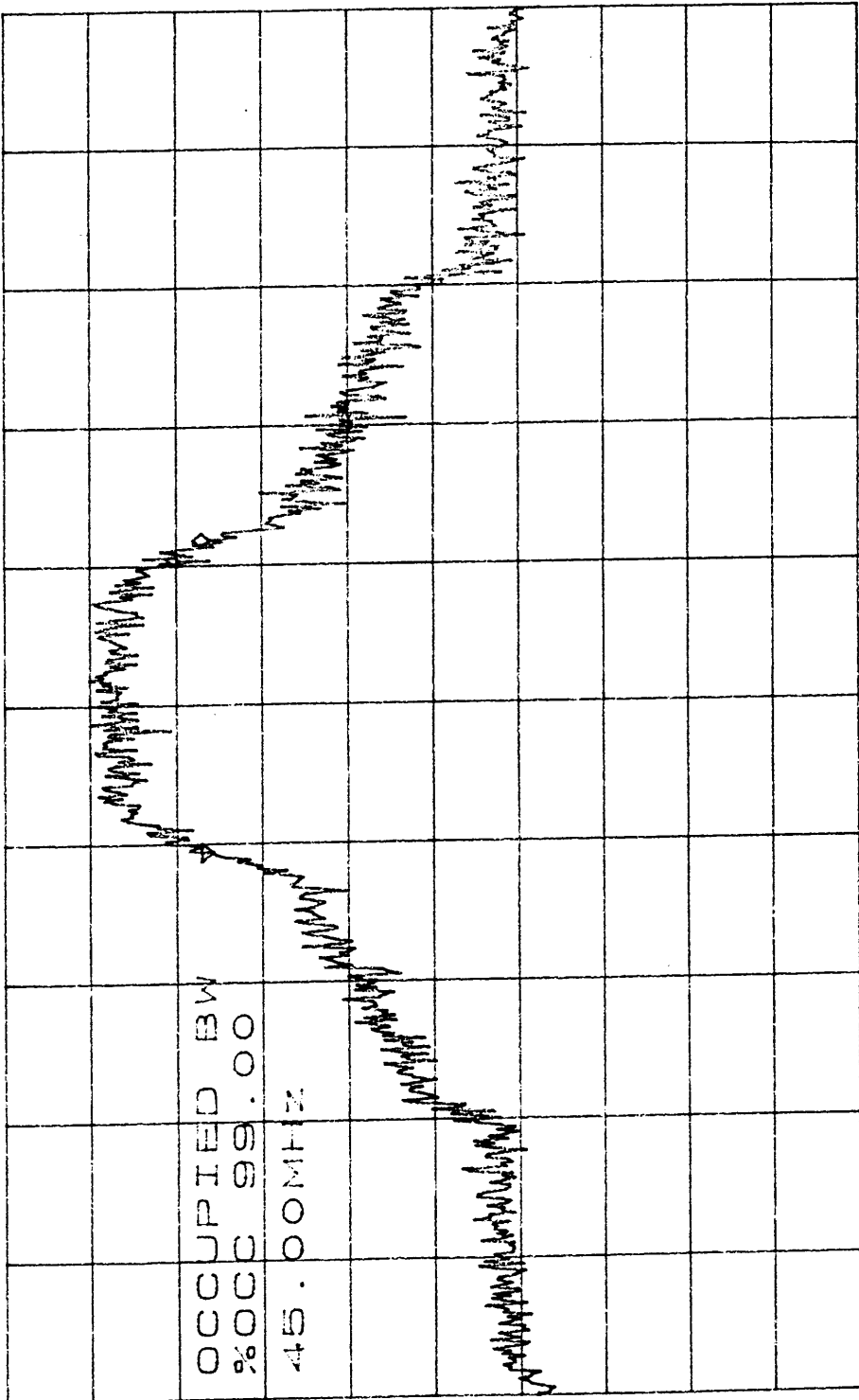
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|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------|
| <br><b>ICC.</b><br>International Compliance Corporation | Client Name:  | BOSCH TELECOM                                 |
|                                                                                                                                           | Model Number: | <b>NODE TRANSMITTER</b>                       |
|                                                                                                                                           | Test Date:    | 6/16/98 <i>unit #12</i>                       |
|                                                                                                                                           | Test Status:  | <del>Completed</del> Preliminary: <i>6 10</i> |



CENTERS 27.7100GHZ      VERN 400KHZ      \*SWP 50.0MS  
SPAN 200.0MHZ



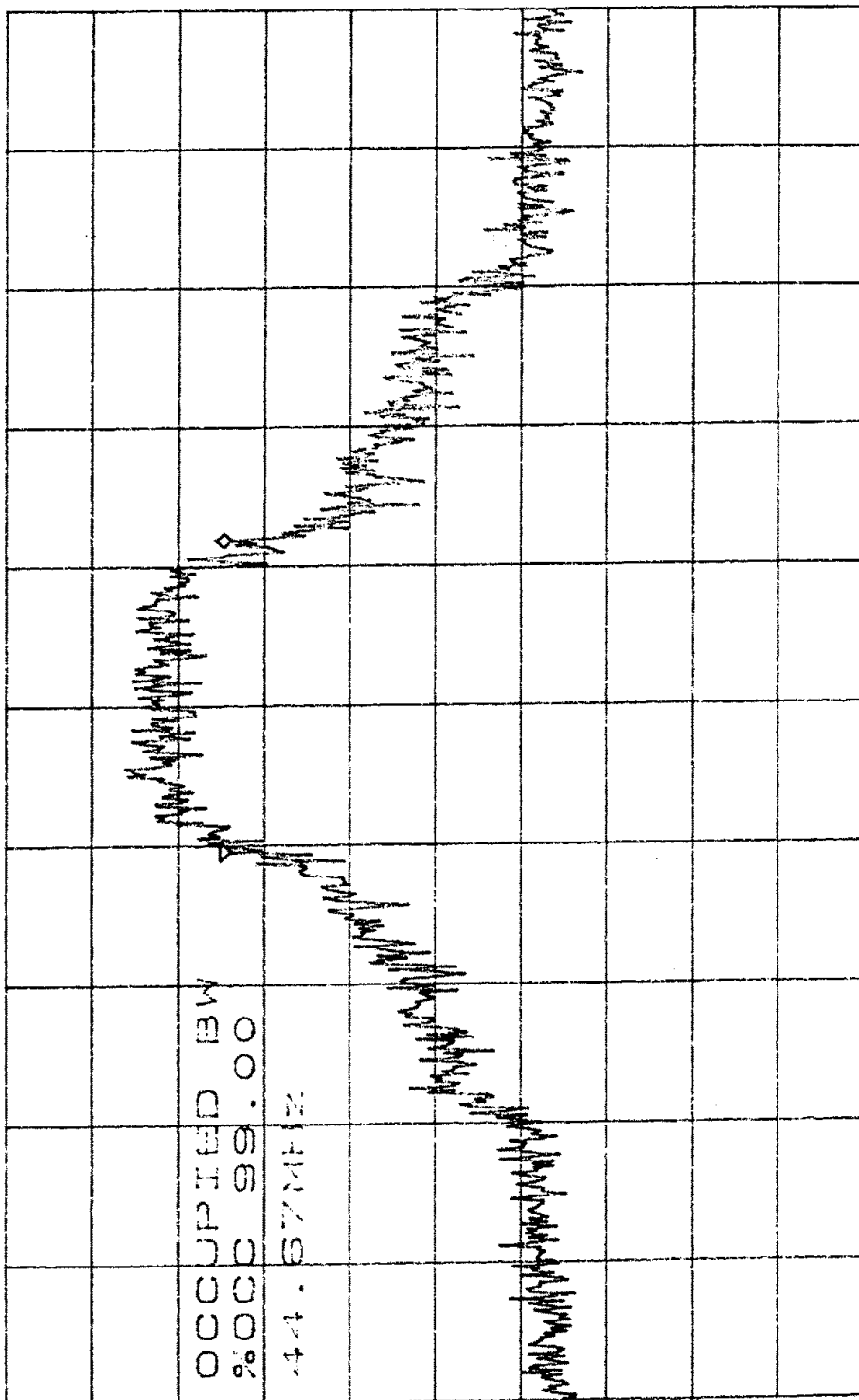
|                   |                  |                |                           |
|-------------------|------------------|----------------|---------------------------|
| Client Name:      | BOSCH TELECOM    | WORK ORDER NO. |                           |
| Model Number:     | NODE TRANSMITTER | Plot Number:   | 5                         |
| Test Date:        | 6/16/98          | Polarization:  | N/A                       |
| Test Description: | 5X2 Completed    | Label:         | measured thru 30dB attenu |
| Frequency:        | 45.00 MHz        | Power:         | 10 dBm                    |
| Bandwidth:        | 100 kHz          | Span:          | 200.0 MHz                 |
| Resolution:       | 10 dB            | Marker:        | 45.0 MHz                  |
| Occupied BW:      | 99.00%           | 300 dBm output |                           |



CENTER 45.000000 MHz SPAN 200.00 MHz

\*RBW 100 kHz VBW 100 kHz \*SVP 50.0 ms

|                                                                                                                       |               |                        |                  |
|-----------------------------------------------------------------------------------------------------------------------|---------------|------------------------|------------------|
| <br>itional Compliance Corporation | Client Name:  | BOSCH TELECOM          |                  |
|                                                                                                                       | Model Number: | NODE TRANSMITTER       |                  |
|                                                                                                                       | Test Date:    | 6/16/98                | Plot Number: 6   |
|                                                                                                                       | Test Date:    | 6/16/98                | Polarization: AP |
| 3X5 Completed 13 Preliminary AVG 10 MKR ODEB                                                                          |               | 44.7 MHz 300dBm output |                  |
| 13L 11.1.55dBm 10dB                                                                                                   |               | 44.7 MHz 300dBm output |                  |



CENTER 27.550000 MHz SPAN 200.00 MHz  
 \*RBW 300 kHz \*VBW 300 kHz \*SMP 1.00 SEC



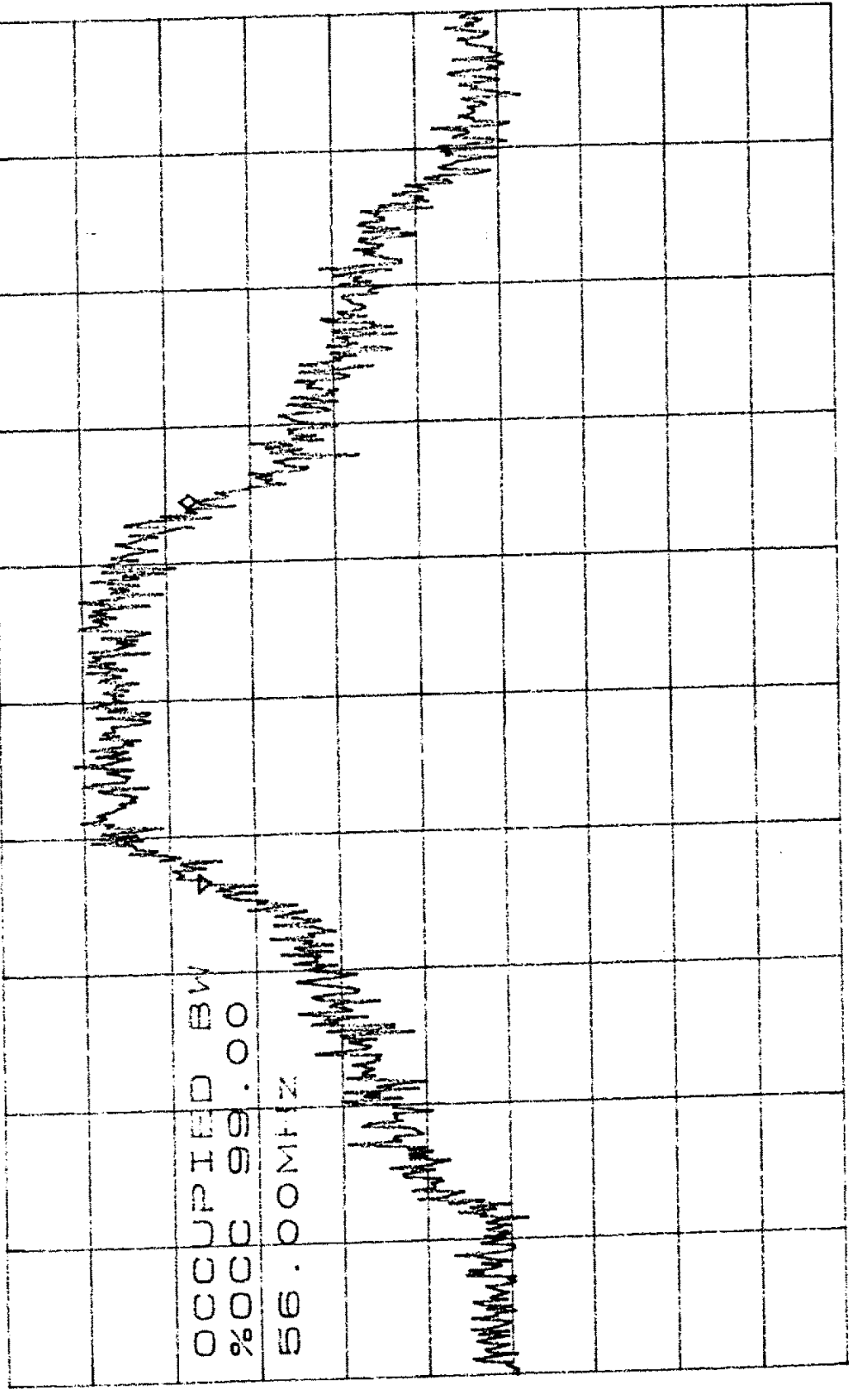
International Compliance Corporation

|                                               |                                      |
|-----------------------------------------------|--------------------------------------|
| Client Name:                                  | BOSCH TELECOM                        |
| Model Number:                                 | <b>NODE TRANSMITTER</b>              |
| Test Date:                                    | 6/16/98                              |
| <input checked="" type="checkbox"/> Completed | <input type="checkbox"/> Preliminary |

|               |         |
|---------------|---------|
| Work Order #: | 15-P214 |
| Plot Number:  | 8       |
| Polarization: | N/A     |

