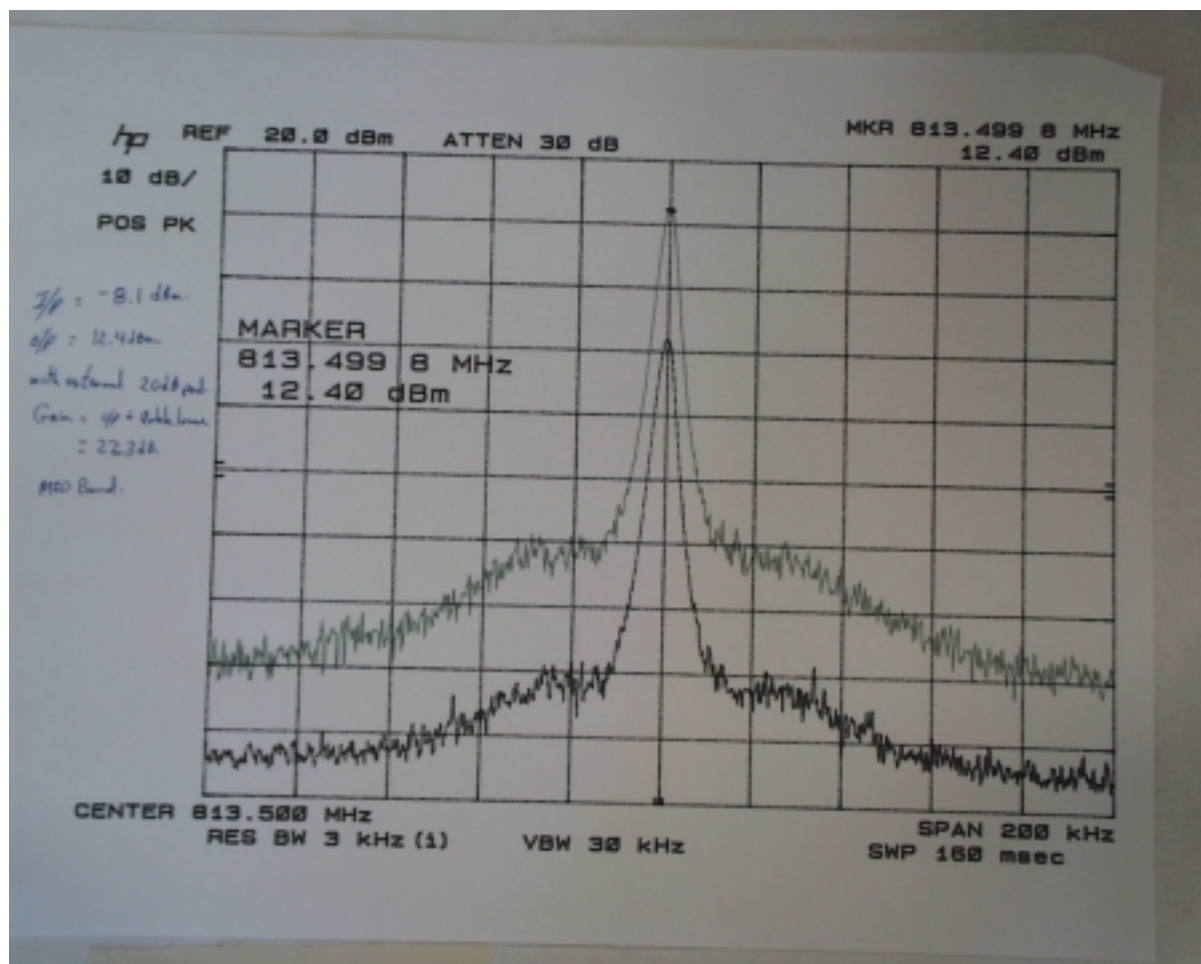
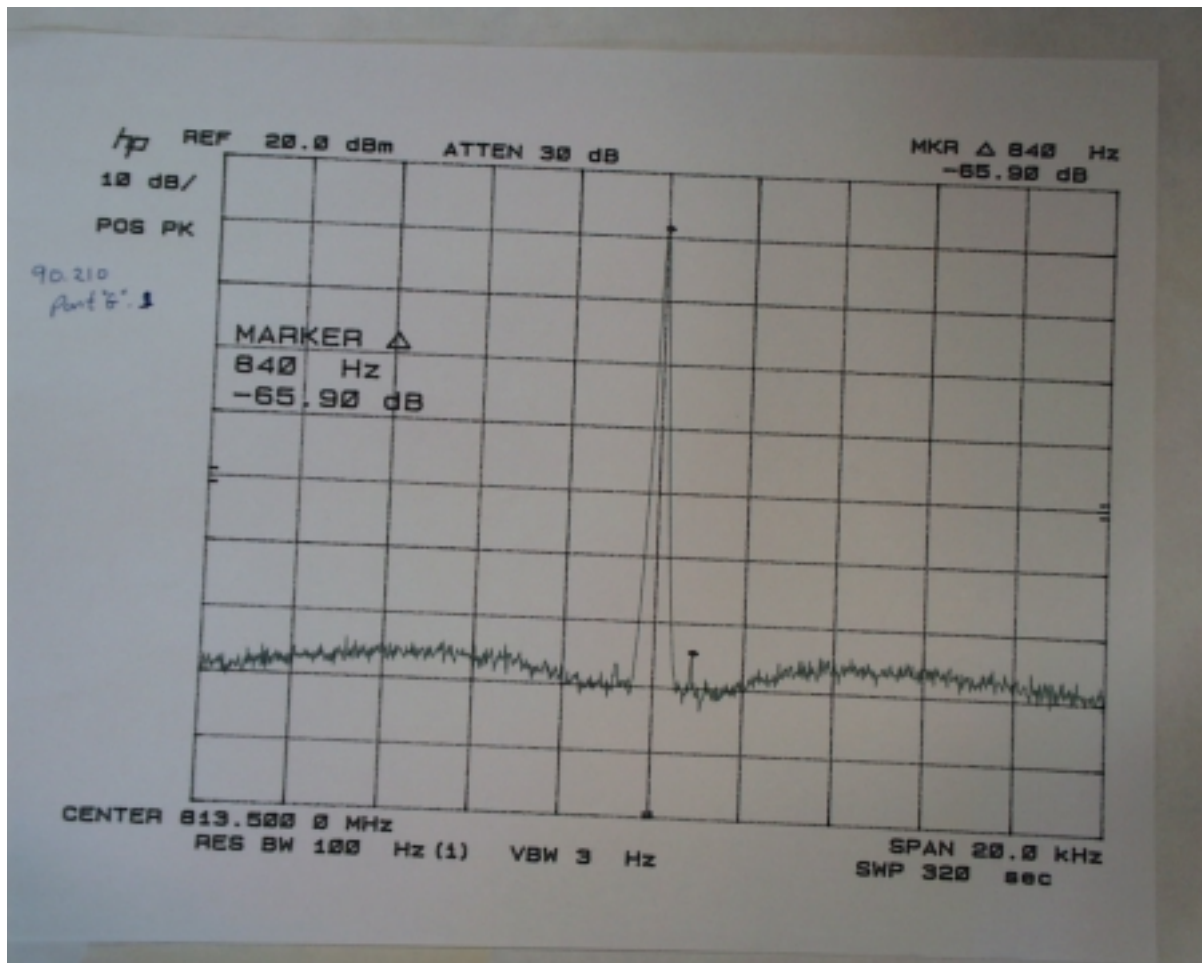