12.7dBm  
3dB  
measured thru  
30dB Attenuation  
30dB output

FREQ 27.550000MHz 100KHz 56.00MHz 56.00MHz

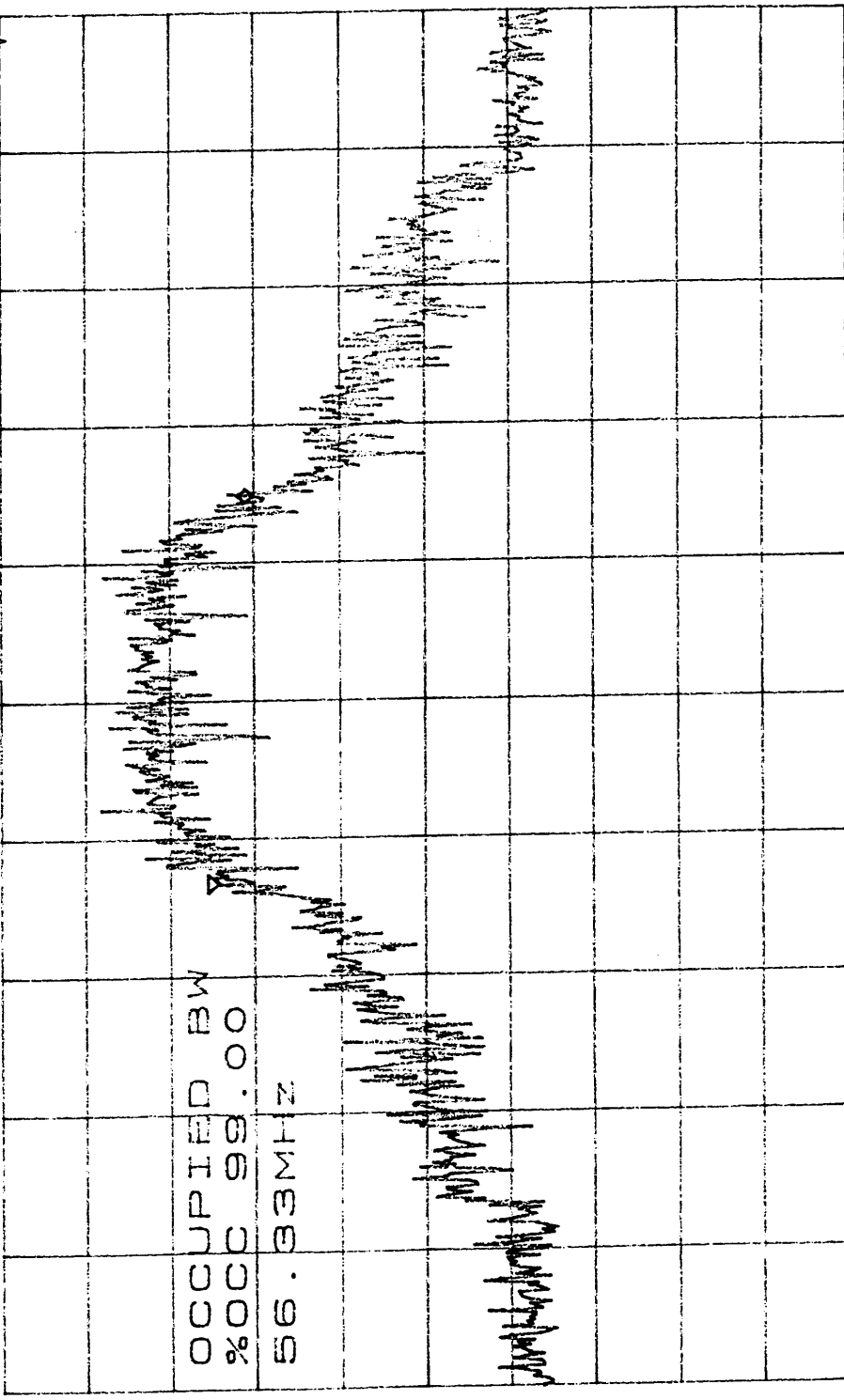


CENTER 27.550000MHz SPAN 200.00MHz  
\*RESW 100KHz VBW 100KHz \*SWP 50.0ms



International Compliance Corporation

|               |                                               |               |                                         |
|---------------|-----------------------------------------------|---------------|-----------------------------------------|
| Client Name:  | BOSCH TELECOM                                 | Work Order #: | 180218                                  |
| Model Number: | NODE TRANSMITTER                              | Plot Number:  | 7                                       |
| Test Date:    | 6/16/98                                       | Polarization: | N/A                                     |
| Test Status:  | <input checked="" type="checkbox"/> Completed | Measurement:  | Measured thru 30dB attenuation 30dB out |
| Frequency:    | 14.55013m                                     | Power:        | 56.77MHz                                |