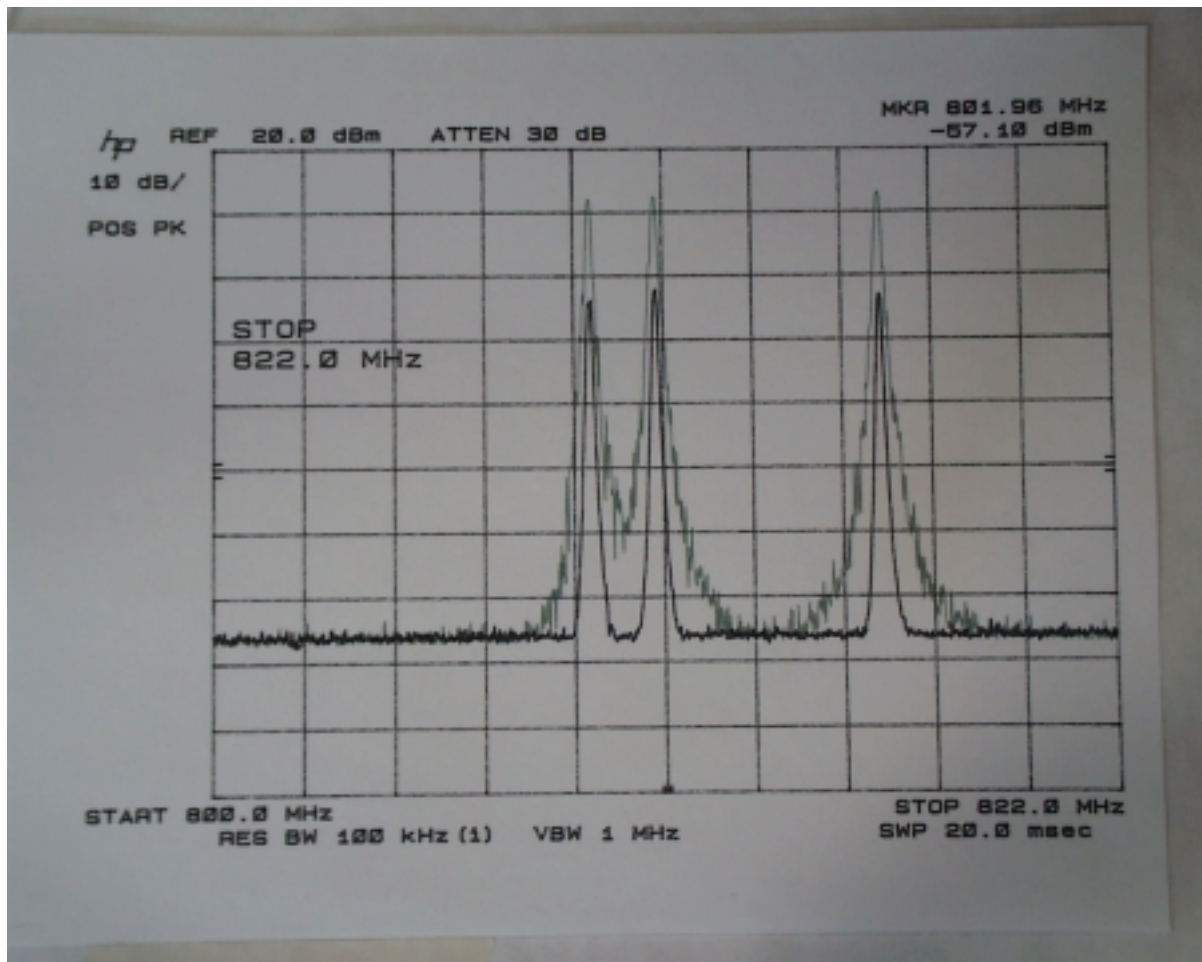
**BST301 Truncking Booster**  
**Sample 1758**

**Input -8.1 dBm**  
**Output 12.4 dBm**  
**Gain output plus cable loss = 22.3 dB**  
**MID BAND**



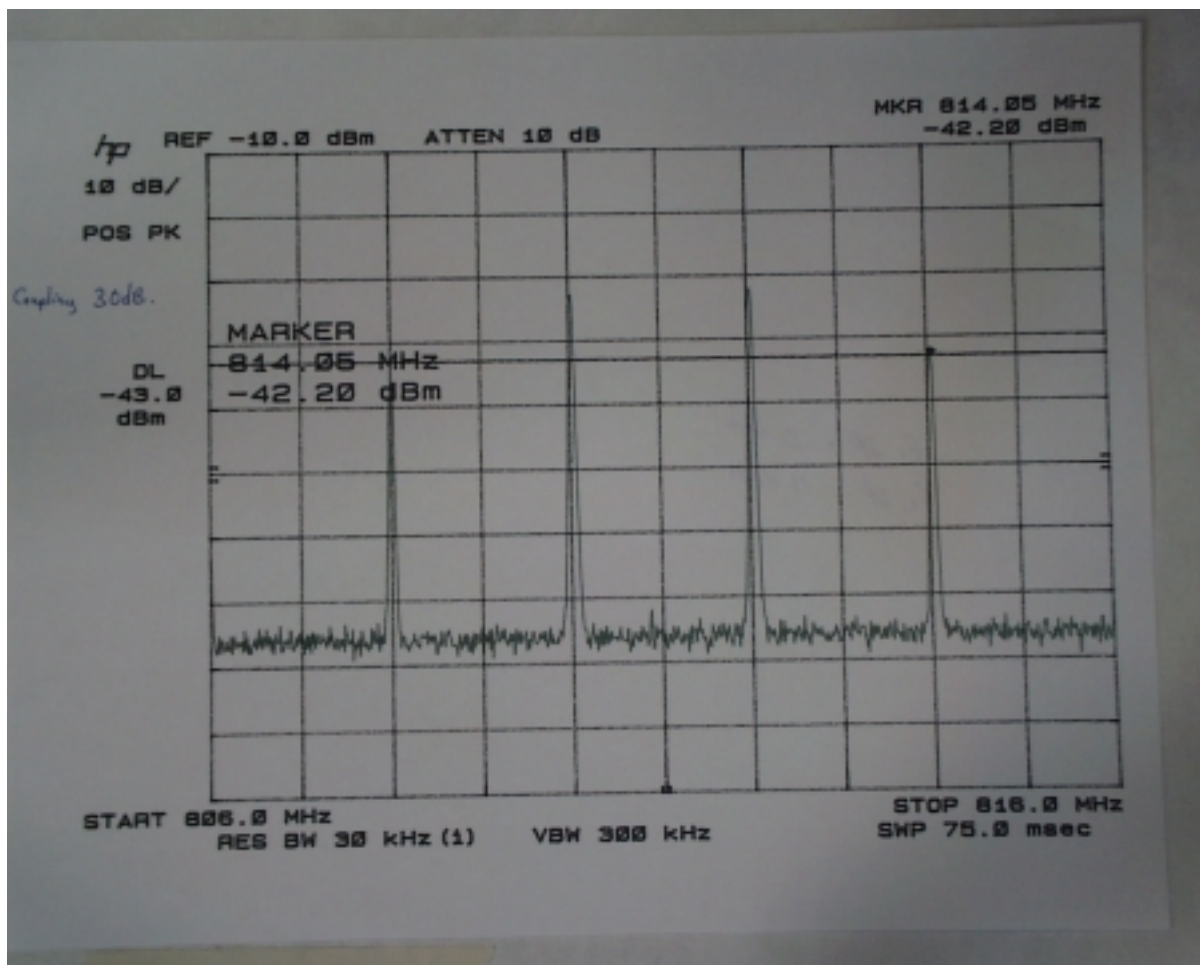
**BST301 Trunking Booster  
Sample 1758**

**FCC 90.210  
Part G Emission Mask G**



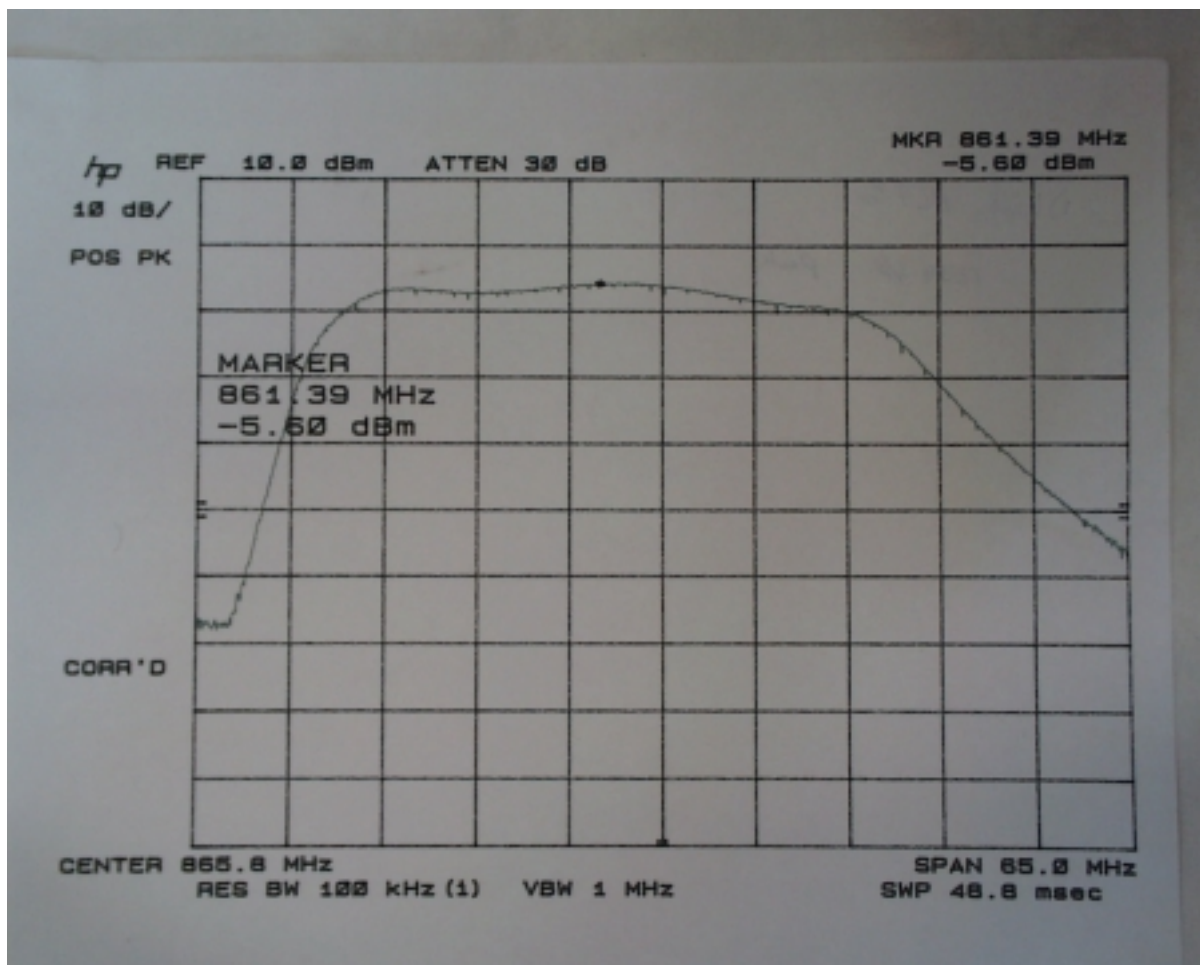
### BST301 Truncking Booster Sample 1758

### iDEN Signaling Characteristics



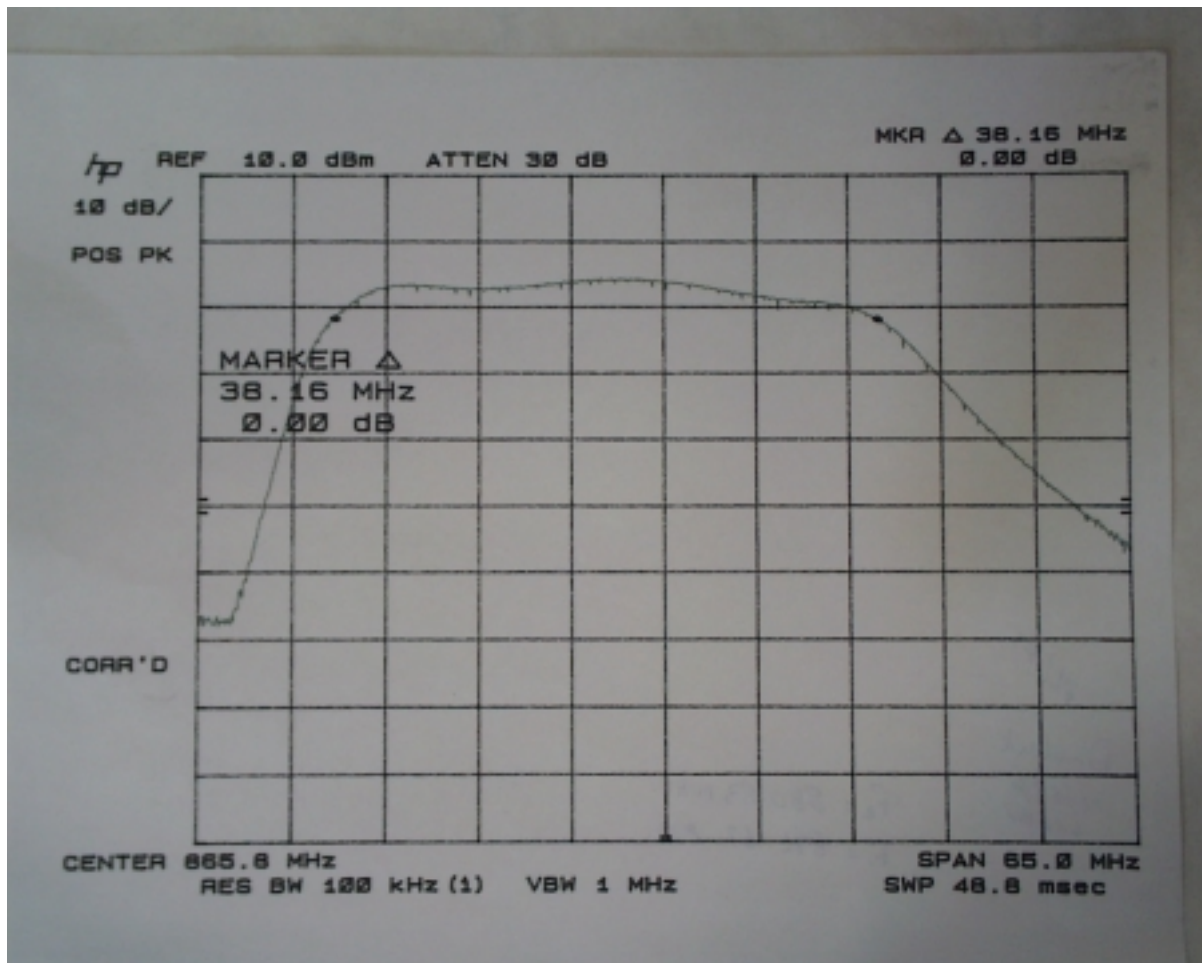
**BST301 Truncking Booster  
Sample 1758**

**Two Tone Intermodulation Products  
Mid Passband**



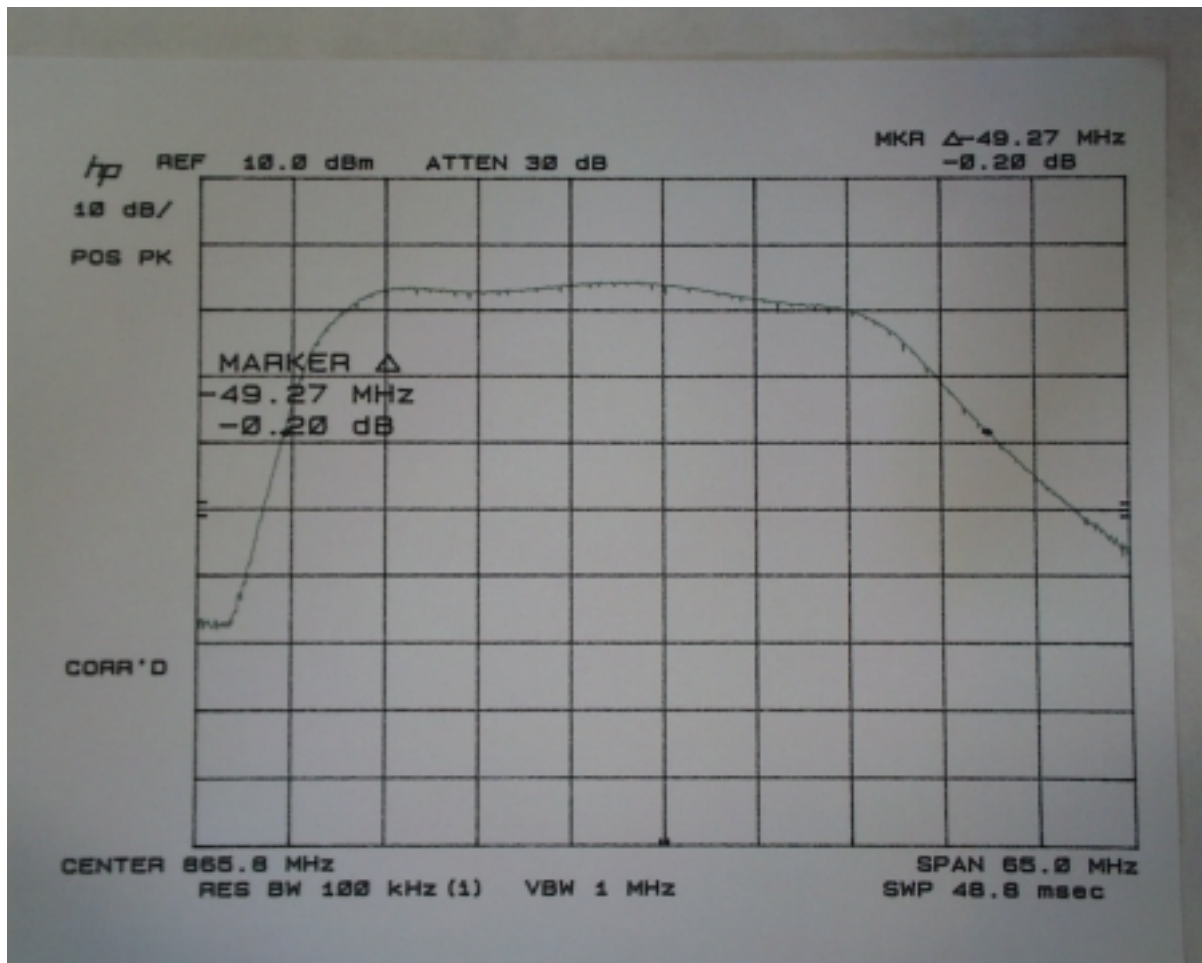
**BST301 Truncking Booster  
Sample 1758**