CENTER 27.59000GHZ SPAN 200.0MHZ  
\*RBW 30KHZ \*VBW 30KHZ \*SWP 1.00SEC



National Compliance Corporation

Client Name: BOSCH TELECOM

Model Number: **NODE TRANSMITTER**

Test Date: 6/16/98

CL: 355X\_Qofp1qtd9 Preliminary, VG 1.0

Work Order #: 160418

Plot Number: 9 QPSK/30kHz BW

Polarization: N/A

Modulation: 100% Modulated

IF Input

20.94

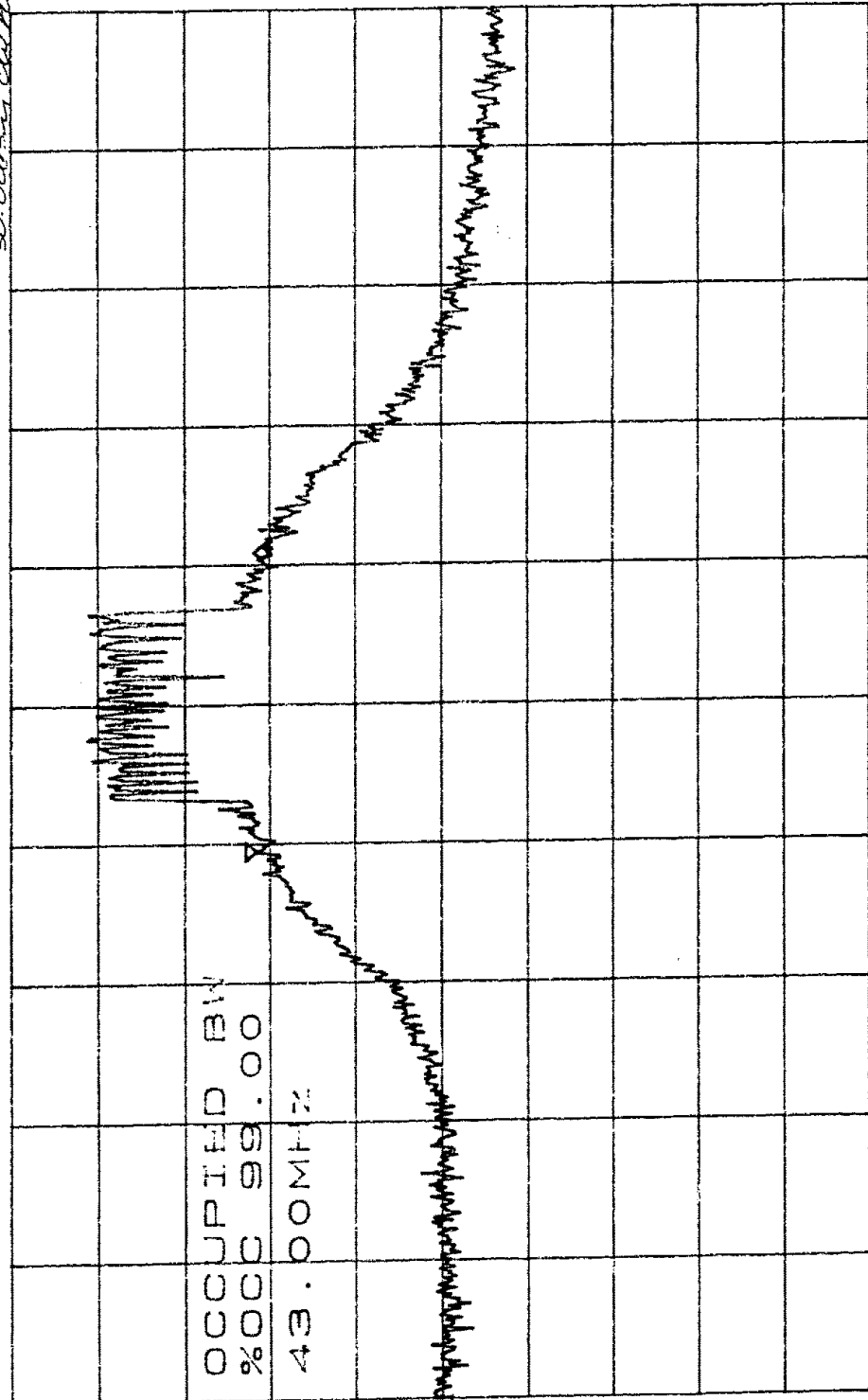
3000 Hz

3000 Hz

MKR 1.83dB

42.7 MHz

30.0 dBm

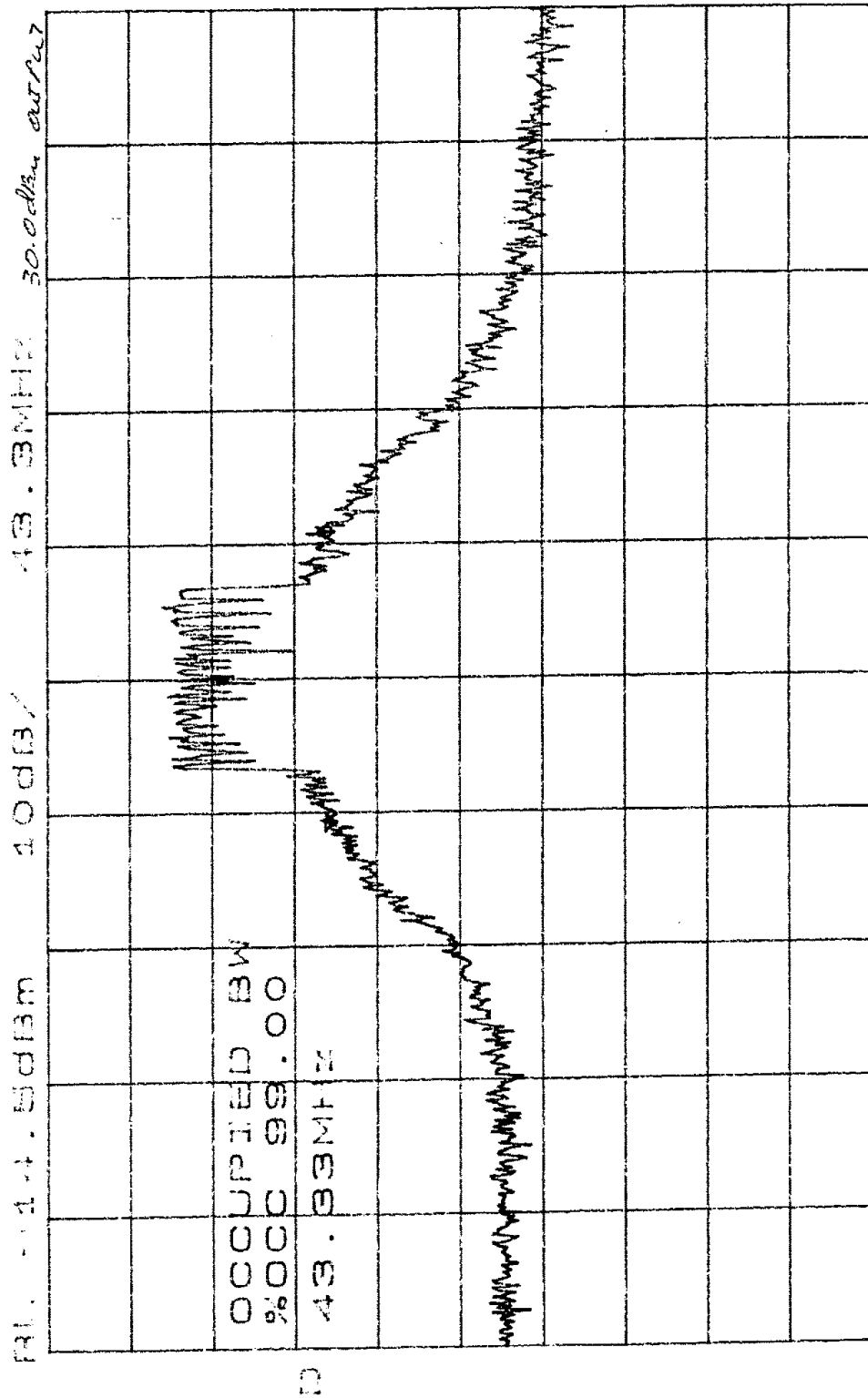


CENTER 27.74096 MHz SPAN 200.0 MHz  
\*RBW 100 kHz \*SMP 50.0 ms  
VBW 100 kHz



International Compliance Corporation

|               |                         |                  |                  |
|---------------|-------------------------|------------------|------------------|
| Client Name:  | BOSCH TELECOM           | Work Order #:    | 180218           |
| Model Number: | <b>NODE TRANSMITTER</b> | Plot Number:     | 10 Q15K/30MHz BW |
| Test Date:    | 6/16/1998               | Polarization:    | N/A              |
| X-Completed   | Preliminary / G 10      | UNIT #5          |                  |
| CL 35         |                         | Measured Through | 20dB Atten       |
| PL 114.53dBm  | 10dB/                   | 43.3MHz          | 30.0dBm average  |

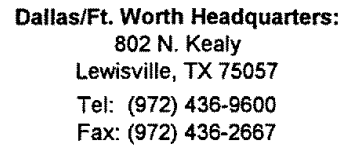


CENTER 27.110909MHZ SPAN 200.00MHZ  
RES BW 30KHZ VBW 30KHZ \*SWP 1.00SEC

**Model Node Equipment Solid-State Transmitter (US)**

**Bosch Telecom, Inc.**

ANTENNA TERMINAL  
CONDUCTED EMISSIONS



Complete X Preliminary      Page 1 of 1

Client: BOSCH TELECOM Test #: 218V3 W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 V3

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.991 Lab: BOATS Date: 6/17/98

Equipment Used: 697,878

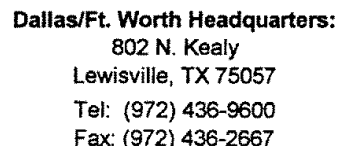
|                                                        |                 |                  |                              |                    |                     |               |  |  |  |
|--------------------------------------------------------|-----------------|------------------|------------------------------|--------------------|---------------------|---------------|--|--|--|
| Configuration: <u>TX 27.510 GHz U.S. TX 30.0dBm CW</u> |                 |                  |                              |                    |                     |               |  |  |  |
| Readings taken at antenna terminals                    |                 |                  |                              |                    |                     |               |  |  |  |
| Bandwidth:                                             | <u>1MHZ</u>     | Video Bandwidth: | <u>100KHZ</u>                | Antenna Distance   | <u>n/m</u>          | Detector:     |  |  |  |
| Climatic Conditions:                                   | EUT Power:      |                  |                              | <u>115 V.A.C.</u>  | <u>n/a</u> 60 Hz    | <u>X</u> Peak |  |  |  |
| Temperature:                                           | <u>20</u> C     |                  | <u>208 V.A.C.</u>            | <u>n/a</u> 50 Hz   | <u>    </u> Average |               |  |  |  |
| Relative Humidity:                                     | <u>39</u> %     |                  | <u>230 V.A.C.</u>            |                    |                     |               |  |  |  |
| Atmospheric Pressure:                                  | <u>996</u> mbar |                  | <u>X</u> Other <u>-48VDC</u> | <u>n/a</u> 1 Phase | <u>n/a</u> 3 Phase  |               |  |  |  |

[illegible]

DATA\COMMON\FORMS\TEST DATA SHEETS\MICRORE REV 030597

218v03





Complete X Preliminary      Page 1 of 1

Client: BOSCH TELECOM Test #: 218V4 W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 V4

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.991 Lab: BOATS Date: 6/17/98

Equipment Used: 697,878

Configuration: TX 27.710 GHz QPSK 30 MHz BW TX 30.0dBm

Readings taken at antenna terminals

|                        |                                |                  |               |           |
|------------------------|--------------------------------|------------------|---------------|-----------|
| Bandwidth: <u>1MHZ</u> | Video Bandwidth: <u>100KHZ</u> | Antenna Distance | <u>21.6</u> m | Detector: |
|------------------------|--------------------------------|------------------|---------------|-----------|

Climatic Conditions: EUT Power: 115 V.A.C. n/a 60 Hz X Peak

Temperature: 20 °C 208 V.A.C. n/a 50 Hz      Average

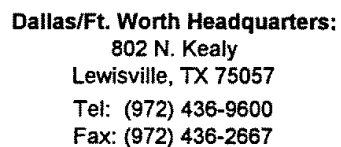
Relative Humidity: 39 % 230 V.A.C.

Atmospheric Pressure: 996 mbar X Other -48VDC n/a 1 Phase n/a 3 Phase

[illegible]

DATA\COMMON\FORMS\TEST DATA SHEETS\MICRORE      REV 030597

218v04



Complete ☒ Preliminary ☐ Page 1 of 1

**Client:** BOSCH TELECOM      **Test #:** 218V9      **W.O.#:** 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 V9

Technician: M SEVERSON & D LIGHT      Specification: CFR 47 P 2.991      Lab: 2      Date: 6/23/98

Equipment Used: 697,881,958,879

Configuration: TX 27.710 GHz QPSK 30 MHz BW TX 30.0dBm

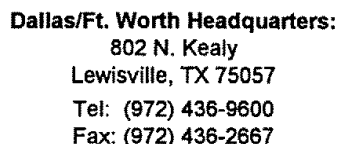
### Readings taken at antenna terminals

Bandwidth: 1MHZ      Video Bandwidth: 100KHZ      Antenna Distance:          nm      Detector:         

|                       |          |            |              |             |             |
|-----------------------|----------|------------|--------------|-------------|-------------|
| Climatic Conditions:  |          | EUT Power: | 115 V.A.C.   | n/a 60 Hz   | X Peak      |
| Temperature:          | 20 C     |            | 208 V.A.C.   | n/a 50 Hz   | ___ Average |
| Relative Humidity:    | 39 %     |            | 230 V.A.C.   |             |             |
| Atmospheric Pressure: | 996 mbar | X          | Other -48VDC | n/a 1 Phase | n/a 3 Phase |

[illegible]

DATA\COMMON\FORMS\TEST DATA SHEETS\MICRORE REV 030597



Complete ☒ Preliminary ☐ Page 1 of 1

**Client:** BOSCH TELECOM      **Test #:** 218V5      **W.O.#:** 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 V5

Technician: M SEVERSON & D LIGHT      Specification: CFR 47 P 2.991      Lab: BOATS      Date: 6/17/98

Equipment Used: 697,878

Configuration: TX 27.550 GHz QPSK 40 MHz BW TX 30.0dBm

### Readings taken at antenna terminals

Bandwidth: 1MHZ      Video Bandwidth: 100KHZ      Antenna Distance: n/m      Detector:

|                                |                |             |             |         |
|--------------------------------|----------------|-------------|-------------|---------|
| Climatic Conditions:           | EUT Power:     | 115 V.A.C.  | n/a 60 Hz   | X Peak  |
| Temperature: 20 C              |                | 208 V.A.C.  | n/a 50 Hz   | Average |
| Relative Humidity: 39 %        |                | 230 V.A.C.  |             |         |
| Atmospheric Pressure: 996 mbar | X Other -48VDC | n/a 1 Phase | n/a 3 Phase |         |

[illegible]

DATACOMMON\FORMS\TESTDATASHEETS\MICRORE REV 030597

218v05

**Dallas/Ft. Worth Headquarters:**  
802 N. Kealy  
Lewisville, TX 75057  
Tel: (972) 436-9600  
Fax: (972) 436-2667

## ANTENNA TERMINAL CONDUCTED DATA

Complete X Preliminary       

Page 1 of 1

Client: BOSCH TELECOM

Test #: 218V10

W.O.#: 180218

EUT: NODE TRANSMITTER

S/N: UNIT #5

Photo ID: 180218 V10

Technician: M SEVERSON & D LIGHT

Specification: CFR 47 P 2.991

## Lab: 2

Date: 6/23/98

Equipment Used: 697,881,958,879

Configuration: TX 27.550 GHz QPSK 40 MHz BW TX 30.0dBm

Readings taken at antenna terminals

Bandwidth: 1MHZ

Video Bandwidth: 100KHZ

### Antenna Distance

$$\frac{N}{A} m$$

Detector:

### Climatic Conditions:

EUT Power:

115 V.A.C.

n/a 60 Hz

**X Peak**

Temperature: 20 C

208 V.A.C.

n/a 50 Hz

**Average**

Relative Humidity: 39 %

230 V.A.C.

[illegible]Atmospheric Pressure: 996 mbar

X Other -48VDC

|     |         |
|-----|---------|
| n/a | 1 Phase |
|-----|---------|

n/a 3 Phase

[illegible]

DATA\COMMON\FORMS\TEST DATA\SHEETS\MICRORE REV 030597

218v10

**Dallas/Ft. Worth Headquarters:**  
802 N. Kealy  
Lewisville, TX 75057  
Tel: (972) 436-9600  
Fax: (972) 436-2667

## ANTENNA TERMINAL CONDUCTED DATA

Complete X Preliminary     

Page 1 of 1

Client: BOSCH TELECOM

Test #: 218V6

W.O.#: 180218

EUT: NODE TRANSMITTER

S/N: UNIT #5

Photo ID:180218 V6

Technician: M SEVERSON & D LIGHT

Specification: CFR 47 P 2.991

Lab: BOATS Date: 6/17/98

Equipment Used: 697,878

Configuration: TX 27.590 GHz QPSK 50 MHz BW TX 30.0dBm

Readings taken at antenna terminals

Bandwidth: 1MHZ

Video Bandwidth: 100KHZ

### Antenna Distance

**Detector:**

**Climatic Conditions:**

EUT Power:

115 V.A.C.

n/a 60 Hz

X Peak

Temperature: 20 C

208 V.A.C.

n/a 50 Hz

Average

Relative Humidity: 39 %

230 V.A.C.

Atmospheric Pressure: 996 mbar

☒ Other -48VDC

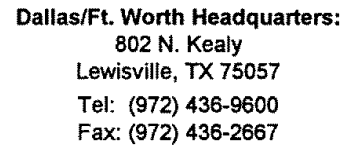
|     |         |
|-----|---------|
| n/a | 1 Phase |
|-----|---------|

**n/a 3 Phase**

[illegible]

DATA COMMON FORMS \ TEST DATA SHEETS \ MICRORE REV 030597

218v06



Complete X Preliminary      Page 1 of 1

Client: BOSCH TELECOM Test #: 218V11 W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 V11

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.991 Lab: 2 Date: 6/23/98

Equipment Used: 697,881,958,879

Configuration: TX 27.590 GHz QPSK 50 MHz BW TX 30.0dBm

Readings taken at antenna terminals

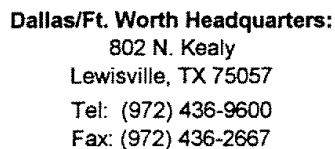
Bandwidth: 1MHZ Video Bandwidth: 100KHZ Antenna Distance n/a m Detector:

Climatic Conditions: EUT Power: 115 V.A.C. n/a 60 Hz X Peak  
 Temperature: 20 C 208 V.A.C. n/a 50 Hz      Average  
 Relative Humidity: 39 % 230 V.A.C.  
 Atmospheric Pressure: 996 mbar X Other -48VDC n/a 1 Phase n/a 3 Phase

[illegible]

DATA\COMMON\FORMS\TEST DATA SHEETS\MICRORE REV 030597

218v11



Complete ☒ Preliminary ☐ Page 1 of 1

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo 180218 V1

Equipment Used: 697,878 *agm* *agm*

Configuration: TX 30.0dBm 27.710926Ghz QPSK/30Mhz BW Bosch Modem Test Set

Readings taken at antenna terminals

|            |      |                  |        |                  |        |           |      |
|------------|------|------------------|--------|------------------|--------|-----------|------|
| Bandwidth: | 1MHZ | Video Bandwidth: | 100KHZ | Antenna Distance | 11.1 m | Detector: | Peak |
|------------|------|------------------|--------|------------------|--------|-----------|------|

|                       |          |            |                |             |             |
|-----------------------|----------|------------|----------------|-------------|-------------|
| Climatic Conditions:  |          | EUT Power: | 115 V.A.C.     | n/a 60 Hz   | X Peak      |
| Temperature:          | 20 C     |            | 208 V.A.C.     | n/a 50 Hz   | Average     |
| Relative Humidity:    | 39 %     |            | 230 V.A.C.     |             |             |
| Atmospheric Pressure: | 996 mbar |            | X Other -48VDC | n/a 1 Phase | n/a 3 Phase |

[illegible]

**Dallas/Ft. Worth Headquarters:**  
802 N. Kealy  
Lewisville, TX 75057  
Tel: (972) 436-9600  
Fax: (972) 436-2667

## ANTENNA TERMINAL CONDUCTED DATA

Complete X Preliminary     

Page 1 of 1

**Client: BOSCH TELECOM**

Test #: 218V08

W.O.#: 180218

EUT: NODE TRANSMITTER

**S/N: UNIT #5**

Photo ID: 180218 V08

Technician: MARK SEVERSON

Specification: CFR 47 P 2.991

## Lab: 2

Date: 6/23/98

Equipment Used: 697,881,958,879

Configuration: TX 30.0dBm 27.710926Ghz QPSK/30Mhx BW Bosch Modem Test Set

### Readings taken at antenna terminals

Bandwidth: 1MHz

Video Bandwidth: 100KHZ

### Antenna Distance

**Detector:**

### Climatic Conditions:

**EUT Power:**

115 V.A.C.

n/a 60 Hz

**X Peak**

**Temperature:**

20 C

208 V.A.C.

n/a 50 Hz

**Average**

**Relative Humidity:**

39 %

230 V.A.C.

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Atmospheric Pressure: 996 mbar

**X Other -48VDC**

n/a 1 Phase

n/a 3 Phase

[illegible]

DATA COMMON FORMS \ TEST DATA SHEETS \ MICROE      REV 030597

218V08.xls

**Model Node Equipment Solid-State Transmitter (US)**

**Bosch Telecom, Inc.**

**SPURIOUS EMISSIONS  
(FIELD STRENGTH)**

# INTERNATIONAL COMPLIANCE CORPORATION

## RADIATED EMISSIONS DATA ELECTRIC FIELD

|                          |                 |                                        |                      |                     |                |                    |                            |                      |                  |                      |                     |
|--------------------------|-----------------|----------------------------------------|----------------------|---------------------|----------------|--------------------|----------------------------|----------------------|------------------|----------------------|---------------------|
| CLIENT NAME:             |                 | BOSCH TELECOM                          |                      |                     |                | W.O.#: 180218      |                            | DATE:                |                  | 6/22/98              |                     |
| EUT MODEL:               |                 | NODE TRANSMITTER                       |                      |                     |                | SERIAL #:          |                            | UNIT #5              |                  | TIME: 0818           |                     |
| EUT CONFIG.:             |                 | TX 30.0dBm 27.510GHZ CW U.S. FREQUENCY |                      |                     |                |                    |                            | TECH.:               |                  | D LIGHT & M SEVERSON |                     |
| TEST SPECIFICATION:      |                 | 2.993 (3m)                             |                      |                     |                |                    |                            | TEST NUMBER:         |                  | RE-3                 |                     |
| ROD ANT. #:              |                 | CABLE #:                               |                      | 2B                  |                | DETECT. TYPE:      |                            | PEAK                 |                  | LOCATION: BOATS      |                     |
| BICON ANT. #:            |                 | 230                                    |                      | PREAMP. #:          |                | 401                |                            | RES. BW (kHz): 100   |                  | DISTANCE (m): 3M     |                     |
| LOG ANT. #:              |                 | 227                                    |                      | LIMITER#            |                | 181                |                            | VIDEO BW (kHz): 100  |                  | EUT VOLTAGE: -48VDC  |                     |
| HORN ANT. #:             |                 | ATTEN. #:                              |                      | N/A                 |                | TEMP. (deg. C): 27 |                            | EUT FREQ. (Hz): N/A  |                  |                      |                     |
| DIPOLE ANT #:            |                 | DETECTOR#:                             |                      | 697                 |                | HUMIDITY (%): 46   |                            | PHOTO ID:            |                  | 180218 RE-3 RAD. EM. |                     |
| Emission Frequency (MHz) | Ant. Pol. (H/V) | Det. Atten. (dB)                       | Meter Reading (dBuV) | Antenna Factor (dB) | Path Loss (dB) | RF Gain (dB)       | Corrected Reading (dBuV/m) | Spec. Limit (dBuV/m) | CR/SL Delta (dB) | Pass Fail Marginal   | Notes               |
| 32.835                   | V               | 0.0                                    | 45.3                 | 11.59               | 1.42           | 24.6               | 33.71                      | 84.6                 | -50.89           | Pass                 |                     |
| 49.985                   | V               | 0.0                                    | 34.3                 | 10.336              | 1.59           | 24.6               | 21.576                     | 84.6                 | -63.024          | Pass                 | AMBIENT             |
| 175.252                  | V               | 0.0                                    | 45.7                 | 13.75               | 2.82           | 24.6               | 37.67                      | 84.6                 | -46.93           | Pass                 | NOISE FLOOR         |
| 32.835                   | H               | 0.0                                    | 34.0                 | 11.59               | 1.42           | 24.6               | 22.41                      | 84.6                 | -62.19           | Pass                 |                     |
| 116.200                  | H               | 0.0                                    | 42.5                 | 11                  | 2.54           | 24.6               | 31.44                      | 84.6                 | -53.16           | Pass                 | NOISE FLOOR         |
| 220.620                  | H               | 0.0                                    | 37.0                 | 15.6                | 3.69           | 24.6               | 31.69                      | 84.6                 | -52.91           | Pass                 | NOISE FLOOR         |
| 400.000                  | V               | 0.0                                    | 30.0                 | 16.6                | 5.51           | 24.9               | 27.21                      | 84.6                 | -57.39           | Pass                 | NOISE FLOOR         |
| 650.000                  | V               | 0.0                                    | 30.0                 | 21.4                | 7.29           | 25.1               | 33.59                      | 84.6                 | -51.01           | Pass                 | NOISE FLOOR         |
| 960.000                  | V               | 0.0                                    | 39.6                 | 23.26               | 9.17           | 24.9               | 47.13                      | 84.6                 | -37.47           | Pass                 |                     |
| 400.000                  | H               | 0.0                                    | 32.0                 | 16.6                | 5.51           | 24.9               | 29.21                      | 84.6                 | -55.39           | Pass                 | NOISE FLOOR         |
| 650.000                  | H               | 0.0                                    | 32.0                 | 21.4                | 7.29           | 25.1               | 35.59                      | 84.6                 | -49.01           | Pass                 | NOISE FLOOR         |
| 960.000                  | H               | 0.0                                    | 31.0                 | 23.26               | 9.17           | 24.9               | 38.53                      | 84.6                 | -46.07           | Pass                 | NOISE FLOOR         |
|                          |                 |                                        |                      |                     |                |                    |                            |                      |                  |                      |                     |
|                          |                 |                                        |                      |                     |                |                    |                            |                      |                  |                      | Scanned 30-1000 MHz |

## Compliance Data

# INTERNATIONAL COMPLIANCE CORPORATION

## RADIATED EMISSIONS DATA ELECTRIC FIELD

|                          |                 |                                                   |                      |                     |                |                   |                            |                      |                  |                      |                                                    |
|--------------------------|-----------------|---------------------------------------------------|----------------------|---------------------|----------------|-------------------|----------------------------|----------------------|------------------|----------------------|----------------------------------------------------|
| CLIENT NAME:             |                 | BOSCH TELECOM                                     |                      |                     |                | W.O.#: 180218     |                            | DATE:                |                  | 6/22/98              |                                                    |
| EUT MODEL:               |                 | NODE TRANSMITTER <i>GHz aspr</i>                  |                      |                     |                | SERIAL #: UNIT #5 |                            | TIME:                |                  | 9:30                 |                                                    |
| EUT CONFIG.:             |                 | TX 30.0dBm 27.710926 <del>GHz</del> <i>MHz BW</i> |                      |                     |                | QPSK/30           |                            | TECH.:               |                  | D LIGHT & M SEVERSON |                                                    |
| TEST SPECIFICATION:      |                 | 2.993 (3m)                                        |                      |                     |                | <i>MHz aspr</i>   |                            | TEST NUMBER:         |                  | RE-4                 |                                                    |
| ROD ANT. #:              |                 | CABLE #:                                          |                      | 2B                  |                | DETECT. TYPE:     |                            | PEAK                 |                  | LOCATION:            |                                                    |
| BICON ANT. #:            |                 | 230                                               |                      | PREAMP. #:          |                | 401               |                            | RES. BW (kHz):       |                  | 100                  |                                                    |
| LOG ANT. #:              |                 | 227                                               |                      | LIMITER#            |                | 181               |                            | VIDEO BW (kHz):      |                  | 100                  |                                                    |
| HORN ANT. #:             |                 | ATTEN.#:                                          |                      | N/A                 |                | TEMP. (deg. C):   |                            | 30                   |                  | EUT VOLTAGE:         |                                                    |
| DIPOLE ANT #:            |                 | DETECTOR#:                                        |                      | 697                 |                | HUMIDITY (%):     |                            | 46                   |                  | EUT FREQ. (Hz):      |                                                    |
|                          |                 |                                                   |                      |                     |                |                   |                            | PHOTO ID:            |                  | 180218 RE-4 RAD. EM. |                                                    |
| Emission Frequency (MHz) | Ant. Pol. (H/V) | Det. Atten. (dB)                                  | Meter Reading (dBuV) | Antenna Factor (dB) | Path Loss (dB) | RF Gain (dB)      | Corrected Reading (dBuV/m) | Spec. Limit (dBuV/m) | CR/SL Delta (dB) | Pass Fail Marginal   | Notes                                              |
| 32.835                   | V               | 0.0                                               | 44.0                 | 11.59               | 1.42           | 24.6              | 32.41                      | 84.6                 | -52.19           | Pass                 |                                                    |
| 81.763                   | V               | 0.0                                               | 60.2                 | 8.43                | 2.28           | 24.6              | 46.28                      | 84.6                 | -38.32           | Pass                 | AMBIENT                                            |
| 275.000                  | V               | 0.0                                               | 30.0                 | 17.365              | 4.19           | 24.6              | 26.955                     | 84.6                 | -57.645          | Pass                 | NOISE FLOOR                                        |
| 32.835                   | H               | 0.0                                               | 39.0                 | 11.59               | 1.42           | 24.6              | 27.41                      | 84.6                 | -57.19           | Pass                 |                                                    |
| 150.000                  | H               | 0.0                                               | 30.0                 | 13.52               | 2.82           | 24.6              | 21.74                      | 84.6                 | -62.86           | Pass                 | NOISE FLOOR                                        |
| 275.000                  | H               | 0.0                                               | 30.0                 | 17.365              | 4.19           | 24.6              | 26.955                     | 84.6                 | -57.645          | Pass                 | NOISE FLOOR                                        |
| 400.000                  | V               | 0.0                                               | 31.0                 | 16.6                | 5.51           | 24.9              | 28.21                      | 84.6                 | -56.39           | Pass                 | NOISE FLOOR                                        |
| 650.000                  | V               | 0.0                                               | 31.0                 | 21.4                | 7.29           | 25.1              | 34.59                      | 84.6                 | -50.01           | Pass                 | NOISE FLOOR                                        |
| 900.000                  | V               | 0.0                                               | 31.0                 | 23.5                | 9.17           | 24.9              | 38.77                      | 84.6                 | -45.83           | Pass                 | NOISE FLOOR                                        |
| 400.000                  | H               | 0.0                                               | 30.0                 | 16.6                | 5.51           | 24.9              | 27.21                      | 84.6                 | -57.39           | Pass                 | NOISE FLOOR                                        |
| 650.000                  | H               | 0.0                                               | 31.0                 | 21.4                | 7.29           | 25.1              | 34.59                      | 84.6                 | -50.01           | Pass                 | NOISE FLOOR                                        |
| 30.000                   | H               | 0.0                                               | 30.0                 | 12.25               | 1.42           | 24.6              | 19.07                      | 84.6                 | -65.53           | Pass                 | NOISE FLOOR                                        |
|                          |                 |                                                   |                      |                     |                |                   |                            |                      |                  |                      | Scanned 30-1000 MHz                                |
|                          |                 |                                                   |                      |                     |                |                   |                            |                      |                  |                      | All ambients were verified by cycling power to EUT |
|                          |                 |                                                   |                      |                     |                |                   |                            |                      |                  |                      |                                                    |
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# INTERNATIONAL COMPLIANCE CORPORATION