**Down Link Pass Band**



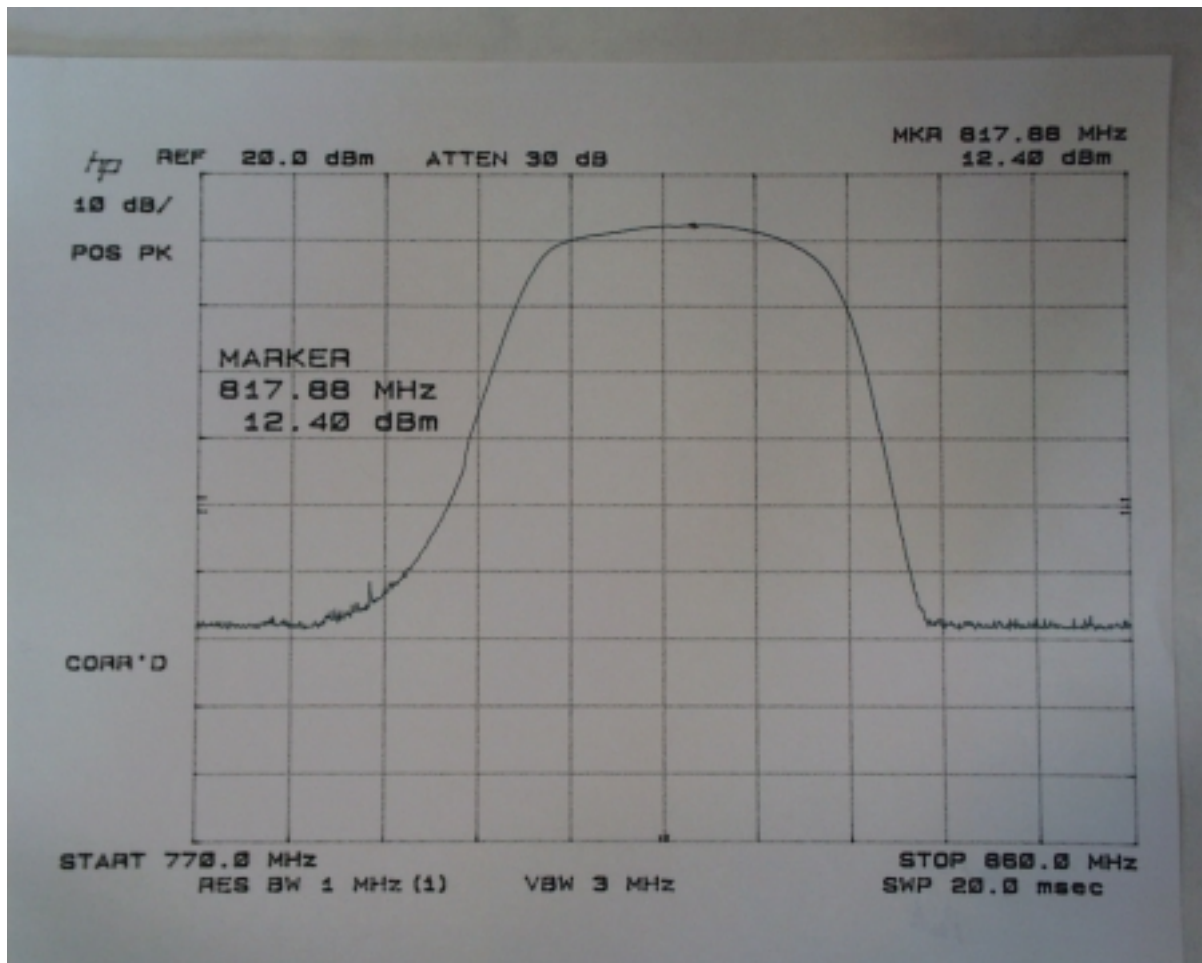
**BST301 Truncking Booster  
Sample 1758**

**Down Link Pass Band  
3 dB Band Width**



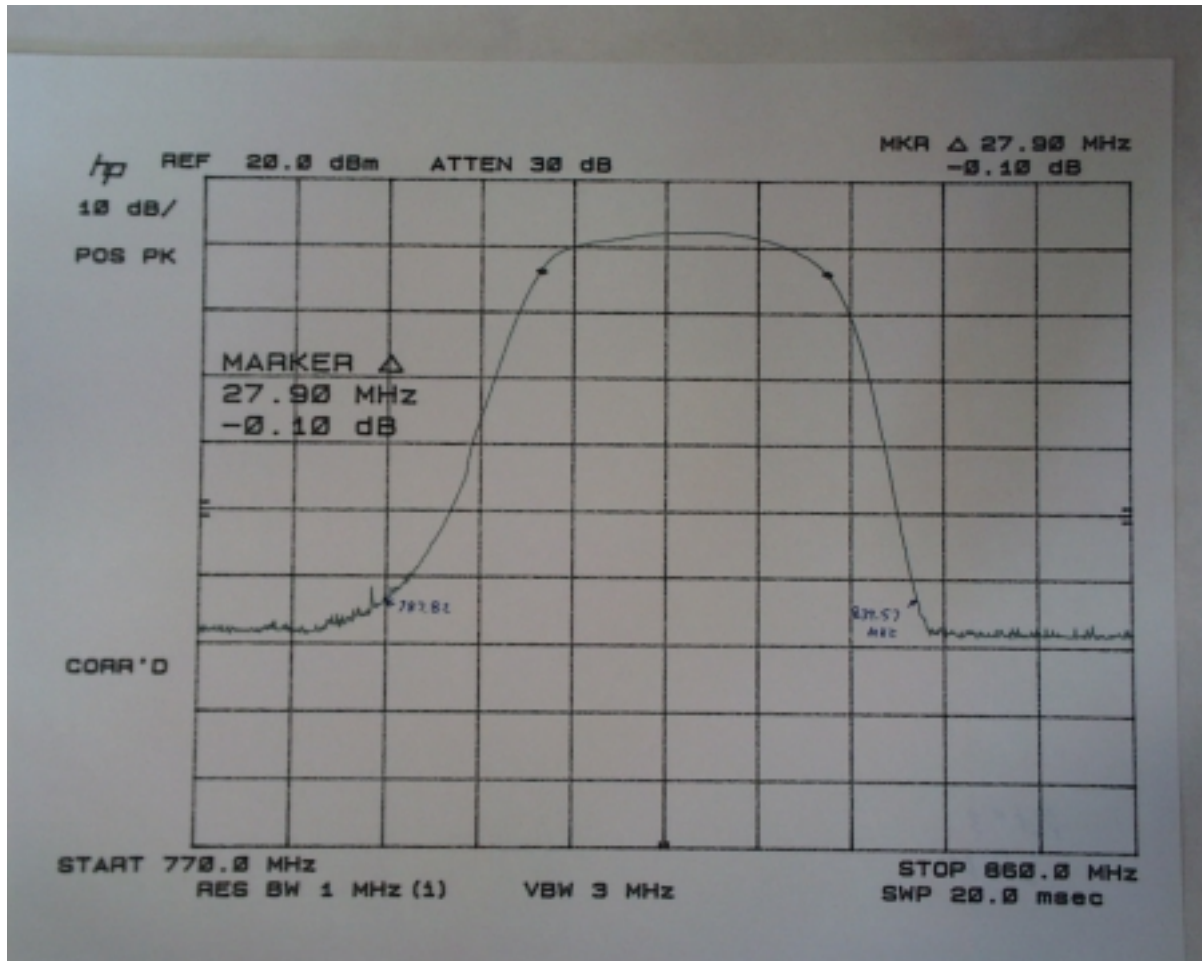
**BST301 Truncking Booster  
Sample 1758**