## RADIATED EMISSIONS DATA ELECTRIC FIELD

|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      |                            |                      |  |        |  |
|--------------------------|-----------------|-----------------------|----------------------|---------------------|----------------|-----------------|----------------------------|----------------------|------------------|----------------------|----------------------------|----------------------|--|--------|--|
| CLIENT NAME:             |                 | BOSCH TELECOM         |                      |                     |                | W.O.#: 180218   |                            | DATE:                |                  | 6/22/98              |                            |                      |  |        |  |
| EUT MODEL:               |                 | NODE TRANSMITTER      |                      |                     |                | SERIAL #:       |                            | UNIT #5              |                  | TIME:                |                            | 10:30                |  |        |  |
| EUT CONFIG.:             |                 | TX 30.0dBm 27.550 GHz |                      |                     |                | QPSK/40 MHz BW  |                            | TECH.:               |                  | D LIGHT & M SEVERSON |                            |                      |  |        |  |
| TEST SPECIFICATION:      |                 | 2.993 (3m)            |                      | GHz                 |                | MHz             |                            | TEST NUMBER:         |                  | RE-5                 |                            |                      |  |        |  |
| ROD ANT. #:              |                 | CABLE #:              |                      | 2B                  |                | DETECT. TYPE:   |                            | PEAK                 |                  | LOCATION:            |                            | BOATS                |  |        |  |
| BICON ANT. #:            |                 | 230                   |                      | PREAMP. #:          |                | 401             |                            | RES. BW (kHz):       |                  | 100                  |                            | DISTANCE (m):        |  | 3M     |  |
| LOG ANT. #:              |                 | 227                   |                      | LIMITER#            |                | 181             |                            | VIDEO BW (kHz):      |                  | 100                  |                            | EUT VOLTAGE:         |  | -48VDC |  |
| HORN ANT. #:             |                 | ATTEN. #:             |                      | N/A                 |                | TEMP. (deg. C): |                            | 30                   |                  | EUT FREQ. (Hz):      |                            | N/A                  |  |        |  |
| DIPOLE ANT #:            |                 | DETECTOR#:            |                      | 697                 |                | HUMIDITY (%):   |                            | 46                   |                  | PHOTO ID:            |                            | 180218 RE-5 RAD. EM. |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      | Notes                      |                      |  |        |  |
| Emission Frequency (MHz) | Ant. Pol. (H/V) | Det. Atten. (dB)      | Meter Reading (dBuV) | Antenna Factor (dB) | Path Loss (dB) | RF Gain (dB)    | Corrected Reading (dBuV/m) | Spec. Limit (dBuV/m) | CR/SL Delta (dB) | Pass Fail Marginal   |                            |                      |  |        |  |
| 32.835                   | V               | 0.0                   | 43.0                 | 11.59               | 1.42           | 24.6            | 31.41                      | 84.6                 | -53.19           | Pass                 |                            |                      |  |        |  |
| 150.000                  | V               | 0.0                   | 32.0                 | 13.52               | 2.82           | 24.6            | 23.74                      | 84.6                 | -60.86           | Pass                 | NOISE FLOOR                |                      |  |        |  |
| 250.000                  | V               | 0.0                   | 30.0                 | 17.61               | 4.19           | 24.6            | 27.2                       | 84.6                 | -57.4            | Pass                 | NOISE FLOOR                |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      |                            |                      |  |        |  |
| 32.835                   | H               | 0.0                   | 35.0                 | 11.59               | 1.42           | 24.6            | 23.41                      | 84.6                 | -61.19           | Pass                 |                            |                      |  |        |  |
| 150.000                  | H               | 0.0                   | 30.0                 | 13.52               | 2.82           | 24.6            | 21.74                      | 84.6                 | -62.86           | Pass                 | NOISE FLOOR                |                      |  |        |  |
| 250.000                  | H               | 0.0                   | 31.0                 | 17.61               | 4.19           | 24.6            | 28.2                       | 84.6                 | -56.4            | Pass                 | NOISE FLOOR                |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      |                            |                      |  |        |  |
| 421.250                  | V               | 0.0                   | 35.0                 | 16.76               | 5.51           | 24.9            | 32.37                      | 84.6                 | -52.23           | Pass                 |                            |                      |  |        |  |
| 650.000                  | V               | 0.0                   | 30.0                 | 21.4                | 7.29           | 25.1            | 33.59                      | 84.6                 | -51.01           | Pass                 | NOISE FLOOR                |                      |  |        |  |
| 900.000                  | V               | 0.0                   | 30.0                 | 23.5                | 9.17           | 24.9            | 37.77                      | 84.6                 | -46.83           | Pass                 | NOISE FLOOR                |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      |                            |                      |  |        |  |
| 400.000                  | H               | 0.0                   | 30.0                 | 16.6                | 5.51           | 24.9            | 27.21                      | 84.6                 | -57.39           | Pass                 | NOISE FLOOR                |                      |  |        |  |
| 650.000                  | H               | 0.0                   | 30.0                 | 21.4                | 7.29           | 25.1            | 33.59                      | 84.6                 | -51.01           | Pass                 | NOISE FLOOR                |                      |  |        |  |
| 900.000                  | H               | 0.0                   | 30.0                 | 23.5                | 9.17           | 24.9            | 37.77                      | 84.6                 | -46.83           | Pass                 | NOISE FLOOR                |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      |                            |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      | Scanned 30-1000 MHz        |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      | All ambients were verified |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      | by cycling power to EUT    |                      |  |        |  |
|                          |                 |                       |                      |                     |                |                 |                            |                      |                  |                      |                            |                      |  |        |  |

## Compliance Data

# INTERNATIONAL COMPLIANCE CORPORATION

## RADIATED EMISSIONS DATA ELECTRIC FIELD

|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
|--------------------------|-----------------|--------------------------------------|----------------------|---------------------|----------------|---------------------|----------------------------|----------------------|------------------|----------------------|---------------------|
| CLIENT NAME:             |                 | BOSCH TELECOM                        |                      |                     |                | W.O.#: 180218       |                            | DATE:                |                  | 6/22/98              |                     |
| EUT MODEL:               |                 | NODE TRANSMITTER                     |                      |                     |                | SERIAL #: UNIT #5   |                            | TIME:                |                  | 10:30                |                     |
| EUT CONFIG.:             |                 | TX 30.0dBm 27.590 GHz QPSK/50 MHz BW |                      |                     |                |                     |                            | TECH.:               |                  | D LIGHT & M SEVERSON |                     |
| TEST SPECIFICATION:      |                 | 2.993 (3m) GHz 2B MHz                |                      |                     |                |                     |                            | TEST NUMBER:         |                  | RE-6                 |                     |
| ROD ANT. #:              |                 | CABLE #: 2B                          |                      |                     |                | DETECT. TYPE: PEAK  |                            | LOCATION:            |                  | BOATS                |                     |
| BICON ANT. #:            |                 | 230                                  |                      | PREAMP. #: 401      |                | RES. BW (kHz): 100  |                            | DISTANCE (m):        |                  | 3M                   |                     |
| LOG ANT. #:              |                 | 227                                  |                      | LIMITER#: 181       |                | VIDEO BW (kHz): 100 |                            | EUT VOLTAGE:         |                  | -48VDC               |                     |
| HORN ANT. #:             |                 |                                      |                      | ATTEN. #: N/A       |                | TEMP. (deg. C): 30  |                            | EUT FREQ. (Hz):      |                  | N/A                  |                     |
| DIPOLE ANT #:            |                 |                                      |                      | DETECTOR#: 697      |                | HUMIDITY (%): 46    |                            | PHOTO ID:            |                  | 180218 RE-6 RAD. EM. |                     |
| Emission Frequency (MHz) | Ant. Pol. (H/V) | Det. Atten. (dB)                     | Meter Reading (dBuV) | Antenna Factor (dB) | Path Loss (dB) | RF Gain (dB)        | Corrected Reading (dBuV/m) | Spec. Limit (dBuV/m) | CR/SL Delta (dB) | Pass Fail Marginal   | Notes               |
| 32.835                   | V               | 0.0                                  | 43.0                 | 11.59               | 1.42           | 24.6                | 31.41                      | 84.6                 | -53.19           | Pass                 |                     |
| 150.000                  | V               | 0.0                                  | 31.0                 | 13.52               | 2.82           | 24.6                | 22.74                      | 84.6                 | -61.86           | Pass                 | NOISE FLOOR         |
| 250.000                  | V               | 0.0                                  | 30.0                 | 17.61               | 4.19           | 24.6                | 27.2                       | 84.6                 | -57.4            | Pass                 | NOISE FLOOR         |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
| 32.835                   | H               | 0.0                                  | 36.0                 | 11.59               | 1.42           | 24.6                | 24.41                      | 84.6                 | -60.19           | Pass                 |                     |
| 150.000                  | H               | 0.0                                  | 30.0                 | 13.52               | 2.82           | 24.6                | 21.74                      | 84.6                 | -62.86           | Pass                 | NOISE FLOOR         |
| 250.000                  | H               | 0.0                                  | 30.0                 | 17.61               | 4.19           | 24.6                | 27.2                       | 84.6                 | -57.4            | Pass                 | NOISE FLOOR         |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
| 421.250                  | V               | 0.0                                  | 36.0                 | 16.76               | 5.51           | 24.9                | 33.37                      | 84.6                 | -51.23           | Pass                 |                     |
| 650.000                  | V               | 0.0                                  | 30.0                 | 21.4                | 7.29           | 25.1                | 33.59                      | 84.6                 | -51.01           | Pass                 | NOISE FLOOR         |
| 900.000                  | V               | 0.0                                  | 30.0                 | 23.5                | 9.17           | 24.9                | 37.77                      | 84.6                 | -46.83           | Pass                 | NOISE FLOOR         |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
| 400.000                  | H               | 0.0                                  | 31.0                 | 16.6                | 5.51           | 24.9                | 28.21                      | 84.6                 | -56.39           | Pass                 | NOISE FLOOR         |
| 650.000                  | H               | 0.0                                  | 30.0                 | 21.4                | 7.29           | 25.1                | 33.59                      | 84.6                 | -51.01           | Pass                 | NOISE FLOOR         |
| 900.000                  | H               | 0.0                                  | 30.0                 | 23.5                | 9.17           | 24.9                | 37.77                      | 84.6                 | -46.83           | Pass                 | NOISE FLOOR         |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      | Scanned 30-1000 MHz |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |
|                          |                 |                                      |                      |                     |                |                     |                            |                      |                  |                      |                     |