**Down Link Pass Band  
20 dB Band Width**



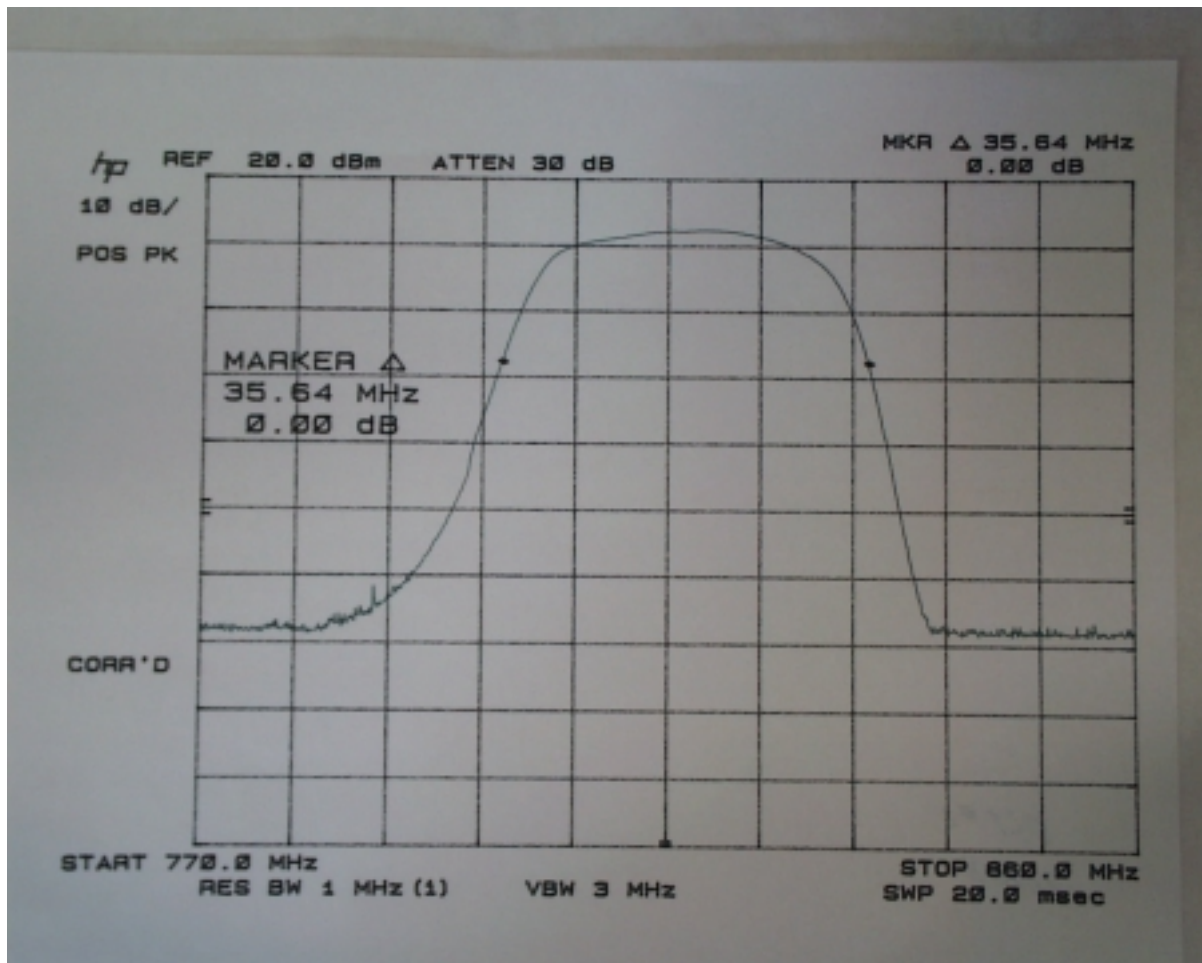
**BST301 Truncking Booster  
Sample 1758**