Compliance Data

# INTERNATIONAL COMPLIANCE CORPORATION

## RADIATED EMISSIONS DATA ELECTRIC FIELD

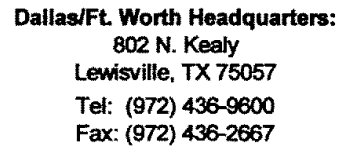
|                          |                                                             |                  |                      |                     |                 |              |                            |                      |                  |                      |             |
|--------------------------|-------------------------------------------------------------|------------------|----------------------|---------------------|-----------------|--------------|----------------------------|----------------------|------------------|----------------------|-------------|
| CLIENT NAME:             | BOSCH TELECOM                                               |                  |                      |                     |                 | W.O.#:       | 180218                     | DATE:                | 6/19/98          |                      |             |
| EUT MODEL:               | NODE TRANSMITTER                                            |                  |                      |                     |                 | SERIAL #:    | UNIT #5                    | TIME:                | 1545             |                      |             |
| EUT CONFIG.:             | TX 30.0dBm 27.710926GHz QPSK/30MHz BW Bosch Modern Test Set |                  |                      |                     |                 | TECH.:       | MARK SEVERSON              |                      |                  |                      |             |
| TEST SPECIFICATION:      | 2.993 (3m)                                                  |                  |                      |                     |                 | MHZ          |                            | TEST NUMBER:         | RE-1             |                      |             |
| ROD ANT. #:              | CABLE #:                                                    |                  |                      |                     |                 | 2B           | DETECT. TYPE:              | PEAK                 | LOCATION:        |                      | BOATS       |
| BICON ANT. #:            | 230                                                         | PREAMP. #:       |                      | 401                 | RES. BW (kHz):  |              | 100                        | DISTANCE (m):        |                  | 3M                   |             |
| LOG ANT. #:              | 227                                                         | LIMITER#         |                      | 181                 | VIDEO BW (kHz): |              | 100                        | EUT VOLTAGE:         |                  | -48VDC               |             |
| HORN ANT. #:             | ATTEN.#:                                                    |                  | N/A                  |                     | TEMP. (deg. C): |              | 28                         | EUT FREQ. (Hz):      |                  | N/A                  |             |
| DIPOLE ANT #:            | DETECTOR#:                                                  |                  | 697                  |                     | HUMIDITY (%):   |              | 46                         | PHOTO ID:            |                  | 180218 RE-1 RAD. EM. |             |
| Emission Frequency (MHz) | Ant. Pol. (H/V)                                             | Det. Atten. (dB) | Meter Reading (dBuV) | Antenna Factor (dB) | Path Loss (dB)  | RF Gain (dB) | Corrected Reading (dBuV/m) | Spec. Limit (dBuV/m) | CR/SL Delta (dB) | Pass Fail Marginal   | Notes       |
| 35.000                   | V                                                           | 0.0              | 31.0                 | 10.6                | 1.42            | 24.6         | 18.42                      | 84.6                 | -66.18           | Pass                 | Noise floor |
| 150.000                  | V                                                           | 0.0              | 31.0                 | 13.52               | 2.82            | 24.6         | 22.74                      | 84.6                 | -61.86           | Pass                 | Noise floor |
| 290.000                  | V                                                           | 0.0              | 31.0                 | 16.5                | 4.19            | 24.6         | 27.09                      | 84.6                 | -57.51           | Pass                 | Noise floor |
| 35.000                   | H                                                           | 0.0              | 30.0                 | 10.6                | 1.42            | 24.6         | 17.42                      | 84.6                 | -67.18           | Pass                 | Noise floor |
| 150.000                  | H                                                           | 0.0              | 30.0                 | 13.52               | 2.82            | 24.6         | 21.74                      | 84.6                 | -62.86           | Pass                 | Noise floor |
| 290.000                  | H                                                           | 0.0              | 30.0                 | 16.5                | 4.19            | 24.6         | 26.09                      | 84.6                 | -58.51           | Pass                 | Noise floor |
| 320.000                  | V                                                           | 0.0              | 30.0                 | 18.4                | 4.63            | 24.7         | 28.33                      | 84.6                 | -56.27           | Pass                 | Noise floor |
| 425.000                  | V                                                           | 0.0              | 30.0                 | 16.8                | 5.51            | 24.9         | 27.41                      | 84.6                 | -57.19           | Pass                 | Noise floor |
| 960.000                  | V                                                           | 0.0              | 30.0                 | 23.26               | 9.17            | 24.9         | 37.53                      | 84.6                 | -47.07           | Pass                 | Noise floor |
| 320.000                  | H                                                           | 0.0              | 30.0                 | 18.4                | 4.63            | 24.7         | 28.33                      | 84.6                 | -56.27           | Pass                 | Noise floor |
| 425.000                  | H                                                           | 0.0              | 31.0                 | 16.8                | 5.51            | 24.9         | 28.41                      | 84.6                 | -56.19           | Pass                 | Noise floor |
| 960.000                  | H                                                           | 0.0              | 31.0                 | 23.26               | 9.17            | 24.9         | 38.53                      | 84.6                 | -46.07           | Pass                 | Noise floor |
| SCANNED 30MHZ-1GHZ       |                                                             |                  |                      |                     |                 |              |                            |                      |                  |                      |             |

**Model Node Equipment Solid-State Transmitter (US)**

**Bosch Telecom, Inc.**

**SPURIOUS EMISSIONS  
(MICROWAVE FIELD STRENGTH)**





Complete X Preliminary      Page 1 of 1

Client: Bosch Telecom      Test #: REMW08      W.O.#: 180218

EUT: Node Transmitter S/N: Unit #5 Photo ID: 180218

Technician: D. Light Specification: 2.993 Lab: BOATS Date: 6/23/98

Equipment Used: EM2200,180,CF00,CF06,697,494

Configuration: ~~1x~~ 30.0 dBm 27.510 GHz CW Signal U.S. Frequency

30 dBm @ 3 m = 127.6 dBuV/m

Bandwidth: 1 MHz      Video Bandwidth: 100 kHz      Antenna Distance 3 m      Detector:

Climatic Conditions: EUT Power: 115 V.A.C. 60 Hz X Peak

Temperature: 35 C      208 V.A.C.      50 Hz      Average

Relative Humidity: 45 % 230 V.A.C.

Atmospheric Pressure: 1000 mbar      X Other      -48 VDC           1 Phase           3 Phase

Conversion: \_\_\_\_\_ dBpW = \_\_\_\_\_ dBuV/m @ \_\_\_\_\_ m dBC limit = -43dB

[illegible]

DATA\COMMON\FORMS\TEST DATA\SHEETS\MICRORE REV 030597



802 N. Kealy  
Lewisville, TX 75057  
Tel: (972) 436-9600  
Fax: (972) 436-2667

Complete X Preliminary

Page 1 of 1

Client: BOSCH TELECOM

Test #: 218U03

W.O.#: 180218

EUT: NODE TRANSMITTER

S/N: UNIT #5

Photo ID: 180218 U03

Technician: M SEVERSON&\$ D LIGHT Specification: CFR 47 P 2.993

Lab: BOATS Date: 6/18/98

Equipment Used: 897,935

Configuration: TX 30.0dBm 27.510GHZ CW Signal U.S. Frequency

30.0dBm at 3m = 127.6dBuV/m

Bandwidth: 1MHZ

Video Bandwidth: 100KHZ

### Antenna Distance

3 m Detector:

### Climatic Conditions:

EUT Power: 115 V.A.C.

N/A 60 Hz

X Peak

Temperature: 32 C

208 V.A.C.

N/A 50 Hz

         Average

Relative Humidity: 45 %

230 V.A.C.

N/A 1 Phase

N/A 3 Phase

**dBc limit = -43dB**

DATA COMMON FORMS TEST DATA SHEETS MICRO REV 030597

**Dallas/Ft. Worth Headquarters:**802 N. Kealy  
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Fax: (972) 436-2667

**Microwave Radiated Emissions Data**Complete X Preliminary    Page 1 of 1Client: BOSCH TELECOMTest #: 218U11W.O.#: 180218EUT: NODE TRANSMITTERS/N: UNIT #5Photo ID: 180218 U11Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.993 Lab: BOATS Date: 6/19/98Equipment Used: 897,935Configuration: TX 30.0dBm 27.510GHz CW U.S. FREQUENCY

30.0dBm at 3m = 127.6dBuV/m

Bandwidth: 1MHZ Video Bandwidth: 100KHZ Antenna Distance 3 m Detector:

Climatic Conditions:

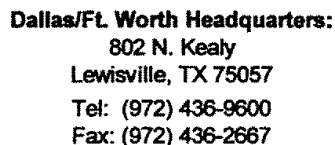
Temperature: 32 CRelative Humidity: 45 %Atmospheric Pressure: 997 mbarEUT Power: 115 V.A.C.n.e 60 HzX Peak208 V.A.C.n.e 50 Hz    Average230 V.A.C.X Other -48VDCn/a 1 Phasen/a 3 Phase

dBc limit = -43dB

| Freq.<br>(GHz) | Meter<br>Reading<br>(dBuV) | Antenna<br>Factor<br>(dB) | Cable<br>Loss<br>(dB) | RF<br>Gain<br>(dB) | 4kHz RBW<br>Correction<br>Factor<br>(dB) | Corrected<br>Reading<br>(dBuV/m) | dBc   | Pol. | Comments:   |
|----------------|----------------------------|---------------------------|-----------------------|--------------------|------------------------------------------|----------------------------------|-------|------|-------------|
| 53.1           | 33                         | 41.17                     | 1.02                  | 0                  | -24                                      | 51.2                             | -76.4 | H    | Noise floor |
| 55.02          | 34                         | 41.46                     | 1.02                  | 0                  | -24                                      | 52.5                             | -75.1 | H    | Noise floor |
| 40.0           | 36                         | 38.7                      | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | H    | Noise floor |
| 53.1           | 33                         | 41.17                     | 1.02                  | 0                  | -24                                      | 51.2                             | -76.4 | V    | Noise floor |
| 55.02          | 33                         | 41.46                     | 1.02                  | 0                  | -24                                      | 51.5                             | -76.1 | V    | Noise floor |
| 40.0           | 35                         | 38.7                      | 1.02                  | 0                  | -24                                      | 50.7                             | -76.9 | V    | Noise floor |
| 79.65          | 38.2                       | 44.7                      | 1.02                  | 0                  | -24                                      | 59.9                             | -67.7 | H    | Noise floor |
| 82.53          | 38                         | 45.1                      | 1.02                  | 0                  | -24                                      | 60.1                             | -67.5 | H    | Noise floor |
| 60.0           | 47                         | 43.3                      | 1.02                  | 0                  | -24                                      | 67.3                             | -60.3 | H    | Noise floor |
| 79.65          | 38.4                       | 44.7                      | 1.02                  | 0                  | -24                                      | 60.1                             | -67.5 | V    | Noise floor |
| 82.53          | 38.2                       | 45.1                      | 1.02                  | 0                  | -24                                      | 60.3                             | -67.3 | V    | Noise floor |
| 60.0           | 46.9                       | 43.3                      | 1.02                  | 0                  | -24                                      | 67.2                             | -60.4 | V    | Noise floor |
| 60.0           | 47                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 72.5                             | -55.1 | H    | 300 MHz BW  |
| 60.0           | 46.9                       | 43.3                      | 1.02                  | 0                  | -18.8                                    | 72.4                             | -55.2 | V    | 300 MHz BW  |
|                |                            |                           |                       |                    |                                          |                                  |       |      | Scanned     |
|                |                            |                           |                       |                    |                                          |                                  |       |      | 40-100 GHz  |

DATACOMMONFORMSITESTESTDATASHEETSMICRORE

REV 030597



Complete X Preliminary Page 1 of 1

Client: Bosch Telecom      Test #: REMW03      W.O.#: 180218

EUT: Node Transmitter S/N: Unit #5 Photo ID: 180218

Technician: D. Light                      Specification: 2.993                      Lab: BOATS Date: 6/22/98

Equipment Used: EM2200,180,CF00,CF06,697,494

Configuration: ~~TX~~ 30.0 dBm QPSK/30 MHz BW

30 dBm @ 3 m = 127.6 dBuV/m

Bandwidth: 1 MHz      Video Bandwidth: 100 kHz      Antenna Distance: 3 m      Detector:

Climatic Conditions: EUT Power: 115 V.A.C. 60 Hz X Peak  
 Temperature: 35 C 208 V.A.C. 50 Hz      Average  
 Relative Humidity: 45 % 230 V.A.C.  
 Atmospheric Pressure: 1000 mbar X Other -48 VDC 1 Phase 3 Phase  
 Conversion: dBpW= dBuV/m @ m 1000

[illegible]

DATA COMMON FORMS TEST DATA SHEETS MICRORE REV 030597

**Dallas/Ft. Worth Headquarters:**  
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### Microwave Radiated Emissions Data

Complete X Preliminary       

Page 1 of 1

**Client:** Bosch Telecom

Test #: REMW09

W.O.#: 180218

EUT: Node Transmitter

S/N: Unit #5

Photo ID: 180218

Technician: D. Light

Specification: 2.993

Lab: BOATS Date: 6/23/98

Equipment Used: EM2200,180,CF00,CF06,697,494

Configuration: TX  $\Delta f$  MHz  $\Delta f$   
Tx 30.0 dBm QPSK/30 MHz BW  
30 dBm @ 3 m = 127.6 dBuV/m

Bandwidth: 1 MHz      Video Bandwidth: 100 kHz      Antenna Distance 3 m      Detector:

### Climatic Conditions:

EUT Power: 115 V.A.C.

60 Hz

**X Peak**

Temperature: 35 C

— 208 V.A.C.

— 50 Hz

**Average**

Relative Humidity: 45 %  
Atmospheric Pressure: 1000 mbar

230 V.A.C.

—

Atmospheric Pressure: 1000 mbar

X Other -48 VDC

## 1 Phase

### 3 Phase

Conversion:  $\text{dBpW} = \text{dBuV/m} @ \text{m}$

$$\text{dBC limit} = -43 \text{ dB}$$
[illegible]

DATA\COMMON\FORMS\TEST DATA\SHEETS\MICRORE REV 030597



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Lewisville, TX 75057  
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Complete X Preliminary Page 1 of 1

Client: BOSCH TELECOM      Test #: 218U04      W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 U04

Technician: M SEVERSON&\$ D LIGHT Specification: CFR 47 P 2.993 Lab: BOATS Date: 6/18/98

Equipment Used: 897,935

Configuration: TX 30.0dBm 27.710GHZ QPSK/30MHZ BW

30.0dBm at 3m = 127.6dBuV/m

Bandwidth: 1MHZ      Video Bandwidth: 100KHZ      Antenna Distance      3 m      Detector:

|                                |            |            |                   |             |
|--------------------------------|------------|------------|-------------------|-------------|
| Climatic Conditions:           | EUT Power: | 115 V.A.C. | N/A 60 Hz         | X Peak      |
| Temperature: 32 C              |            | 208 V.A.C. | N/A 50 Hz         | Average     |
| Relative Humidity: 45 %        |            | 230 V.A.C. |                   |             |
| Atmospheric Pressure: 997 mbar | X Other    | -48VDC     | n/a 1 Phase       | N/A 3 Phase |
|                                |            |            | dBc limit = -43dB |             |

[illegible]



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### Microwave Radiated Emissions Data

Complete X Preliminary      Page 1 of 1

Client: BOSCH TELECOM Test #: 218U09 W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 U09

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.993 Lab: BOATS Date: 6/19/98

Equipment Used: 897,935 *ag*

Configuration: TX 30.0dBm 27.710 GHz QPSK/30MHz BW *MHZ*

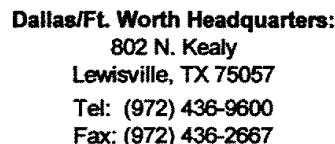
30.0dBm at 3m = 127.6dBuV/m

Bandwidth: 1MHZ Video Bandwidth: 100KHZ Antenna Distance 3 m Detector:

Climatic Conditions: EUT Power: 115 V.A.C. n.e 60 Hz X Peak  
Temperature: 32 C 208 V.A.C. n.e 50 Hz Average  
Relative Humidity: 45 % 230 V.A.C.  
Atmospheric Pressure: 997 mbar X Other -48VDC n/a 1 Phase n/a 3 Phase  
dBc limit = -43dB

| Freq.<br>(GHz) | Meter<br>Reading<br>(dBuV) | Antenna<br>Factor<br>(dB) | Cable<br>Loss<br>(dB) | RF<br>Gain<br>(dB) | 4kHz RBW<br>Correction<br>Factor<br>(dB) | Corrected<br>Reading<br>(dBuV/m) | dBc   | Pol. | Comments:            |
|----------------|----------------------------|---------------------------|-----------------------|--------------------|------------------------------------------|----------------------------------|-------|------|----------------------|
| 52.08          | 34.5                       | 41.17                     | 1.02                  | 0                  | -24                                      | 52.7                             | -74.9 | H    | Noise floor          |
| 55.42          | 33                         | 41.46                     | 1.02                  | 0                  | -24                                      | 51.5                             | -76.1 | H    | Noise floor          |
| 40.0           | 36                         | 38.7                      | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | H    | Noise floor          |
| 52.08          | 33.5                       | 41.17                     | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | V    | Noise floor          |
| 55.42          | 33.7                       | 41.46                     | 1.02                  | 0                  | -24                                      | 52.2                             | -75.4 | V    | Noise floor          |
| 40.0           | 36                         | 38.7                      | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | V    | Noise floor          |
| 78.12          | 38.4                       | 44.6                      | 1.02                  | 0                  | -24                                      | 60                               | -67.6 | H    | Noise floor          |
| 83.13          | 38.5                       | 45.1                      | 1.02                  | 0                  | -24                                      | 60.6                             | -67.0 | H    | Noise floor          |
| 60.0           | 46.8                       | 43.3                      | 1.02                  | 0                  | -24                                      | 67.1                             | -60.5 | H    | Noise floor          |
| 78.12          | 38.5                       | 44.6                      | 1.02                  | 0                  | -24                                      | 60.1                             | -67.5 | V    | Noise floor          |
| 83.13          | 37.9                       | 45.1                      | 1.02                  | 0                  | -24                                      | 60                               | -67.6 | V    | Noise floor          |
| 60.0           | 47                         | 43.3                      | 1.02                  | 0                  | -24                                      | 67.3                             | -60.3 | V    | Noise floor          |
| 60.0           | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | H    | 300 MHz BW <i>ag</i> |
| 60.0           | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | V    | 300 MHz BW <i>ag</i> |
|                |                            |                           |                       |                    |                                          |                                  |       |      | Scanned <i>KHz</i>   |
|                |                            |                           |                       |                    |                                          |                                  |       |      | 40-100 GHz           |

DATA\COMMON\FORMS\TEST\DATA\SHEETS\MICRORE REV 030597



Complete X Preliminary Page 1 of 1

Client: Bosch Telecom      Test #: REMW04      W.O.#: 180218

EUT: Node Transmitter S/N: Unit #5 Photo ID: 180218

Technician: D. Light                      Specification: 2.993                      Lab: BOATS Date: 6/22/98

Equipment Used: EM2200,180,CF00,CF06,697,494

Configuration: ~~TX~~ 30.0 dBm QPSK/40 MHz BW

30 dBm @ 3 m = 127.6 dBuV/m

Bandwidth: 1 MHz      Video Bandwidth: 100 kHz      Antenna Distance: 3 m      Detector:

Climatic Conditions: EUT Power: 115 V.A.C. 60 Hz X Peak

Temperature: 35 C      208 V.A.C.      50 Hz      Average

Relative Humidity: 45 % 230 V.A.C.               

Atmospheric Pressure: 1000 mbar X Other -48 VDC 1 Phase 3 Phase

Conversion:  $\text{dBpW} = \text{dBuV/m} @ \text{m}$  *dBc limit = -43.1A*

[illegible]

**Dallas/Ft. Worth Headquarters:**  
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### Microwave Radiated Emissions Data

Complete X Preliminary     

Page 1 of 1

**Client:** Bosch Telecom

Test #: REMW10

W.O.#: 180218

**EUT: Node Transmitter**

S/N: Unit #5

Photo ID: 180218

Technician: D. Light

Specification: 2.993

Lab: BOATS Date: 6/23/98

Equipment Used: EM2200,180,CF00,CF06,697,494

Configuration: ~~1x~~ 30.0 dBm QPSK/40 MHz BW

**30 dBm @ 3 m = 127.6 dBuV/m**

Bandwidth: 1 MHz

Video Bandwidth: 100 kHz

### Antenna Distance

3 m Detector:

### Climatic Conditions:

EUT Power: 115 V.A.C.

60 Hz

X Peak

Temperature: 35 C

208 V.A.C.

50 Hz

**Average**

Relative Humidity: 45 %

230 V.A.C.

\_\_\_\_\_

[illegible]Atmospheric Pressure: 1000 mbar

X Other

-48 VDC

## 1 Phase

### 3 Phase

Conversion:  $\text{dBpW} = \text{dBuV/m} @$

$$dBC \text{ limit} = -43 \text{ dB}$$
[illegible]

DATA COMMON FORMS \ TEST DATA SHEETS \ MICRORE REV 030597

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### Microwave Radiated Emissions Data

Complete X Preliminary       

Page 1 of 1

**Client: BOSCH TELECOM**

Test #: 218U05

W.O.#: 180218

EUT: NODE TRANSMITTER

S/N: UNIT #5

Photo ID: 180218 U05

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.993 Lab: BOATS Date: 6/18/98

Equipment Used: 897,935

Configuration: TX 30.0dBm 27.550 GHz QPSK/40MHZ BW

30.0dBm at 3m = 127.6dBuV/m

Bandwidth: 1MHZ      Video Bandwidth: 100KHZ      Antenna Distance: 3 m      Detector:

### Climatic Conditions:

EUT Power: 115 V.A.C. n.a 60 Hz

n.a 60 Hz

X Peak  
Average

Temperature: 32 C

208 V.A.C.

n.a 50 Hz

Relative Humidity: 45 %

230 V.A.C.

n/a 1 Phase      n/a 3 Phase  
dBc limit = -43dB

[illegible]

DATA COMMON FORM SITE TEST DATA SHEETS MICRORE REV 030597



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**Microwave Radiated Emissions Data**

Complete X Preliminary      Page 1 of 1

Client: BOSCH TELECOM Test #: 218U08 W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID 180218 U08

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.993 Lab: BOATS Date: 6/19/98

Equipment Used: 897,935

Configuration: TX 30.0dBm 27.550 GHz QPSK/40MHz BW *MHz*

30.0dBm at 3m = 127.6dBuV/m

Bandwidth: 1MHZ Video Bandwidth: 100KHZ Antenna Distance 3 m Detector:

Climatic Conditions: EUT Power: 115 V.A.C. n/a 60 Hz X Peak  
Temperature: 32 C 208 V.A.C. n/a 50 Hz      Average  
Relative Humidity: 45 % 230 V.A.C.  
Atmospheric Pressure: 997 mbar X Other -48VDC n/a 1 Phase n/a 3 Phase  
dBc limit = -43dB

| Freq.<br>(GHz) | Meter<br>Reading<br>(dBuV) | Antenna<br>Factor<br>(dB) | Cable<br>Loss<br>(dB) | RF<br>Gain<br>(dB) | 4kHz RBW<br>Correction<br>Factor<br>(dB) | Corrected<br>Reading<br>(dBuV/m) | dBc   | Pol. | Comments:             |
|----------------|----------------------------|---------------------------|-----------------------|--------------------|------------------------------------------|----------------------------------|-------|------|-----------------------|
| 52.08          | 34                         | 41.17                     | 1.02                  | 0                  | -24                                      | 52.2                             | -75.4 | H    | Noise floor           |
| 55.1           | 34                         | 41.46                     | 1.02                  | 0                  | -24                                      | 52.5                             | -75.1 | H    | Noise floor           |
| 40.0           | 35.5                       | 38.7                      | 1.02                  | 0                  | -24                                      | 51.2                             | -76.4 | H    | Noise floor           |
| 52.08          | 34                         | 41.17                     | 1.02                  | 0                  | -24                                      | 52.2                             | -75.4 | V    | Noise floor           |
| 55.1           | 33.5                       | 41.46                     | 1.02                  | 0                  | -24                                      | 52                               | -75.6 | V    | Noise floor           |
| 40.0           | 36                         | 38.7                      | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | V    | Noise floor           |
| 78.12          | 37.5                       | 44.6                      | 1.02                  | 0                  | -24                                      | 59.1                             | -68.5 | H    | Noise floor           |
| 82.65          | 38.2                       | 45.1                      | 1.02                  | 0                  | -24                                      | 60.3                             | -67.3 | H    | Noise floor           |
| 60             | 46                         | 43.3                      | 1.02                  | 0                  | -24                                      | 66.3                             | -61.3 | H    | Noise floor           |
| 78.12          | 38.7                       | 44.6                      | 1.02                  | 0                  | -24                                      | 60.3                             | -67.3 | V    | Noise floor           |
| 82.65          | 38.2                       | 45.1                      | 1.02                  | 0                  | -24                                      | 60.3                             | -67.3 | V    | Noise floor           |
| 60             | 46.3                       | 43.3                      | 1.02                  | 0                  | -24                                      | 66.6                             | -61.0 | V    | Noise floor           |
| 60             | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | H    | 300 MHz BW <i>RBW</i> |
| 60             | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | V    | 300 MHz BW <i>RBW</i> |
|                |                            |                           |                       |                    |                                          |                                  |       |      | Scanned <i>KHz</i>    |
|                |                            |                           |                       |                    |                                          |                                  |       |      | 40-100 GHz            |

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### Microwave Radiated Emissions Data

Complete X Preliminary     

Page 1 of 1

**Client: Bosch Telecom**

Test #: REMW05

W.O.#: 180218

EUT: Node Transmitter

S/N: Unit #5

Photo ID: 180218

Technician: D. Light

**Specification: 2.993**

Lab: BOATS Date: 6/22/98

Equipment Used: EM2200,180,CF00,CF06,697,494

Configuration: 1x 30.0 dBm QPSK/50 MHz BW

30 dBm @ 3 m = 127.6 dBuV/m

**Bandwidth:** 1 MHz

Video Bandwidth: 100 kHz

### Antenna Distance

3 m Detector.

### Climatic Conditions:

EUT Power: 115 V.A.C.

60 Hz

**X Peak**

Temperature: 35 C

208 V.A.C.

50 Hz

**Average**

Relative Humidity: 45 %

230 V.A.C.

Atmospheric Pressure: 1000 mbar  
Conversion:          dBpW=          dBuV/m @

$$dBC \text{ limit} = -43 \text{ dB}$$
[illegible]

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### Microwave Radiated Emissions Data

Complete X Preliminary     

Page 1 of 1

**Client: Bosch Telecom**

Test #: REMW11

W.O.#: 180218

**EUT: Node Transmitter**

S/N: Unit #5

Photo ID: 180218

Technician: D. Light

**Specification: 2.993**

Lab: BOATS Date: 6/23/98

**Equipment Used:** EM2200,180,CF00,CF06,697,494

Configuration: Tx 30.0 dBm QPSK/50 MHz BW

**30 dBm @ 3 m = 127.6 dBuV/m**

Bandwidth: 1 MHz

Video Bandwidth: 100 kHz

### Antenna Distance

3 m

**Detector:**

### Climatic Conditions:

EUT Power: 115 V.A.C.