**Up Link Pass Band  
Center**



**BST301 Truncking Booster  
Sample 1758**

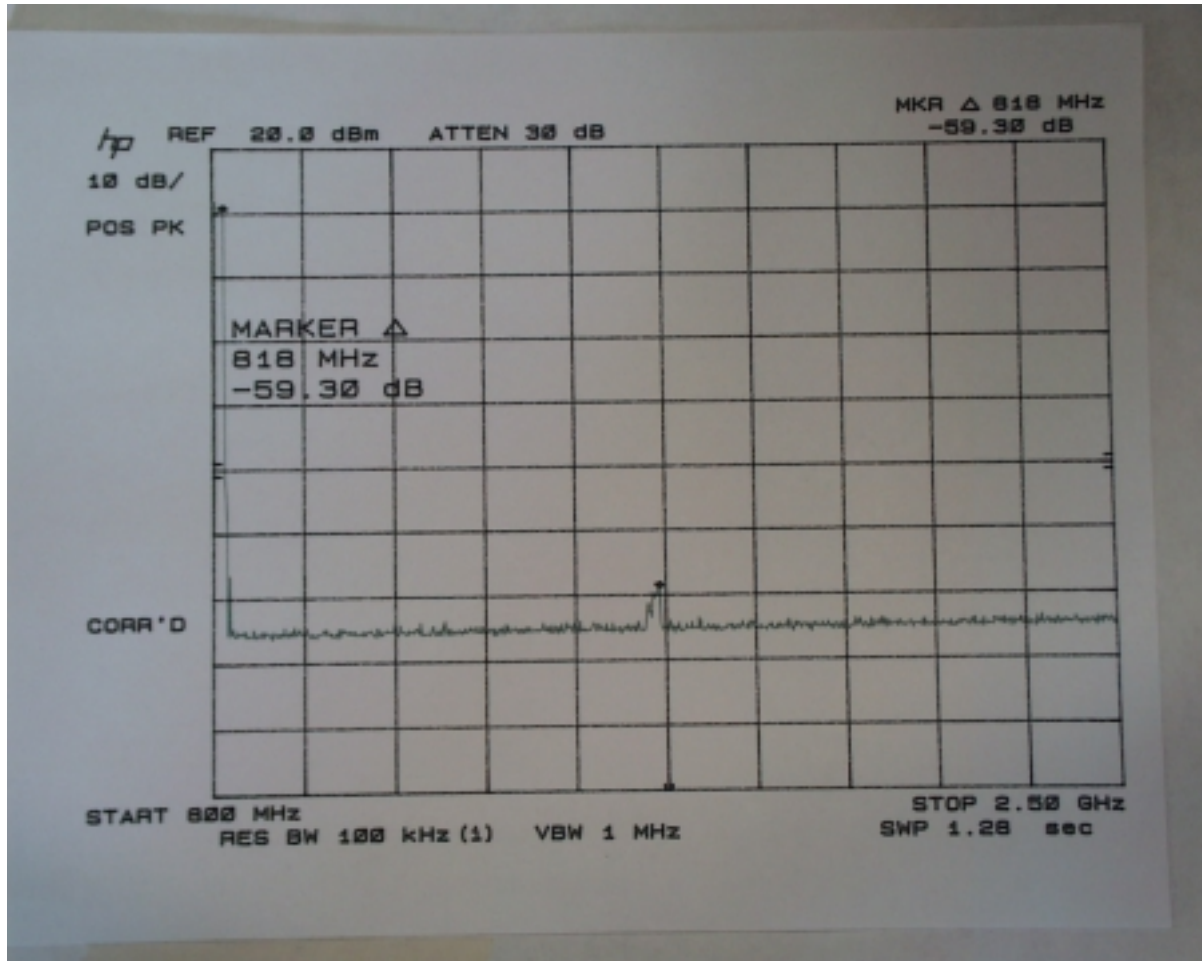
**Up Link Pass Band  
3 dB Points**



**BST301 Truncking Booster  
Sample 1758**

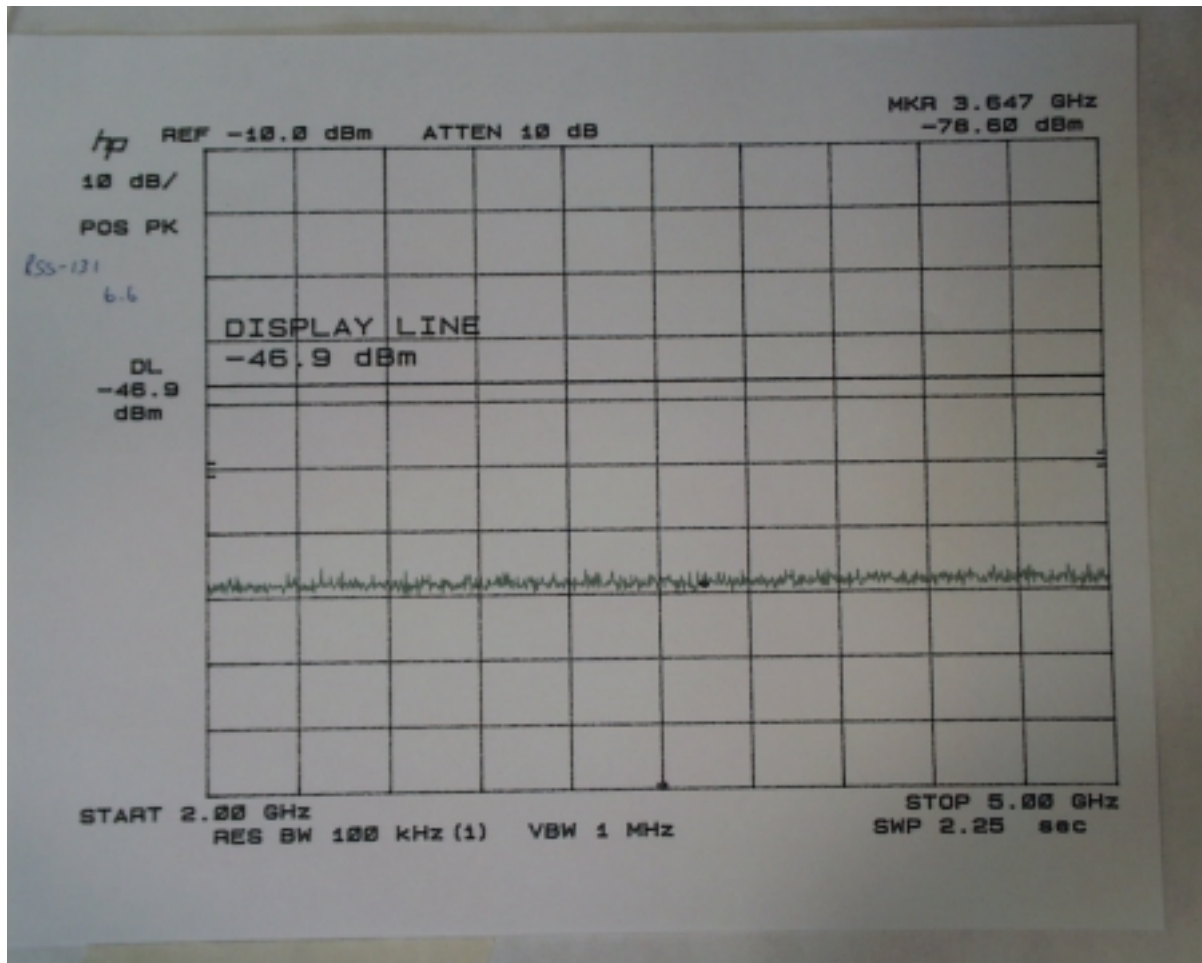
**Up Link Pass Band  
20 dB Points**

| TEST REPORT DATA                           |                                                                   |                    |                                        |      |
|--------------------------------------------|-------------------------------------------------------------------|--------------------|----------------------------------------|------|
| Customer No: 208                           |                                                                   | MPBT No.: M34R2460 | Test Date: Feb-, 2000                  |      |
| TEST COMP./PART:<br>SAMPLE 642             | TEST DESCRIPTION: EMISSION LIMITATIONS FOR<br>CELLULAR – SPURIOUS |                    | TEST CRITERIA:<br><br>QUAL: ✓<br>ENG.: |      |
| MIL-SPECS./STDS.:                          | FCC PART 90, SUB I, SECTION 90.210, (G PART<br>(3))               |                    |                                        |      |
| FACILITY: <b>MPB<br/>TECHNOLOGIES INC.</b> | TEST ENGINEER: D. BECK                                            |                    | INTERNAL:                              |      |
| QA PERSONNEL:                              | OTHER:<br>TEMP.: 21 C HUMIDITY: 20 %                              |                    |                                        |      |
| TEST PROCEDURES                            | DETAILS/DEVIATIONS                                                | PASS               | FAIL                                   | INIT |
|                                            |                                                                   |                    |                                        |      |
|                                            | Attenuated from Mean Power Output by at least                     | ✓                  |                                        | D.B. |
|                                            | 60 dB <b>or</b> 43+10logP dB=58.34 dB                             |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            | 2 <sup>nd</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 3 <sup>rd</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 4 <sup>th</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 5 <sup>th</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 6 <sup>th</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 7 <sup>th</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 8 <sup>th</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 9 <sup>th</sup> Harmonic                                          | ✓                  |                                        | D.B. |
|                                            | 10 <sup>th</sup> Harmonic                                         | ✓                  |                                        | D.B. |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
|                                            |                                                                   |                    |                                        |      |
| MPBT: D. BECK                              | CUSTOMER: M.C.T. INC.                                             | 5 OF 6             |                                        |      |



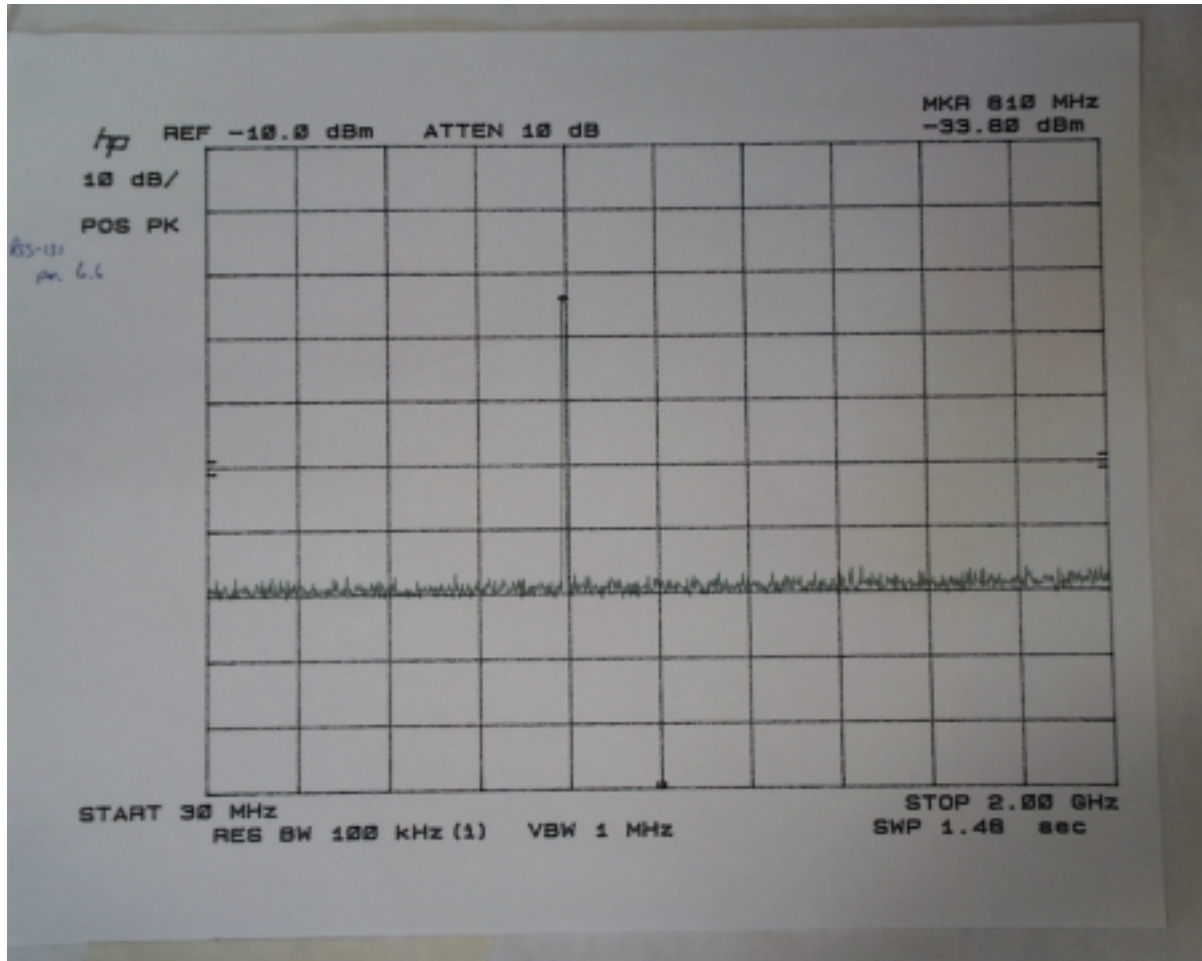
**BST301 Truncking Booster  
Sample 1758**