60 Hz

X Peak

Temperature: 35 C

208 V.A.C.

50 Hz

**Average**

Relative Humidity: 45 %

230 V.A.C.

Atmospheric Pressure: 1000 mbar

X Other -48 VDC

## 1 Phase

### 3 Phase

Conversion:          dBpW =          dBuV/m @          m

dbc limit = -43dB

[illegible]

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### Microwave Radiated Emissions Data

Complete X Preliminary     Page 1 of 1

Client: BOSCH TELECOM Test #: 218U07 W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 U07

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.993 Lab: BOATS Date: 6/19/98

Equipment Used: 897,935

Configuration: TX 30.0dBm 27.590 GHz QPSK/50MHz BW

30.0dBm at 3m = 127.6dBuV/m

Bandwidth: 1MHZ Video Bandwidth: 100KHZ Antenna Distance 3 m Detector:

Climatic Conditions: EUT Power: 115 V.A.C. n/a 60 Hz X Peak  
 Temperature: 32 C 208 V.A.C. n/a 50 Hz     Average  
 Relative Humidity: 45 % 230 V.A.C.  
 Atmospheric Pressure: 997 mbar X Other -48VDC n/a 1 Phase n/a 3 Phase  
 dBc limit = -43dB

| Freq.<br>(GHz) | Meter<br>Reading<br>(dBuV) | Antenna<br>Factor<br>(dB) | Cable<br>Loss<br>(dB) | RF<br>Gain<br>(dB) | 4kHz RBW<br>Correction<br>Factor<br>(dB) | Corrected<br>Reading<br>(dBuV/m) | dBc   | Pol. | Comments:            |
|----------------|----------------------------|---------------------------|-----------------------|--------------------|------------------------------------------|----------------------------------|-------|------|----------------------|
| 52.8           | 33.5                       | 41.17                     | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | H    | Noise floor          |
| 55.18          | 34                         | 41.46                     | 1.02                  | 0                  | -24                                      | 52.5                             | -75.1 | H    | Noise floor          |
| 40.0           | 36                         | 38.7                      | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | H    | Noise floor          |
| 52.8           | 34                         | 41.17                     | 1.02                  | 0                  | -24                                      | 52.2                             | -75.4 | V    | Noise floor          |
| 55.18          | 33.5                       | 41.46                     | 1.02                  | 0                  | -24                                      | 52                               | -75.6 | V    | Noise floor          |
| 40.0           | 35.7                       | 38.7                      | 1.02                  | 0                  | -24                                      | 51.4                             | -76.2 | V    | Noise floor          |
| 79.2           | 38.5                       | 44.7                      | 1.02                  | 0                  | -24                                      | 60.2                             | -67.4 | H    | Noise floor          |
| 82.77          | 38.5                       | 45.1                      | 1.02                  | 0                  | -24                                      | 60.6                             | -67.0 | H    | Noise floor          |
| 60.0           | 47                         | 43.3                      | 1.02                  | 0                  | -24                                      | 67.3                             | -60.3 | H    | Noise floor          |
| 79.2           | 38.2                       | 44.7                      | 1.02                  | 0                  | -24                                      | 59.9                             | -67.7 | V    | Noise floor          |
| 82.77          | 38.4                       | 45.1                      | 1.02                  | 0                  | -24                                      | 60.5                             | -67.1 | V    | Noise floor          |
| 60.0           | 47                         | 43.3                      | 1.02                  | 0                  | -24                                      | 67.3                             | -60.3 | V    | Noise floor          |
| 60.0           | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | H    | 300 MHz BW <i>ap</i> |
| 60.0           | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | V    | 300 MHz BW <i>ap</i> |
|                |                            |                           |                       |                    |                                          |                                  |       |      | Scanned kHz          |
|                |                            |                           |                       |                    |                                          |                                  |       |      | 40-100 GHz           |

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[illegible]







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### Microwave Radiated Emissions Data

Complete X Preliminary      Page 1 of 1

Client: BOSCH TELECOM Test #: 218U10 W.O.#: 180218

EUT: NODE TRANSMITTER S/N: UNIT #5 Photo ID: 180218 U10

Technician: M SEVERSON & D LIGHT Specification: CFR 47 P 2.993 Lab: BOATS Date: 6/19/98

Equipment Used: 897,935

Configuration: TX 30.0dBm 27.710926 GHz QPSK/30MHZ BW Bosch Modem Test Set

30.0dBm at 3m = 127.6dBuV/m  
Bandwidth: 1MHZ Video Bandwidth: 100KHZ Antenna Distance 3 m Detector:     

Climatic Conditions: EUT Power: 115 V.A.C. n.a 60 Hz X Peak  
Temperature: 32 C 208 V.A.C. n.a 50 Hz      Average  
Relative Humidity: 45 % 230 V.A.C.  
Atmospheric Pressure: 997 mbar X Other -48VDC n/a 1 Phase n/a 3 Phase  
dBc limit = -43dB

| Freq.<br>(GHz) | Meter<br>Reading<br>(dBuV) | Antenna<br>Factor<br>(dB) | Cable<br>Loss<br>(dB) | RF<br>Gain<br>(dB) | 4kHz RBW<br>Correction<br>Factor<br>(dB) | Corrected<br>Reading<br>(dBuV/m) | dBc   | Pol. | Comments:   |
|----------------|----------------------------|---------------------------|-----------------------|--------------------|------------------------------------------|----------------------------------|-------|------|-------------|
| 52.08          | 33.9                       | 41.17                     | 1.02                  | 0                  | -24                                      | 52.1                             | -75.5 | H    | Noise floor |
| 55.4218        | 33.4                       | 41.46                     | 1.02                  | 0                  | -24                                      | 51.9                             | -75.7 | H    | Noise floor |
| 40.0           | 35.7                       | 38.7                      | 1.02                  | 0                  | -24                                      | 51.4                             | -76.2 | H    | Noise floor |
| 52.08          | 33                         | 41.17                     | 1.02                  | 0                  | -24                                      | 51.2                             | -76.4 | V    | Noise floor |
| 55.4218        | 33                         | 41.46                     | 1.02                  | 0                  | -24                                      | 51.5                             | -76.1 | V    | Noise floor |
| 40.0           | 36                         | 38.7                      | 1.02                  | 0                  | -24                                      | 51.7                             | -75.9 | V    | Noise floor |
| 78.12          | 39.7                       | 44.6                      | 1.02                  | 0                  | -24                                      | 61.3                             | -66.3 | H    | Noise floor |
| 83.13278       | 38                         | 45.1                      | 1.02                  | 0                  | -24                                      | 60.1                             | -67.5 | H    | Noise floor |
| 60.0           | 44                         | 43.3                      | 1.02                  | 0                  | -24                                      | 64.3                             | -63.3 | H    | Noise floor |
| 78.12          | 38.7                       | 44.6                      | 1.02                  | 0                  | -24                                      | 60.3                             | -67.3 | V    | Noise floor |
| 83.13278       | 38                         | 45.1                      | 1.02                  | 0                  | -24                                      | 60.1                             | -67.5 | V    | Noise floor |
| 60.0           | 44                         | 43.3                      | 1.02                  | 0                  | -24                                      | 64.3                             | -63.3 | V    | Noise floor |
| 60.0           | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | H    | 300 MHz BW  |
| 60.0           | 38                         | 43.3                      | 1.02                  | 0                  | -18.8                                    | 63.5                             | -64.1 | V    | 300 MHz BW  |
|                |                            |                           |                       |                    |                                          |                                  |       |      | Scanned kHz |
|                |                            |                           |                       |                    |                                          |                                  |       |      | 40-100 GHz  |

DATA COMMON FORMS TEST DATA SHEETS MICROWAVE REV 030597

*RF*  
*RBW of*

**Model Node Equipment Solid-State Transmitter (US)**

**Bosch Telecom, Inc.**

**FREQUENCY STABILITY**

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 "Your Certification Solution" sm

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 Fax: (972) 436-2667

### FREQUENCY STABILITY

Client: BOSCH TELECOM W.O.# 180218  
 EUT: NODE TRANSMITER S/N: UNIT #5  
 Date: 5/08/98 Tech: MARK SEVERSON  
 Tested IAW CFR 47 P2.995  
 EQUIPMENT USED: KTL#739 (Environmental Chamber)  
 CONFIGURATION: TX 27.920000Ghz

| FREQUENCY (GHz)        | TEMP(C°) | VOLTAGE   |         | TIME | FREQUENCY TOLREANCE   |
|------------------------|----------|-----------|---------|------|-----------------------|
| 27.920000010 (R/F)freq | -30°C    | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
| 27.920000011 (R/F)freq | -30°C    | (Nominal) | 48Vdc   | 1030 | .001% (+/- 279.2 kHz) |
| 27.920000020 (R/F)freq | -30°C    | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |
| 27.920000105 (R/F)freq | -20°C    | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
| 27.920000099 (R/F)freq | -20°C    | (Nominal) | 48Vdc   | 1115 | .001% (+/- 279.2 kHz) |
| 27.920000099 (R/F)freq | -20°C    | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |
| 27.920000216 (R/F)freq | -10°C    | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
| 27.920000215 (R/F)freq | -10°C    | (Nominal) | 48Vdc   | 1200 | .001% (+/- 279.2 kHz) |
| 27.920000208 (R/F)freq | -10°C    | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |

REV 960717

FREQ STAB 04

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## FREQUENCY STABILITY

Client: BOSCH TELECOMW.O.# 180218EUT: NODE TRANSMITERS/N: UNIT #5Date: 5/08/98Tech: MARK SEVERSONEQUIPMENT USED: KTL#739 (Environmental Chamber)CONFIGURATION: TX 27.920000Ghz

| FREQUENCY (GHz)        | TEMP(C°) | VOLTAGE   |         | TIME | FREQUENCY TOLERANCE   |
|------------------------|----------|-----------|---------|------|-----------------------|
| 27.920000206 (R/F)freq | 0°C      | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000197 (R/F)freq | 0°C      | (Nominal) | 48Vdc   | 1245 | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000215 (R/F)freq | 0°C      | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
|                        |          |           |         |      |                       |
| 27.920000181 (R/F)freq | 10°C     | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000192 (R/F)freq | 10°C     | (Nominal) | 48Vdc   | 1330 | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000202 (R/F)freq | 10°C     | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
|                        |          |           |         |      |                       |
| 27.920000205 (R/F)freq | 20°C     | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000194 (R/F)freq | 20°C     | (Nominal) | 48Vdc   | 1415 | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000197 (R/F)freq | 20°C     | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |

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## FREQUENCY STABILITY

Client: BOSCH TELECOM W.O.# 180218

EUT: NODE TRANSMITER S/N: UNIT #5

Date: 5/08/98 Tech: MARK SEVERSON

EQUIPMENT USED: KTL#739 (Environmental Chamber)

CONFIGURATION: TX 27.920000GHZ

| FREQUENCY (GHz)        | TEMP(C°) | VOLTAGE   |         | TIME | FREQUENCY TOLERANCE   |
|------------------------|----------|-----------|---------|------|-----------------------|
| 27.920000148 (R/F)freq | 30°C     | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000136 (R/F)freq | 30°C     | (Nominal) | 48Vdc   | 1500 | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000116 (R/F)freq | 30°C     | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
|                        |          |           |         |      |                       |
| 27.920000106 (R/F)freq | 40°C     | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000103 (R/F)freq | 40°C     | (Nominal) | 48Vdc   | 1545 | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000120 (R/F)freq | 40°C     | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
|                        |          |           |         |      |                       |
| 27.920000108 (R/F)freq | 50°C     | (-15%)    | 40.8Vdc |      | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000112 (R/F)freq | 50°C     | (Nominal) | 48Vdc   | 1630 | .001% (+/- 279.2 kHz) |
|                        |          |           |         |      |                       |
| 27.920000107 (R/F)freq | 50°C     | (+15%)    | 55.2Vdc |      | .001% (+/- 279.2 kHz) |

## **APPENDIX C - CERTIFICATIONS AND RECOGNITIONS**

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## **CERTIFICATIONS AND RECOGNITIONS**

### **NORTH AMERICA:**

**FEDERAL COMMUNICATIONS COMMISSION (United States of America)**

**NVLAP (United States of America)**

**UNDERWRITERS LABORATORIES (United States of America)**

### **EUROPE:**

**ACEMARK EUROPE LTD (United Kingdom)**

**INTERFERENCE TECHNOLOGY INTERNATIONAL, LTD. (United Kingdom)**

**NEMKO (Norway)**

**TÜV RHEINLAND (Germany)**

### **ASIA:**

**VCCI (Japan)**

### **SOUTH PACIFIC:**

**MINISTRY OF COMMERCE (New Zealand)**