**FCC 90.210  
Part G Emission Mask G**



**BST301 Truncking Booster  
Sample 1758**

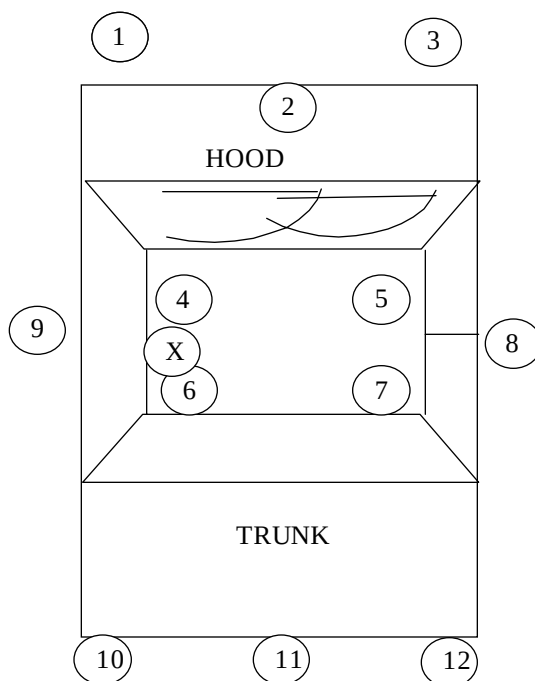
**FCC 90.210  
Part G Emission Mask G**



**BST301 Truncking Booster  
Sample 1758**

**FCC 90.210  
Part G Emission Mask G**

| TEST REPORT DATA                       |                                                                                 |                    |                                        |                             |
|----------------------------------------|---------------------------------------------------------------------------------|--------------------|----------------------------------------|-----------------------------|
| Customer No: 1129                      |                                                                                 | MPBT No.: M34R2460 |                                        | Test Date: February 8, 2001 |
| TEST COMP./PART:<br>SAMPLE 642         | TEST DESCRIPTION: MAXIMUM PERMISSIBLE EXPOSURE                                  |                    | TEST CRITERIA: GENERAL EXPOSURE LIMITS |                             |
| MIL-SPECS./STDS.:                      | FCC PART 1 SUBPART I, SECTION 1.1310                                            |                    | QUAL ✓<br>ENG.:                        |                             |
| FACILITY: <b>MPB TECHNOLOGIES INC.</b> | TEST ENGINEER: D. BECK                                                          |                    | INTERNAL:                              |                             |
| QA PERSONNEL:                          | OTHER:<br>TEMP.: 15 C HUMIDITY: 20%                                             |                    |                                        |                             |
| TEST PROCEDURES                        | DETAILS/DEVIATIONS                                                              | PASS               | FAIL                                   | INIT                        |
|                                        |                                                                                 |                    |                                        |                             |
| FCC Part 1 Subpart I                   | Frequency mW/cm <sup>2</sup>                                                    |                    |                                        |                             |
| Section 1.1310                         |                                                                                 |                    |                                        |                             |
|                                        | 0.3 – 1.34 (100)                                                                |                    |                                        |                             |
|                                        | 1.24 – 30 (180/f <sup>2</sup> )                                                 |                    |                                        |                             |
|                                        | 30-300 0.2                                                                      |                    |                                        |                             |
|                                        | <b>300-1500 f/1500 = 0.550 mW/cm<sup>2</sup> or 27.4dBm/cm<sup>2</sup></b>      | ✓                  |                                        | D.B.                        |
|                                        | 1500-10000 1                                                                    |                    |                                        |                             |
|                                        |                                                                                 |                    |                                        |                             |
|                                        | Note: Points and respective readings shown on next                              |                    |                                        |                             |
|                                        | page. Averaging time is 30 minutes.                                             |                    |                                        |                             |
|                                        | f = 806 (Lowest Tx Frequency)                                                   |                    |                                        |                             |
|                                        | Limit = 27.4                                                                    |                    |                                        |                             |
|                                        |                                                                                 |                    |                                        |                             |
|                                        | NOTE: Cable loss = 3.6 dB at test frequency                                     |                    |                                        |                             |
|                                        | Amplifier output : 3.0 watts or 34.77 dBm                                       |                    |                                        |                             |
|                                        | With a cable loss of 3.6dB, drive power into antenna is 1.09 watts or 30.08 dBm |                    |                                        |                             |
|                                        |                                                                                 |                    |                                        |                             |
|                                        |                                                                                 |                    |                                        |                             |
|                                        |                                                                                 |                    |                                        |                             |
| MPBT: D. BECK                          | CUSTOMER: M.C.T. INC.                                                           |                    | 6 OF 6                                 |                             |

**Antenna – , Model SEM 105 mm , (5dBi)**

| Point      | Reading (V/m) | INT./EXT.   |
|------------|---------------|-------------|
| 1          | 6.4           | EXT.        |
| 2          | 5.4           | EXT.        |
| 3          | 4.8           | EXT.        |
| 4 – HEAD   | 22.2          | INT.        |
| 5 – HEAD   | 22.8          | INT.        |
| 6 – HEAD   | 24.1          | INT.        |
| 7 – HEAD   | 19.4          | INT.        |
| 4 – PELVIC | 18.2          | INT.        |
| 5 – PELVIC | 12.6          | INT.        |
| 6 – PELVIC | 20.6          | INT.        |
| 7 – PELVIC | 13.8          | INT.        |
| 8          | 8.2           | EXT.        |
| <b>9</b>   | <b>28.0</b>   | <b>EXT.</b> |
| 10         | 8.4           | EXT.        |
| 11         | 9.0           | EXT.        |
| 12         | 5.6           | EXT.        |

NOTE: “X” REFERS TO POSITION OF ANTENNA. VEHICLE: NISSAN PATHFINDER.  
 POINT 9 (WORST CASE) WAS ACHIEVED AT 30 CM FROM ANTENNA.

$$\text{Limit} = 27.4 \text{ dBm/cm}^2$$

$$\text{Max Output} = 28.0 \text{ V/m} = 0.208 \text{ mW/cm}^2$$

**The EUT complies with maximum permissible exposure requirements.**



**Maximum Permissible Exposure**

**BST301 Truncking Booster  
Sample 1758**

## Appendix C

### TEST EQUIPMENT REPORT

**Radiated Emissions**

| Asset | Characteristics      | Manufacturer              | Model #    | Serial #         | Cal Date     | Cal Due Date |
|-------|----------------------|---------------------------|------------|------------------|--------------|--------------|
| 4281  | Biconilog Antenna    | Antenna Research          | LPB-2520/A | 1048             | Dec 30, 2000 | Dec 30, 2001 |
| 4989  | Spectrum Analyzer    | Hewlett Packard           | 8566B/462  | 2747A05263       | Dec 30, 2000 | Dec 30, 2001 |
| 4990  | Quasi Peak Adapter   | Hewlett Packard           | 85650A     | 2521A00815       | Dec 30, 2000 | Dec 30, 2001 |
| 4529  | Mast/Antenna Control | Electro-Mechanics         | 1050C      | 1086             | Monitored    | Monitored    |
| 4861  | Turn Table Control   | Sunol                     | 5C98V      |                  | Monitored    | Monitored    |
| 5076  | Software             | Underwriters Laboratories | V2.05      | MC106399N K07147 | Monitored    | Monitored    |

**Conducted Emissions**

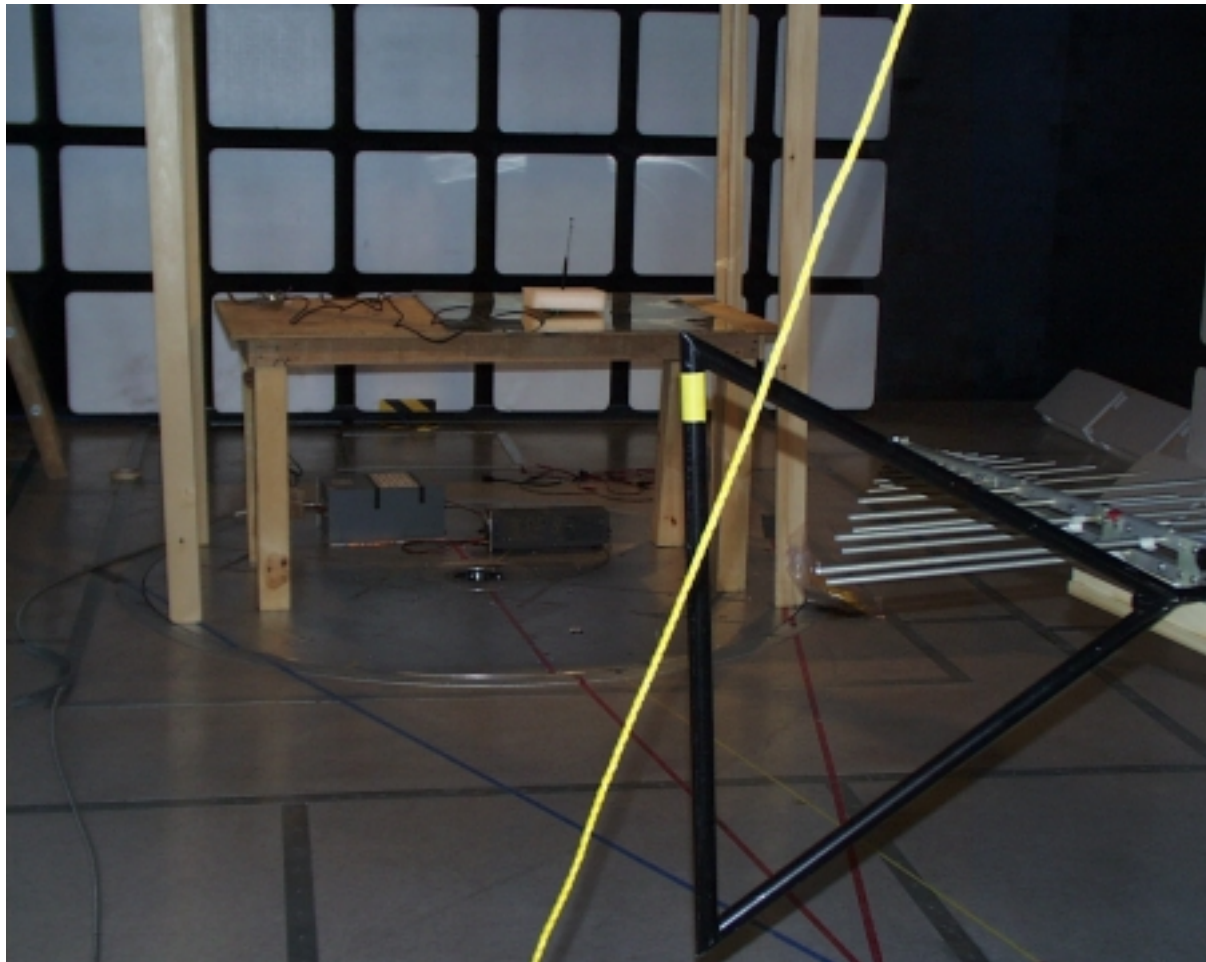
| Asset | Characteristics    | Manufacturer              | Model #     | Serial #         | Cal Date     | Cal Due Date |
|-------|--------------------|---------------------------|-------------|------------------|--------------|--------------|
| 4281  | LISN               | Solar                     | 9250-50-R24 | 951316           | Jul-28, 2000 | Jul-28, 2001 |
| 4989  | Spectrum Analyzer  | Hewlett Packard           | 8566B/462   | 2747A05263       | Dec 30, 2000 | Dec 30, 2001 |
| 4990  | Quasi Peak Adapter | Hewlett Packard           | 85650A      | 2521A00815       | Dec 30, 2000 | Dec 30, 2001 |
| 5076  | Software           | Underwriters Laboratories | V5.0        | MC106399N K07147 | Monitored    | Monitored    |

**Maximum Power/Harmonics/Spurious/Environmental**

| Asset         | Characteristics        | Manufacturer        | Model #   | Serial #   | Cal Date     | Cal Due Date |
|---------------|------------------------|---------------------|-----------|------------|--------------|--------------|
| 002345        | Field Probe Set        | Amplifier Research  | FP 2000   | 12439      | Jul 30, 2000 | Jul 30, 2001 |
| 002831        | Spectrum Analyzer      | Advantest           | R4136     | 71220067   | Dec 29, 2000 | Dec 29, 2001 |
| 002430        | Bi-directional Coupler | Werlatone           | 03414     | 4341       | Jul 4, 2000  | Jul 4, 2001  |
| 112997<br>0-0 | TDMA CDMA Sig Gen      | HP                  | HP/E4433B | US33840867 | Aug-23,2000  | Aug-23,2001  |
| 003736        | Signal Generator       | Marconi Instruments | 2022A     | 119062     | Jul 21, 2000 | Jul 21, 2001 |

## Appendix D

### PHOTOGRAPHS



**Representing Set Up and Maximized Emissions**



### Conducted Emissions



**BST301 with iDEN Phone**

## Appendix E

### SUPPLEMENTARY DATA

| TEST REPORT DATA                       |                                                      |                    |                              |      |
|----------------------------------------|------------------------------------------------------|--------------------|------------------------------|------|
| Customer No: 208                       |                                                      | MPBT No.: M34R2460 | Test Date: February 14, 2001 |      |
| TEST COMP./PART:                       | TEST DESCRIPTION: ENVIRONMENTAL CONDITIONS           |                    | TEST CRITERIA:               |      |
| MIL-SPECS./STDS.:                      | RSS 118 SECTION 8.1.2                                |                    | QUAL<br>ENG.: ✓              |      |
| FACILITY: <b>MPB TECHNOLOGIES INC.</b> | TEST ENGINEER: B. WATERHOUSE                         |                    | INTERNAL:                    |      |
| QA PERSONNEL:                          | OTHER:<br>TEMP.: AS SPECIFIED HUMIDITY: 10%-40%      |                    |                              |      |
| TEST PROCEDURES                        | DETAILS/DEVIATIONS                                   | PASS               | FAIL                         | INIT |
|                                        |                                                      |                    |                              |      |
|                                        | + 60 C @ 13.2 V (110%)                               | ✓                  |                              | B.W. |
|                                        | + 60 C @ 12.0 V (100%)                               | ✓                  |                              | B.W. |
|                                        | + 60 C @ 10.8 V (90%)                                | ✓                  |                              | B.W. |
|                                        | + 60 C @ 9.6 V (80%)                                 | ✓                  |                              | B.W. |
|                                        |                                                      |                    |                              |      |
|                                        | + 25 C @ 13.2 V (110%)                               | ✓                  |                              | B.W. |
|                                        | + 25 C @ 12.0 V (100%)                               | ✓                  |                              | B.W. |
|                                        | + 25 C @ 10.8 V (90%)                                | ✓                  |                              | B.W. |
|                                        | + 25 C @ 9.6 V (80%)                                 | ✓                  |                              | B.W. |
|                                        |                                                      |                    |                              |      |
|                                        | -30 C @ 13.2 V (110%)                                | ✓                  |                              | B.W. |
|                                        | -30 C @ 12.0 V (100%)                                | ✓                  |                              | B.W. |
|                                        | -30 C @ 10.8 V (90%)                                 | ✓                  |                              | B.W. |
|                                        | -30 C @ 9.6 V (80%)                                  | ✓                  |                              | B.W. |
|                                        |                                                      |                    |                              |      |
|                                        | Notes: The EUT must stay within +2dB to -4dB of it's |                    |                              |      |
|                                        | measured output power at 25 C, with 100% voltage.    |                    |                              |      |
|                                        |                                                      |                    |                              |      |
|                                        |                                                      |                    |                              |      |
|                                        |                                                      |                    |                              |      |
|                                        |                                                      |                    |                              |      |
|                                        |                                                      |                    |                              |      |
| MPBT: D. ZANETTE.                      | CUSTOMER: M.C.T. INC.                                | 6 OF 6             |                              |      |